

Unit 2 Creating Systems to Manage Information



Level 3 National in Information Technology

January 2021

Activity 3 Marking Guidance and Marked Examples

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Activity 3 – Queries and Report (40 minutes)

How examiners must approach marking this activity

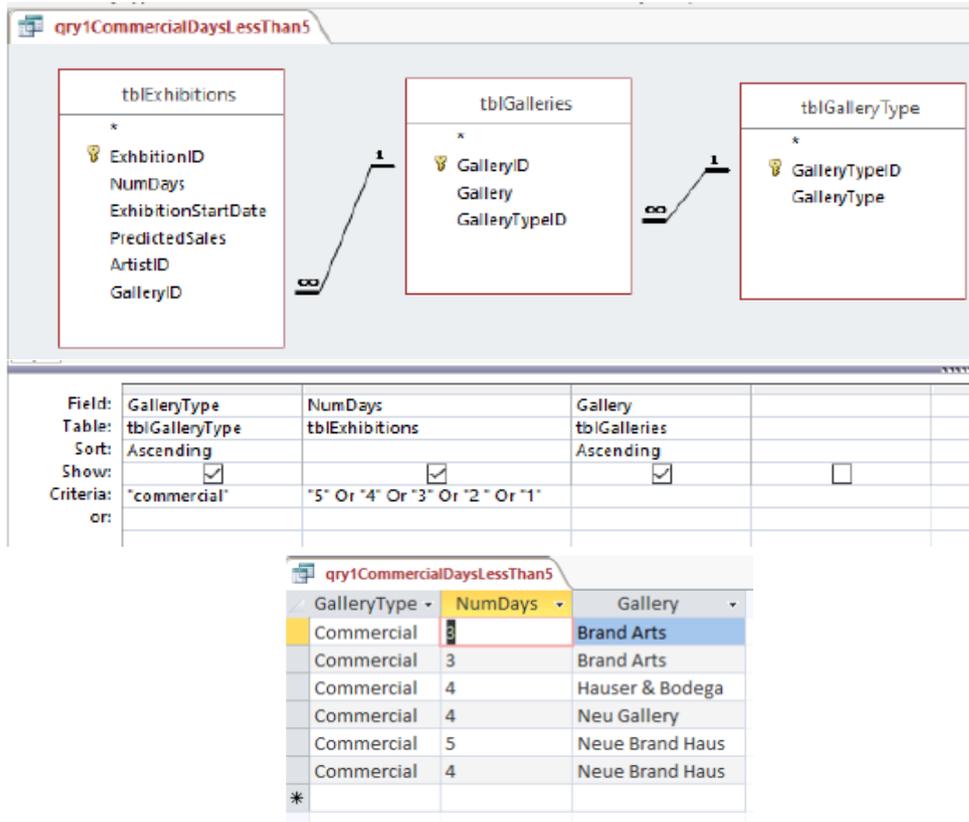
Trait 1	<p>This trait focusses on the candidate being able to recognise the fields that will be required to produce the results requested.</p> <p>There are twelve points in total. One point is awarded for each field that appears in the query grid up to twelve.</p>
Trait 2	<p>This trait focusses on the candidate being able to use sort(s), criteria, and calculations.</p> <p>There are twelve points in total One point is awarded for each of the points achieved.</p> <p>If there is only one big table used for query B and/or report then the candidate cannot get past top of band 2. In the examiner record, award all the points that would have been achieved to get the suggested point and band but for the actual point itself award up to the maximum of point band 2.</p>
Trait 3	<p>This trait focusses on the candidate being able to display:</p> <ul style="list-style-type: none"> • only what has been requested • in a manner that would aid readability and understanding of data (ordering of columns in queries, no truncation of data, only what has been asked to be displayed is displayed etc.) <p>There are twelve points in total One point is awarded for each of the points achieved.</p>

Query A

Create a query to display an alphabetically sorted list of commercial galleries that have exhibitions running for at least five days. It must show the gallery name, gallery type and number of days only.

Trait 1	<p>Gallery (1) GalleryType (1) NumDays (1)</p>
Trait 2	<p>Gallery has ascending/descending sort (1) Gallery Type – commercial or GalleryTypeID = 1 (1) NumDays</p> <ul style="list-style-type: none"> • would find days above 5 for (1) OR • would find 5 and above days (accept between 5 and 10) (2 marks)
Trait 3	<p>Ordering of columns is appropriate (1) (any order is fine for Query A) No truncation (including field names in the queries) (1) These fields only are displayed. Need all and only the three for the point (1)</p> <ul style="list-style-type: none"> • Gallery • GalleryType • NumDays

Example A



Trait 1	Gallery (1) ✓ GalleryType (1) ✓ NumDays (1) ✓
Trait 2	Gallery has ascending/descending sort (1) Has also sorted on GalleryType, but this does not affect the results ✓ Gallery Type – commercial or GalleryTypeID = 1 ✓ NumDays <ul style="list-style-type: none"> would find days above 5 for (1) OR would find 5 and above days (accept between 5 and 10) (2 marks) This has not been achieved as the search finds days that are 5 and below
Trait 3	Ordering of columns is appropriate ✓ (1) No truncation (including field names in the queries) ✓ (1) These fields only are displayed (1) ✓ <ul style="list-style-type: none"> Gallery GalleryType NumDays

Query A Overall			
Trait	1	2	3
Points	3	2	3
Total Points			8

Example B

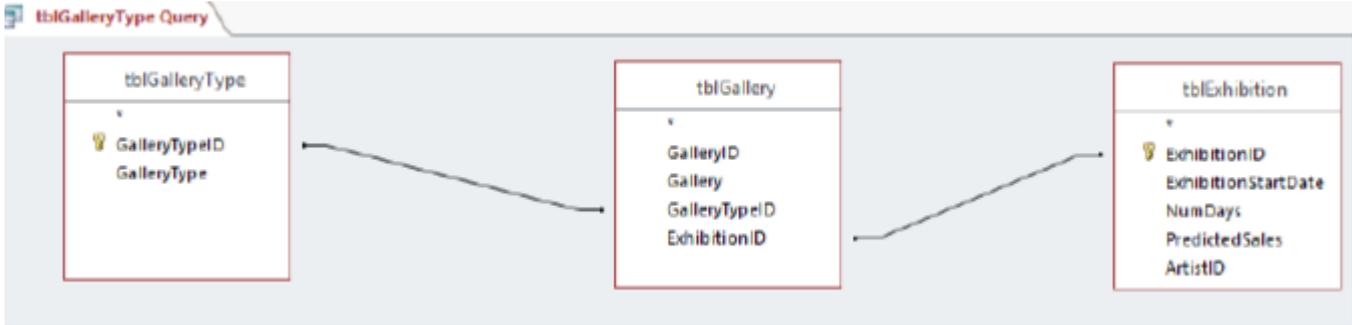
Field:	Gallery	GalleryType	NumDays
Table:	tblGallery	tblGalleryType	tblExhibition
Sort:	Descending		
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:			>=5

Gallery	GalleryType	NumDays
Neue Brand Hats	Commercial	5
Neu Gallery	Commercial	10
Kingdom Works	Commercial	7
Hauser & Bodega	Commercial	8
Decadent Furniture	Commercial	5

Trait 1	Gallery (1) ✓ GalleryType (1) ✓ NumDays (1) ✓
Trait 2	Gallery has ascending/descending sort (1) ✓ Gallery Type – commercial or GalleryTypeID = 1 ✗ NumDays <ul style="list-style-type: none"> would find days above 5 for (1) OR would find 5 and above days (accept between 5 and 10) (2 marks) ✓✓
Trait 3	Ordering of columns is appropriate ✓ (1) No truncation (including field names in the queries) ✓ (1) These fields only are displayed (1) ✓ <ul style="list-style-type: none"> Gallery GalleryType NumDays

Query A Overall			
Trait	1	2	3
Points	3	3	3
Total Points			9

Example C



Field:	Gallery	GalleryType	NumDays	GalleryTypeID
Table:	tblGallery	tblGalleryType	tblExhibition	tblGalleryType
Total:	Group By	Group By	Group By	Group By
Sort:				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:		"commercial"	>4	
or:				

Gallery	GalleryType	NumDays
Hauser & Bodega	Commercial	8
Kingdom Works	Commercial	7
Neu Gallery	Commercial	10
Neue Brand Haus	Commercial	5

Trait 1	Gallery (1) ✓ GalleryType (1) ✓ NumDays (1) ✓
Trait 2	Gallery has ascending/descending sort (1) ✗ Gallery Type – commercial or GalleryTypeID = 1 ✓ NumDays <ul style="list-style-type: none"> would find days above 5 for (1) OR would find 5 and above days (2) 5 and above e.g., >=5, >4 ✓✓
Trait 3	Ordering of columns is appropriate ✓ (1) No truncation (including field names in the queries) ✓ (1) These fields only are displayed (1) ✓ <ul style="list-style-type: none"> Gallery GalleryType NumDays

Query A Overall			
Trait	1	2	3
Points	3	3	3
Total Points	9		

Query B	
<p>(b) The gallery earns commission for every piece of art sold:</p> <ul style="list-style-type: none"> the basic commercial commission rate is 40% the basic combo rate is 20% (if statement or equivalent) <p>Create a query that will allow the user to enter a parameter value for an artist's surname when run. Calculate the:</p> <ul style="list-style-type: none"> number of exhibitions (count) predicted commission Smart Art will receive. <p>Display:</p> <ul style="list-style-type: none"> the artist's surname the artist's initial the commission rate (candidates need to pick up on this) the predicted commission 	
Trait 1	ArtistSurname (1) ArtistInitial (1) Predicted sales (1) Field that could be used in count of number of exhibitions (1) Field that could be used in the calculation for predicted commission (1)
Trait 2	If there is only one big table used for query B and/or report cannot get past top of band 2. Parameter for artist's surname (1) Number of exhibitions calculated (1) Commission rate <ul style="list-style-type: none"> Must use an IF statement or equivalent to get both points. There should not be an individual column per rate. 0.4 or 40% or equivalent for commercial (1) 0.2 or 20% or equivalent for combo (1) Predicted commission uses commission rate and predicted sales (1)
Trait 3	Ordering of columns is appropriate (1) No truncation (1) These fields only should be displayed (1) <ul style="list-style-type: none"> ArtistSurname ArtistInitial Commission Rate Predicted Commission <p>Addition</p> These two points can only be awarded once throughout the entire activity. <ul style="list-style-type: none"> At least one generated field named sensibly (in this query or the report) (1) Predicted commission uses currency and 2 decimal places (1)

Example A

Field:	ArtistSurname	ArtistInitial
Table:	tblArtists	tblArtists
Sort:	Ascending	Ascending
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		

ArtistSurname	ArtistInitial
Andereasson	Q
Atterberry	J
Coumans	H
Fuentes	P
Magyar	P
Robinson	J
*	

Trait 1	ArtistSurname (1) ✓ ArtistInitial (1) ✓ Predicted sales (1) ✗ Field that could be used in count of number of exhibitions (1) ✗ their exhibition table cannot be seen in the query design otherwise either of the two fields shown would have been appropriate. Field that could be used in the calculation for predicted commission (1) ✗
Trait 2	Parameter for artist's surname (1) ✗ Number of exhibitions calculated (1) ✗ Commission rate <ul style="list-style-type: none"> • Must use an IF statement or equivalent to get both of the points. There should not be a column per rate. • 0.4 or 40% or equivalent for commercial (1) ✗ 0.2 or 20% or equivalent for combo (1) ✗ Predicted commission uses commission rate and predicted sales (1) ✗
Trait 3	Ordering of columns is appropriate (1) ✓ No truncation (1) ✗ the field names are truncated These fields only should be displayed (1) ✗ there are fields missing <ul style="list-style-type: none"> • ArtistSurname • ArtistInitial • Commission Rate • Predicted Commission Addition These two points can only be awarded once throughout the entire activity. <ul style="list-style-type: none"> • At least one generated field named sensibly (in this query or the report) (1) ✗ not achieved in this query but may be found in the report • Predicted commission uses currency and 2 decimal places (1) ✗

Query B Overall			
Trait	1	2	3
Points	2	0	1
Total Points			3

Example B

Field:	ArtistSurname	ArtistInitial	GalleryType	PredictedSales	ComboCommission: ((PredictedSales)/5)	CommercialCommission: ((Predi
Table:	tblArtist	tblArtist	tblGalleryType	tblExhibition		
Total:					Expression	Expression
Sort:	Group By	Group By	Group By	Group By		
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
Criteria:						

ArtistSurname	ArtistInitial	GalleryType	PredictedSales	ComboCommission	CommercialCommis:
Andreasson	Q	Combo	£1,112.00	222.4	444.8
Atteberry	J	Combo	£2,093.00	418.6	837.2
Atteberry	J	Combo	£3,071.00	614.2	1228.4
Atteberry	J	Combo	£3,427.00	685.4	1370.8
Coumans	H	Combo	£3,639.00	727.8	1455.6
Coumans	H	Combo	£3,705.00	741	1482
Fuentes	P	Combo	£1,955.00	391	782
Fuentes	P	Combo	£2,042.00	408.4	816.8
Magyar	P	Combo	£3,695.00	739	1478
Robinson	J	Combo	£1,612.00	322.4	644.8

Trait 1	<p>ArtistSurname (1) ✓</p> <p>ArtistInitial (1) ✓</p> <p>Predicted sales (1) ✓</p> <p>Field that could be used in count of number of exhibitions (1) ✓</p> <p>Field that could be used in the calculation for predicted commission (1) ✓ (PredictedSales)</p>
Trait 2	<p>Parameter for artist's surname (1) ✗</p> <p>Number of exhibitions calculated (1)</p> <p>Commission rate</p> <ul style="list-style-type: none"> Must use an IF statement or equivalent to get both of the points. There should not be a column per rate. 0.4 or 40% or equivalent for commercial (1) ✗ 0.2 or 20% or equivalent for combo (1) (they have divided by 5 which is the equivalent of calculating 20%) ✓ <p>Predicted commission uses commission rate and predicted sales (1) (their 20% rate and predicted sales can be seen in their ComboCommission) ✓</p>
Trait 3	<p>Ordering of columns is appropriate (1) ✓</p> <p>No truncation (1) ✗ CommercialCommission is truncated</p> <p>These fields only should be displayed (1) ✗ commission rate missing, too many commission columns</p> <ul style="list-style-type: none"> ArtistSurname ArtistInitial Commission Rate Predicted Commission <p>Additional</p> <p>These two points can only be awarded once throughout the entire activity.</p> <ul style="list-style-type: none"> At least one generated field named sensibly (in this query or the report) (1) ✓ ComboCommission is appropriate Predicted commission uses currency and 2 decimal places (1) ✗

Query B Overall			
Trait	1	2	3
Points	5	2	2
Total Points			9

Example C

ArtistSurname	ArtistInitial	CommercialCommission	CountOfExh
Andreasson	Q	444.8	1
Atteberry	J	837.2	1
Atteberry	J	1228.4	1
Atteberry	J	1370.8	1
Coumans	H	1455.6	1
Coumans	H	1482	1
Fuentes	P	782	1
Fuentes	P	816.8	1
Magyar	P	1478	1

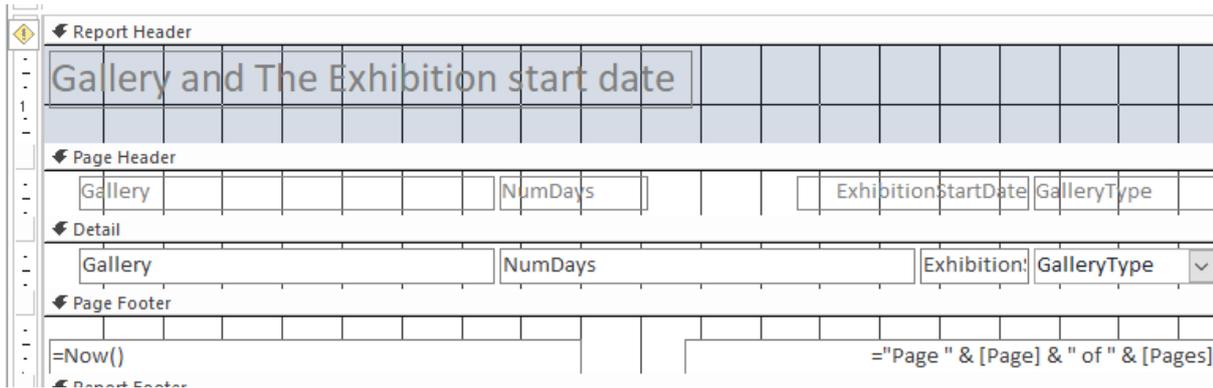
Field:	ArtistSurname	ArtistInitial	PredictedSales	GalleryType	CommercialCommission: [PredictedSales]*40/100	ExhibitionID
Table:	tbiArtist	tbiArtist	tbiExhibition	tbiGalleryType		tbiExhibition
Total:	Group By	Group By	Sum	Group By	Group By	Count
Sort:						
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:				"Commercial"		

Trait 1	ArtistSurname (1) ✓ ArtistInitial (1) ✓ Predicted sales (1) ✓ Field that could be used in count of number of exhibitions (1) ✓ Field that could be used in the calculation for predicted commission (1) ✓
Trait 2	Parameter for artist's surname (1) ✗ Number of exhibitions calculated (1) ✓ Commission rate <ul style="list-style-type: none"> Must use an IF statement or equivalent to get both of the points. There should not be a column per rate. 0.4 or 40% or equivalent for commercial (1) ✓ 0.2 or 20% or equivalent for combo (1) Predicted commission uses commission rate and predicted sales (1) uses predicted sales and their commission rate (their commission rate of 40 can be seen in the CommercialCommission ✓)
Trait 3	Ordering of columns is appropriate (1) ✓ No truncation (1) ✗ One field name is truncated These fields only should be displayed (1) ✗ commission rate missing, predicted commission should be one column <ul style="list-style-type: none"> ArtistSurname ArtistInitial Commission Rate Predicted Commission <p>Additional</p> These two points can only be awarded once throughout the entire activity. <ul style="list-style-type: none"> At least one generated field named sensibly (in this query or the report) (1) e.g. CommercialCommission ✓ Predicted commission uses currency and 2 decimal places (1) ✗

Query B Overall			
Trait	1	2	3
Points	5	3	2
Total Points			10

Report	
<p>(c)Report – Create a report that shows a list of galleries and their exhibitions.</p> <p>For each gallery (group), calculate:</p> <ul style="list-style-type: none"> • the end date for each exhibition • the total number of exhibitions • the total number of days that exhibitions will run <p>Display:</p> <ul style="list-style-type: none"> • a suitable report title • the start date for each exhibition • the end date for each exhibition • the total number of exhibitions for each gallery • the total number of days that exhibitions will run in each gallery 	
Trait 1	Gallery (1) ExhibitionStartDate (1) Field for Exhibition End Date (1) Field for total number of days per gallery (1) Field for total number of exhibitions per gallery (1)
Trait 2	If there is only one big table used for query B and/or report cannot get past top of band 2 <ul style="list-style-type: none"> • Exhibition end date calculated e.g.: (1) <ul style="list-style-type: none"> • ExhibitionStartDate + NumDays • ExhibitionStartDate + NumDays – 1 • Total number of exhibitions (one per gallery): Count(field) (1) • Total number of days (one per gallery): Sum(field) (1)
Trait 3	<p>From any view Title is appropriate (1) Labels good (1)</p> <p>PDF No truncation (1) Report is fit for purpose (does what we have asked it to do and looks suitable) (1)</p> <p>Additional This point must only be assigned once. If it has already been awarded in Query B then do not award again here.</p> <ul style="list-style-type: none"> • At least one generated field named sensibly (1)

Example A



Note the screenprint here is for illustration purposes only. If there is no PDF of the report then there are 2 points that cannot be achieved in Trait 3. This candidate did not have a PDF of the report.

Gallery and The Exhibition start date			
Gallery	NumDays	ExhibitionStartDate	GalleryType
Brand Arts	3	#####	Commercial
Brand Arts	3	#####	Commercial
Decadent Furniture	5	#####	Combo
Decadent Furniture	7	#####	Combo
Hauser & Bodega	8	#####	Commercial
Hauser & Bodega	4	#####	Commercial
Neu Gallery	4	#####	Commercial
Neu Gallery	10	#####	Commercial
Neue Brand Haus	5	#####	Commercial
Neue Brand Haus	4	#####	Commercial

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Trait 1	Gallery (1) ✓ ExhibitionStartDate (1) ✓ Field for Exhibition End Date (1) ✗ Field for total number of days per gallery (1) ✗ Field that could be used in total number of exhibitions per gallery (1) ✗
Trait 2	<ul style="list-style-type: none"> • Exhibition end date calculated (1) ✗ <ul style="list-style-type: none"> ○ ExhibitionStartDate + NumDays ○ ExhibitionStartDate + NumDays - 1 • Total number of exhibitions (per gallery): Count(field) (1) ✗ • Total number of days (per gallery): Sum(field) (1) ✗
Trait 3	<p>From any view</p> Title is appropriate (1) ✓ Labels good (1) ✗ no spaces so does not aid readability <p>PDF</p> No truncation (1) ✗ No PDF Report is fit for purpose (1) ✗ No PDF.

If the candidate had included a PDF, they still would not have achieved these two points. The ExhibitionStartDate has been truncated (or there is a problem with it) and it is not fit for purpose, even though the layout is reasonable, it does not do what was requested.

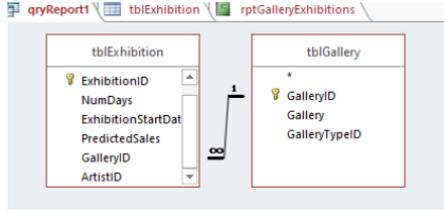
Additional

This point must only be assigned once. If it has already been awarded in Query B then do not award again here.

- At least one generated field named sensibly (1) x

Report Overall			
Trait	1	2	3
Points	2	0	1
Total Points			4

Example B



Gallery	ExhibitionID	ExhibitionStartDate	ExhibitionEndDate	NumDays
Neue Brand Hats	3	20/12/2020	24/12/2020	4
Neue Brand Hats	7	19/01/2021	24/01/2021	5
Neu Gallery	5	31/12/2020	10/01/2021	10
Neu Gallery	8	26/01/2021	30/01/2021	4
Kingdom Works	1	05/12/2020	12/12/2020	7
Hauser & Bodega	2	14/12/2020	18/12/2020	4
Hauser & Bodega	10	06/02/2021	14/02/2021	8
Decadent Furniture	6	12/01/2021	17/01/2021	5
Brand Arts	4	26/12/2020	29/12/2020	3
Brand Arts	9	01/02/2021	04/02/2021	3

Field:	Gallery	ExhibitionID	ExhibitionStartDate	ExhibitionEndDate: [ExhibitionStartDate] + [NumDays]	NumDays
Table:	tblGallery	tblExhibition	tblExhibition		tblExhibition
Total:	Group By	Group By	Group By	Group By	Group By
Sort:	Descending				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:					
or:					

The screenshot shows the report design view for 'Gallery Exhibits'. It includes a report header with the title, a page header with fields for Gallery, Exhibition ID, Exhibition start date, Exhibition end date, and Number of days. The detail section contains the main data table with columns for ExhibitionID, ExhibitionStartDate, ExhibitionEndDate, and NumDays. The page footer contains a formula: `=Now()` and `= "Page " & [Page] & " of " & [Pages]`. The report footer contains a total count: `Total exhibitions: =Count([ExhibitionID])`.

This candidate did include a PDF of the report. It ran onto two pages.

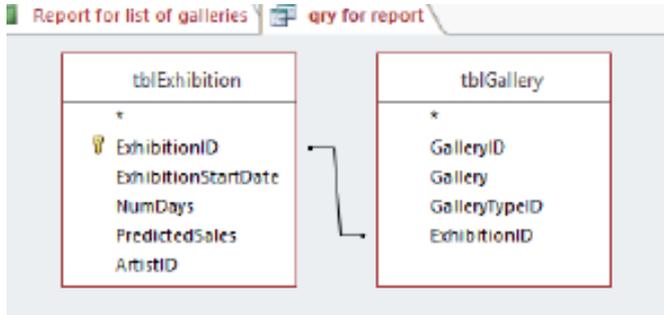
The PDF report shows the following data:

Gallery	Exhibition ID	Exhibition start date	Exhibition end date	Number of days
Brand Arts	4	26/12/2020	29/12/2020	3
Decadent Furniture	9	01/02/2021	04/02/2021	3
Hauser & Bodega	6	12/01/2021	17/01/2021	5
Kingdom Works	2	14/12/2020	18/12/2020	4
Neu Gallery	10	06/02/2021	14/02/2021	8
Neue Brand Hats	1	05/12/2020	12/12/2020	7
	5	31/12/2020	10/01/2021	10
	8	26/01/2021	30/01/2021	4
	3	20/12/2020	24/12/2020	4
	7	19/01/2021	24/01/2021	5
Total exhibitions:				1

Trait 1	<p>Gallery (1) ✓ ExhibitionStartDate (1) ✓ Field calculation for Exhibition End Date (1) ✓ Field for total number of days per gallery (1) ✗ Field for total number of exhibitions per gallery. (1) ✗</p>
Trait 2	<ul style="list-style-type: none"> • Exhibition end date calculated (1) ✓ design view of the query <ul style="list-style-type: none"> ○ ExhibitionStartDate + NumDays ○ ExhibitionStartDate + NumDays - 1 • Total number of exhibitions (per gallery): Count(field) (1) ✗ there is a count present, but this would only provide the total number of exhibitions for all the galleries rather than per gallery. • Total number of days (per gallery): Sum(field) (1) ✗
Trait 3	<p>From any view Title is appropriate (1) ✓ Labels good (1) ✓</p> <p>PDF No truncation (1) ✓ even though the report goes on 2 pages the field headings and the data are not truncated. Report is fit for purpose (1) ✗ runs onto two pages and does not do what was requested.</p> <p>Additional This point must only be assigned once. If it has already been awarded in Query B then do not award again here.</p> <ul style="list-style-type: none"> • At least one generated field named sensibly (1) already awarded

Report Overall			
Trait	1	2	3
Points	3	1	3
Total Points			6

Example C



Gallery	ExhibitionID	ExhibitionSt	EndDate	NumDays
Brand Arts	4	26/12/2020	29/12/2020	3
Brand Arts	9	01/02/2021	04/02/2021	3
Decadent Furn	6	12/01/2021	17/01/2021	5
Hauser & Bode	2	14/12/2020	18/12/2020	4
Hauser & Bode	10	06/02/2021	14/02/2021	8
Kingdom Work	1	15/12/2020	22/12/2020	7
Neu Gallery	5	31/12/2020	10/01/2021	10
Neu Gallery	8	26/01/2021	30/01/2021	4
Neue Brand He	3	20/12/2020	24/12/2020	4
Neue Brand He	7	19/01/2021	24/01/2021	5

Field: Gallery ExhibitionID ExhibitionStartDate EndDate: [ExhibitionStartDate]+[NumDays] NumDays
 Table: tblGallery tblExhibition tblExhibition tblExhibition
 Total: Group By Group By Group By Group By
 Sort:
 Show:
 Criteria:

Report for list of galleries

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Report Header
 List of Galleries and Exhibitions

Page Header
 Gallery ExhibitionID ExhibitionStartDate EndDate NumDays

Gallery Header
 Gallery

Detail
 ExhibitionID ExhibitionStartDate EndDate NumDays

Page Footer
 Report Footer

The candidate did have a PDF report.

List of Galleries and Exhibitions				
Gallery	ExhibitionID	ExhibitionStartDate	EndDate	NumDays
Brand Arts	4	26/12/2020	29/12/2020	3
Brand Arts	9	01/02/2021	04/02/2021	3
Decadent Furniture	6	12/01/2021	17/01/2021	5
Hauser & Bodega	2	14/12/2020	18/12/2020	4
Hauser & Bodega	10	06/02/2021	14/02/2021	8
Kingdom Works	1	15/12/2020	22/12/2020	7
Neu Gallery	5	31/12/2020	10/01/2021	10
Neu Gallery	8	26/01/2021	30/01/2021	4
Neue Brand Haus	3	20/12/2020	24/12/2020	4
Neue Brand Haus	7	19/01/2021	24/01/2021	5

Trait 1	Gallery (1) ✓ ExhibitionStartDate (1) ✓ Field for Exhibition End Date (1) ✓ Field for total number of days per gallery (1) ✗ Field for total number of exhibitions per gallery (1) ✗
Trait 2	<ul style="list-style-type: none"> • Exhibition end date calculated (1) ✓ <ul style="list-style-type: none"> ○ ExhibitionStartDate + NumDays ○ ExhibitionStartDate + NumDays - 1 • Total number of exhibitions (per gallery): Count(field) (1) ✗ • Total number of days (per gallery): Sum(field) (1) ✗
Trait 3	<p>From any view</p> Title is appropriate (1) ✓ Labels good (1) ✗ no spaces so does not aid readability
	<p>PDF</p> No truncation (1) ✓ Report is fit for purpose (1) ✗ Does not do what it should.
	<p>Additional</p> This point must only be assigned once. If it has already been awarded in Query B then do not award again here. <ul style="list-style-type: none"> • At least one generated field named sensibly (1) already awarded

Report Overall			
Trait	1	2	3
Points	3	1	2
Total Points			6

Results for the Part A Scripts

	Trait			Band	Mark
	1	2	3		
Example A	3B	1M	2M	2T	6
Example B	4M	2T	3M	3T	9
Example C	4M	3B	3B	3T	9