

Mark Scheme (Results)

Summer 2016

Pearson Edexcel GCE
in Applied ICT (6957)

Unit 7: Working with 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.

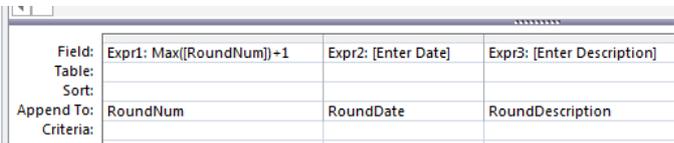
Applied GCE Unit 7 – Mark Scheme - June 2016 – Version 1 – QPEC

		ANSWER	POSS. MARK	MAX
Activity 1		Understanding the problem		
a)	1	Create vote record	1	
	2	Highest/new round (number)	1	
	3	Highest/new round number, Act ID	1	
				(3)
b)		DFD		
		<p>Clearly shows inputs, processes, output and storage.</p> <p>This helps to identify forms, tables, queries and reports that are required.</p> <p>Makes the system easier to see and understand compared to written descriptions.</p> <p>Helps to show process triggers and the resulting actions.</p> <p>Helps to plan macros or code.</p> <p>Useful for discussion with client as helps client see if you understand the system</p> <p>Helps user see that you taking into account their needs.</p>		
				(4)
		Total for Activity 1		7

Activity 2		Structure		
a)	A1	Establishment (table)	1	
	A2	Teacher (table)	1	
	A3	Act (table)	1	
	A4	Performer (table)	1	
	A5	Round (table)	1	
	A6	Votes (table)	1	
	A7	1:M Establishment - Teacher (A1-A2)	1	
	A8	1:M Establishment - Act (A1-A3) or Teacher-Act (A2-A3)	1	
	A9	1:M Act - Performer (A3-A4)	1	
	A10	1:M Act - Votes (A3-A6)	1	
	A11	1:M Round - Votes (A5-A6)	1	
				(11)
b)		Data Types		
	B1	Evidence of correct primary keys Any 3 of: Table Establishment - EstablishmentID Table Teacher - TeacherID Table Act - ActID Table Performer - PerformerID Table Round - RoundNum	1	
	B2	Table Votes - RoundNum, ActID as composite key	1	
	B3	Evidence of correct data types RoundDate - Date/Time RoundVotes - Number EstablishmentTelephone - Text	1	
				(3)

c)	C1	Validation rule in TeacherEmail to only allow valid email address e.g. Like "*?@?*.?*"	1	
				(1)
d)	D1	Any suitable presence check from Teacher TeacherEmail Any foreign key Anything sensible Not primary keys	1	
				(1)
e)	E1	Foreign key (can be part of the composite key). MUST have: limit to list yes One of: Teacher table – EstablishmentID Act table – EstablishmentID Performer table – ActID Vote table – RoundNum or ActID	1	
f)				(1)
	F1	Establishment 15	1	
	F2	Teacher – 22	1	
	F3	Act – 115	1	
	F4	Performer – 49	1	
	F5	Round – 2	1	
	F6	Votes – 145	1	
				(6)
		Total marks for Activity 2		23

Activity 3				
a)		New Teacher form		
(i)	A1	Fields include (from any view) Teacher TeacherEmail EstablishmentID	1	
	A2	Establishment can be selected	1	
				(2)
(ii)	A3	TeacherID (must be seen in design view) Any formula/method that is correct = Max(TeacherID)+1 Or = DMax("TeacherID", "tblTeacher")+1 Or sorted into descending order then TeacherID+1 Or screen print of table in design view showing auto number field	1	
	A4	Must be sure leading zeros kept e.g. Screen print of TeacherID properties on form in design view showing format of 00000000 Format of 00000000 used in generation of key Screen print of TeacherID properties on table in design view showing format of 00000000	1	
				(2)
(iii)		Customisation (any view)		
	A5	Any one from: Suitable title Suitable labels Field widths Instructions Asterisks	1	
				(1)

b)		Saving teacher details		
	B1	Check to ensure at least two from: Teacher TeacherEmail EstablishmentID are present	1	
	B2	Teacher record saved All fields must be shown in Query in full and Query used in Macro or equivalent method that works.	1	
				(2)
c)		Creating a new Round and Adding votes		
(i)	C1	Menu created with suitably named button to add votes	1	
				(1)
(ii)		Append Round Should not use a new form. Screen print in Design view 		
	C2	Highest existing round number +1 would be automatically generated Or Screen print of table showing autonumber Or Any methods that work	1	
	C3	Parameter used to " Enter Date" Or Parameter used to "Enter Round Description"	1	

		Append Vote Records Should not use a new form																																					
		<table border="1"> <tr> <td>Field:</td> <td>Expr1: [Forms]![mnuMain]![currentRound]+1</td> <td>ActID</td> <td>RoundVotes</td> <td>RoundNum</td> </tr> <tr> <td>Table:</td> <td></td> <td>tblVotes</td> <td>tblVotes</td> <td>tblVotes</td> </tr> <tr> <td>Total:</td> <td>Group By</td> <td>Group By</td> <td>Group By</td> <td>Group By</td> </tr> <tr> <td>Sort:</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Append To:</td> <td>RoundNum</td> <td>ActID</td> <td></td> <td></td> </tr> <tr> <td>Criteria:</td> <td></td> <td>>=3</td> <td></td> <td>[Forms]![mnuMain]![currentRound]</td> </tr> <tr> <td>or:</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Field:	Expr1: [Forms]![mnuMain]![currentRound]+1	ActID	RoundVotes	RoundNum	Table:		tblVotes	tblVotes	tblVotes	Total:	Group By	Group By	Group By	Group By	Sort:					Append To:	RoundNum	ActID			Criteria:		>=3		[Forms]![mnuMain]![currentRound]	or:						
Field:	Expr1: [Forms]![mnuMain]![currentRound]+1	ActID	RoundVotes	RoundNum																																			
Table:		tblVotes	tblVotes	tblVotes																																			
Total:	Group By	Group By	Group By	Group By																																			
Sort:																																							
Append To:	RoundNum	ActID																																					
Criteria:		>=3		[Forms]![mnuMain]![currentRound]																																			
or:																																							
	C4	Highest round number generated (3)	1																																				
	C5	RoundVotes >=3 Round Votes>2	1																																				
	C6	Round number 2 automatically found	1																																				
				(5)																																			
		Add Votes Form																																					
iii)	C7	Does not have subform Or Ascending order of ActName	1																																				
	C8	Round number shown only once	1																																				
	C9	Correctly filters to round 3 automatically	1																																				
	C10	Total votes overall generated Eg =Sum([RoundVotes])	1																																				
				(4)																																			
iv)		Menu Button																																					
	C11	Round would be created	1																																				
		Only award one of C12, C13 if two buttons used																																					
	C12	Results would be created	1																																				
	C13	Results form would open	1																																				
				(3)																																			
		Total marks for Activity 3		20																																			

Activity 4	Testing																						
a)	Register Teacher form																						
A1	Details correct <table border="1"> <tr> <td>Teacher</td> <td>Sangeetha Rajan</td> </tr> <tr> <td>TeacherEmail</td> <td>SangeethaRajan@StCatherines.com</td> </tr> <tr> <td>Establishment</td> <td>1</td> </tr> </table>	Teacher	Sangeetha Rajan	TeacherEmail	SangeethaRajan@StCatherines.com	Establishment	1	1															
Teacher	Sangeetha Rajan																						
TeacherEmail	SangeethaRajan@StCatherines.com																						
Establishment	1																						
A2	Fields shown above correctly stored (must agree with data entered on form and have TeacherID at least 00000023)	1																					
			(2)																				
b)	Invalid email																						
B1	JonathanKepkeBarnmoundFE.com Suitable error message shown	1																					
			(1)																				
(c)	Not entered on a form																						
(i)	Parameter entered 22/04/2016 Or Parameter entered Final Round	1																					
			(1)																				
(ii)	C2 All records on form in tabular format	1																					
	C3 Not default datasheet	1																					
	C4 Correct artists (15 in total; only acts with votes shown) Check Beulah Harris Criminals Shock and Frankie Murray <table border="1"> <thead> <tr> <th>ActID</th> <th>ActName</th> </tr> </thead> <tbody> <tr> <td>39</td> <td>Beulah Harris</td> </tr> <tr> <td>110</td> <td>Criminals Shock</td> </tr> <tr> <td>67</td> <td>Frankie Murray</td> </tr> <tr> <td>44</td> <td>Herbert Myers</td> </tr> <tr> <td>79</td> <td>Jacob Walters</td> </tr> <tr> <td>31</td> <td>Lamar Harvey</td> </tr> <tr> <td>111</td> <td>Prize Hive</td> </tr> <tr> <td>37</td> <td>Ramiro Quinn</td> </tr> <tr> <td>108</td> <td>Tyrone Newton</td> </tr> </tbody> </table>	ActID	ActName	39	Beulah Harris	110	Criminals Shock	67	Frankie Murray	44	Herbert Myers	79	Jacob Walters	31	Lamar Harvey	111	Prize Hive	37	Ramiro Quinn	108	Tyrone Newton	1	
ActID	ActName																						
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79	Jacob Walters																						
31	Lamar Harvey																						
111	Prize Hive																						
37	Ramiro Quinn																						
108	Tyrone Newton																						

C5	Correct votes (19 in total; only acts with votes shown)	ActID	ActName	Votes	1	
		39	Beulah Harris	8		
		110	Criminals Shock	1		
		67	Frankie Murray	2		
		44	Herbert Myers	3		
		79	Jacob Walters	1		
		31	Lamar Harvey	1		
		111	Prize Hive	1		
		37	Ramiro Quinn	1		
		108	Tyrone Newton	1		
		C6	Round correctly stored			
C7	Votes correctly stored (check 5)			1		
					(6)	
	Total marks for Activity 4				10	

Activity 5 E.g. Producing Results Query

a)

eg

Return: 3

Field:	RoundNum	ActName	EstablishmentName	RoundVotes
Table:	tblVotes	tblAct	tblEstablishment	tblVotes
Sort:				Descending
Criteria:	3			

Or

Field:	RoundNum	ActName	EstablishmentName	RoundVotes
Table:	tblVotes	tblAct	tblEstablishment	tblVotes
Sort:				Descending
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:	3			8 Or 3 Or 2

Or

Field:	RoundNum	ActName	EstablishmentName	RoundVotes
Table:	tblVotes	tblAct	tblEstablishment	tblVotes
Sort:				Descending
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:	3			8
or:	3			3
	3			2

A1 1 for correct round

1

A2 1 for top three records

1

A3 1 if top three found automatically

1

(3)

b)		Report in design view		
		B1, B9, B10 evidence in report or design view Formulas must be seen for other marks, confirmed by results on report		

	Inter School Music <hr/> 2016 Competition	
<p>Our Congratulations Go To</p> <p>1</p> <p>From 2</p> <p>On Achieving</p> <p>3</p> <p>With</p> <p>4</p>		

B1	logo added correctly	1
B2	Title Correct (not in report header)	1
	<p>Placings</p> <p><code>=Max([RoundVotes])</code></p> <hr/> <p><code>=Min([RoundVotes])</code></p> <p>Then</p> <p><code>=If([RoundVotes]=[HighestVote],"First Place",If([RoundVotes]=[LowestVote],"Third Place","Second Place"</code></p>	
B3	First place or third place would display correctly	1
B4	Second place would display correctly	1
B5	Max and Min votes used rather than actual numbers	1
	Percentages of Votes	
	<p>Number of votes cast</p> <p><code>=DCount("[EstablishmentID"],"tblEstablishment")+4</code></p>	
B6	Number of establishments that votes generated (15)	1
B7	Judges votes added	1

		Percentage of Votes automatically determined		
		<u>=Format([RoundVotes]/[NumSchools]*100,"Fixed") & "% of the votes"</u> <u>=FormatPercent([RoundVotes]/[NoofVotes],1) & " of the votes"</u>		
	B8	Percentage generated (not using actual numbers)	1	
	B9	Displays with % sign	1	
	B10	Displays with 1 decimal place	1	
				(10)
(c)		Printed report		
	C1	Prints in landscape	1	
	C2	Only 3 certificates and all on separate pages	1	
	C3	Matches design given	1	
				(3)
		Total marks for Activity 5		16

Activity 6	Evaluation
<p>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.</p>	
<p>Indicative content</p>	
<p>Teacher registration Ensures email address is in valid format Ensures name and email address is present and gives clear error message so user knows what is wrong if they are not Logical layout of fields Drop down box for establishment TeacherID disabled TeacherID automatically generated User notified of successful save Asterisks for required data</p>	
<p>Managing rounds <i>How User Friendly</i></p>	
<p>One click then user enters date and description. Round number automatically generated. Round votes automatically generated. Form opens automatically, ActID and ActName disabled. Descending order of ActID or ActName to make it easy for input.</p>	
<p><i>Improvements</i> Could have defaulted all votes to 0 so that only those higher than 0 needs entering (may have this as being user friendly if they did that). Could show the top three automatically (sort after last entry, extra text boxes automatically filled). Could have used calendar control to pick dates from rather than having to enter. Could have validated the dates.</p>	
<p>Printing certificates Showed what layout the report would have Showed exactly what fields needed to be present Key guided to calculations required Did not need to think of how to approach task. Layout indicates what needs to be done and makes it clearer to see how to do it with the instructions given in the task.</p>	
<p>Further functionality Not suitable for next competition method of clearing the system. Would need to be amended so that suitable for all rounds not just final round. Auto number used for round is not suitable for future competitions.</p>	

Level	Mark	Descriptor
0	0	No rewardable material.
Level 1	1-4	<p>Description of what candidate did during tasks (possibly using screenshots)</p> <p>Description of what candidate did not manage to complete or what does not work.</p> <p>Evaluative comments limited.</p> <p>The candidate uses everyday language and the response lacks clarity and organisation. Spelling, punctuation and the rules of grammar are used with limited accuracy.</p>
Level 2	5-8	<p>Candidate may address some points</p> <p>Will be descriptive in places but mostly evaluative</p> <p>Good points made as to how the automation of adding votes was user friendly. Eg very little input etc.</p> <p>Some good points made for improvements but could be limited to aesthetics.</p> <p>Some good points given for why certificate design helped.</p> <p>The candidate uses some terms and shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.</p>
Level 3	9-12	<p>Will be mainly evaluative throughout.</p> <p>Good evaluative comments regarding automated process of adding votes.</p> <p>Improvements thoughtful eg calendar etc</p> <p>Good reasons given why design of report was helpful</p> <p>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.</p>

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