# Principal Examiner Feedback

# Summer 2012

Applied GCE 6957

Unit 7 – Using Database Software

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**General Comments**

It was pleasing to see that the majority of candidates took into account the clear instructions in the examination paper with regards to the ordering of evidence and the printouts required.  It is understandable that some candidates may need to produce more than the minimum prints required in activity 3, but the best advice, as shown by many candidates, is to keep to the task specified and keep it simple.

It is apparent that a lot of candidates are taking on board comments made in previous reports with regards to marks that are lost because of poor screen shots, with the majority ensuring screen shots were clear. However, there are still a number of candidates who either crop screen shots too much – missing off names of tables, numbers of records on datasheets, truncating macro screenshots etc, and printing them out too small or with poor print quality (possibly photocopied), making the evidence illegible.

It is worthwhile reiterating here what is deemed acceptable with regards to help and assistance before and during the exam period. The teacher's role is to prepare the candidates for the exam by developing the **technical skills** necessary to create a database at this level.  The scenario is released prior to the examination. Teachers are allowed and encouraged to discuss with their students possible answers to the questions.  The scenario includes very clear tasks in order to aid this process. At this point, the teacher does not know the final construction of the dataset, so that any datasets they give to their students for practice can only be guesswork.

**Should the teacher become aware of what is in the live data files, they should no longer discuss the examination in context. Teachers may discuss with students aspects of databases in general terms.**

For example, teachers may revise the generation of primary keys, as long as the examination data files are not used as an example or discussed in any way. Therefore, questions raised about the data file prior to the examination going live would appear to suggest that this may not be happening.  The data file(s) in any examination contain data that the candidates have to accept as being presented intentionally in this format. Candidates need to decide how to cope with any anomalies that may be present. This is true of any 'live' situation in the real world where they would have to make their own decisions about how to proceed.

**Administration**

On the whole administration of the examination was sound in this series. However, there are still some candidates losing one or two marks for Standard Ways of Working by not assembling the tasks in the correct order or, where they are in the correct order, attaching them to the answer booklet incorrectly.  When the examiner opens the booklet, they should be greeted with activity 1 facing toward them ready to mark; this is not always the case, i.e. when the examiner opens the booklet they are faced with the back of the activity 6. Very few candidates do not ensure their name, centre number etc is present on every printout, although it does still occur.

**Activity 1**

It was pleasing to see the majority of candidates attempting all sections of this activity.

The responses to the A section were varied. A good number of candidates did manage to access all three marks, but there were some who did not. In some cases this was because candidates used more than one cross for the same item, rendering the answer for that particular aspect invalid.

Most attempted the B section too, with the majority realising that a **presence check** was what was required. However, other candidates described the use of a validation rule or other techniques, which was not what the question asked. Presence check was the only acceptable answer in this section.

A number of candidates did manage to get both marks available in this section. However, some candidates did not access marks, as the correct response was a **parameter query** with the **identification** of the **criteria** that could be used or the use of a **combo/list box** and what **could be selected** from them. A large number of candidates managed one of the marks.

**Activity 2**

On the whole, this question was well answered and it was particularly pleasing to see the majority of candidates had read the examination paper carefully, only providing the evidence requested. However, there were some who did not, still submitting far too much evidence or evidence in the incorrect order.

Candidates tended to do very well in the A section, with many achieving all nine marks. However, it was sad to see that some candidates are still missing the relationship marks, purely because they do not ensure referential integrity is enforced.

Most candidates did achieve the first B mark for the correct primary keys and quite a lot achieved the second for the composite key. However, in some instances some introduced a new primary key; this is not expected and candidates should use the data they are provided with. Other candidates did not include a key at all. Whilst many candidates did achieve the third mark for including at least one sensible number and two sensible date/time fields, it was surprising how many did not.

The majority of candidates did identify the evidence required for each of the four different validation techniques specified, with some very good evidence taking into account the scenario. It was nice to see the majority took into account the exam paper requirements and they did name each type as requested. There were two things being tested in this section of Activity 2 – the ability to recognise different types of validation and the ability to apply them sensibly.

With regards to a format check, examiners were looking for a suitable input mask. Input masks on dates are not acceptable in any shape or form. Input masks on fields that are generated are also not acceptable.

It was very nice to see candidates bringing forward their data analysis of the scenario for the range check. The scenario included a statement that could clearly be interpreted as a range check: "*each location has a difficulty level between 1 and 5*, and most candidates did use this.

It was clear to see that candidates did understand the purpose of a presence check and most could apply it to an appropriate field. However, some chose to include it on primary keys which were deemed inappropriate as, by default, primary keys have to be present.

Candidates also proved they could use combo boxes etc correctly with many including these as their form of a list check. However, quite a few omitted to provide evidence that they had set the limit to list option to "yes". The mark for this form of validation relied on limit to list being set to 'yes'. It is worth noting that examiners were no expecting a validation rule as evidence of this.

With regards to section D candidates generally did very well. Most candidates ensured that the record count could be seen, although there are

still some who crop it off. Examiners needed to see this to be able to award the marks in this section.


**Activity 3**


All candidates attempted this activity which was pleasing to see. On the whole, it would appear the centres that have taken the time to use the Principal Examiner examination solutions from the website as revision did well, as these really do show the type and quantity of evidence expected.

However, it is still worth noting that activity 3 was really all about the **design view** aspects of building the forms and generating the processes. Candidates were specifically told what screen shots should be in design view and what screenshots should be in form view.  Quite a few candidates included far too much evidence that was not really of any use, for example the system working and what happens when they complete the forms etc.

Activity 4 was designed to test the system and show it working, so candidates did not need to include this information in Activity 3. This was all about building the system. The majority of marks in this section were awarded for the design view aspects.

At other times candidates did not include enough evidence.


Section A required the candidates to create a registration form.  The examination paper clearly stated which fields to include and it was pleasing to see that the majority of candidates took this on board and ensured they were present. However, some did not.

Most candidates attempted (ii) and most ensured that the examiner could clearly see how the RunnerID was being generated. Any suitable method for generating it was accepted, so long as it was clear to see. Sadly, this was not always the case, with some candidates truncating evidence on the form itself or failing to include a screenshot of the query used etc.  Examiners needed to see it in its entirety to award the mark.

Most candidates attempted (iii) and did very well when it came to generating the Age.  This has been in a previous examination paper, so what was expected could clearly be seen from that mark scheme. Again, any method that would generate the correct result was accepted, proving the examiner could see it in its entirety. It was really nice to see just how many different methods were adopted. The rounding issue with regards to some of the simpler forms of determining the age were ignored as they were previously when this aspect appeared in the examination paper.

With regards to (iv) and the generation of AgeCategory, there were some very good methods used on the form itself and very good methods involving either queries or code.  Where marks were lost here it tended to be because:

   a) Candidates did not read the exam paper properly and used the wrong criteria (e.g. Senior > 60 as opposed to >=60 etc)

b) Candidates truncated the evidence meaning the full solution could not be seen
c) If queries had been used they were not shown.

Examiners can only award the marks if they can see the solution.

With regards to (v) and (vi), both were well documented. Some chose to carry this out via default values, some chose to use SetValue, some simply chose to enter them manually. Any method of ensuring they were set correctly was acceptable.

It was pleasing to see that many candidates could customise a form well. This included the use of a good title customising the layout to include field widths suitable for the data in them, appropriate field labels, appropriate field order etc.

Most candidates achieved some of the marks in the B section and the evidence provided is improving with every examination. Many candidates used macros and queries and many used code. Any method was acceptable, so long as the evidence could be clearly seen by the examiner. Where marks were lost in this section it tended to be because candidates truncated the macro evidence. The rows can be made deeper in early versions of Access, and the columns wider. Candidates should really be encouraged to use these facilities. Examiners needed to be able to see the **conditions, actions** and **arguments** clearly and in full. Many candidates did not show the argument column, choosing to use the comments column to tell the examiner what they had done, or annotating it with comments. Comments are not hard evidence of macros that work. Others chose not to show the macros at all and presented evidence of the system apparently working. Examiners were not looking to see screenshots of the system in action here, as that comes into Activity 4. Other candidates forgot to include clear screenshots of the queries they had used where relevant. Marks could not be awarded for saving if a query was used without showing the query in full (no truncated fields) and evidence of it being used in the macro was provided. It was very pleasing to see just how many different approaches were adopted. All that worked and were fully evidenced were awarded the marks available.

Section C was well attempted, with good evidence put forward by candidates. Where marks were not accessed, it was for the same reasons encountered in the A section, i.e. truncation of calculations and not showing how things were generated. It was good to see how many different methods of generating the RunID were used, with very creative ways of linking to the LocationID with regards to (ii). However, (iii) was not so well done. Quite a number of candidates failed to recognise that the question asked for 7 days to be added to the last run date for that particular location. There were still marks available though for adding seven days to any date/location.

Section D was generally well done by candidates. Where the mark was not accessed, this was due to candidates failing to include full evidence of the adopted save method.

Section E was well done. This is the first time a form with sub form has been included for a number of series, so it was nice to see candidates were aware of what they are.

Section F was either not attempted or generally well done. There was a variety of methods seen and all that would work and were evidenced fully were awarded the available marks.

On the whole, there was some excellent evidence put forward for this activity and the evidence is getting better each series, with candidates really getting to grips with the type of evidence we require. If we see it fully and it would work, candidates are awarded marks.

## Activity 4

Overall, the candidates did well on this activity with regards to sections A and B. These were straightforward marks i.e. copying data correctly and the testing of a presence check. However, some candidates are still losing marks because a) they fail to copy the data correctly including capital letters, b) the record saved does not match the data that was one the form, c) the presence check error message covers the field where the data is missing etc.

Section C was not so well evidenced. Most did have NE0001 on the form correctly, but the runID and/or the run date was incorrect. Most did manage to achieve the record being stored in the table. If it matched what they had on their form and was clearly saved in the table, that mark was awarded.

Section D was not so well evidenced. Quite a number of candidates had failed to determine the sub form should really be showing many records at a time with regards to the runners. The first mark in this section was not available if this was not so. This did not affect the other two marks. If there was clear evidence of the results being saved and the records being updated where necessary, then the marks were awarded. When sub forms appear in an examination paper, examiners are looking for them to show many records at a time.

## Activity 5

Most candidates who had managed their time well were able to attempt and complete this activity.

A number of candidates were able to create the query which found the relevant runs for the particular date; however, some chose to use a parameter query. That was not what was asked for in the examination paper and candidates are reminded to read the question carefully to ascertain what is required. At times, candidates used AND as opposed to OR when it came to the locations.

It was nice to see the evidence put forward for the B section. It is clear teachers are using the past examples with their students and it has clearly had a beneficial effect in this activity. In quite a number of cases all 8 marks were achieved in this section. Where any were not accessed, it was

generally the result of candidates putting the title in the report header as opposed to the page header. If the examination paper asks for a 'suitable title for every page that would print', only the page header is suitable. The report header only prints on the **first page**. The page header prints on **all** pages.

In other instances too many levels of grouping were applied and the Location and Run Date were split. One level of grouping was all that was required and examiners expected to see both of those fields together. Some candidates did not put the labels in the header and left them in the page header, which was not appropriate. The calculations were very well evidenced, with the majority of candidates achieving all three marks.

It was pleasing to see that candidates did make a good attempt at formatting the report. However, some did not check their data carefully enough for **presentation,** i.e. checking for truncation of labels or fields etc. If the C section mark was not awarded, then this tended to be the reason why.

**Activity 6**

It was good to see that the majority of candidates had taken note of what was asked of them in the examination paper and carefully ensured their evaluation reflected this with some excellent, well-planned evaluations, raising some very good points about future functionality. However, others still see it as an opportunity to discuss how well they have completed the examination questions or to provide a commentary of what they did to build it.

To reiterate, in the first part of the evaluation, candidates should have outlined how well their database carried out the tasks from the scenario. In the second part, the candidates should have discussed further functionality. Teachers should stress to candidates that examiners are not looking to see screen shots of how candidates have built aspects, as this is shown in Activity 3. Time was not well-spent by candidates who provided this.

For example

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**Mark Band 1**

Part A
I did not get all of activity 3 done because I could not do the save bit. I tried and tried but could not get it to work. I did do well in activity 1 and 2 I think because I managed to get the relationships and I think I was good at the validation.

*(In this example, the candidate has outlined their own performance, rather than evaluating the database as required).*

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Part B
To make the database better then I would make sure the save bit for the runner was done properly. I would also make sure that the age category got done properly as Tracy has to type it in herself. I would work faster so that I could finish all of the activities.

*(In this example, the candidate has simply highlighted what the candidate should have done.)*

**Mark Band 2**

Part A
I have a registration form and Tracy can use this to fill in their details.  The RunnerID is generated for them automatically.  The form has a save button and when that is clicked it checks to see that the required details are there, if they are, it saves them straight into the member table. **So I have met this requirement and I do think it makes it a bit easier for Tracy.**

*(This response is very descriptive and not really evaluative, with the exception of the text highlighted in bold).*

Part B
I think a main menu is needed because there is no way to navigate at the minute and Tracy would need to. I also think there should be edit and delete facilities as they are not there at the minute. More validation could be used too so that less mistakes would be made. There should also be a log in facility so that only Tracy could use the system.

*(In this response, the candidate has discussed improvements, but in the context of overall, general improvements).*

**Mark Band 3**

Part A
There was a need for a registration form.  I wanted this to be very easy for Tracy to use. **I made sure she knew what she needed to type in because I clearly told her on the form and included red asterisks.  I also locked and disabled the generated fields.** The Age is automatically calculated for Tracy **which is great because there will not be mistakes because of her working it out incorrectly. The age will always be accurate**. It also leads on to the Age Category which is also automatically done for Tracy. As soon as the Age is determined the Age Category is too. **This would really save a lot of time for Tracy. I tried it myself it took me 45 second to work out the age and age category manually. It took less than a second using my form. I am sure Tracy will be pleased with this aspect of my prototype. However it is not perfect and I will talk about this later.**

*(This is fully evaluative. The candidate has demonstrated their evaluation of what they have done, with regards to how it makes the system easier to use for the user(s). Information is not repeated from Activity 3. As demonstrated here, strong candidates identify the weaknesses in the prototype and can take them forward into the second section where they have to make recommendations for further functionality).*

Part B
Whist I do think the prototype is good and would save Tracy a lot of time and effort it is not perfect.

I do not think the Age Category is as good as it can be for a number of reasons. The way it is at the minute the Age Category would never get changed so, for example, if a runner joins when they are a junior they will never get to be an Adult etc. I don't think it is a good idea to store the age category at all really or if Tracy really did want it storing it would have been much better to generate the Age and then the Age Category when results were being added and the Age Category stored at that point. This would mean each result would have the correct age category meaning the results would be more accurate. It would be much better not to store it though as the Age and Age Category could be generated as and when needed from the RunnerDOB and RunDate fields. This would be more accurate and more effective in that no space would be needed to store the information. It would also make the PersonalBest more meaningful as could potential have a best for the different age categories they have been a part of and it would be more accurate if Tracy wanted to compare bests in different age categories.

*(Examiners are looking for candidates' identification with problems/issues with the prototype, and discussion of what the candidate thinks should have been done to extend the functionality. Examiners are also looking for sensible ideas with regards to the actual database in question for new functionality that is not present in the prototype. For example, in this database it could have been including an email address so that results could be emailed, or a mobile number to contact by text and so on. If candidates discuss reports etc, specific examples are required.*

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