Unit 2 Creating Systems to Manage Information





Level 3 National in Information Technology

January 2020

Example Solution

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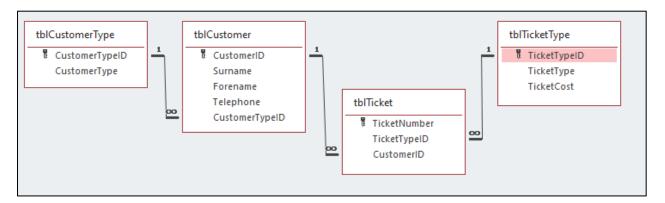
Introduction

The solution must be used alongside the Lead Examiner's report, the marking guidance document and Scripts A and B. Very few comments/explanations will appear in this document so in order to fully understand the approach and how to mark the other documents must be considered too.

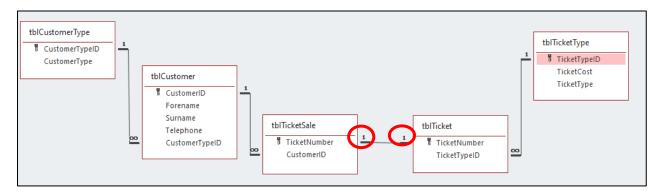
Part A

Activity 1 – Database relationship screenprint

Four table solution

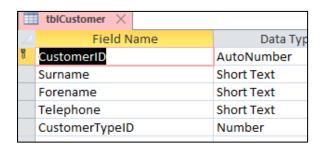


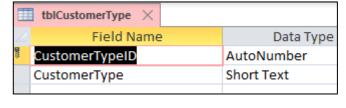
Five table solution

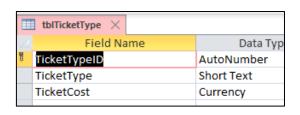


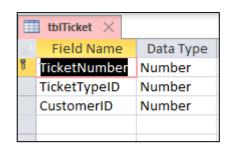
Only one solution is required. The rest of the solution focusses on a four table solution other than where a five table solution has been indicated.

Activity 2 - Table structures

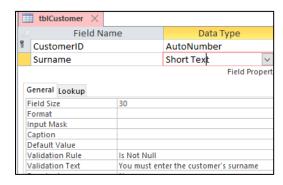




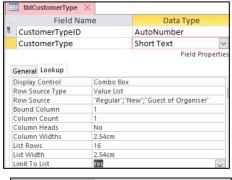


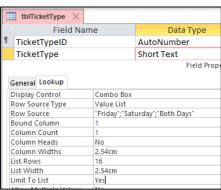


Presence and length check



Value lookup potentials (more than one shown first marked where multiple included)





May have used this as opposed to lookup for TicketCost (currency will not allow a lookup)

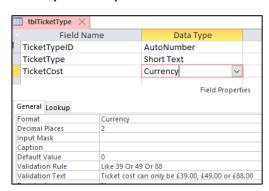
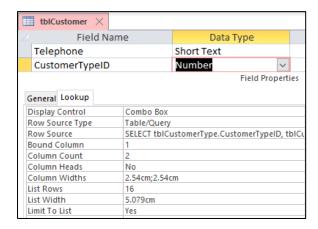
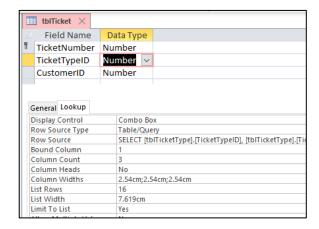
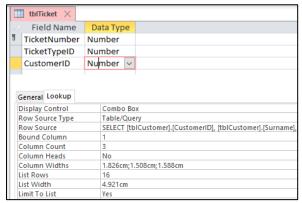


Table lookup (more than one shown first marked where multiple included)

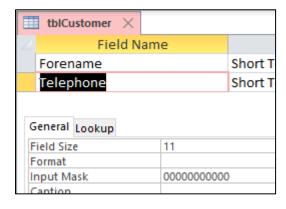
Any foreign key

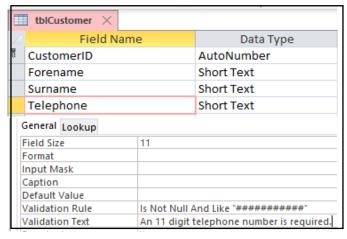






Format check (two examples of the same format check)

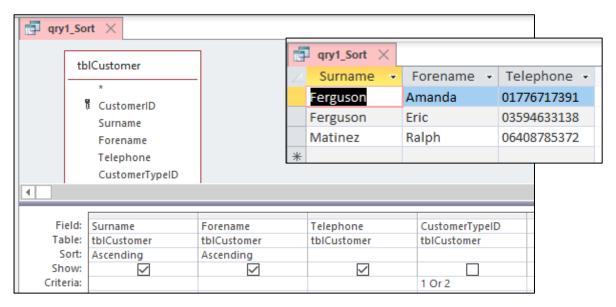




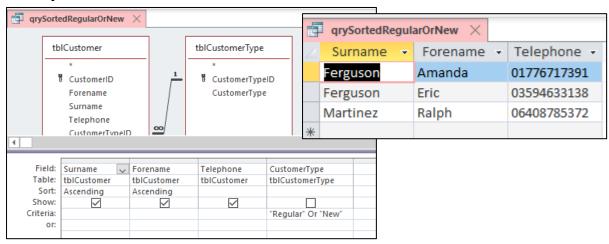
Activity 3 – Queries and report

(a) Create a query to display an alphabetically sorted list of regular and new customers. It must show the customer name and telephone number only.

Example 1



Example 2

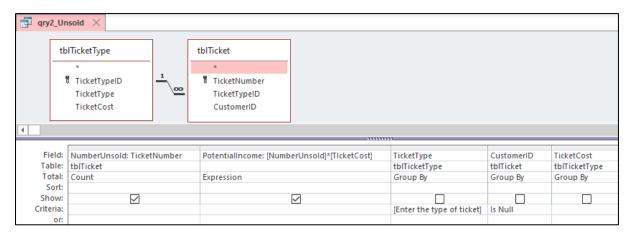


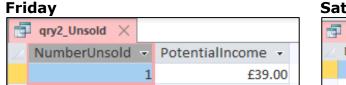
(b) Create a query that would allow a user to enter a parameter value for the ticket type when run.

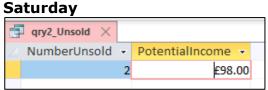
Calculate and display:

- number of tickets unsold
- potential income from unsold tickets.

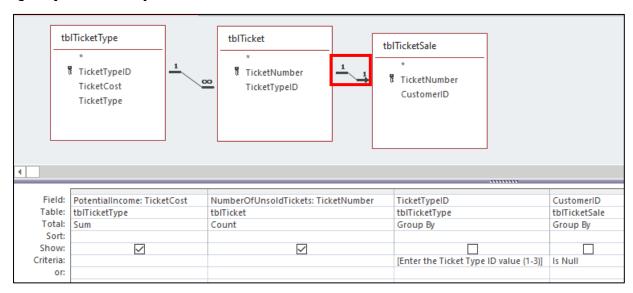
Query 2 – Example 1 – Four table solution







Query 2 - Example 2 - Five table solution



Ignore relationship type if shown as will already have been penalised in Activity 1 if it is incorrect. Only need to see the relationship line.

(c) Report – Create a report that shows the effect of having a 3% discount on the ticket price for tickets that have been sold.

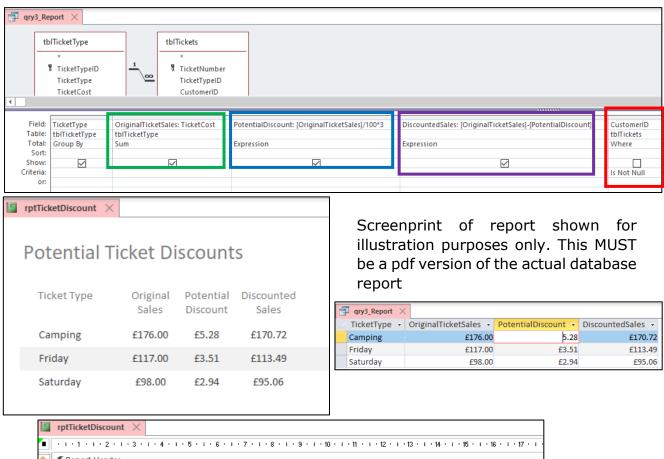
Calculate:

- the original income from ticket sales
- the potential discount
- the discounted ticket sales

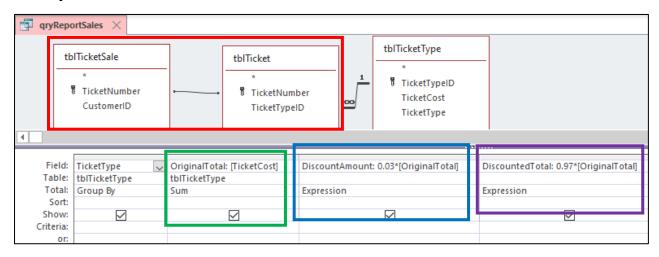
Display:

- a suitable report title
- the ticket types
- the original ticket sales
- the potential discount
- the discounted ticket sales.

Example 1 - Four table solution



Example 2 - Five table solution



Filtering to only tickets sold is achieved through the structure of the database rather than the need for criteria.

Activity 4 – Structure testing

T	—	T 1. 1. 1.	5	A 1.1		C 1 1		/ 1	\
Test	Type of	Test data	Expected results	Add screenprint(s) of the results of this test (and any retests)					
No	test			Ensure you show the test data used in the screenprint(s)					
	(N, R,								
	X)								
1	R	CustomerID: AutoNumber	Error message to appear	tble	Customer X				
		Surname: blank	saying the customer's	/ c	ustomerID 🕶	Surname +	Forename •	Telephone -	CustomerTy → C
		Forename: Gill	surname must be present	+	1	Mitchell	Mildred	03415610539	3
		Telephone: 03415610599		+	2	Ferguson	Amanda	01776717391	1
		CustomerTypeID: 1		+	3	Ferguson	Eric	03594633138	2
		,,		+	4	Matinez	Ralph	06408785372	1
				+	5	Butler	Ruby	07975693071	3
				.Ø ±	8		Gill	03415610599	1~
				*	(New	Microsoft Access		×	
						You mu	ist enter the custor	ner's surname	
2	R	CustomerID: AutoNumber	No error message to	Ⅲ tbl0	Customer X				_
		Surname: Meek	appear but will not be able	∠ C	ustomerID 🕶	Surname +	Forename -	Telephone -	CustomerTy - C
		Forename: Gill	to input the telephone	+	1	Mitchell	Mildred	03415610539	3
		Telephone:	number	+	2	Ferguson	Amanda	01776717391	1
		(0341)5610599		+	3	Ferguson	Eric	03594633138	2
		CustomerTypeID: 1		+	4	Matinez	Ralph	06408785372	1
		, , , , , , , , , , , , , , , , , , , ,		+	5	Butler	Ruby	07975693071	3
				<i>.</i> Ø ±	9	Meek	Gill		1
				*	(New)				

Test No	Type of test (N, R, X)	Test data	Expected results	Add screenprint(s) of the results of this test (and any retests) Ensure you show the test data used in the screenprint(s)
3	*	CustomerID: AutoNumber Surname: Meek Forename: Gill Telephone: 03415610599 CustomerTypeID: 0	Error message to appear saying the text is not in the list and to select an item from the list	tblCustomer X CustomerID → Surname → Forename → Telephone → CustomerTy → Click to Ada I Mitchell Mildred 03415610539 3 Ferguson Amanda 01776717391 1 Amanda 01776717391 1 Amanda 01776717391 1 Amanda 01776717391 1 Barrier 03594633138 2 Amanda 0408785372 1 Barrier 03594633138 2 Amanda 01776717391 1 Date of the Manda of
4	R	TicketTypeID: AutoNumber TlcketType: Camping TicketCost: £38.00	Error message to appear saying the ticket cost can only be £39.00, £49.00 or £88.00	tblTicketType × TicketTypeII → TicketType → TicketCost → Click to Add → 1 Friday £39.00 2 Saturday £49.00 3 Camping £88.00 5 ★ 5 Camping 38 * (New) £0.00 Microsoft Access × Ticket cost can only be £39.00, £49.00 or £88.00

Test No	Type of test (N, R, X)	Test data	Expected results	Add screenprint(s) of the results of this test (and any retests) Ensure you show the test data used in the screenprint(s)
5	*	TicketNumber: 1003 TicketTypeID:1 CustomerID:0	Error message to appear saying the text is not in the list and to select an item from the list	TicketNumb TicketTypeII CustomerID Click to Add 1000 1 1 1001 1 1002 1 2 1004 2 3 Microsoft Access The text you entered isn't an item in the list. Select an item from the list, or enter text that matches one of the listed items.
6	* x	TicketNumber: 1003 TicketTypeID:0 CustomerID:1	Error message to appear saying the text is not in the list and to select an item from the list	TicketNumb TicketTypeII CustomerID Click to Add 1000 1 1 1002 1 2 1003 0 1 Microsoft Access X The text you entered isn't an item in the list. Select an item from the list, or enter text that matches one of the listed items.

^{*} Candidates may use R in place of X where indicated – see Lead Examiner report

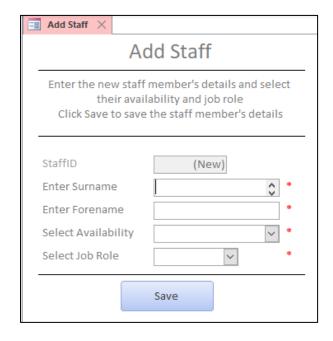
Activity 5 – Structure evaluation

Please see the examples discussed in the Lead Examiner's report and in Script A and Script B.

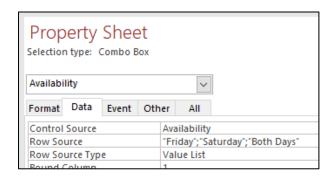
Part B

Part B 16 | Page

Activity 6 – Interface and functionality Staff form









Code version of saving

```
Private Sub cmdSave_Click()

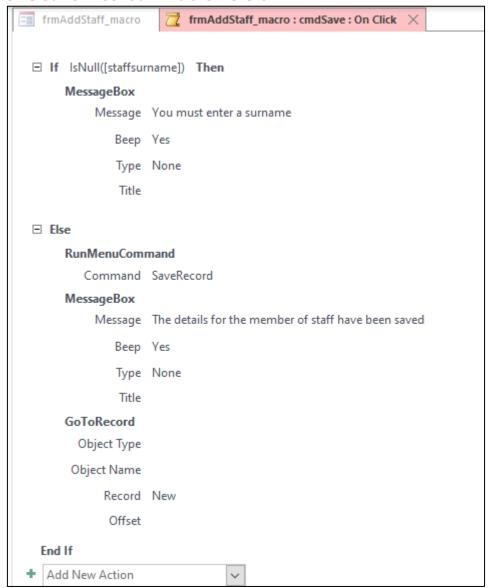
'Note activity asks for surname only though may do more
If IsNull(StaffSurname) Then

MsgBox "You must ensure you have entered a surname", vbOKOnly
Else

DoCmd.Save

MsgBox "The staff member has been saved", vbOKOnly
DoCmd.GoToRecord , , acNewRec
End If
End Sub
```

Alternative save method - Macro version



Availability form

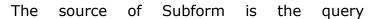
Example 1 - Form with subform



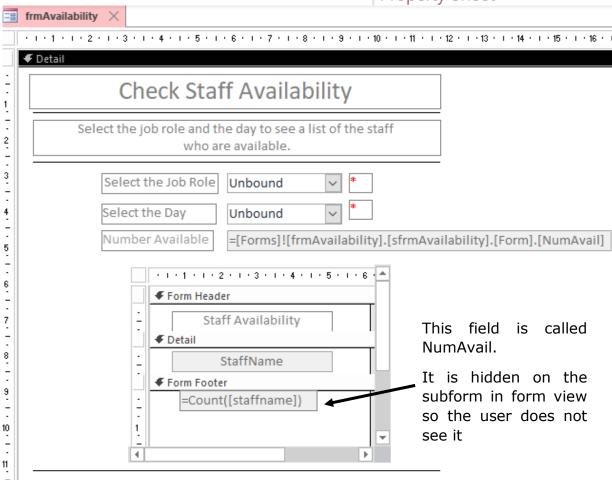




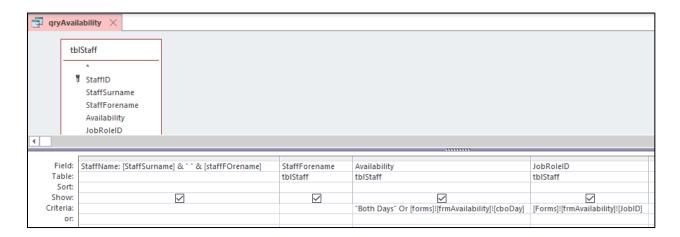
Validating the Availability and JobRoleID by setting the row source for each and setting 'Limit to List' to 'Yes'.







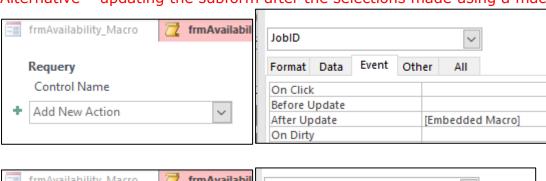
'qryAvailability'



Updating the subform after the selections made using code



Alternative – updating the subform after the selections made using a macro

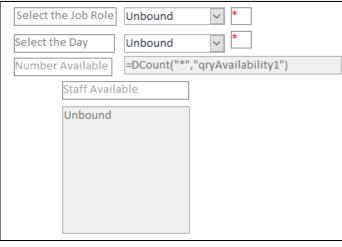


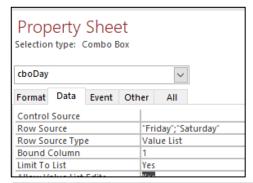




Example 2 - List box

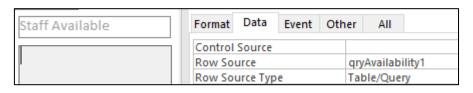






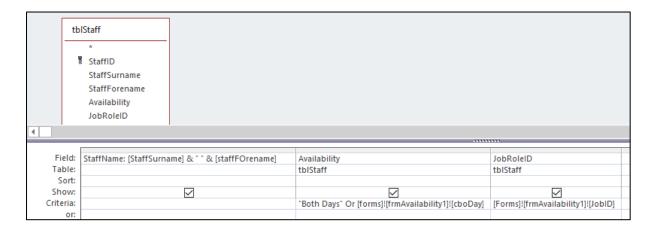
Validating the Availabiliy and JobRoleID by setting the row source for each and setting 'Limit to List' to 'Yes'.

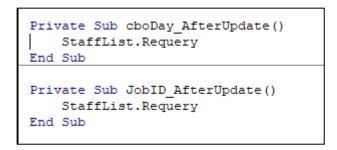




Row source of list box is qryAvailability1

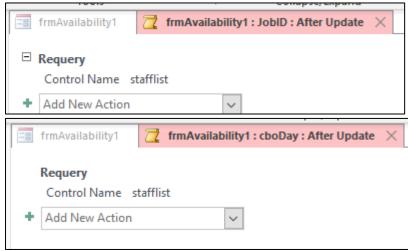
qryAvailability1





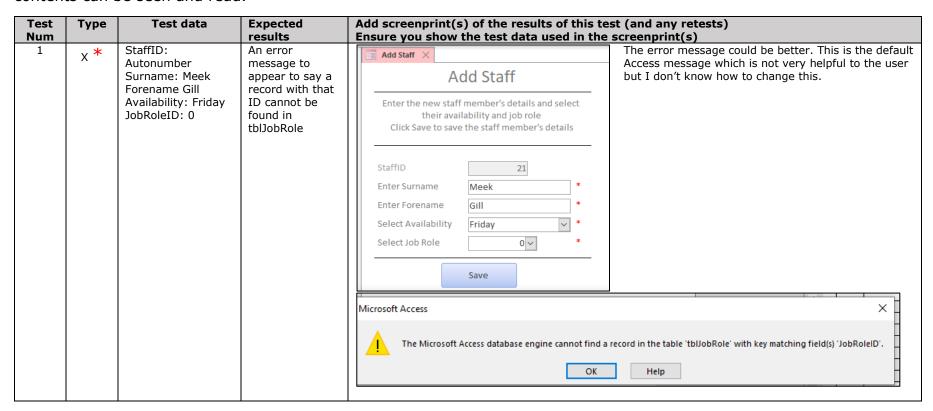
updating the form after selections made

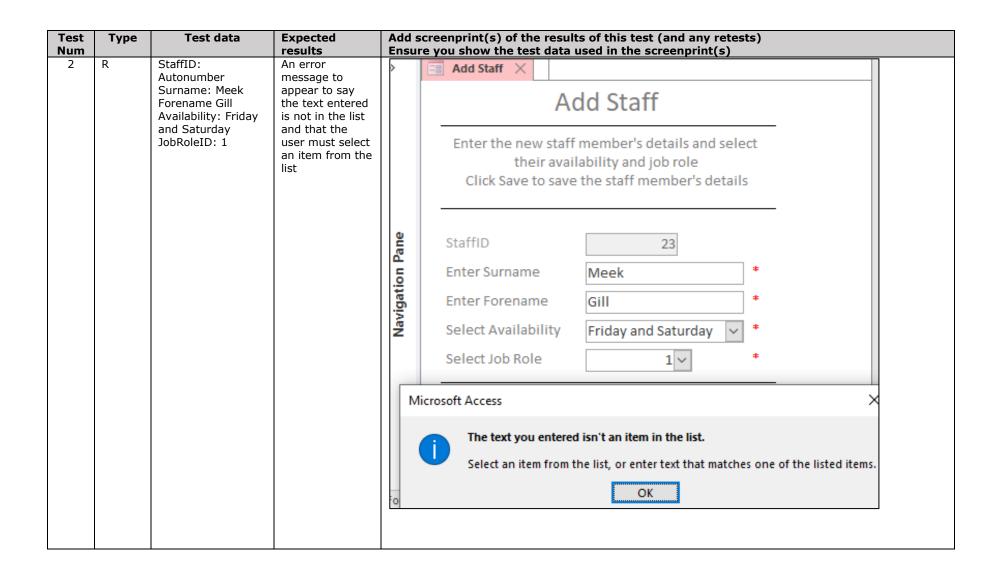
Alternative updating the form after selections made using macro

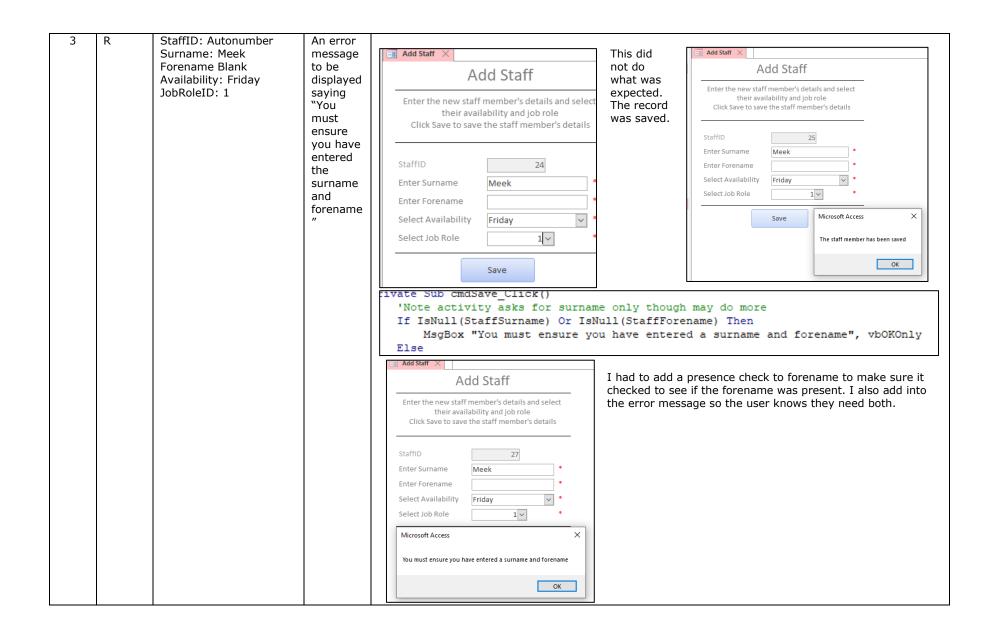


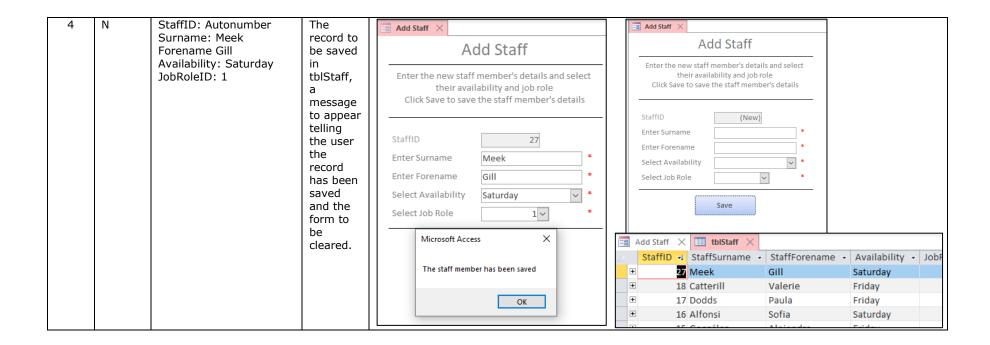
Activity 7 – Interface and functionality testing

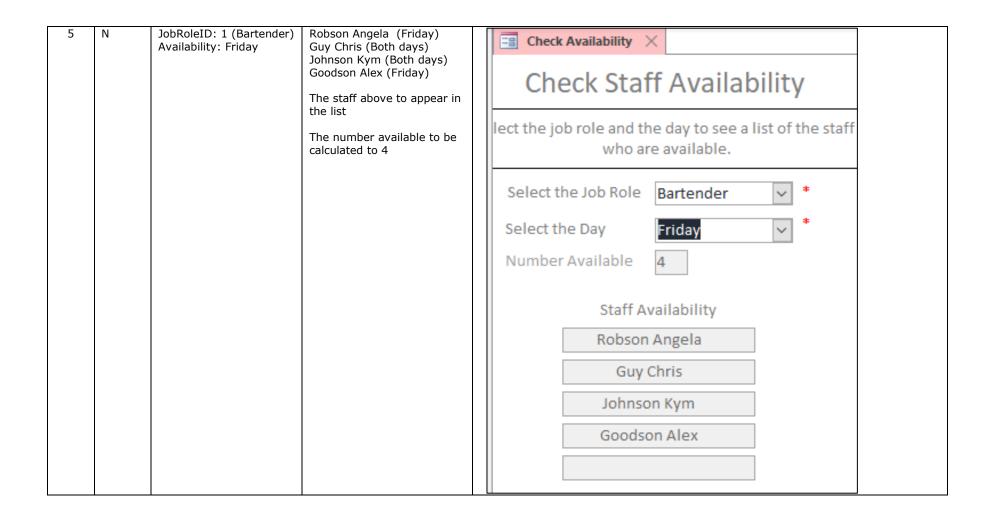
Note the last two columns have been merged as the solution document is sized to A4 rather than A3. This is to ensure the contents can be seen and read.

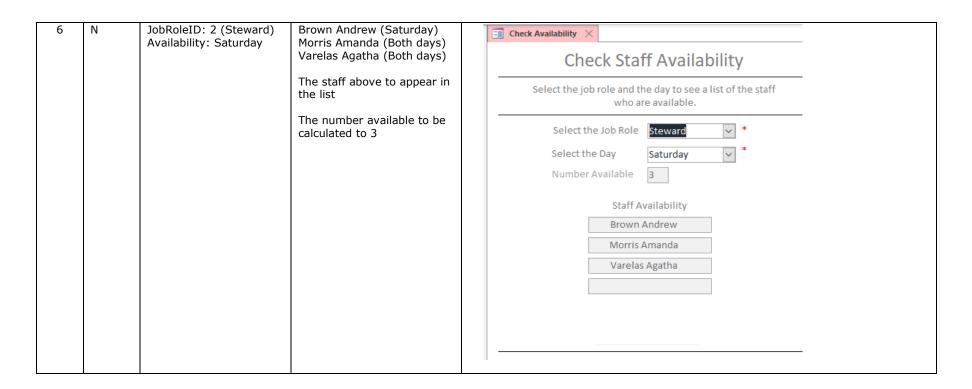












* Candidates may use R in place of X where indicated – see Lead Examiner report

Activity 8 – Interface evaluation

Please see the examples discussed in the Lead Examiner's report and in Script A and Script B.