Mark Scheme (Results)

January 2011

GCE Applied ICT (6957/01)

Using Database Software

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Activity		ANSWER				POSS. MARK	MAX
		Applied GCE Unit 7 – Mark Scheme - Jan 2011					
Activity 1		Understanding the problem					
a		Process	Input	Output			
	A1	Generate/create total cost	Quantity of product Cost of product	Total cost		1	
	A2	Generate order number	Highest existing order number	"ORD" & highest existing order number +1		1	
	A3	Generate customer number	Highest existing CustomerID	Highest existing CustomerID +1		1	
	A4	Reduce/update stock levels	Current stock level Quantity of product ordered	New stock level		1	
		Process	Input	Generated	Output		4
b		Select customer	X				
	B1	Add order date		X		1	
	B2	Display message			X	1	
	B3	Add total cost of order		X		1	
	B4	Select product	X			1	
	B5	Add order number		X		1	
	B6	Add quantity of product	X			1	
							6
					Total for Activity 1		10

Activity 2		Structure		
a	A1	Customer (table)	1	
	A2	Order (table)	1	
	A3	Product (table)	1	
	A4	Supplier (table)	1	
	A5	1:M Customer – Order	1	
	A6	1:M Product – Order / if five table 1:M Product/Order Items	1	
	A7	1:M Supplier – Product	1	
				7
		Data Types		
b	B1	Evidence of correct primary keys Table Customer – CustomerID Table Order – Order Number Table Product – ProductID Table Supplier – SupplierID	1	
	B2	Evidence of correct data types in product/stock table Cost - Currency Number in stock – Number Re-order Level – Number Re-order Number – Number	1	
				2
c		**Validation**		
		Ignore any titles / accept in any order		
	C1	Any suitable format check (accept input mask on Order Number if it includes "ORD" and the inclusion of 3 digits eg "ORD"000 or >"ORD"000) (Note if using Autonumber +format check on Order Number for Activity 3)	1	
	C2	Any suitable range or validation rule eg Reorder Number between 3 and 20 Number ordered >=1	1	
	C3	Presence check – Has to be postcode	1	
	C4	List Check or Lookup (accept lookup on CustomerID, SupplierID or ProductID) limit to list yes List box by default is set to no edits (allow if cannot see all properties)	1	
		Note the same field can be used to show more than one of the above.		
				4

d			Solution 1	Solution 2	Solution 3			
	D1 *	Customer	246	236	236		1	
	D2	Order	252	230	252		1	
	D3	Product	15	15	15		1	
	D4	Supplier	4	4	4		1	
								4
			Total marks for Activity 2					17

*If Five Table check Order Items Table

Activity 3		Add Order Form – **Design view AND Form view**		
a(i)	A1	**Fields include (from any view)** CustomerID Order Date ProductID Number Ordered Cost	1	
	A2	Can select CustomerID	1	
	A3	Can select ProductID	1	
			3	
a(ii)	A4	Automation of the date One of: • New text box =Date() /=Now() • Default value in properties of Order Date =Date()/=Now()	1	
a(iii)	A5	Order Total correctly calculated =[Number Ordered]*[Cost]	1	
a(iv)		**This is the generation of the primary key.** It may have been done: • on the form • using a query • using Format + autonumber		
		Eg using form or query ="ORD" & Right(Max([Order Number],3))+1 Right is fine even though any higher than 999 would not really work properly – don't penalise for not thinking past the data in the tables. *Note follow through from table design ie if input mask of "ORD" etc used do not penalise for ORD being missing here*		
	A6	Has Max([Order Number]) or something equivalent	1	
	A7	Has Right(Max([Order Number],3))	1	
	A8	Solution that would work *Eg Right(Max([Order Number],3))+1*	1	
	A9	In the Order Table using Format "ORD" followed by three or more zeros ("ORD"000) + field type AutoNumber	3	
		Max 3	3	

a(v)	A10	Looking for suitable customisation 1 mark for any two of: • suitable title • labels • layout • Money values as £ with 2 decimal places	1	
	A11	Plus **Some form** of sensible user aid(s) 1 mark for one of: • instructions how to use • changing label on CustomerID to Select Customer • changing label on ProductID to Select Product • disabling fields that are generated • asterisks on fields they have to enter data into • grouping of data logically	1	
			2	
				10
b	B1	**Update stock query** Criteria links it to correct ProductID	1	
	B2	Would update correctly ie update to [Number In Stock] - [Number Ordered]	1	
				2
c		**Saving Order Implementation**		
	C1	Save button created	1	
	C2	Automated method of running query from B	1	
	C3	Appropriate save message displayed	1	
	C4	Update query has to be OpenQuery If unbound form append query needed Eg if append query used for primary key expect OpenQuery If autonumber used expect action save Record would save correctly	1	
	C5	All actions carried out on one button	1	
				5
d		**Add New Customer Form – Design View and Form View**		
d(i)	D1	Must include all these fields: • CustomerTitle • CustomerFirstName • CustomerLastName • CustomerAddress Line 1	1	

| | | CustomerTown CustomerCounty CustomerPostCode. | | |

d(ii)	D2	Correct calculation of new CustomerID =Max([CustomerID])+1 or something that would work =DMAX("CustomerID","Table Name")+1 Award if CustomerID set to autonumber in table.	1	
d(iii)	D3	Looking for suitable customisation 1 mark for any two of: • suitable title • labels • layout	1	
	D4	Plus **Some form** of sensible user aid(s) 1 mark for one of: • instructions how to use • disabling fields that are generated • asterisks on fields they have to enter data into • grouping of data logically	1	
			2	
				4
e		**Saving Customer details**		
	E1	Save button created	1	
	E2	Appropriate save message would display	1	
	E3	Evidence that it would save If unbound form there has to be an append query Eg if append query used expect actions OpenQuery If autonumber used expect action save If wizard used accept	1	
	E4	All actions carried out on one button	1	
			4	
f		**New Customer from Order Form**		
f(i)	F1	New Customer button added to **Order Form**	1	
f(ii)	F2	Macro/code created that would open the new Customer Form	1	
	F3	When form opens would go to a blank Add Customer form	1	
			2	
f(iii)	F4	Macro attached to new customer button	1	
				4
		Total marks for Activity 3		29

Activity 4		Testing		
a		**New Customer form** Mrs Marion Jones 133 Seymour Gardens Heartfield Moreshire HE3 4EE		
a(i)	A1	Entered on form correctly	1	
a(ii)	A2	Message telling user it has been saved	1	
	A3	Stored in customer table correctly **primary key minimum of 21001**	1	
			2	
a(iii)	A4	Screenshot of PR118 in product table showing number in stock before order	1	
a(iv)		**Add Order form** Product - PR118 Number Ordered – 2		
	A5	Correct Order Information	1	
	A6	Order Total Correct - £11.98	1	
	A7	Stored in Order table correctly	1	
	A8	Screenshot of PR118 in product table showing number in stock after order. Has gone down by number ordered correctly	1	
			4	
				8
b	B1	Error message indicating that no postcode has been entered	1	
		Total for Activity 4		9

Activity 5		Producing Stock Check Report		
		Marked from Design View of Query		
a	A1	Criteria correct, would find only the products that need reordering (**below** the Re-Order Level)	1	
	A2	Would find products **on or below** the Re-Order Level	1	
			2	
		Marked from DESIGN view of REPORT		
b(i)	B1	Grouped by Supplier eg SupplierID, Supplier name	1	
	B2	Suitable title in page header	1	
			2	
b (ii)	B3	Supplier header should show - SupplierID - Name - Address	1	
	B4	Labels for - ProductID - Description - Console - Cost - Number in Stock - Re-Order Level - Re-Order Number	1	
			2	
b(iii)	B5	Detail section should show - ProductID - Description - Console, Cost - Number in Stock - Re-Order Level - Re-Order Number	1	
	B6	Total Cost per Product calculated =[Reorder Number]*[Cost] – could be in query	1	
			2	
		Total Number of Products Per Supplier calculated.		
b(iv)	B7	Correct calculation eg =sum([Re-Order Number]) =sum([generated field name]) – if they have done total cost in the query	1	
	B8	Suitable label	1	
	B9	In the Supplier Footer	1	
			3	

b(v)		Marked from report view (Must have Design View of report to award these marks)		
	B10	Not just default layout	1	
	B11	All information can clearly be seen. Nothing truncated.	1	
	B12	Total cost formatted to currency with 2 dp	1	
			3	
		Total marks for Activity 5		14

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 prototype is fit-for-purpose and the evidence you have used to reach this conclusion

Evaluation of fitness for purpose based on Roderic's requirements:

1. **Adding New Orders**, which involves:
   - selecting a customer and product
   - entering the quantity of the product required
   - automatically assigning the order date
   - determining the total cost of the order
   - the generation of a new sequential order number which always begins ORD
   - storing the order details somewhere suitable
   - reducing stock levels
   - providing a message to the user so they know what is happening.

2. **Adding New Customers**, which involves:
   - adding the customer details ensuring the postcode is present
   - the generation of a new sequential CustomerID
   - storing the customer details somewhere suitable
   - providing a message to the user so they know what is happening.

3. **Produce Stock Checks** – A printout of the products Roderic needs to order including the supplier details, how many of each product and costs. The printout will need to look professional and be easy to read.

Recommendations for extra functionality
For mark band 1 and 2 additional functionality could be based on what has not been done or only partly achieved.
e.g.
- Calculations not working that should work
- Queries that did not work that should etc etc

For mark band 3 should include some improvements beyond the initial brief.
e.g
- Could have produced Invoices
- Could allow customer to buy different products on the same order
- Could have user name and password system
- Could have had a main menu (expect examples of what should be on it)
- Archiving orders after a time
- Deleting orders. Products, customers
- Better tracking of orders, when despatched etc
- Tracking payment of orders
- Should have had two costs for products ie buying and selling. He never makes any money.
- Upgrading to be web based to allow customers to order online

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