Mark Scheme (Results)

Summer 2010

GCE Applied Information and Communication Technology

(6957/01) Unit 7 – Using Database Software

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.

- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.

- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.

- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.

- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.

- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.

- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.

- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Applied GCE Unit 7 - Mark Scheme				
Activity	**ANSWER**			POSS. MARK
Activity 1	Understanding the problem - Functional specification Note: processes are identified in the scenario Note: paper states: processes(4), inputs(4) and outputs (4)			
	Process must lead to input and output to award marks for input / output. If process is clear but without verb can award I/O marks			
	Note: Must be in a table to award marks			
	Process	Input	Output	
A1	<u>Check</u> login details/username and password	Login Name and password	New/ booking screen displayed or error message	1,1,1
A2	<u>Generate</u> or <u>Create</u> new Customer ID	Max Customer IDs	New customer ID (max +1)	1,1,1
A3	<u>Generate</u> or <u>Create</u> new Ticket Number	Max ticket Number	New Ticket Number (max +1)	1,1,1
A4	<u>Search for</u>/ <u>Find</u> seats not Booked/available seats	Performance date Matinee	Vacant seat details displayed	1,1,1
A5	<u>Check</u> if existing customer	Customer ID	Customer details or Error message	1,1,1
A6	<u>Calculate</u>/ <u>generate</u> cost of booking / discount	Seat Type Friend Status Base price Discount %	Cost displayed on form	1,1,1
A7	<u>Add/Append</u> new booking	Booking details: e.g.Ticket Number Customer ID Seat ID Performance ID Matinee Date of booking	Seat booked in the table	1,1,1
A8	<u>Add/Append</u> new Customer	Customer Details: e.g.Name, Address, Town, Post Code Card Number	Customer details in table	

Note: The "MAX" column header appears at top right of the table but has no values shown.

Applied GCE Unit 7 - Mark Scheme					POSS. MARK	MAX
Activity		ANSWER			POSS. MARK	MAX
			Friend Status Marketing			
A9		Print Tickets	Booking Date	Printed Tickets	1,1,1	
A10		Amend table data (any table but only award once)	E.g. Booking date, Friend status	Edited record stored	1,1,1	
				Max 12 Marks		12
				Total for Activity 1		12

Activity 2	a	Structure: Ticket data may be in a table called Booking No marks for tables from original files		
A1		Customer (table)	1	
A2		Booking (table) /Ticket (table) or both	1	
A3		Seat (table)	1	
A4		Performance (table)	1	
A5		1:M (based on Cust ID) Customer – Ticket / Booking	1	
A6		1:M Seat(based on Seat ID) – Ticket (note that this may be called Booking)	1	
A7		1:M Performance – Ticket / Booking (must have A4)	1	
				7
	b	Data Types		
B1		Evidence of correct primary keys e.g. Table Customer – Customer ID Table Booking/Ticket – Ticket Number (If there is a book additional booking table needs Booking ID as well) Table Seat – Seat ID Table Performance - Performance ID /Performance ID and Matinee (composite key)	1	
B2		Evidence of correct data types FriendStatus - Yes/No Marketing - Yes/No Restricted View - Yes/No Base Price - Currency Performance Date or booking date - Date/Time Matinee - Yes/No	1	
				2
	C	Validation (for tables from provided data)		
C1		Range check Any suitable range check	1	
C2		List check (Table Lookup) - PerformanceID in Booking table Not Ticket Number or Customer ID Combo boxes - must have Limit to list Validation rule acceptable	1	
C3		Presence check Any suitable field	1	

		Do NOT accept a key field		
C4		**Picture/format check** One of: Credit Card - hyphenated Telephone - space after 5 numbers Postcode e.g.LL09\ 0LL or LL0\ 0LL Anything suitable (not generated field)	1	
				4
	d	**Number of Records (allow if correct even if structure incorrect)**		
D1		Customer (93)	1	
D2		Ticket (960) / Booking (416)	1	
D3		Seat (120)	1	
D4		Performance (8) or (10)	1	
				4
		Total marks for Activity 2		17

Activity 3				
	a	Accessing the system. Must be in DESIGN view		
A1	(i)	Query to search for an existing customer Query including parameter	1	
A2	(ii)	Customer ID must be +1 or not duplicated	1	
				2
	b	Add New Customer in FORM view		
B1		Form clearly labelled e.g. Add New Customer Interface	1	
B2		Field labels and text boxes fit for purpose – spaces included when necessary – data not truncated	1	
B3		Button created to add new customer / record	1	
B4		Button created to save/next/exit	1	
				Max 3
	c	Booking interface(s) in DESIGN view		
C1	(i)	Form clearly labelled e.g. Find Performance	1	
C2	(ii)	Suitable query to search for all seats for a particular performance	1	
C3		Query searches for empty seats (Search on either Customer ID=null or Booking Date=null)	1	
				3
	d	Any view allowed dealing with one record at a time. Interface allows the user to:		
D1		Enter/select Matinee (not 0/1)	1	
D2		Enter/select Customer ID/Customer Name	1	
D3		Friend Yes/No (on the form but not selected)	1	
D4		Enter/select Date of production	1	
D5		Enter/Select Seat ID	1	
D6		Base price	1	
D7		Discount	1	
D8		Total price	1	
				8
	e	Login screen (must be a form)		
E1		Screen Print in Design View	1	
E2		Name of System – Bookings or Form clearly labelled e.g. Login screen	1	
E3		UserID validated	1	

E4		Password validated	1	
E5		Validation annotated to explain	1	
E6		Password not viewable	1	
				6
		Total marks for Activity 3		22

Activity 4		Testing		
A1	(i)	On form	1	
A2		8 records Seats F1, F10, G1, G10, H1, H10, I1, I10	1	
A3	(ii)	Customer ID 1029/Amy Fleming, 08/06/2010, Friend on form	1	
A4		Ticket Price = £4.50	1	
A5	(iii)	Design view of query that includes sensible criteria for the performance date and time selected/entered	1	
A6		Design view of query that includes sensible criteria for to find free seats e.g. Customer ID="", Booking date =""	1	
				6
B1		Correct details on form (none truncated) Mr Angus Maughan The Turrett Lambton Fenshire LB1 3JO Phone 04577731909 Friend No Marketing No	1	
B2		Customer details added to table and correct (as on form)	1	
B3		Customer ID > than max: >1249	1	
				3
		Must be done via the form created (own data)		
C1		Error message for UserID	1	
C2		Error message for Password	1	
C3		System logs on (accept explanation)	1	
		Must be done via the form created (own data)		
D1		Example of a successful booking	1	
D2		Message or explanation	1	
D3		Successful booking has been stored in the booking table	1	
		Must be done via the form created (own data)		
		Must be done via the form created (own data)		
E1		Example of an unsuccessful booking	1	
E2		Error message or similar	1	
E3		Unsuccessful booking has not been stored in the booking table (accept explanation)	1	

				9
		Total marks for Activity 4		18

Activity 5		Producing Tickets		
		Do NOT mark if no report in design view		
A1		Report in Design view (award no marks if not in design view)	1	
A2		4 to a page	1	
A3		Name of Production on tickets	1	
A4		Date of performance on tickets	1	
A5		The word Matinee on ticket BKR084 (An indication that ticket 84 is a matinee) - do not award if matinee on every one unless only 78/79 and 84 printed	1	
A6		Seat ID on tickets	1	
A7		Seat Type on tickets	1	
A8		Ticket/Booking Number on tickets	1	Max 7
		Award A9 – A11 only if correct tickets are printed		
A9		Some tickets produced for correct date at least 2 of BKR 078 – 084	1	
A10		Correct Number of tickets produced (7) (2 Pages) (BKR 078 – 084)	1	
A11		Correct price paid on tickets	1	3
		Total marks for Activity 5		
				Max 10

Ticket Number	Performance Date	Matinee	Seat ID	Seat type	Base price	Friend	Price paid (on ticket)
BKR0078	07/06/2010	1	A4	FS	£12	1	**£10.80**
BKR0079	07/06/2010	1	A5	FS	£12	1	**£10.80**
BKR0080	09/06/2010	0	E3	ST	£8	0	**£8.00**
BKR0081	09/06/2010	0	E4	ST	£8	0	**£8.00**
BKR0082	09/06/2010	0	E5	ST	£8	0	**£8.00**
BKR0083	09/06/2010	0	E6	ST	£8	0	**£8.00**
BKR0084	10/06/2010	1	A5	FS	£12	1	**£10.80**

Activity 6	Evaluation		
Note: Place student in correct mark band based on content. QWC adjustment can only reduce mark within band. This must be based on the expectation within the mark band. Marks cannot be added and the adjustment cannot put the mark in a different mark band.
	Indicative content		
	How the database is fit-for-purpose and the criteria you have used to reach this conclusion (see requirements in scenario) **Evaluation of fitness for purpose based on Maggie Coyle's requirements:** • Secure –username and password • Robust o Validation on forms reduces errors • Intuitive and simple to use o Users aids ▪ Buttons ▪ Drop down boxes ▪ Messages ▪ Instructions ▪ Meaningful titles and labels • Shows which seats are available • Ease of booking / making a booking • Able to add customers – database produces customer ID • Able to identify customers for marketing (who might be interested when a similar production is scheduled) • Use of calculations eg Able to apply discount • Be able to print booked tickets		
	How functionality and the HCI of your database might be improved For mark band 1 and 2 improvements could be based on what has not been done or only partly achieved. e.g. • Improved labelling of entry form fields • Improved appearance of field lengths on forms and reports **For mark band 3 should include some improvements beyond the initial brief.** e.g • Could have produced financial reports • Additional performances – can only be used for one production at present • Ability to buy more than one ticket at a time • Can cope with more than username and password / changing passwords		

Level	Mark	Descriptor		
0	0	No rewardable material.		
Level 1	1-3	The candidates will make basic comments on what they did and how this produced a solution. Some screenshots may be provided as evidence. Comments on possible improvements will be made but unsupported and at a basic level. Descriptive rather than evaluative. The candidate uses everyday language and the response lacks clarity and organisation. Spelling, punctuation and the rules of grammar are used with limited accuracy.		
Level 2	4-6	Addresses both evaluation and identification of future improvements. Gives subjective, but realistic, comments about improvements but these are not always well supported. Evaluative comments about the database (not what they did) with weaknesses as well as strengths noted. The candidate uses some terms and shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.		
Level 3	7-9	Addresses both evaluation and identification of future improvements in some depth. Future improvements will extend the original specification. (Technical solutions for suggested improvements are not necessary.) The candidate uses a range of appropriate terms and shows good focus and organisation. Spelling, punctuation and the rules of grammar used with considerable accuracy.		
SWW1		Administration details on each page	1	
SWW2		Required printouts only assembled correctly	1	
		Total Marks for Standard ways of working		2
		Total marks for Paper		90