## AQA GCSE ICT (45203)

## Unit 3

## Exemplar work to support the specimen problem <br> 'Help to organise a school sports day’

Targeted at the revised Unit 3 problems (2014-16)
Demonstrating the standard a high achieving student could attain

## Part 1

## 1a Milestones for Specimen problem - Help to organise a school sports day

These are the milestones to solve the problem set by the organiser - which was to help to organise our school sports day. I will use the ideas that I have from being involved in our school sports day previously. My solution has to be a system so I will think about that when I break the milestones down into substeps.

| Milestone | Manageable steps to do it | Order it will be done in | Time estimate | Resources needed |
| :---: | :---: | :---: | :---: | :---: |
| Model the cost of running the sports day |  | First |  |  |
|  | I will need to find out the costs required to run sports day using a data sheet that the organiser will give me and check things on the Internet <br> I will create a spreadsheet with formulae to allow me to model the costs <br> I will try out various scenarios by asking what if questions and check and comment on the results I get | 2 <br> 3 | 20 minutes <br> 20 minutes <br> 40 minutes | Deciding data that is needed from a data sheet and the Internet <br> Computer, Spreadsheet and printer <br> Computer, Spreadsheet I have created and printer |
| Gather information about the students who will be involved in the sports day |  | Second |  |  |
|  | I will decide what information I need to know about students and parents <br> I will need to split the data into 2 tables (students and parents) to avoid redundant data <br> I will need to create a 'form' which will capture the data that I need <br> I will need to create a database which has the tables that I need <br> I will need to link the tables together | 1 <br> 2 <br> 3 <br> 4 <br> 5 | 20 minutes <br> 5 minutes <br> 40 minutes <br> 40 minutes <br> 5 minutes | Ask the organiser. Thinking time Thinking time <br> Computer and Word processor <br> Computer and Database <br> Computer and Database |

Unit 3 Specimen exemplar work for 2014-16

| Milestone | Manageable steps to do it | Order it <br> will be <br> done in | Time <br> estimate | Resources <br> needed |
| :--- | :--- | :--- | :--- | :--- |
|  | I will need to create database <br> input forms to use when I enter <br> the data to each table | 6 | 20 minutes | Computer and <br> Database |
|  | I will need to enter the data and <br> check it before printing it out | 7 | 40 minutes | Computer, <br> Database and <br> printer |
| Contact parents/guardians to inform them of <br> specific details about sports day | Third |  |  |  |
|  | I will need to create a letter head <br> similar to the one the school uses | 1 | 10 minutes | Computer, <br> Word processor <br> and printer |
|  | I will need to decide what <br> information parents/guardians <br> need to know <br> I will need to use the letter head <br> and create a personalised letter to <br> parents/guardians | 3 | 2 | 30 minutes |

Unit 3 Specimen exemplar work for 2014-16

| Milestone | Manageable steps to do it | Order it will be done in | Time estimate | Resources needed |
| :---: | :---: | :---: | :---: | :---: |
| Generate lists of students who are competing in a specific event at sports day |  | Fifth |  |  |
|  | I will need to create a query to produce two lists of students competing in a specific event at sports day <br> I will need to produce a database report of this list so it looks official | 1 <br> 1 | 10 minutes <br> 20 minutes | Computer and Database <br> Computer, Database and printer |
| Generate lists of students who are in a specific house and specific year group showing the event(s) they are competing in |  | Sixth |  |  |
|  | I will need to create a query to produce a list of students in a specific house and specific year group showing the event(s) they are competing in <br> I will need to produce a database report of this list so it looks official | 1 <br> 2 | 10 minutes <br> 20 minutes | Computer and Database <br> Computer, Database and printer |
| Make my solution into a system |  | Seventh |  |  |
|  | I will need to make sure all my tables, forms, queries and reports have sensible and consistent names <br> I will need to create a switchboard which lists all the things the organiser needs: database input forms; reports for lists. | 1 2 | 5 minutes <br> 10 minutes | Computer and Database <br> Computer and Database |


| Total time | This leaves plenty of time to write <br> everything up and complete all the <br> sections of my Portfolio and <br> produce a report | 433 minutes |  |
| :--- | :--- | :--- | :--- |

## 1b Risk

## 1. The risk of overlooking some data needed for the solution

Explaining the risk If I didn't think about all the data that I need for my solution there would be a problem when I came to try to use it. The reason why it is important to gather all the data-at once is because it is awkward and embarrassing to have to go back to students and ask them again and time consuming to do so. If I did overlook some data then I wouldn't be able to carry out the solution to the problem successfully.
My strategy to prevent the risk from happening

I will prevent this risk by carefully listing all the things that I need to know about students and the sports day activities. Working collaboratively to think-about strategies for collecting information will help to ensure this. Then I will check the form I create to see if it matches my list exactly, so I haven't missed anything.
How I will manage the risk in more detail I will check the filled in forms after they have been handed in and will make sure the students have filled in all the sections. If not I will hand the form back and ask them to refill it. I will also manage this risk by continuing to check all the forms to see if any false or invalid information has been entered. Then I will get this corrected.
Action I will take if risk occurs I would carefully check to make sure that the risk didn't happen but if it did then I would have to re-issue the forms with a space for the extra data available and collect the forms in as before and re-enter the data to the database.

## 2. The risk of my files being corrupted

Explaining the risk In ICT lessons there is always a chance of my work getting corrupted. My work could be corrupted in a way that means it does not open up or it has not been properly saved at all. Corruption can occur because of a software fault or an interruption to the power supply. If this happened it could result in me wasting my time in doing certain pieces of work all over again. Therefore I could fall behind in all the sections and not be able to complete the stage.
My strategy to prevent the risk from happening I will prevent this risk by making backup copies of my work at the end of each lesson. This would make sure that I always have a backup copy of every single piece of work I do. I will back up into another area of work space.
How I will manage the risk in more detail

Action I will take if risk If my files do get corrupted then I will have backups from the server. occurs First I will delete the corrupted file. Then I will ask the technician to get me the backup from the server to replace the corrupted file. I will then continue with my work from where I left off. To do this I will need to know the name of the file and when I last used it which I will tell the technician.

## 3. The risk of incorrect or invalid data being entered to my system

Explaining the risk If I enter the data incorrectly, or I don't enter anything in the database, then it's a problem. An important computer term is GIGO (garbage in garbage out) which means your information from a database is only as good as the information that is in it. It would be a problem if I have the wrong information, especially if it is important, such as a phone number that I need for emergencies. Because if there was an emergency and I have the wrong phone number then it would be, potentially, very serious and the parents wouldn't be informed.

My strategy to prevent To prevent something like this happening then I will set up data the risk from happening validations in the database table. If it is easy to enter like choosing from a list of things then it will usually be correct. This would be straightforward to check. Making data entry just a choice from a list is a good way to prevent the risk from happening.
How I will manage the The data validation rules I can set are ones which limit me to tick boxes risk in more detail and drop down lists to select from. If the data itself is incorrect then I would need to be able to contact the person who gave me the information to get the correct data from the sender. Using these methods would make the data more sensible and reduce the chance of errors.

Action I will take if risk By using data validation rules in my database, I can make sure that I occurs have entered the correct information and if I am given incorrect information then I can contact the person who gave me the information.

I think these 3 risks are ones that could happen and would slow me down, or prevent me from working, or give me incorrect results if they happened. I have a strategy to prevent them happening in each case.

## 1c Manage progress

I will use a diary approach to manage my progress as I work on the solutions to the milestones. This will let me check that everything has been done and show what problems I encountered as I was working. My teacher suggested that we should check our progress every week or so but, as this was the first time I had done anything like this, I wanted to do my progress check more regularly, so I did 5 minutes at the end of each lesson.

## 1. Model the cost of running the sports day

I was successful with this milestone as I knew what I was doing. Most things that I planned worked out well and I was pleased that my guestimates of time were pretty accurate. The only one where I went wrong was in the time needed to create the spreadsheet. I thought a simple spreadsheet would only take 20 minutes. It probably did only take 20 minutes to set up the data and formulae that I used which were straightforward. I hadn't planned enough time for things like the cell formatting and making the model look good. In total I spent nearly 40 minutes, which was twice as long as I first thought. I did finally finish it though and it taught me to think about all the things that are needed when producing something in future. I also learnt that you can't afford to waste time when doing a project you have to keep to your plans. Project management, as I learnt, is about setting appropriate targets and sticking to them.
$\checkmark$ Milestone completed but took longer than planned (100 minutes not 80 minutes) which meant that the whole project was going to be to be finished later than I thought. I needed this to be my first milestone.
2. Gather information about the students who will be involved in the sports day I took a bit longer thinking about the data that I needed as I knew how much this would affect everything else that I did and I didn't worry too much about it as I thought I could catch up with the rest of this milestone later. Deciding to separate the data into student and parents was really done as I was thinking about the data I would need so it wasn't, extra time, which was a bonus. The online form took me longer than I planned as I had to get to know how to create the drop down fields and tick boxes that I wanted. Then, finally, I had to get the form to work so I could use these boxes which took a little time. Creating the database and linking the tables together was quite quick and I finished both tasks in 30 minutes - this was assisted by all the help that Access provided. Input forms were quick to produce using the wizard. The most time I spent was in making them look professional by changing backgrounds and adding titles and the school name and logo.

The data entry was also reasonably quick once I had set the system up (tables, links and forms). I tested it with the data I had collected. My teacher then provided me with some other names and addresses which were quick to import. All I had to do finally was to enter the houses, year groups and the events (which was the most time consuming). I worked quickly on it as I knew that I was a little behind because of my slow start.
$\checkmark$ Milestone completed but took slightly longer than planned (180 minutes not 170 minutes) which meant that I still hadn't caught up on my overall project management plan, however I was getting the hang of how to catch up on steps where I could make faster progress than I initially thought. I needed this to be my second milestone.

## 3. Contact parents/guardians to inform them of specific details about sports day

The letter head was very quick to create as I looked at the school letter head beforehand and knew I wanted mine to be similar, I had also been thinking about what information parents would want to know so I asked the organiser of last year's sports day and he was helpful. These two things allowed me to put together my general letter to parents very quickly.

I finished off by using the mail merge tools to create my mail merge letter to all parents. This worked surprisingly quickly and I completed within the time I had allocated.
$\checkmark$ Milestone completed and on time for once ( 50 minutes and 50 minutes taken) which I was pleased with. However this was a straightforward part of the task and my guestimates of time and resources were OK. I needed this to be my third milestone.

## 4. Record which students have handed in a consent form for sports day

As I had just recently set up my database it was quick to add an extra field and very easy to click on it to record those who handed in their forms. I just needed the computer and database to do it. Using the query wizard meant that 3 minutes was all it took to finish it. Creating a basic report took about 2 minutes but the rest of the time was spent in making it look fit for purpose as it would be pinned on a school notice board. I was really confident that I was going to be Ok with the timing for this task because I copied some of the information from the input forms I had already set up and I quickly got the fields and their data correct.

For the mail merge letter, although the 'message' was different, I already knew how to use the mail merge. I copied the letter head and quickly created the basic message about handing in the consent form. Then I added the fields from the consent form query and it was ready to preview.
$\checkmark$ Milestone completed and again on time ( 58 minutes and 58 minutes taken) which I was pleased with. However this was another straightforward part of the task and my guestimates of time and resources were OK. I needed this to be my fourth milestone.

## 5. Generate lists of students who are competing in a specific event at sports day

For the query I used the computer and database. I tried out various criteria until I found a method that worked, which delayed me a little bit. I copied some information from the consent form report into this new one and for most parts I worked really quickly. The only part that I got a bit stuck on was getting the event name into the header - I did it in the end, even though I wasn't happy with it working in all cases.
$\checkmark$ Milestone completed and again roughly on time ( 30 minutes and 40 minutes taken) which I was pleased with. However this was mostly a straightforward part of the task and my guestimates of time and resources were OK. I needed this to be my fifth milestone.

## 6. Generate lists of students who are in a specific house and specific year group showing the event(s) they are competing in

Similarly for this query I used the computer and database. The criteria were much easier to do for this one. I used the report wizard for this report and again copied some information from the consent form report into this one and I was able to produce it really quickly. The only part that was different was that I grouped the house and the year group at the top of the report.
$\checkmark$ Milestone completed and again roughly on time (30 minutes and 30 minutes taken) which I was pleased with. However this was mostly a straightforward part of the task and my guestimates of time and resources were OK. I needed this to be my sixth milestone.

## 7. Make my solution into a system

This wasn't as easy as I thought. Once I had learnt how to add a new item, selecting the form/report was obvious and I only had to choose the correct one (which was where the names I gave them came in useful). The switchboard manager was Ok to use once I had tried it out.
$\checkmark$ Milestone completed and about on time (15 minutes and 20 minutes taken) which I was pleased with. So now the solutions for the organiser are produced, I need to organise the rest of the Portfolio and produce the report. I needed this to be my seventh and last milestone.

## 1d Manage storage

In managing storage, I will show the structure of the folders that I plan for the school network.


This is what my folders should be structured like once I have created all of them.
I have put my folders this way because then it will be easier to find all of documents if they are all in the same place. The folders are all also named appropriately after the sections in the Portfolio so I know what their purpose is.

Folders for managing storage

 have put documents/files into. I have organised it in this way so I can keep everything neatly and easy to find. I have kept the same folder names that I planned - these are shown in my backup area.



## Part 2

## 2a Collect information

I have decided that the information that I need to collect is as follows:
Personal and contact details
Student's details:
Name (First name and Last name);
*Year group (Y7, Y8, Y9, Y10, Y11)
*School house (Coe, Ennis, Farah, Redgrave, Wiggins)
Events entered (eg Y7 Boys 100m, Y9 Girls Long jump, etc);
Competitors can enter at most three events

Parents/guardians details:
*Title (Mr, Mrs, Ms, Miss, Dr) and Last name - just the title and last name is enough to be able to contact parents/guardians;
Contact details: Address (eg Street, Town and Post code) Home phone and E-mail because the organiser may need to get in contact with their parents;
Consent form received - this can be Yes/No tick boxes as these are the only answer that can be given. This will be for the school to fill in but it's useful to include on the form to remind parents.
*For this information, there are only a certain number of choices so I will make each of these a drop down field to make filling in the form quicker and easier.

My finished online form is shown over the page.

## Alternative ways to collect information

The most common ways to collect information from people are:

1. Paper-based data capture form:

This method of collecting data does not usually give the person who is filling in the form any options to choose from when filling in the data. Also the data filled in on these types of form has to be correct; you can't make the answers up. Its advantages are that it is well known and easy to administrate. People will find it easy to use but sometimes there may be questions that they are unsure about. It is reasonably cheap to use but you need to produce more forms than may be needed in case any are lost or spoilt.

## 2. Online data capture form

This method of collecting data gives the person who is filling in the form options to choose from. The form could be published on the school's website so it is easy to find. In fact it can cater for a small range of choices by offering a drop down field which lists all the possibilities. This is good as not only does it 'explain' the question but also the person filling it in can't get it wrong. It can also cater for yes or no responses by having
a tick box for each one. An online form is simpler to complete than a paper-based data capture form. This is because you just click in the box and either type in a character or choose from a list. The person filling it in can't get it wrong and really the only thing that can go wrong is missing out an answer. I have added a message to remind the person filling it to check that they have filled in all answers. It needs to be done electronically but most students and parents have Internet access so that wouldn't be much of a problem. This would make it much cheaper and environmentally better. If anyone hasn't got Internet access on their phone or at home then the school library has and it is open to parents each school day or local community centres and libraries have Internet access.

I have chosen to use an online data capture form to collect the data needed for my solution. I think this method of collecting data will be the easiest and most environmentally friendly way of doing it. I will include any options needed by the students or their parents when filling in the data. Also, as I need accurate information from the students, this is the best and quickest way that I will get it.


## Online form for School Sports Day

Student details
First name

| QH | R | I | S |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |
| Last name |  |  |  |  |  |  |

Y7
School House

|  | RO\|B|SPN|||| |  |
| :---: | :---: | :---: |

Coe

Event entered 1
Event entered 2
Event entered 3


For example Y7 Boys 100m
Parent/guardian details
Title

Address
Street

Home phone
Mr
Last name

1||l|l||l|l||l|l| 1
Post code

Check you have filled in each question
Consent form received
To be filled in by the school


## Review of the data collected

The data I collected was mainly OK because it worked as I wanted and collected all the details that I needed. I had prevented some problems by using an online form with drop down lists. Some students had shortened their first name but that was OK as that is what they like to be called. The boxes for filling in names and addresses were a little small but there appeared to be enough boxes for most of them and I could read most people's handwriting. The only one which should have been longer was Street name where 11 boxes weren't enough.

I was successful in getting all the students or parents/guardians to correctly fill in the year group and school house as they just had to choose from a drop down list. Both lists were exactly what were required as there were no other possibilities, so they couldn't get it wrong. No one got the title wrong, which I worried about, as I wasn't sure I had included enough choices but it was OK. Perhaps I should have included 'other' as a choice and extra box if that was needed.

Parents didn't appear to have any misunderstanding about the information needed to fill in the form, apart from the last section about 'Consent form received' where some had unintentionally filled it in. I realised that this section wasn't really needed on the form but I thought it would help the school later. For example Chris had received the form at home but hadn't actually handed it in at school yet.

My data collection method worked well and it helped to enter data into the database input forms (which I used for the database tables) by matching the field names and order.

## Gathering the data

I plan to have two tables: students and parents. These are needed because there is more than 1 student from some families at our school. It will also avoid any duplication of data in the database.

I will have a key field for each table so the entries are unique.

| Field name | Data Type | Example | Why it is needed? |  |
| :--- | :--- | :--- | :--- | :---: |
| Students details table |  |  |  |  |
| Student ID | Key field | As an autonumber | So each record is unique |  |
| First name | Text (11) | Jane is an example <br> of a first name | So I know what the name of the <br> student is, and also if there are two or <br> more students with the same name I <br> can differentiate between them |  |
| Last name | Text (11) | Richards is an <br> example of a last <br> name | It is needed so that I know the last <br> name of a student - if there are two or <br> more student with the same first <br> name |  |
| Year group | Lookup field <br> (as a combo <br> box) | The year groups are: <br> Y7, Y8, Y9, Y10, <br> Y11 | This is needed so I know what year <br> the student is in. The 'drop down' <br> choice (lookup field) is so it limits the <br> choices |  |
| School house | Lookup field <br> (as a combo <br> box | The school houses <br> are: Coe, Ennis, <br> Farah, Redgrave, <br> Wiggins | This is needed so I know what year <br> the student is in. The 'drop down' <br> choice (lookup field) is so it limits the <br> choices |  |
| Event entered 1 | Alphanumeric <br> (25) | Y7 Boys 100m is an <br> example of an event | This is needed so I know what event <br> the student is in (maximum of 3 <br> events). |  |
| Event entered 2 | Alphanumeric <br> (25) | Y9 Girls Long jump <br> is an example of an <br> event | This is needed so I know what event <br> the student is in |  |
| Event entered 3 | Alphanumeric <br> (25) | Y8 Girls 4x100m <br> relay is an example <br> of an event | This is needed so I know what event <br> the student is in |  |
| Consent form | Yes/No field | Yes | I need to know whether the Consent <br> form has been received |  |
| Parent code | number | 2 | In order to link the student's record to <br> their parent/guardian |  |

I will need a field to link a record to the parent/guardian table, so I have added this one. This field will link to the one in the parent table named Parent ID. I will call this table Students to make it obvious what it contains.

Unit 3 Specimen exemplar work for 2014-16

| Field name | Data Type (size) | Example | Why it is needed? |
| :---: | :---: | :---: | :---: |
| Parent/guardian details table |  |  |  |
| Parent ID | Key field | As an autonumber | So each record is unique |
| Title | Lookup field (as a combo box) | Mr, Mrs, Ms, Miss, Dr | This is needed so I know what the parent/guardian's title is. The 'drop down' choice (lookup field) is so it offers appropriate choices |
| Last name | Text (11) | Richards is an example of a last name | It is needed so that I know the last name of a parent/guardian |
| Street |  | 2 High St is an example | This field is needed to send formal letters home, so the school will need the address |
| Town | Text (11) | Mardon is an example | This is needed as part of the address |
| Post code | Text (8) | MA3 2AF | This is needed as part of the address |
| Home phone | Text (11) | 01486221333 | This is needed so the school can contact the parent if there is an emergency at sports day |
| E-mail | Alphapumeric (22) | Richards@btlive.co.uk | This is needed so I can e-mail the parent/guardian if needed |

I had to make this field larger than my online form as some parents/guardians didn't have enough space. I will call this table Parents as it's shorter and obvious what it contains.

Next, I showed how I gathered the information using database input forms:

I set up a front end for my system to access the input forms (to add or edit the details for students or parents)

## AQA School Sports day organisation

 AQA ${ }^{-}$
## Add/Edit Student details

Add/Edit parent details

This is my Students form


This is my Parents form


These are my two tables populated with data:

## Students table



I have also shown those who have handed in their Consent form at this stage
Parents table (for both parents and guardians information)

|  | Parents |  |  |  |  |  |  |  |  |  | - | 回 | $\Sigma 3$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Parent ID | Title | - | Last name |  | treet | Town | - | Post code - | Home phone - | E-mail |  | - |
|  | 1 | Mr |  | Robson | 112 High | St | Mardon |  | MA3 2AF | 01486221333 | robson@btlive | co.uk |  |
|  | 2 | Mrs |  | Datta | 2A Varey | y Road | Linfet |  | MA14CA | 01486112422 | the dattas@p | e.co |  |
|  | 3 | Ms |  | Richards | 4 Dart Cl | lose | Mardon |  | MA3 2DC | 01486221198 | richards@btliv | .co.uk |  |
|  | 4 | Ms |  | Khan | 23 The C | Crescent | Mardon |  | MA3 1FB | 0148622135 | nkhan@pipe.c |  |  |
|  | 5 | Mrs |  | McClaren | 115 Den | mark Road | Mardon |  | MA3 1BC | 01486212312 | dmc@btlive.co. |  |  |
|  | 6 | Mr |  | Wang | 112 Man | ntra Road | Mardon |  | MA3 7AC | 01486334361 | wangmantra@ | ipe. |  |
|  | 7 | Mr |  | Murphy | Old Hous |  | Mardon |  | MA3 1DA | 01486112367 | murphy123@b | live.co | .uk |
|  | 8 | Miss |  | Robson | 21 High S | Street | Mardon |  | MA3 2AG | 01486211354 | robson12@btl | e.co |  |
|  | 9 | Ms |  | Smith | 8 Norton | n Road | Mardon |  | MA3 1CL | 01486122256 | 101smith@btli | e.co |  |
|  | 10 | Ms |  | Jones | Flat 1 Ba | ard House | Mardon |  | MA3 2DA | 01486133169 | jjones27@pip | com |  |
|  | 11 | Mr |  | Bernolli | 15 Thom | nas Road | Mardon |  | MA3 2AA | 01486331137 | bernolis@btliv | e.co. |  |
|  | 12 | Mrs |  | Chanderpaul | 18 Farm | ergate | Mardon |  | MA3 2AV | 01486221478 | chanderp@btl | ve.co |  |
|  | 13 | Miss |  | Hall | 17 Orang | ge Crescent | Mardon |  | MA3 2BE | 01486225678 | mhall@pipe.co |  |  |
|  | 14 | Ms |  | Johnson | 5 Pond R | Road | Mardon |  | MA3 2BH | 01486255198 | jaj@btlive.co.uk |  |  |
|  | 15 | Mr |  | Jones | 12 Fawn | Street | Mardon |  | MA3 2AE | 01486166297 | ajones12@btli | e.co. |  |
|  | 16 | Dr |  | Khan | 24 Ferry | Street | Mardon |  | MA3 2BD | 01486443155 | vkhan@pipe.c |  |  |
|  | 17 | Miss |  | Le Clerc | 32 Graha | am Cresecent | Mardon |  | MA3 3AC | 01486335484 | leclerc@btlive | co.uk |  |
|  | 18 | Miss |  | Murphy | 17 Varey | y Road | Linfet |  | MA1 4CA | 01486112421 | murphy2@pip | .com |  |
|  | 19 | Ms |  | Thompson | 18 Cann | on Street | Linfet |  | MA1 4CB | 01486112521 | thomo@btlive | co.uk |  |
|  | 20 | Mrs |  | Ugohu | 19 Heavi | iside Road | Linfet |  | MA14CC | 01486112491 | ugohu@btlive | co.uk |  |
|  | 21 | Mr |  | Stevens | 8 North | Street | Mardon |  | MA3 1CP | 01486122296 | rstevens@pip | com |  |
| * (New) |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Record: if 4 22 of | $22+\cdots$ |  |  | Search | 4 |  |  |  |  | - |  |  |

## 2b Select information

After checking my milestones, I knew that I needed to select the following information:
Inform parents of specific details about sports day (third milestone)
Create a letter head and create a letter to parents/guardians
Record students who have handed in their consent forms (fourth milestone)
Produce a list of students who have not handed in a consent form
Make this list into a database report so it looks official
Remind parents/guardians individually of any student who has not handed in a consent form and of the event(s) they are competing in using a mail merge letter

Produce two lists of students competing in a specific event at sports day using a query (fifth milestone)

Produce a database report of these lists so it looks official
Produce a list of students in a specific house and specific year group showing the event(s) they are competing in using a query (sixth milestone)

Produce a database report of this list so it looks official

## Alternative ways of selecting information

There are various ways in which I can carry out each of the above things.

## Queries

There are different types of queries I can use: simple queries and parameter queries.
For most of my queries I have decided to use parameter queries. I think this is the better option because I can find many different records by typing in different data each time the query is run. I only need to use one query. For example, for the report about competing in a specific event at sports, I can use the parameter query to find students who are in the Y 7 Girls Long jump and then using the same query I can enter different data to find students who are in the Y8 Boys 800m. This is efficient to do.

With simple queries you can't do that. You would have to change the query each time so there will be a different query for every different criterion. That would mean a lot for the specific event selection. For example there will need to be a query to show students who are in the Y 7 Girls Long jump, and then another query to show students who are in the Y8 Boys 800m, etc.

This is why I used parameter queries for most things the organiser wanted, as it also saved time and reduced the number of queries needed.

However I will use a simple query to find anyone who hasn't handed in their Consent form yet. This is because this is the only thing required from this search and it is quicker and easier to do, so the organiser doesn't have to enter anything when the query is set up - they just run it. So a simple query is best for this selection.

## Ways of communicating with parents

There are many ways for the school to communicate with Parents. The most popular ones are communication through letters or email.

## Letters

With letters the school can inform the parents about many things, whether they are about sports day events or just informing them of normal things. You can create a letter head for one letter and with the help of mail merge you can then send out personalised letters out to specific people. Letters are more formal and make people realise that the contents are important. Parents expect to receive letters about school events.

## Email

You can communicate online by using their email address. You can send anything you want for example online documents, letters, inform them of events, some like a letter. But with emails there is always a possibility that the email hasn't been sent or the receiver has not checked their emails and seen that the email has arrived. E-mails are less formal and sometimes considered less important. E-mails are cheaper to send than letters but all parents would need to have an e-mail address.

I have chosen to communicate with parents using mail merge letters. I think that this is more suitable as it is personal to parents and that will make them want to read the letter. Also it is the easiest method as I have collected the suitable details that I need to send mail merge letters (ie the home address). Also I will find it easier to send the letters as I will not have to do extra work typing in the addresses as the mail merge process will do that for me (when I have set it up).

## Selecting information choices

(1) For my letter informing parents of specific details about sports day, I will need to tell them what is happening, the date and times of sports day events and where it takes place. I will remind them about buying a ticket and ask them to tell their son or daughter to report to the gym before their event takes place. Also anything else that is expected for the sports day to be enjoyable such as the refreshments.
(2) For my query to find anyone who hasn't yet handed in the consent form, I will use a simple query which I will link to a report which looks similar to the input forms I used to enter new student or parent records.
(3) I will produce a mail merge letter personalised for all parents whose son/daughter hasn't yet handed in their Consent form. The letter will use the same letter head that I created for the letter informing parents of specific details about sports day.
(4) For my query to produce lists of students competing in a specific event at sports day, I will use a parameter query, in which I will need the criteria for each event. I will link it to a report which looks similar to the report for those who haven't handed in their consent forms.
(5) For my query to produce a list of students in a specific house and specific year group showing the event(s) they are competing in, I will use a parameter query in which I will need criteria for both school house and year group. I will link it to a report which looks similar to the report for those who haven't handed in their consent forms.

## Inform parents of specific details about sports day



I produced this letter by creating a letter head and using a mail merge process for all parents. One mail merge letter would be sent in a personalised way to all parents. It is fit for purpose as it looks like any school letter - with the school logo and address at the top right hand side. It includes each parent's title, last name and full address. The text is fully justified like formal school letters.

Dear «Title» «Last_name, I am writing to inform yo Friday September 13. A will start at 10:00am for t Everyone is welcome to a If your son or daughter is the appropriate sportswe 15 minutes before their e

Tickets will be on sale a refreshments (tea/coffee from our students and he

Please come along and st event.

Yours sincerely

Mr D Anthony


AQA School Nether Lane

Mardon MA3 1BD 01486221555

5 September 2013
112 High St
Mardon
MA3 2AF

## School Sports day 2013

Dear Mr Robson
I am writing to inform you about the School Sports day which will take place on Friday September 13. As usual the event takes place on the school sports field and will start at 10:00am for the field events and 1:30pm for the track events.
Everyone is welcome to attend.
If your son or daughter is taking part as a competitor please ensure that they have the appropriate sportswear with them. Students are expected to report to the gym 15 minutes before their event starts.

Tickets will be on sale at the door. During the morning and afternoon sessions refreshments (tea/coffee, ice creams and soft drinks) will be available to purchase from our students and helpers.
Please come along and support your son or daughter in what is always an enjoyable event.

Yours sincerely

Mr D Anthony

This shows an example letter after using the mail merge process.

Record students who have handed in their consent forms


Report of students who have not handed in their consent forms

## Students who have NOT handed in a Consent form <br> AQA School AQA

| First name | Last name | Event entered 1 | Event entered 2 | Event entered 3 | Consent form |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Chris | Robson | Y7 Girls Long jump | Y7 Girls 100m |  | $\square$ |
| Alexandra | Smith | Y9 Girls Discus | Y9 Girls Shot put |  | $\square$ |
| David | Chanderpaul | Y7 Boys 400m | Y7 Boys 800m |  | $\square$ |
| Peter | Khan | Y9 Boys High jump | Y9 Boys Long jump | $\square$ |  |

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The report on students who have not handed in their consent forms is consistent with the forms to enter new records for students or parents/guardians. I have used the same background colour and font sizes for the headings. This is fit for purpose as it could easily be printed and put on a school notice board to remind students to hand their consent forms in.

## To parents of students who have not handed in their consent forms




## Two lists of students who are competing in a specific event



I produced a list of students in the Y7 Girls Long jump. This list is fit for purpose as it has a clear heading which says what it is about and the school name and logo - all in the same colour scheme. All the students' details are clearly readable with nothing truncated.

| Students competing in a specific event at Sports day |  |  |  | AQA School |  | $A^{\text {AQA }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Y7 Girls Long jump |  |  |
| First name | Lastname | Yeargroup | School house | Event entered 1 | Evententered 2 | Evententered 3 |
| chris | Robson | $\checkmark 7$ | coe | r76iris Long jump | v76irs 100 m |  |
| Kelsie | Data | ${ }^{7}$ | Enis | v76iris 100 m | r7 ${ }^{\text {cirst }}$ Loog jump | v7 Girls High jump |
|  |  |  |  |  |  |  |



I produced a list of students in the
Y8 Boys 800m

## Students competing in a specific event at Sports day



## A list of students in a specific house and specific year group showing the event(s) they are competing in




I produced a list of students in Ennis house and Year group 9. This list is fit for purpose as it has a clear heading which says what it is about and includes the school name and logo all in the same colour scheme. All the students' details are clearly readable with nothing truncated. The house and Year group are clearly listed at the top of the report.

## Students competing for a specific House in a specific Year group

## School house Ennis

## Year group Y9

| First name | Last name | Event entered 1 | Event entered 2 | Event entered 3 |
| :--- | :--- | :--- | :--- | :--- |
| Tania | Johnson | Y9 Girls 800 m | Y9 Girls 1500 m |  |
| Alexandra | Smith | Y9 Girls Discus | Y9 Girls Shot put |  |

Because this list is in portrait I moved the logo above the school name so it all fitted well on the page. I wanted to keep the same font size and colour for all lists so they were consistent.

## The front end for the Sports day organisation to make selections for my system easy to use



There are buttons to select the adding or editing of new student's details or parent's details.

There are buttons to select: Students with no consent form (handed in)
Students in a specific event
Students in a specific house and year group
All these make the system easy to use, which was one thing that the organiser wanted. I filled the area with the buttons in dark blue so that the text and buttons stood out and were easy to read/use. I used blue for the Forms, white for the Reports and red for the Exit button.

## 2c Format information

I know from reading the Candidate Booklet that I have to show my formatting techniques for page layout, text, tables, images, numbers and records/cells.

## Page layout

There are several occasions where I have formatted page layout. An example is shown below when I was creating a portrait report for the organiser.


## Text



The font for the field name 'School house' in this report was formatted to stand out by selecting 16 point font (and in bold and dark blue). To achieve this I selected the Format tab of the Report Design Tools. I wanted the school, house to be clear to read so that each Head of House would know it was a list of competitors in their house. The finished formatting is shown on the previous page.

## Tables

I formatted the table in Word for my online data capture form.


## Images

There were several images that I used (for example the school logo) but I mostly formatted screenshots or printouts by cropping them to fit my evidence. The reason I cropped the screenshots was that they looked unprofessional before and included things that weren't necessary for my Portfolio.

## Students competing for a specific House in a specific Year group

First I grabbed a screen
 shot using Alt and Prt Scr. Then I chose the cropping tool in the Format tab. I dragged the top left corner until it met the area I wanted leaving and did the same with the bottom right hand corner. Then I clicked outside the cropped area and resized it to fit on the page. This was easy to do.

This shows my cropped report.

## AQA ${ }^{2}$

AQA School

## School house Ennis

## Year group Y9

| First name | Last name | Event entered 1 | Event entered 2 | Event entered 3 |
| :--- | :--- | :--- | :--- | :--- |
| Tania | Johnson | Y9 Girls 800m | Y9 Girls 1500m |  |
| Alexandra | Smith | Y9 Girls Discus | Y9 Girls Shot put |  |

## Numbers

I formatted numbers in my modelling with data section, as there weren't really any numbers in my database system which needed extra formatting.

I selected a cell and choose the Format

| 4 | A | B | c | $\square$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Sports day costs |  |  |  |
| 2 | Maximum overall cost |  |  |  |
| 3 |  |  |  |  |
| 4 | Costs involved | Amount | Number |  |
| 5 | Equipment Costs |  |  |  |
| 6 | Tiered seating | 7 | 200 |  |
| 7 | Discus netting | 20 | 2 |  |
| 8 |  |  |  |  | cells tool then selected Currency. Once I had one cell formatted I used the Format painter to format all other Amounts to currency.



## Records/cells

I formatted each record in my reports because it was important that the fields and field data were appropriately spaced and there was no truncated information.

This is what it looked like at first, there was too much space allocated to names, year group and houses to fit on a page:


In order to fit it onto a landscape page I reduced the size of the fields and field data. I dragged the fields closer together and checked that no information was truncated when running with different events. This shows my report after I adjusted the records to fit how I wanted them.

| Students competing in a specific event at Sports day |  |  |  | AQA School |  | $A^{\prime 2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Y7 Girls Long |  |  |
| Firstame | Lastrame | Yeargoup | Ihouse | Evententere | Evententered 2 | Evententered 3 |
| Chris | Robsen | $\square$ | coe | V6iris ongiu | r7oirs 100m |  |
| kelsie | Data | 17 | Emis | v76irs 100 m | rviris Longiun |  |

## 2d Modelling with data

This shows my modelling with data spreadsheet to work out the costs of running sports day. First I selected the data that I needed and found out the costs using the Data sheet that the organiser gave me and I also used the internet to find some up-to-date costs.

I knew that there were several costs involved in running our school sports day, such as hire of seating and equipment to keep everyone safe, advertising costs to let parents know about it, trophies and medals for the competitors. There are also receipts from the event which include the sale of tickets to adults and advertising revenue (from local businesses) and sale of refreshments to spectators. The organiser wanted the overall costs to be kept below $£ 750$.
This is what I found out as the costs to start with:

| Tiered seating | $£ 7.00$ | Ticket sales | $£ 2.00$ |
| :--- | :--- | :--- | :--- |
| Discus netting | $£ 20.00$ | Advertising revenue | $£ 25.00$ |
| Posters | $£ 0.45$ | Ice cream sales | $£ 1.00$ |
| Leaflets | $£ 0.75$ | Soft drink sales | $£ 0.50$ |
| Medals | $£ 3.50$ | Tea/coffee sales | $£ 0.50$ |
| House trophy | $£ 50.00$ |  |  |
| Male/Female trophies | $£ 30.00$ |  |  |



This shows the formulae I used to work out the total for each 'item' by multiplying the amount by the number.

I put in a warning message below the Overall cost so I could easily check if I had kept the costs below the $£ 750$ that the organiser wanted.

| $\triangle$ | A | B | C | D | E | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Sports day costs |  |  |  |  |  |
| 2 | Maximum overall cost |  |  | £750.00 |  |  |
| 3 |  |  |  |  |  |  |
| 4 | Costs involved | Amount | Number | Total |  |  |
| 5 | Equipment Costs |  |  |  |  |  |
| 6 | Tiered seating | £7.00 | 200 | £1,400.00 |  |  |
| 7 | Discus netting | £20.00 | 2 | $£ 40.00$ |  |  |
| 8 |  |  |  |  |  |  |
| 9 | Advertising Costs |  |  |  |  |  |
| 10 | Posters | £0.45 | 50 | $£ 22.50$ |  |  |
| 11 | Leaflets | £0.75 | 100 | £75.00 |  |  |
| 12 |  |  |  |  |  |  |
| 13 | Cost of Awards |  |  |  |  |  |
| 14 | Medals | £3.50 | 100 | £350.00 |  |  |
| 15 | House trophy | £50.00 | 1 | $£ 50.00$ |  |  |
| 16 | Male/Female trophies | £30.00 | 2 | £60.00 |  |  |
| 17 | TOTAL COSTS |  |  | £1,997.50 |  |  |
| 18 |  |  |  |  |  |  |
| 19 | Receipts involved |  |  |  |  |  |
| 20 | Ticket sales | £2.00 | 200 | £400.00 |  |  |
| 21 | Advertising revenue | £25.00 | 4 | £100.00 |  |  |
| 22 | Ice cream sales | £1.00 | 200 | £200.00 |  |  |
| 23 | Soft drink sales | £0.50 | 300 | £150.00 |  |  |
| 24 | Tea/coffee sales | £0.50 | 180 | £90.00 |  |  |
| 25 | TOTAL RECEIPTS |  |  | £940.00 |  |  |
| 26 |  |  |  |  |  |  |
| 27 | Overall cost |  |  | £1,057.50 |  |  |
| 28 |  |  |  | WARNING |  | - |
| 14 | 1.M Sheet1 Sheet2 | heet3 | 仡 | IIII |  | .: |

This shows my first scenario which just used the numbers I had started with. The problem is that the overall cost at $£ 1057.50$ is too high as it is well over $£ 750$. My warning message shows it is clearly too high.

I will try to increase the total receipts.

I will see what happens if I increase the cost of the tickets to $£ 2.50$ (which isn't a big rise so it should be OK).
This is my second scenario. The Overall cost has gone down to $£ 957.50$ but not by enough to reach the maximum allowed.

Next time I will try to reduce the total costs.

| 4 | A | B | C | D | E | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Sports day costs |  |  |  |  |  |
| 2 | Maximum overall cost |  |  | £750.00 |  |  |
| 3 |  |  |  |  |  |  |
| 4 | Costs involved | Amount | Number | Total |  |  |
| 5 | Equipment Costs |  |  |  |  |  |
| 6 | Tiered seating | £7.00 | 200 | £1,400.00 |  |  |
| 7 | Discus netting | £20.00 | 2 | £40.00 |  |  |
| 8 | Advertising Costs |  |  |  |  |  |
| 9 |  |  |  |  |  |  |
| 10 | Posters | £0.45 | 50 | £22.50 |  |  |
| 11 | Leaflets | £0.75 | 100 | £75.00 |  |  |
| 12 |  |  |  |  |  |  |
| 13 | Cost of Awards |  |  |  |  |  |
| 14 | Medals | £2.75 | 100 | £275.00 |  |  |
| 15 | House trophy | £50.00 | 1 | £50.00 |  |  |
| 16 | Male/Female trophies | $£ 30.00$ | 2 | £60.00 |  |  |
| 17 | TOTAL COSTS |  |  | £1,922.50 |  |  |
| 18 |  |  |  |  |  |  |
| 19 | Receipts involved |  |  |  |  |  |
| 20 | Ticket sales | £2.50 | 200 | £500.00 |  |  |
| 21 | Advertising revenue | £25.00 | 4 | £100.00 |  |  |
| 22 | Ice cream sales | £1.00 | 200 | £200.00 |  |  |
| 23 | Soft drink sales | £0.50 | 300 | £150.00 |  |  |
| 24 | Tea/coffee sales | £0.50 | 180 | £90.00 |  |  |
| 25 | TOTAL RECEIPTS |  |  | £1,040.00 |  |  |
| 26 |  |  |  |  |  |  |
| 27 | Overall cost |  |  | £882.50 |  |  |
| 28 |  |  |  | WARNING |  | $\checkmark$ |
|  | 1•M Sheet1 Sheet2 | Sheet3 \% | 2近 | III |  | (1).: |

I will see what happens if I reduce the price of the competitors medals to $£ 2.75$ (which is the cheapest I can find).

This shows my third scenario. The Overall cost has again gone down again to $£ 882.50$ but not by enough to reach the maximum allowed.

Next time I will try to increase the total receipts as there aren't many more costs I can reduce.

I will see what happens if I increase the price of Soft drinks and Tea/ coffee sales to $£ 0.80$ (which isn't a big rise so it should be acceptable).
This is my fourth scenario. The Overall cost has gone down to $£ 738.50$ which is now below the maximum allowed.

I have achieved what I wanted to and kept the overall cost below the maximum allowed.

This is the model I will use for sports day costs as it meets the requirements.


## 2e Develop information

This shows how I developed my system for the organiser with all the solutions that they required. The solutions were about all students who were competing at sports day.

## Developing my online data capture form:

I started by creating a table with enough rows and columns and put in the field names and blanks for the data - this shows I have started on the fields I had identified as being needed.

|  | Online form for School Sports Day |
| :--- | :--- |
| Student details |  |
| First name | Last name |
| Year Group | School House |
| Event entered 1 |  |
| Event entered 2 |  |
| Event entered 3 |  |

When I completed all the fields, I added the boxes to be big enough for 1 character and enough of them to take expected answers.


For the drop down boxes and tick boxes I used the Developer tab and chose a Drop down form field, then I typed in the list that I wanted and clicked OK.


I repeated this for each drop down field (Year group, School house and Title). Then finally I chose a check box and inserted one below Yes and below No. Finally to make my online form work I had to change the Permissions by restricting the Editing to 'Filling in forms' and start the enforcement of the settings. This worked as my online form in the Collect information section shows.

## Developing tables for my database

I created the tables by choosing the field names (as I showed in collect information) and changing the field size to what I wanted.
I made the data types into the correct ones that I needed (including combo boxes and


I repeated some of the same data types for the parents' table.

| - Parents |  |  |  |  | - | 回 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Field Name |  | Data Type |  | Description |  | $\wedge$ |
| 8 | Parent ID |  | AutoNumber |  |  |  | 析 |
| Title |  |  | Text | - |  |  |  |
| Last name |  |  | Text |  |  |  |  |
| Street |  |  | Text |  |  |  |  |
| Town |  |  | Text |  |  |  |  |
| Post code |  |  | Text |  |  |  |  |
| Home phone |  |  | Text |  |  |  |  |
| E-mail |  |  | Text |  |  |  | $\checkmark$ |
| Field Properties |  |  |  |  |  |  |  |
| General Lookup |  |  |  | The data type determines the kind of value that users can store in the field. Press F1 for help on data types. |  |  |  |
| Display Control |  | Combo Box |  |  |  |  |  |
|  | Row Source Type | Value List |  |  |  |  |  |
|  | Row Source | -Mr"; Mrs';Ms';"Miss"; Dr |  |  |  |  |  |
|  | Bound Column | 1 , |  |  |  |  |  |
|  | Column Count | 1 |  |  |  |  |  |
|  | Column Heads | No |  |  |  |  |  |
|  | Column Widths | 2.54 cm |  |  |  |  |  |
|  | List Rows | 16 |  |  |  |  |  |
|  | List Width | 2.54 cm |  |  |  |  |  |
|  | Limit To List | No |  |  |  |  |  |
|  | Allow Value List Edits | No |  |  |  |  |  |
| Show Only Row Source V No |  |  |  |  |  |  |  |
|  |  |  |  |  |

This shows development of the parents' table

## Developing links between my tables

I created the link between my database tables by dragging the Parent code (in the students' table) across to the Parent ID (in the parents' table). I checked it was OK and one Parent ID could be linked to more than one (many) Parent codes.


## Developing forms for my database tables

I created the forms to be able to enter new records to my database table. I used the Create tab to create all my forms (and queries and reports).


I chose the correct table and used the create form 'wizard' to make the first steps easy.


I added all the fields. Next I arranged the fields by dragging them into the position and size I wanted. This was so that the fields were in a sensible order with things relating to sport day on the right hand side of the form. I saved the form as Students form so it was clear what it was.
I filled in the background in the field area to be the same as the heading area and removed the original heading as I wanted to add my own.


Next I added the heading that I wanted using the label button and inserted the school name and pasted in the logo. I used the button tool to add a command to be able to go to a blank form to add a new record. Finally I added a button to delete a record if needed.


I repeated the same things for my parents' form. Both forms are shown in the Collect information section.

## Developing a way of contacting parents/guardians to inform them of specific details about sports day

I created a letter head by importing the school logo. Then typing in the school name, address and phone number. I formatted the text to be right aligned and in the school colour of purple.

| 1 | AQA |
| :---: | :---: |
|  |  |

Next I typed in the information that I expected parents would want to know about sports day. Emboldened the title, the date it was on and the times of the field and track events.
Sers
5 September 2013
Dear I
I am writing to inform you about the School Sports day which will take place on
Friday September 13. As usual the event takes place on the school sports field and
will start at 10:00am for the field events and 1:30pm for the track events.
Everyone is welcome to attend.
If your son or daughter is taking part as a competitor please ensure that they have
the appropriate sportswear with them. Students are expected to report to the gym
15 minutes before their event starts.
Tickets will be on sale at the door. During the morning and afternoon sessions
refreshments (tea/coffee, ice creams and soft drinks) will be available to purchase
from our students and helpers.
Please come along and support your son or daughter in what is always an enjoyable
event.
Yours sincerely
Mr D Anthony

Finally I used the Mailings tab to select the recipients (ie the Parents' table in my database) and insert the merge fields where I needed them.

5 September 2013
«Street»
«Town»
«Post_code»

## School Sports day 2013

Dear «Title» «Last_name»
AQA
AQA School Nether Lane Mardon
MA3 1BD
01486221555

I am writing to inform you about the School Sports day which will take place on Friday September 13. As usual the event takes place on the school sports field and will start at 10:00am for the field events and $1: 30 \mathrm{pm}$ for the track events.

Everyone is welcome to attend.
If your son or daughter is taking part as a competitor please ensure that they have the appropriate sportswear with them. Studehts are expected to report to the gym 15 minutes before their event starts.
Tickets will be on sale at the door. During the morning and afternoon sessions refreshments (tea/coffee, ice creams and soft drinks) will be available to purchase from our students and helpers.
event.

Yours sincerely

Mr D Anthony


Then I previewed the results to see the personalised letters that would be sent (example shown in the Select information section).

Developing a query to find students who hadn't yet handed in their consent forms I created this query to be able to select records that the organiser needed. I used the query wizard to do this and chose all fields from the students' table except the Student ID, Year Group and School house. I also added the parents' table and chose all its fields except the Parent ID, Home phone and E-mail.

As this query only had one purpose I used a simple query by typing in No in the criteria part of the Consent form field.


I saved it as No consent form Query so it was clear what it was doing.


## Developing a report to select students who hadn't yet handed in their consent forms

Next I created a report using the report wizard. I chose the No consent form Query so I got the correct records. I only included the fields about the student I would need in the report first and last name, events entered and consent form.


This is what the report looked like after I chose landscape and tabular layout.


I adjusted the field widths, deleted the heading. Next I added the heading that I wanted and also added the school name and logo (as I had on the input forms I developed earlier). I deleted the page footer details as I didn't want them on my report.


My finished report is shown in the Select information section. I made sure that all the information was readable and not truncated, so it was fit for purpose.

## Developing a mail merge letter to go to parents whose son/daughter hasn't yet handed in their consent forms.

Finally I created a mail merge letter to comply with the organisers wishes. I used the letter head I had already created. I typed in the information required and left spaces to personalise it. I emboldened the title and the date. As for my previous mail merge letter I linked the letter to the database but this time to the No consent form Query.



Using the Mailing tab and the Insert Merge Field tool, I inserted the fields where I needed them and left a space before and after if it was required, so that the personalised letter would look fit for purpose.

Then I used Preview Results to see the personalised letters that would be sent (shown in the Select information section).

## Developing a list of students competing in a specific event at sports day

Firstly I created a query, using the Create tab and Query wizard, to search for the students in a particular event. I used the wizard and chose the table (Students) I needed. I chose a simple query and selected all the fields I needed (not Student ID, Consent form or Parent code).


I saved it as Specific event Query so I would know what it was selecting for my system.


## Developed a report to select students competing in a specific event

Next I developed a report linked to this query to make the lists fit for purpose. I knew that I had to use it to find two different lists of events that students were competing in.

I created a report using the report wizard. I chose the Specific event Query so I got the correct records. I only included the fields about the student I would need in the report first and last name, year group and school house and events entered. I thought the year group and house would be useful on this list and help to make it fit for purpose.

This process was similar to the one I used for the list of students who hadn't yet handed in their consent forms.

The first stage of the development looked like this, based on the Specific event Query I had created and using the basic Report tool in the Create tab:


I needed to change the position and size of all fields by dragging and resizing them. This was so they would fit in landscape. I changed the field names to light blue by selecting them and in the Format tab choosing a suitable font colour. I removed the heading details and made the Count section taller. I saved the report as Specific event Report.


The next stage was to add the report title, school name and logo to the header area. I copied and pasted them from the report on Consent forms and changed the title to an appropriate one. I also added a field in the header to show the event entered.


This report is printed out in the Select information section to show two lists of students competing in specific events. So it was fit for purpose, I made sure that all the information was readable and not truncated.

## Developing a list of students in a specific house and specific year group showing the events they are competing in

Firstly I created a query which was to search for the students in a particular event. I copied the query I had created for the specific event and changed the order of the house and year group fields. I also changed the criteria. This query needed two parameter questions one for the house and one for the year group. It was saved as House and Year group Query.


Developing a report to select students in a specific house and specific year group
Next I developed a report linked to this query to make the list fit for purpose.
I created a report using the report wizard. I chose the House and Year group Query so I got the correct records. I only included the fields about students I would need in the report - first and last name, school house and year group and events entered.
This process was similar to the one I used for the list of students who hadn't yet handed in their consent forms. I decided that the report would look good if both the house field and the year group field were separate from the others. I chose the report wizard but grouped the school house field and the year group field so they would be separate.


I also sorted the students in last name order.

I kept this list in portrait orientation as with moving the house and the year group fields into their own area there would be more horizontal space.


The first stage of the development looked like this, based on the House and Year group Query I had created:


This wasn't quite how I wanted it, so I moved the field name and field data for school house into one section and the field name and field data for year group into another. I then selected all other field names and dragged them down into a spare row above the field data.


Next I deleted the header title and tidied up the field names and data so they looked as I wanted them to do by dragging them and making the font of the house and year group larger and in bold using the format tab. I also removed the 'Now' field from the footer and I saved the report as House and Year group Report.


Finally I added a title, the school name and logo by copying from the Specific event Report. I changed the title to an appropriate one. I dragged the logo above the school name so it would fit.


This report is printed out in the Select information section to show two lists of students competing in specific events. I made sure that all the information was readable not truncated, so it was fit for purpose.

## 2f Produce a report

## Report

Helping to organise our school sports day
To: the Headteacher
By: Aaaaaaa Aaaaaaaaa
Date: 1 November 20xx
Contents ..... Page
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## Model of the costs of Sports day

| Sports day costs |  |  |  |
| :---: | :---: | :---: | :---: |
| Maximum overall cost |  |  | £750.00 |
| Costs involved | Amount | Number | Total |
| Equipment Costs |  |  |  |
| Tiered seating | £7.00 | 200 | £1,400.00 |
| Discus netting | £20.00 | 2 | $£ 40.00$ |
| Advertising Costs |  |  |  |
| Posters | £0.45 | 50 | £22.50 |
| Leaflets | £0.75 | 100 | £75.00 |
| Cost of Awards |  |  |  |
| Medals | £2.75 | 100 | £275.00 |
| House trophy | £50.00 | 1 | £50.00 |
| Male/Female trophies | £30.00 | 2 | $£ 60.00$ |
| TOTAL COSTS |  |  | £1,922.50 |
| Receipts involved |  |  |  |
| Ticket sales | £2.50 | 200 | £500.00 |
| Advertising revenue | £25.00 | 4 | £100.00 |
| Ice cream sales | £1.00 | 200 | £200.00 |
| Soft drink sales | £0.80 | 300 | £240.00 |
| Tea/coffee sales | £0.80 | 180 | £144.00 |
| TOTAL RECEIPTS |  |  | £1,184.00 |
|  |  |  |  |
| Overall cost |  |  | $£ 738.50$ |

This is the final model that I used to keep the overall costs below the $£ 750$ that the organiser had said was the maximum allowed. I increased some receipts (Ticket sales and Soft drink and Tea/coffee sales) but only by small amounts which the organiser thought was acceptable. I also reduced the cost of the medals because I could find similar ones which were cheaper.

This was efficient as item amounts or numbers could be changed to check whether the overall cost was with the range that was allowed. It could be repeated next year if needed.

## Gathering information about students competing at Sports day

This is the online form I used to gather information about students - on the school website.


The online form was easy to complete as there were boxes to type in the details and for some information there were drop down lists which the user could just choose from. I have included the online form so that you can see that it was easy to fill in.

I created two forms to enter the data. Both forms were also easy to use as they were displayed by a single click from the menu.


I set it up so that a user just had to click 'Add/Edit Student details' or click 'Add/Edit parent details' and it immediately showed the form to enter the data.

This was efficient as it just needed one click to do it. It could be repeated next year if needed.

This is the Students' form


I used two forms to enter the data into the database - one for students and the other for parents/guardians. It was easy to enter data into the database as the input form matched the online form and included drop down lists for the same pieces of information. This made it easy to fill in.

This is the Parents' form

## Parents input form AQA School $A Q A^{\square}$



The parents' form was also easy to use to enter data into the database as the input form matched the online form and included a drop down list for one piece of information. This form also showed the parent's/guardian's son or daughter. So it was it was easy to fill in and the two buttons at the bottom of both forms help to make them even easier to use.

## Informing parents about Sports day

I have included an example letter about sports day which was sent to all parents/ guardians of students at our school.

AQA School NetherLane

Mardon
MA3 1BD
01486221555

5 September 2013
112 High St
Mardon
MA3 2AF

## School Sports day 2013

Dear Mr Robson
I am writing to inform you about the School Sports day which will take place on Friday September 13. As usual the event takes place on the school sports field and will start at 10:00am for the field events and 1:30pm for the track events.

Everyone is welcome to attend.
If your son or daughter is taking part as a competitor please ensure that they have the appropriate sportswear with them. Students are expected to report to the gym 15 minutes before their event starts.

Tickets will be on sale at the door. During the morning and afternoon sessions refreshments (tea/coffee, ice creams and soft drinks) will be available to purchase from our students and helpers.

Please come along and support your son or daughter in what is always an enjoyable event.

Yours sincerely

Mr D Anthony

This shows the letter which was personalised for every parent. The same letter can be sent to every parent/guardian in the sport day database. It includes the school logo, name address and telephone number (as do all letter which are sent out from school). I have included this in my report so that you can see how parents were contacted to inform them about sports day. It helps the organisation because it can be reused every year which makes it very efficient. Only the date and perhaps the times will need changing next year.

## Dealing with students who didn't hand in the Consent form on time

I kept a record of every student who handed in their consent form on time using this simple to use form:


I created a simple way to show a list of who didn't hand in their consent form on time.


When the list of those students who didn't hand in their consent form on time was produced it was important that their parents were contacted to remind them about it. I created a personalised letter just to the parents of those students concerned.


## Lists of students competing in a specific event

The organiser wanted to be able to produce lists of all students who were competing in a specific event. These lists would be needed at sports day to check the competitors were ready at the start of the event.


This shows the list with the heading and event name at the top. I included the other events that competitors were in as well as it might be helpful on the day.

It helps the organisation because several lists can be printed out if they are needed and it can be reused every year which makes it very efficient.

A list of students in a specific house and specific year group showing the event(s) they are competing in

| AQA School |  |  |  |  | o that a user just 'Students in a use and Year it immediately the school house group before at list of students vents. <br> efficient as it just click and then house and year it. It could be ext year if needed. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Students competing for a specific House in a specific Year group |  |  |  |  | AQA School |
| School house E | Ennis <br> First name <br> Tania <br> Alexandra | Last name <br> Johnson <br> Smith | Year group Y9 <br> Event entered 1 <br> Y9 Girls 800 m <br> Y9 Girls Discus | Event entered 2 <br> Y9 Girls 1500m <br> Y9 Girls Shot put | Event entered 3 |
|  |  |  |  |  | Page 1 of |

This shows the list with the heading at the top. The school house and year group are also near the top of the list which showed all the events that competitors were in.

It helps the organisation of sports day because several lists can be printed out for each head of house if they are needed. The list can be reused every year which makes it very efficient.

## Conclusion

When solving the problem given to me by the organiser, I found that my solutions were effective up to a point.
Some aspects of the project management problem, like the letters, were created in the best way possible. The letters provided sufficient information about Sports day for the parents. The online form also provided the information for the organiser that was needed (ie student names, houses, year groups and events students were entered for). Later I updated which students had handed in consent forms and which students had not.
I had also created the model in a very effective way as I had provided the organiser with several scenarios. This allowed the organiser to see all the different ways I had tried out and how I got to the final solution and why I thought that was the most suitable one. In addition, the reports were also effective as they provided the organiser with all the details needed and they were the best way of showing the results of the selection. I had also planned the reports in a professional and consistent way and used suitable colours. Although I reached a solution which I thought was suitable there were some places in this project management problem where I think I could have done a better job. For example the online data capture form. When I collected the results I found there were some parts where I hadn't left enough space like the street. In the evidence I have provided in the previous stages of this report, the street space was too small to be filled in by everyone. This was partly a planning error which I could have improved.

## Recommendations

As I found there were some problems when I was solving the problem I was given. I have thought of some recommendations for the next time anyone carries out a project management problem similar to this one.
The main problem I faced was producing the online form. The next time I could add enough spaces or boxes so the person filling in the form would know how many digits or letters to add. This way I think that fewer problems would occur. I could also restrict the drop down field to just the list I wanted on the database input form. I could also add the school logo at the top.
When I was creating the students input form I realised that it would have been a lot quicker to fill in and more accurate if I had a way of choosing the events that competitors were entered in. I thought this could be done by including another table with a list of all the events and a code next to each one. Then it would just be a simple matter of typing in one code which would reduce typing errors and be quick and easy to do.
I also went through a problem when I was creating my reports for the Specific events. If I typed in an event incorrectly then it showed no students because of my mistake, so entering a code would also make this more efficient. There was another problem with this report, when I put the field that the report was about in the header it wouldn't always show the event that I had chosen. I would need to find a way to do that automatically in future as well. In future it would be helpful to add buttons to the switchboard which would run the two letters as well.

## 2g Evaluate my own work

## MILESTONE: Modelling the costs of running the Sports day data

I used Excel to create a spreadsheet. In this spreadsheet I created a model of how the costs of Sports day would work out and what the final cost for the day could be.

First, I entered all the data and the different formulae and then I thought of different scenarios. These helped me think of different ways that I could manage all the costs and also think of the most suitable and appropriate one to take forward.

## MILESTONE: Gather information about the students who are involved in the sports day

Create an online data capture form.
I created the online form in Word. As I had already planned how I would set it out, it was straight forward. I created the form with a yellow background so it looked professional. I made it efficient by adding drop down fields for the house, year group and parent's title (as all these had a limited list of things they could be).
After I had received the responses, I started to store all the details on the database. I started by creating the tables. I separated the data into two tables - students and parents. This reduced the chance of redundant data (eg address and phone number). I typed in all the different field names and made sure they all had all the suitable data types. I also made changes to the field sizes as I felt the standard field size was too big and used too much space. I did the same for both tables; the students and the parents/guardians.
I then created the relationship between the two tables by linking the parent ID to the parent code. I needed a way to link the information in both tables and creating a relationship was the only option.

Before I could input the details, I created a professional way of entering the data. For this I decided to create a form for each table. I used similar drop down fields to match those in the online form which was efficient and saved me time.

## MILESTONE: Contact parents/guardians to inform them of specific details about sports day

I decided to create a letter to send to the parents informing them about the school sports day. I created the letter to send to all the parents on a word processor. In the letter I included all the essential information that was needed by the parents. I included details such as when sports day would take place, what time the events were, etc.

I made the letter into a mail merge letter as I needed to send the letter to a lot of parents. By creating a mail merge letter, the parents' name and address would already be printed as I used fields from the database table. This would save me time in typing out the different names and addresses and also make the letter seem more personal.
I had also considered another way of sending the information to the parents. Another option was to send it as an email. It would have been good to have personalised these. Although this was another idea, I was worried that the email wouldn't reach the parents. This could be because the parents do not read their emails or the email addresses are not accurate or up to date. Alternatively the reason could be that the parents do not
check their e-mails very often. Also an e-mail is less important than a formal letter. It was for these reasons that I thought using a mail merge letter was the best option and the best way of informing the parents.

## MILESTONE: Record which students have handed in a consent form for sports day

I had to record the details I had collected about the students who had not handed in the consent form. I added an extra field, which was a tick box (for Yes/No) so it was very easy to change. First I entered the details in the database (in the students table) and then went on to create a query. I chose a simple query because it was just used for this purpose and so a simple query was quicker and more efficient to use. From this query I found all the students who had not handed in the consent form and produced a list. I then wanted to present these details in a professional way. I created a report in Access. I based the report on the query. At the end of this, I had a list of all the students who had not handed in the form and I could now present these results to the organiser.

I now had to find a way of informing the parents that their child had not handed in the consent form and that they need to do this immediately and also what events they were entered for at sports day.

I decided to create a letter in a Word Processor. In this I included all the information that the parents needed which included; information that their child had not handed in the form, the new deadline that the students must hand it in by and the events the students were entered for. I decided to send the letters as a mail merge because they were just for those parents whose son/daughter was concerned, so it wasn't many. A mail merge letter would be easier to produce as I would not have to type all the individual addresses and names. This would also make the letters also look more professional and personal. In the end, the letters were typed, and the parents' addresses were at the top of the letter due to the mail merge.

## MILESTONE: Generate lists of students who are competing in a specific event at sports day

The organiser needed a list of all the students competing in a specific event at sports day. I had collected this information from the students before in the previous stages. First, I needed to create a query. This query would give me all the students who are competing in a specific event. In the query, I decided to add the fields that were needed (the student's name, house, year group, and what events they are in). I also wanted to produce an efficient query which could be used in the future. For this I used a parameter query so I did not have to create another query for different criteria. The criterion was repeated under each event field, so it was effective.

After the query was created, although I had the list of the students that could be handed in to the organiser I wanted to present the results in a more professional way. I decided to create a report in Access. I based the report on the query so I would have the same results. I used colour to create the report header and added the school name and logo to make it look more professional. After the report was created I handed the results into the organiser.

## MILESTONE: Generate lists of students who are in a specific house and specific year group showing the event(s) they are competing in

I had to create a list of the students who are in a specific house and specific year group. I went about it in the same way as I had done with the other list.

First, I created a query. This query would give me all the students who are in a specific house and specific year group. In the query, I decided to add the fields that were needed (the student's name, house, year group, and what events they are in). I also wanted to produce an efficient query which could be used in the future. For this I used a parameter query so I did not have to create another query for different criteria. After the query was created, I then decided to create a report in Access.

I based the report on the query so I would have the same results. I used colour to create the report header and added the school name and logo to make it look more professional. I grouped the house and year group at the top of the report as it was what the report was for and it made it appear more efficient. After the report was created I handed in the results into the organiser.

I had also considered the idea of creating the list in a word processor or DTP, where I could merge the results of the query over to the document. I could then have made the list look professional. But I decided not to go for that idea, as there was a risk that I may not merge the results accurately. Also I could create a list in Access which had the option of basing the report on a query so I would not be wasting any time. For these reasons, I decided to create the report on Access as it was more efficient.

## MILESTONE: make my system easy to use

I named all the forms, queries and reports with sensible names so they were easy to recognise. I used a switchboard to help the organiser to quickly (click a button) enter new details or view/print a selection report. I could have added buttons to also print out the letters to parents as well. This would have made the system even easier to use.

## 2h Evaluate others' use of ICT (collaboration)

Here I have described the impact that working with others could have on the ICT solution that I have produced.

## MILESTONES

I think working with others would have helped in the way I created my milestones. Firstly, I didn't know what milestones I had to include when I read the Candidate Booklet. If I had worked with others, we would have put all our ideas together and come up with a solution. I also feared that I would miss a milestone out, or maybe I have included the wrong milestone or worded the milestone wrong. If I had worked with others then we could have worked together to brainstorm all the different milestones and in this way my work could have been more accurate.
There were also certain milestones in which I didn't exactly know what to do to plan for them. I was unsure how long particular steps in producing solutions to milestones might take and it would have been useful to share our ideas and thoughts .I also wasn't certain which order I should tackle the milestones efficiently. By working with others they would have shared their ideas and this would have helped me in producing better milestones in the correct order which would work.

## RISK

I think working with others in producing the risks would have helped in creating the solution that I produced. We might have thought about a wider range of risks which could happen and then I could have chosen three risks which were specific to the way in which I work or might have affected me.

If I had worked with others, we could have discussed various ways in which we could prevent the risks from happening. This would have been good as everyone has different experiences and their different approaches to preventing something from happening would have been helpful. It would also have been reassuring to know that my views on how to prevent something from happening were shared by other students.

## COLLECTING INFORMATION

In collecting information I had to create an online data capture form. After I had completed the form and collected the replies, I could have found that I had missed out valuable and important fields that were needed. If I did not realise that until later on, then in the next stages when it came to typing out letters, they wouldn't have worked. By working with others I would have been able to check that I had not missed out anything important.

By working with others it would have also improved the quality of the online data capture form. My online data capture form was simple and lacked some important qualities an online form should have. We could have brainstormed different ideas on how to make it more professional and easier to fill in. I could have also ensured that there was enough space for each field by getting other people's ideas and trialling it with them.

