

SQL Queries DAMG7370 Assignment

1. Total sales \$ via Invoice

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'CONNECTIONS' pane displays the 'SERVERS' tree with 'damg7370-myservers.database.windows.net' expanded, showing 'Databases' and 'Security'. Below this, the 'AZURE' section shows a connection to 'Mahima Rao - rao.mah@northe...'. The 'SQL SERVER BIG DATA CLUSTER' section shows a message: 'No SQL Big Data Cluster controllers registered. [Learn More](#)' and a 'Connect Controller' button. The main pane shows a query window titled 'SQLQuery_1 - damg73...mahima)'. The query is:

```
1 select Sum(i.Total) as "Total Sales"
2 from Invoice i;
```

 The 'Run' button is highlighted. Below the query, the 'Results' pane shows a table with one row:

	Total Sales
1	2328.60

 The status bar at the bottom indicates 'Ln 2, Col 16 Spaces: 4 UTF-8 LF SQL 1 rows MSSQL 00:00:00 damg7370-myservers.database.windows.net : Chinook'.

2. Total sales \$ via InvoiceLine

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'CONNECTIONS' pane displays the 'SERVERS' tree with 'damg7370-myservers.database.windows.net' expanded, showing 'Databases' and 'Security'. Below this, the 'AZURE' section shows a connection to 'Mahima Rao - rao.mah@northe...'. The 'SQL SERVER BIG DATA CLUSTER' section shows a message: 'No SQL Big Data Cluster controllers registered. [Learn More](#)' and a 'Connect Controller' button. The main pane shows a query window titled 'SQLQuery_1 - damg73...mahima)'. The query is:

```
1 select Sum(UnitPrice *Quantity) as "Sales by invoiceLine"
2 from invoiceLine;
```

 The 'Run' button is highlighted. Below the query, the 'Results' pane shows a table with one row:

	Sales by invoiceLine
1	2328.60

 The status bar at the bottom indicates 'Ln 2, Col 19 Spaces: 4 UTF-8 LF SQL 1 rows MSSQL 00:00:01 damg7370-myservers.database.windows.net : Chinook'.

3. Total tracks (songs) sold

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'CONNECTIONS' tree with 'SERVERS' expanded, showing a connection to 'damg7370-mysrver.database.windows.net'. The right pane shows a SQL query window with the following query:

```
1 select Sum(Quantity) as Quantity from invoiceLine;  
2
```

The 'Results' pane shows a single row with the value 2240.

Quantity
2240

The status bar at the bottom indicates the query is running on 'damg7370-mysrver.database.windows.net' using the 'Chinook' database.

4. Total sales \$ by customer's country – ranked (sorted largest to smallest)

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'CONNECTIONS' tree with 'SERVERS' expanded, showing a connection to 'damg7370-mysrver.database.windows.net'. The right pane shows a SQL query window with the following query:

```
1 SELECT i.BillingCountry,  
2 SUM(i.Total) as "Total Sales"  
3 FROM Invoice i  
4 GROUP BY i.BillingCountry  
5 ORDER BY SUM(i.Total) desc;
```

The 'Results' pane shows a table with 24 rows, sorted by total sales in descending order.

	BillingCountry	Total Sales
1	USA	523.06
2	Canada	303.96
3	France	195.10
4	Brazil	190.10
5	Germany	156.48
6	United Kingdom	112.86
7	Czech Republic	90.24
8	Portugal	77.24
9	India	75.26
10	Chile	46.62
11	Ireland	45.62
12	Hungary	45.62
13	Austria	42.62
14	Finland	41.62
15	Netherlands	40.62
16	Norway	39.62
17	Sweden	38.62
18	Spain	37.62
19	Poland	37.62
20	Italy	37.62
21	Belgium	37.62
22	Argentina	37.62
23	Australia	37.62
24	Denmark	37.62

The status bar at the bottom indicates the query is running on 'damg7370-mysrver.database.windows.net' using the 'Chinook' database.

5. Total sales \$ by customer's geo (country, state & city)

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'CONNECTIONS' tree with 'damg7370-mysrver.database.wi...' expanded. The right pane shows a query window with the following SQL query:

```
1 Select c.Country, c.State, c.City, sum(i.total) as Total_sales
2 From invoice i
3 JOIN Customer c on c.customerId = i.CustomerId
4 Group By c.Country, c.State, c.City
5 Order By c.Country, c.State, c.City
```

The 'Results' tab shows a table with 25 rows of data, sorted by Country, State, and City. The columns are Country, State, City, and Total_sales.

	Country	State	City	Total_sales
1	Argentina	NULL	Buenos Aires	37.62
2	Australia	NSW	Sidney	37.62
3	Austria	NULL	Vienne	42.62
4	Belgium	NULL	Brussels	37.62
5	Brazil	DF	Brasília	37.62
6	Brazil	RJ	Rio de Janeiro	37.62
7	Brazil	SP	São José dos Campos	39.62
8	Brazil	SP	São Paulo	75.24
9	Canada	AB	Edmonton	37.62
10	Canada	BC	Vancouver	38.62
11	Canada	MB	Winnipeg	37.62
12	Canada	NS	Halifax	37.62
13	Canada	NT	Yellowknife	37.62
14	Canada	ON	Ottawa	37.62
15	Canada	ON	Toronto	37.62
16	Canada	QC	Montréal	39.62
17	Chile	NULL	Santiago	46.62
18	Czech Republic	NULL	Prague	90.24
19	Denmark	NULL	Copenhagen	37.62
20	Finland	NULL	Helsinki	41.62
21	France	NULL	Bordeaux	39.62
22	France	NULL	Dijon	40.62
23	France	NULL	Lyon	37.62
24	France	NULL	Paris	77.24
25	Germany	NULL	Berlin	75.24

6. Total sales \$ by customer (a person with last name & first name) – ranked (sorted largest to smallest)

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'CONNECTIONS' tree with 'damg7370-mysrver.database.wi...' expanded. The right pane shows a query window with the following SQL query:

```
1 Select c.FirstName, c.LastName, Sum(i.total) as Sales
2 From invoice i
3 JOIN Customer c on c.CustomerId = i.CustomerId
4 Group by c.FirstName, c.LastName
5 Order by Sales Desc;
```

The 'Results' tab shows a table with 25 rows of data, sorted by Sales in descending order. The columns are FirstName, LastName, and Sales.

	FirstName	LastName	Sales
1	Helena	Holy	49.62
2	Richard	Cunningham	47.62
3	Luis	Rojas	46.62
4	Ladislav	Kovács	45.62
5	Hugh	O'Reilly	45.62
6	Julia	Barnett	43.62
7	Frank	Ralston	43.62
8	Fynn	Zimmermann	43.62
9	Victor	Stevens	42.62
10	Astrid	Gruber	42.62
11	Terhi	Hämäläinen	41.62
12	Isabelle	Mercier	40.62
13	Johannes	Van der Berg	40.62
14	František	Wichterlová	40.62
15	François	Tremblay	39.62
16	Jack	Smith	39.62
17	Dan	Miller	39.62
18	Heather	Leacock	39.62
19	Björn	Hansen	39.62
20	Wyatt	Girard	39.62
21	Luis	Gonçalves	39.62
22	João	Fernandes	39.62
23	Camille	Bernard	38.62
24	Tim	Goyer	38.62
25	Dominique	Lefebvre	38.62

7. Total sales \$ by company – ranked (sorted largest to smallest)

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'CONNECTIONS' tree with 'damg7370-mysrver.database.wi...' expanded. The right pane shows a query window with the following SQL query:

```
1 Select c.Company, sum(i.total) as Sales from invoice i
2 Join Customer c on c.CustomerId=i.CustomerId
3 Group by c.Company
4 Order by Sales Desc;
```

The 'Results' tab is active, displaying a table with 11 rows and 2 columns: 'Company' and 'Sales'. The data is sorted in descending order of sales.

	Company	Sales
1	NULL	1943.40
2	JetBrains s.r.o.	40.62
3	Microsoft Corporation	39.62
4	Embraer – Empresa Brasile...	39.62
5	Apple Inc.	38.62
6	Rogers Canada	38.62
7	Telus	37.62
8	Woodstock Discos	37.62
9	Riotur	37.62
10	Banco do Brasil S.A.	37.62
11	Google Inc.	37.62

The status bar at the bottom indicates: Ln 4, Col 21 Spaces: 4 UTF-8 LF SQL 11 rows MSSQL 00:00:00 damg7370-mysrver.database.windows.net : Chinook

8. Total sales \$ by artist – ranked (sorted largest to smallest)

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'CONNECTIONS' tree with 'damg7370-mysrver.database.wi...' expanded. The right pane shows a query window with the following SQL query:

```
2 From artist a
3 Join Album l on a.ArtistId=l.ArtistId
4 Join Track t on l.AlbumId=t.AlbumId
5 Join InvoiceLine i on i.TrackId=t.TrackId
6 Join Invoice n on i.InvoiceId=n.InvoiceId
7 group by a.ArtistId
8 order by sales desc;
```

The 'Results' tab is active, displaying a table with 25 rows and 2 columns: 'ArtistId' and 'sales'. The data is sorted in descending order of sales.

	ArtistId	sales
1	90	1233.54
2	150	895.59
3	149	833.70
4	22	620.73
5	50	599.94
6	58	550.44
7	118	408.87
8	100	372.51
9	152	336.82
10	156	328.80
11	21	318.78
12	127	299.97
13	82	296.01
14	84	270.27
15	146	269.75
16	113	265.32
17	51	256.41
18	142	249.48
19	81	241.56
20	148	238.61
21	8	228.81
22	88	222.75
23	18	219.78
24	124	216.81
25	76	215.02

The status bar at the bottom indicates: Ln 8, Col 20 Spaces: 4 UTF-8 LF SQL 165 rows MSSQL 00:00:00 damg7370-mysrver.database.windows.net : Chinook

9. Total sales \$ by album – ranked (sorted largest to smallest)

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'SERVERS' tree with 'damg7370-mysrver.database.windows.net' expanded. The right pane shows a SQL query window with the following query:

```
2 from Album a
3 Join Track t on a.AlbumId=t.AlbumId
4 Join InvoiceLine i on t.TrackId=i.TrackId
5 Join Invoice n on i.InvoiceId=n.InvoiceId
6 group by a.AlbumId
7 order by sales desc;
```

The 'Results' tab is active, displaying a table with 25 rows of data. The columns are 'AlbumId' and 'sales'.

AlbumId	sales
141	372.51
231	290.18
228	238.61
230	223.65
229	211.80
227	202.80
23	185.13
251	170.93
248	161.74
253	157.10
73	151.47
225	139.99
83	138.60
232	133.16
224	129.76
24	129.69
51	127.71
221	123.75
255	121.94
250	120.16
37	117.81
167	116.82
39	115.83
243	114.90
234	112.18

The status bar at the bottom indicates: Ln 7, Col 21 Spaces: 4 UTF-8 LF SQL 304 rows MSSQL 00:00:00 damg7370-mysrver.database.windows.net : Chinook

10. Total sales \$ by salesperson (employee)

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'SERVERS' tree with 'damg7370-mysrver.database.windows.net' expanded. The right pane shows a SQL query window with the following query:

```
2 Join Customer c on e.EmployeeId = c.SupportRepId
3 Join Invoice i on c.CustomerId=i.InvoiceId
4 Group by e.EmployeeId, e.FirstName, e.LastName
5 Order by Sales Desc
```

The 'Results' tab is active, displaying a table with 3 rows of data. The columns are 'EmployeeId', 'FirstName', 'LastName', and 'Sales'.

EmployeeId	FirstName	LastName	Sales
3	Jane	Peacock	129.69
4	Margaret	Park	100.98
5	Steve	Johnson	82.17

The status bar at the bottom indicates: Ln 5, Col 20 Spaces: 4 UTF-8 LF SQL 3 rows MSSQL 00:00:00 damg7370-mysrver.database.windows.net : Chinook

11. Total sales \$ by media type

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'SERVERS' tree with 'damg7370-mysrver.database.wi...' expanded, showing 'Databases' and 'Security'. The right pane shows a query window titled 'SQLQuery_1 - damg73...mahima)'. The query is as follows:

```
2 Join Track t on t.MediaTypeId=m.MediaTypeId
3 Join InvoiceLine i on i.TrackId=t.TrackId
4 Join Invoice n on n.InvoiceId=i.InvoiceId
5 Group by m.MediaTypeId, m.Name
6 Order by Sales Desc;
```

The 'Results' tab is active, displaying a table with 5 rows and 4 columns: 'MediaTypeId', 'Name', and 'Sales'. The data is as follows:

MediaTypeId	Name	Sales
1	MPEG audio file	17838.27
3	Protected MPEG-4 video fi...	1775.98
2	Protected AAC audio file	1160.11
5	AAC audio file	48.58
4	Purchased AAC audio file	25.76

The bottom status bar indicates 'Ln 6, Col 21 Spaces: 4 UTF-8 LF SQL 5 rows MSSQL 00:00:00 damg7370-mysrver.database.windows.net : Chinook'.

12. Total sales \$ by genre

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'SERVERS' tree with 'damg7370-mysrver.database.wi...' expanded, showing 'Databases' and 'Security'. The right pane shows a query window titled 'SQLQuery_1 - damg73...mahima)'. The query is as follows:

```
2 Join Track t on t.GenreId=g.GenreId
3 Join InvoiceLine i on i.TrackId=t.TrackId
4 Join Invoice n on i.InvoiceId=n.InvoiceId
5 Group by g.GenreId, g.Name
6 Order by sales desc
```

The 'Results' tab is active, displaying a table with 24 rows and 4 columns: 'GenreId', 'Name', and 'sales'. The data is as follows:

GenreId	Name	sales
1	Rock	7720.02
7	Latin	3472.55
3	Metal	2093.13
4	Alternative & Punk	1961.66
19	TV Shows	817.71
2	Jazz	746.46
21	Drama	544.61
6	Blues	429.66
14	R&B/Soul	338.62
8	Reggae	332.64
24	Classical	317.04
10	Soundtrack	242.55
9	Pop	239.75
23	Alternative	211.17
20	Sci Fi & Fantasy	198.87
16	World	182.18
17	Hip Hop/Rap	166.41
13	Heavy Metal	161.37
15	Electronica/Dance	149.62
12	Easy Listening	138.60
22	Comedy	112.30
18	Science Fiction	102.41
11	Bossa Nova	86.13
5	Rock And Roll	83.16

The bottom status bar indicates 'Ln 6, Col 20 Spaces: 4 UTF-8 LF SQL 24 rows MSSQL 00:00:00 damg7370-mysrver.database.windows.net : Chinook'.

13. What are the total sales \$ by year

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'CONNECTIONS' tree with 'SERVERS' expanded, showing a connection to 'damg7370-mysrver.database.windows.net'. The right pane shows a SQL query window with the following query:

```
2 Group by year(i.InvoiceDate)
3 Order by YY Desc;
```

The 'Results' tab is active, displaying a table with 5 rows and 3 columns: 'YY', 'Total', and an unlabeled column. The data is as follows:

	YY	Total
1	2013	450.58
2	2012	477.53
3	2011	469.58
4	2010	481.45
5	2009	449.46

The status bar at the bottom indicates 'Ln 3, Col 18', 'Spaces: 4', 'UTF-8', 'LF', 'SQL', '5 rows', 'MSSQL', '00:00:00', and the connection name 'damg7370-mysrver.database.windows.net : Chinook'.

14. What are the total sales \$ by year - month

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'CONNECTIONS' tree with 'SERVERS' expanded, showing a connection to 'damg7370-mysrver.database.windows.net'. The right pane shows a SQL query window with the following query:

```
2 Group by year(i.InvoiceDate),month(i.InvoiceDate)
3 Order by YY Desc;
```

The 'Results' tab is active, displaying a table with 25 rows and 4 columns: 'YY', 'Mon', 'Total', and an unlabeled column. The data is as follows:

	YY	Mon	Total
1	2013	1	37.62
2	2013	2	27.72
3	2013	3	37.62
4	2013	4	33.66
5	2013	5	37.62
6	2013	6	37.62
7	2013	7	37.62
8	2013	8	37.62
9	2013	9	37.62
10	2013	10	37.62
11	2013	11	49.62
12	2013	12	38.62
13	2012	1	37.62
14	2012	2	37.62
15	2012	3	37.62
16	2012	4	37.62
17	2012	5	37.62
18	2012	6	37.62
19	2012	7	39.62
20	2012	8	47.62
21	2012	9	46.71
22	2012	10	42.62
23	2012	11	37.62
24	2012	12	37.62
25	2011	1	37.62

The status bar at the bottom indicates 'Ln 3, Col 18', 'Spaces: 4', 'UTF-8', 'LF', 'SQL', '60 rows', 'MSSQL', '00:00:00', and the connection name 'damg7370-mysrver.database.windows.net : Chinook'.

15. What are the employees' name, birthday, Hiredate, years of working with company (assume as of 2013-12-31), address, city, state, country, title, manager and manager's title

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'CONNECTIONS' pane shows a server named 'damg7370-mysrver.database.windows.net'. The main pane displays a SQL query and its results.

SQL Query:

```

6 CASE
7 WHEN ReportsTo = '6' THEN 'IT Manager'
8 WHEN ReportsTo = '2' THEN 'Sales Manager'
9
10 ELSE 'General Manager'
11 END
12 From Employee e

```

Results:

	FirstName	Birthday	Hiringdate	City	State	Country	NoOfYearsWorked	title	Manager Title
1	Andrew	18/02/1962	14/08/2002	Edmonton	AB	Canada	11	General Manager	General Manager
2	Nancy	08/12/1958	01/05/2002	Calgary	AB	Canada	11	Sales Manager	General Manager
3	Jane	29/08/1973	01/04/2002	Calgary	AB	Canada	11	Sales Support Agent	Sales Manager
4	Margaret	19/09/1947	03/05/2003	Calgary	AB	Canada	10	Sales Support Agent	Sales Manager
5	Steve	03/03/1965	17/10/2003	Calgary	AB	Canada	10	Sales Support Agent	Sales Manager
6	Michael	01/07/1973	17/10/2003	Calgary	AB	Canada	10	IT Manager	General Manager
7	Robert	29/05/1970	02/01/2004	Lethbridge	AB	Canada	9	IT Staff	IT Manager
8	Laura	09/01/1968	04/03/2004	Lethbridge	AB	Canada	9	IT Staff	IT Manager

16. What are the total sales \$ by employee age at the time of the invoice date

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'CONNECTIONS' pane shows a server named 'damg7370-mysrver.database.windows.net'. The main pane displays a SQL query and its results.

SQL Query:

```

4 group by DATEDIFF(YEAR, e.Birthday, i.InvoiceDate) , e.EmployeeId, e.FirstName, e.LastName

```

Results:

	FirstName	LastName	EmployeeId	TotalSales	Age
1	Jane	Peacock	3	123.75	36
2	Jane	Peacock	3	221.92	37
3	Jane	Peacock	3	184.34	38
4	Jane	Peacock	3	146.60	39
5	Jane	Peacock	3	156.43	40
6	Margaret	Park	4	161.37	62
7	Margaret	Park	4	122.76	63
8	Margaret	Park	4	125.77	64
9	Margaret	Park	4	197.20	65
10	Margaret	Park	4	168.30	66
11	Steve	Johnson	5	164.34	44
12	Steve	Johnson	5	136.77	45
13	Steve	Johnson	5	159.47	46
14	Steve	Johnson	5	133.73	47
15	Steve	Johnson	5	125.85	48

17. What are the total sales \$ by employees who are in their 30s, 40s, 50s and 60s (employee age at the time of the invoice date)

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'CONNECTIONS' tree with 'damg7370-mysrver.database.windows.net' selected. The right pane shows a SQL query window with the following query:

```
8 inner join Employee e on c.SupportRepId = e.EmployeeId
9 group by
10 case when DATEDIFF(YEAR, e.BirthDate, i.InvoiceDate) between 30 and 39 then 'Age - 30s'
11 when DATEDIFF(YEAR, e.BirthDate, i.InvoiceDate) between 40 and 49 then 'Age - 40s'
12 when DATEDIFF(YEAR, e.BirthDate, i.InvoiceDate) between 50 and 59 then 'Age - 50s'
13 else 'Age- 60s'
14 end;
```

The 'Results' pane shows the following data:

	TotalSales	agegroup
1	676.61	Age - 30s
2	876.59	Age - 40s
3	775.40	Age- 60s

The status bar at the bottom indicates the current position is Ln 14, Col 5, with 3 rows of data.