

ASSIGNMENT - 04

1. ORDER BY clause

QUERY : **SELECT** * from User **ORDER BY** firstName ;

OUTPUT : Details of users with firstName;

The screenshot displays the MySQL Workbench interface. The 'Query' tab is active, showing the following SQL query:

```
1 USE Travel;
2 SELECT *FROM User order by firstName;
```

The 'Result Grid' tab shows the results of the query. The results are displayed in a table with the following columns: #, userid, adminid, firstName, lastName, age, contactNo, emailid, and password. The results are sorted by firstName in ascending order.

#	userid	adminid	firstName	lastName	age	contactNo	emailid	password
1	1	2	HARRY	Mathews	27	887636421	HARRY@gmail.com	aassdu
2	3	2	Katy	Mathews	22	987634421	katy@gmail.com	aassdu2
3	5	1	Kmann	hector	21	587636421	Kmann@gmail.com	aassdu4
4	2	2	Ronald	Styles	22	987636421	ronald@gmail.com	aassdu1
5	4	3	Sean	Mathews	18	687636421	Sean@gmail.com	aassdu3
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

The 'Action Output' tab shows the execution details of the query. The results are displayed in a table with the following columns: #, Time, Action, Message, and Duration / Fetch. The results show the execution of the query and the number of rows affected and returned.

#	Time	Action	Message	Duration / Fetch
1	12:51:50	USE Travel	0 row(s) affected	0.00032 sec
2	12:54:14	USE Travel	0 row(s) affected	0.00055 sec
3	12:54:14	SELECT *FROM User order by firstName LIMIT 0, 1000	5 row(s) returned	0.019 sec / 0.00004...

2. GROUP BY & HAVING

QUERY : `SELECT * FROM Transport GROUP BY TransportType, charges HAVING charges > 2500 ;`

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL code:

```
1 • USE Travel;
2 • SELECT * from Transport;
3 • SELECT * from Transport Group By transportType,charges Having charges > 2500;
4
```

The query is executed, and the results are displayed in the Result Grid:

transportId	bookingAgencyId	transportType	charges
1	1	Flight	5000
2	1	Flight	10000

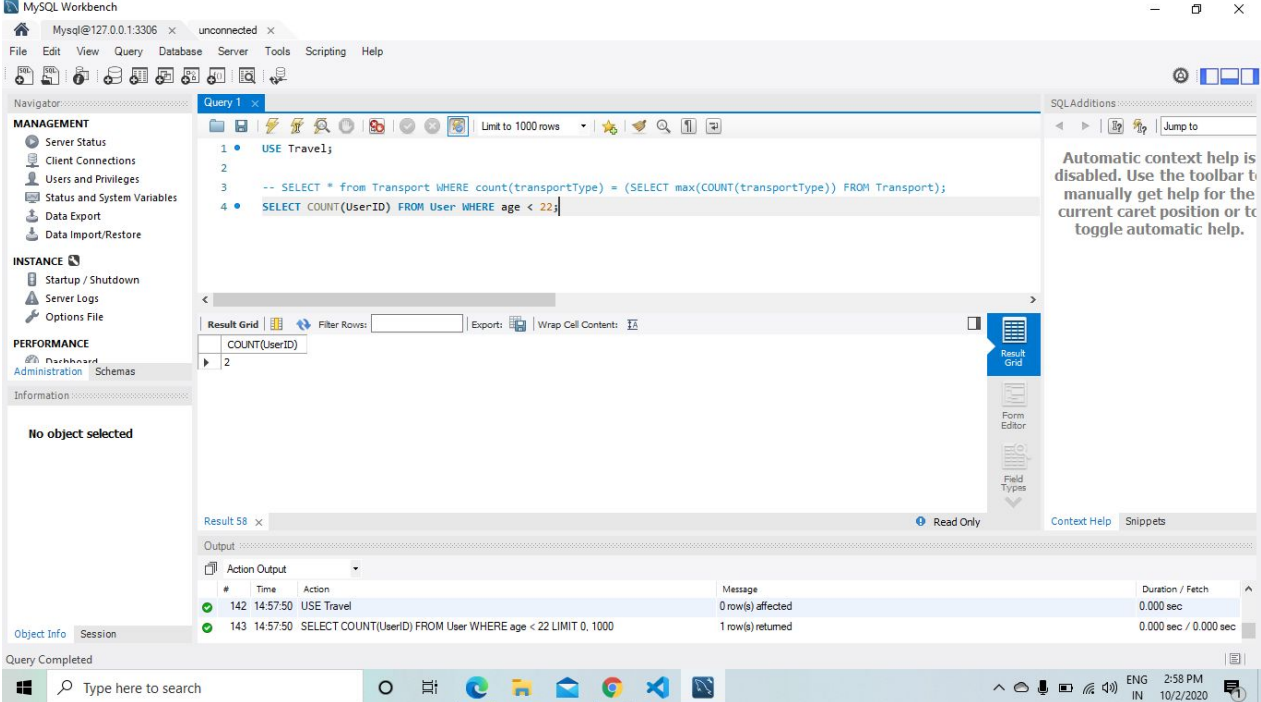
The Output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
55	14:23:53	SELECT * from Transport LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
56	14:23:53	SELECT * from Transport Group By transportType,charges Having charges > 2500 LIMIT 0, ...	2 row(s) returned	0.000 sec / 0.000 sec

3. AGGREGATE FUNCTIONS

a. COUNT

QUERY : `SELECT COUNT(UserID) FROM User WHERE age < 22;`



The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL code:

```
1 • USE Travel;
2
3 -- SELECT * from Transport WHERE count(transportType) = (SELECT max(COUNT(transportType)) FROM Transport);
4 • SELECT COUNT(UserID) FROM User WHERE age < 22;
```

The result grid shows the following data:

COUNT(UserID)
2

The output pane shows the following execution details:

#	Time	Action	Message	Duration / Fetch
142	14:57:50	USE Travel	0 row(s) affected	0.000 sec
143	14:57:50	SELECT COUNT(UserID) FROM User WHERE age < 22 LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

b. AVERAGE

QUERY : `SELECT AVG(price) AS averagePrice FROM Advertisements;`

The screenshot displays the MySQL Workbench interface. The left sidebar contains the 'Navigator' pane with sections for 'MANAGEMENT' (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore), 'INSTANCE' (Startup / Shutdown, Server Logs, Options File), and 'PERFORMANCE' (Administration, Schemas). The main workspace shows a 'Query' editor with the following SQL script:

```
1 • USE Travel;
2
3 • SELECT AVG(price) AS averagePrice FROM Advertisements;
```

Below the query editor, the 'Result Grid' shows the output of the query:

averagePrice
2200.0000

The 'Output' pane at the bottom displays the 'Action Output' table, which includes the following rows:

#	Time	Action	Message	Duration / Fetch
146	14:59:44	USE Travel	0 row(s) affected	0.000 sec
147	14:59:44	SELECT AVG(price) AS averagePrice FROM Advertisements LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

The status bar at the bottom indicates 'Query Completed'.

c. SUM

QUERY : `SELECT Sum(age) AS totalAge FROM User;`

The screenshot displays the MySQL Workbench interface. The left sidebar contains the 'Navigator' pane with sections for 'MANAGEMENT' (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore), 'INSTANCE' (Startup / Shutdown, Server Logs, Options File), and 'PERFORMANCE' (Administration, Schemas). The main query editor shows a query with three lines: 1. `USE Travel;`, 2. (blank), and 3. `SELECT Sum(age) AS totalAge FROM User;`. The 'Result Grid' below the query shows a single column 'totalAge' with a value of 110. The 'Output' pane at the bottom shows the execution log with two entries: 148 15:00:28 USE Travel (0 row(s) affected, 0.000 sec) and 149 15:00:28 SELECT Sum(age) AS totalAge FROM User LIMIT 0, 1000 (1 row(s) returned, 0.000 sec / 0.000 sec). The status bar at the bottom indicates 'Query Completed'.

MySQL Workbench

mysql@127.0.0.1:3306 x unconnected x

File Edit View Query Database Server Tools Scripting Help

Navigator: Query 1 x

MANAGEMENT

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Administration
- Schemas

Information

No object selected

Result Grid

totalAge
110

Result 60 x Read Only Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
148	15:00:28	USE Travel	0 row(s) affected	0.000 sec
149	15:00:28	SELECT Sum(age) AS totalAge FROM User LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Type here to search

ENG 3:00 PM 10/2/2020

4. LOGICAL OPERATORS ESPECIALLY WITH LIKE

a. AND operator with LIKE

QUERY : SELECT * FROM User WHERE contactNo Like '9%' AND age>20;

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
1 • USE Travel;
2
3 • SELECT * FROM User WHERE contactNo Like '9%' AND age>20;
```

The query has been executed, and the results are displayed in the Result Grid. The results show two rows of data from the 'User' table:

	userId	adminId	firstName	lastName	age	contactNo	emailId	password
▶	2	2	Ronald	Styles	22	987636421	ronald@gmail.com	aassdu1
▶	3	2	Katy	Mathews	22	987634421	katy@gmail.com	aassdu2

The Output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
154	15:06:13	USE Travel	0 row(s) affected	0.000 sec
155	15:06:13	SELECT * FROM User WHERE contactNo Like '9%' AND age>20 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

The status bar at the bottom indicates 'Query Completed'.

b.OR operator with LIKE

QUERY: SELECT * FROM User WHERE contactNo Like '9%' OR age>20;

The screenshot displays the MySQL Workbench interface. The 'Query' tab is active, showing the following SQL query:

```
1 • USE Travel;
2
3 • SELECT * FROM User WHERE contactNo Like '9%' OR age>20;
```

The 'Result Grid' shows the results of the query, which returned 4 rows. The columns are: userId, adminId, firstName, lastName, age, contactNo, emailId, and password. The data is as follows:

userId	adminId	firstName	lastName	age	contactNo	emailId	password
1	2	HARRY	Styles	27	887636421	HARRY@gmail.com	aassdu
2	2	Ronald	Styles	22	987636421	ronald@gmail.com	aassdu1
3	2	Katy	Mathews	22	987634421	katy@gmail.com	aassdu2
5	1	Knann	hector	21	587636421	Knann@gmail.com	aassdu4

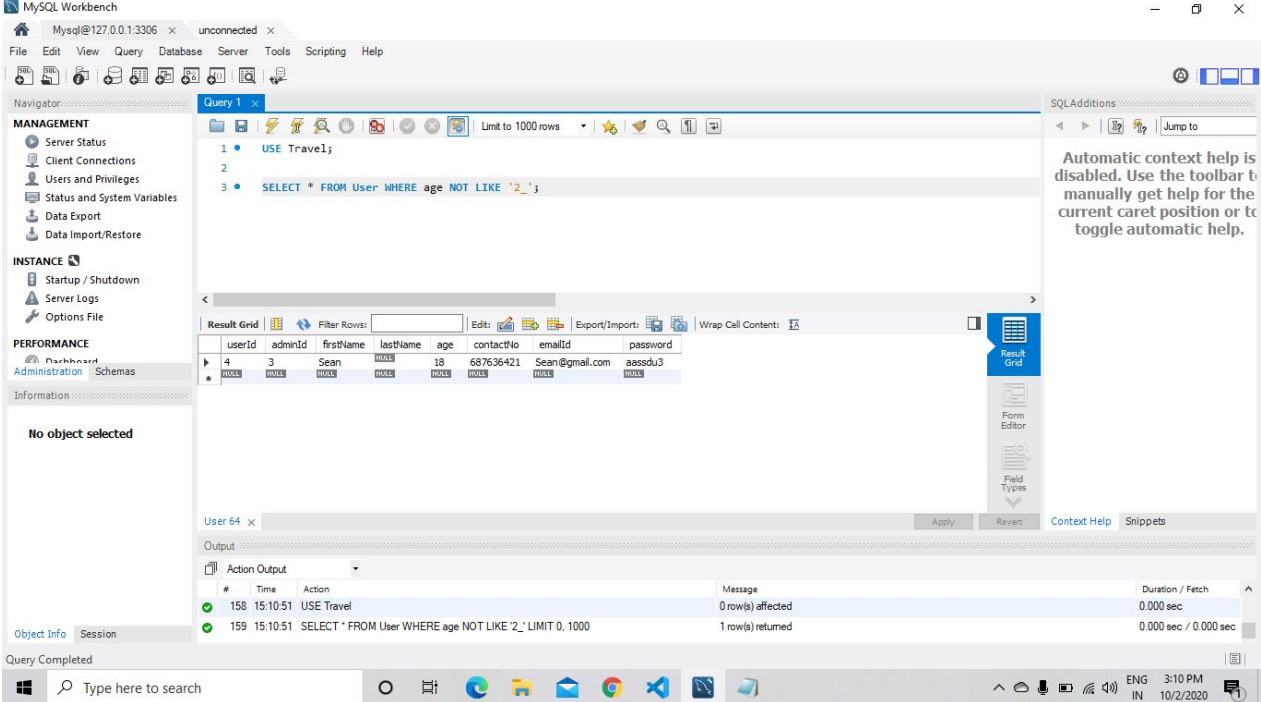
The 'Output' tab shows the execution log with the following entries:

#	Time	Action	Message	Duration / Fetch
156	15:08:33	USE Travel	0 row(s) affected	0.000 sec
157	15:08:33	SELECT * FROM User WHERE contactNo Like '9%' OR age>20 LIMIT 0, 1000	4 row(s) returned	0.016 sec / 0.000 sec

The 'Query Completed' status is shown at the bottom. The system tray at the bottom right indicates the date and time as 10/2/2020, 3:08 PM.

c.NOT operator with LIKE

QUERY: SELECT * FROM User WHERE age NOT LIKE '2_';



MySQL Workbench interface showing a query execution. The query is: `SELECT * FROM User WHERE age NOT LIKE '2_';`

The result grid displays the following data:

userId	adminId	firstName	lastName	age	contactNo	emailId	password
4	3	Sean	NOTES	18	687636421	Sean@gmail.com	aassdu3

The output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
158	15:10:51	USE Travel	0 row(s) affected	0.000 sec
159	15:10:51	SELECT * FROM User WHERE age NOT LIKE '2_' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

5. Nested Queries

- a. QUERY: `SELECT * FROM User Where age > (SELECT AVG(age) FROM User);`

The screenshot displays the MySQL Workbench interface. The 'Query' tab is active, showing the following SQL query:

```
1 • USE Travel;
2
3 • SELECT * FROM User Where age > (SELECT AVG(age) FROM User);
```

The 'Result Grid' shows the results of the query execution:

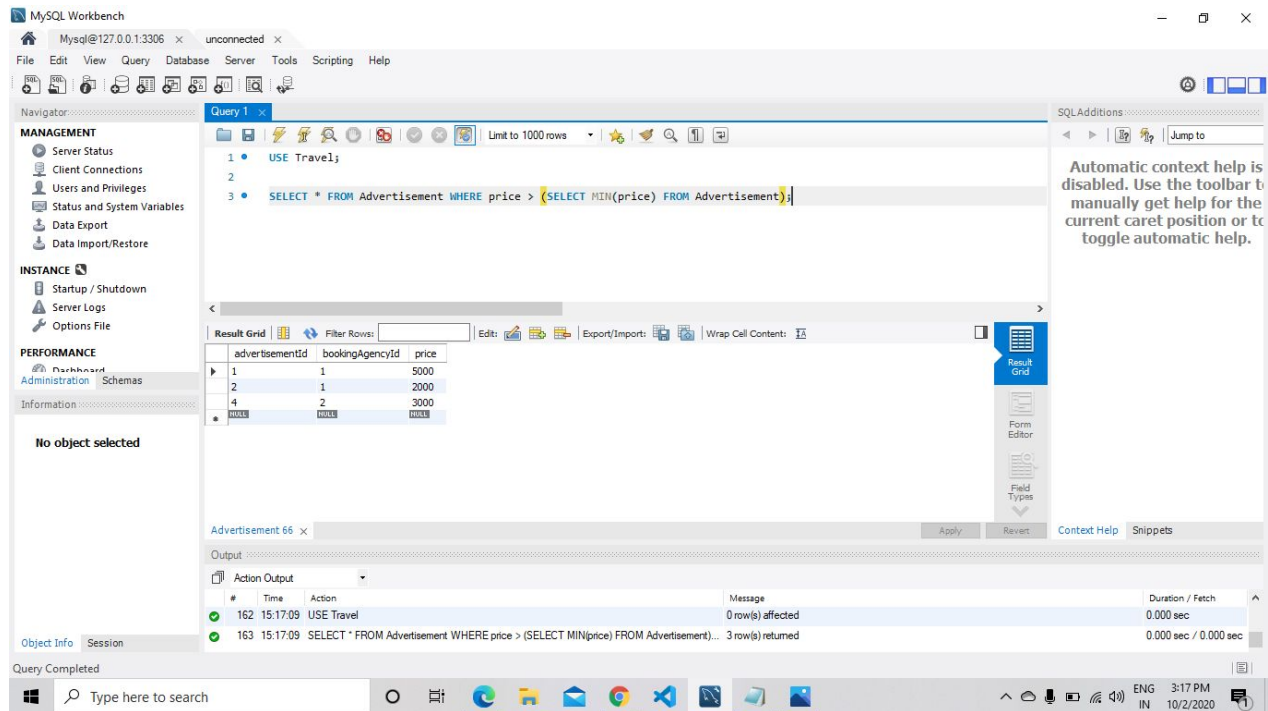
	userId	adminId	firstName	lastName	age	contactNo	emailId	password
1	1	1	HARRY	1	27	887636421	HARRY@gmail.com	aasdu

The 'Output' pane at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
160	15:14:49	USE Travel	0 row(s) affected	0.000 sec
161	15:14:49	SELECT * FROM User Where age > (SELECT AVG(age) FROM User) LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

The status bar at the bottom indicates 'Query Completed'.

b. QUERY: `SELECT * FROM Advertisement WHERE price > (SELECT MIN(price) FROM Advertisement);`



MySQL Workbench

Navigator

MANAGEMENT

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Dashboard
- Administration
- Schemas

Information

No object selected

Query 1

```
1 • USE Travel;
2
3 • SELECT * FROM Advertisement WHERE price > (SELECT MIN(price) FROM Advertisement);
```

Result Grid

	advertisementId	bookingAgencyId	price
1	1	1	5000
2	2	1	2000
4	2	2	3000
•	HIDE	HIDE	HIDE

Advertisement 66

Output

Action Output

#	Time	Action	Message	Duration / Fetch
162	15:17:09	USE Travel	0 row(s) affected	0.000 sec
163	15:17:09	SELECT * FROM Advertisement WHERE price > (SELECT MIN(price) FROM Advertisement)...	3 row(s) returned	0.000 sec / 0.000 sec

Query Completed

ENG 3:17 PM 10/2/2020

- c. QUERY: SELECT firstName, lastName, transportType FROM User as u, Transport as t WHERE transportType IN (SELECT transportType FROM Transport where transportType =(SELECT MAX(transportType) FROM Transport));

The screenshot displays the MySQL Workbench interface. The left sidebar contains the 'MANAGEMENT' section with options like Server Status, Client Connections, and Users and Privileges. The 'INSTANCE' section includes Startup / Shutdown, Server Logs, and Options File. The 'PERFORMANCE' section has Administration and Schemas. The main query editor shows a query with three lines: 1. USE Travel; 2. 3. SELECT firstName, lastName, transportType FROM User as u, Transport as t WHERE transportType IN (SELECT transportType FROM Transport where transportType =(SELECT MAX(transportType) FROM Transport));. The 'Result Grid' shows the following data:

firstName	lastName	transportType
HARRY	Styles	Train
Ronald	Styles	Train
Katy	Mathews	Train
Sean	Mathews	Train
Khann	hector	Train

The 'Output' section shows the 'Action Output' table with the following data:

#	Time	Action	Message	Duration / Fetch
176	15:27:13	USE Travel	0 row(s) affected	0.015 sec
177	15:27:13	SELECT firstName, lastName, transportType FROM User as u, Transport as t WHERE transportType IN (SELECT transportType FROM Transport where transportType =(SELECT MAX(transportType) FROM Transport));	5 row(s) returned	0.000 sec / 0.000 sec

The bottom status bar indicates 'Query Completed'.

d. QUERY: SELECT * FROM Advertisement WHERE price IN (SELECT price FROM Advertisement where price <(SELECT MAX(price) FROM Advertisement));

The screenshot shows the MySQL Workbench interface. The left sidebar contains the 'Navigator' pane with sections for 'MANAGEMENT' (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore), 'INSTANCE' (Startup / Shutdown, Server Logs, Options File), and 'PERFORMANCE' (Administration, Schemas). The main editor displays a SQL query: `USE Travel;` followed by `SELECT * FROM Advertisement WHERE price IN (SELECT price FROM Advertisement where price <(SELECT MAX(price) FROM Advertisement));`. The 'Result Grid' shows the following data:

advertisementId	bookingAgencyId	price
2	1	2000
3	2	500
4	2	3000
5	2	500

The 'Output' pane at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
180	15:32:05	USE Travel	0 row(s) affected	0.000 sec
181	15:32:05	SELECT * FROM Advertisement WHERE price IN (SELECT price FROM Advertisement where price <(SELECT MAX(price) FROM Advertisement));	4 row(s) returned	0.000 sec / 0.000 sec

The status bar at the bottom indicates 'Query Completed'.