

# Lab 5:-

## Aircraft:-

The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' pane shows a tree view with 'lab5' selected. Under 'lab5', there are 'Tables' (aircraft, certified, employees, flights) and 'Views'. The 'aircraft' table is highlighted. The main editor shows a query: `use lab5; select * from aircraft LIMIT 0, 1000;`. The 'Result Grid' shows the following data:

aid	aname	cruisingrange
101	747	3000
102	Boeing	900
103	647	800
104	Dreamliner	10000
105	Boeing	3500
106	707	1500
107	Dream	120000

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

#	Time	Action	Message	Duration / Fetch
49	11:39:35	use lab5	0 row(s) affected	0.000 sec
50	11:39:35	select * from aircraft LIMIT 0, 1000	7 row(s) returned	0.016 sec / 0.000 sec

## Employees:-

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

- 145
- lab1
- lab2
- lab3
- lab4
- lab5
  - Tables
    - aircraft
    - certified
    - employees
    - flights
  - Views
  - Stored Procedures
  - Functions
- it1
- sakila
- sys
- world

Administration Schemas

Information

Schema: lab5

Query 1

```
1 • use lab5;
2 • select * from employees;
```

Result Grid

eid	ename	salary
701	A	50000
702	B	100000
703	C	150000
704	D	90000
705	E	40000
706	F	60000

employees 2

Output

Action Output

#	Time	Action	Message	Duration / Fetch
53	11:40:36	use lab5	0 row(s) affected	0.000 sec
54	11:40:36	select * from employees LIMIT 0, 1000	6 row(s) returned	0.031 sec / 0.000 sec

Object Info Session

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

## Certified

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

- 145
- lab1
- lab2
- lab3
- lab4
- lab5
  - Tables
    - aircraft
    - certified
    - employees
    - flights
  - Views
  - Stored Procedures
  - Functions
- it1
- sakila
- sys
- world

Administration Schemas

Information

Schema: lab5

Query 1

```
1 • use lab5;
2 • select * from certified;
```

Result Grid

eid	aid
701	101
701	102
701	106
701	105
702	104
703	104
702	107
703	107
704	107
702	101
703	105
704	105
705	103

certified 3

Output

Action Output

#	Time	Action	Message	Duration / Fetch
55	11:41:18	use lab5	0 row(s) affected	0.000 sec

Object Info Session

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

## Flights:-

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

145  
lab1  
lab2  
lab3  
lab4  
lab5

Tables  
aircraft  
certified  
employees  
flights

Views  
Stored Procedures  
Functions

It1  
sakila  
sys  
world

Administration Schemas

Information

Schema: lab5

Query 1 x

Limit to 1000 rows

```
1 • use lab5;
2 • select * from flights;
```

Result Grid

	fno	pfrom	pto	distance	departs	arrives	price
101	Bangalore	Delhi	2500	07:15:31	17:15:31	5000	
102	Bangalore	Lucknow	3000	07:15:31	11:15:31	6000	
103	Lucknow	Delhi	500	12:15:31	17:15:31	3000	
104	Bangalore	Frankfurt	8500	07:15:31	23:15:31	75000	
105	Kolkata	Delhi	3400	07:15:31	09:15:31	7000	
106	Madison	New York	3400	07:15:31	17:15:31	7000	
107	Bangalore	Frankfurt	8000	07:15:31	22:15:31	60000	
	NULL	NULL	NULL	NULL	NULL	NULL	NULL

flights 4 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
56	11:41:18	select * from certified LIMIT 0, 1000	14 row(s) returned	0.016 sec / 0.000 sec
57	11:42:13	use lab5	0 row(s) affected	0.000 sec
58	11:42:13	select * from flights LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

1)

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

145  
lab1  
lab2  
lab3  
lab4  
lab5

Tables  
aircraft  
certified  
employees  
flights

Views  
Stored Procedures  
Functions

It1  
sakila  
sys  
world

Administration Schemas

Information

Schema: lab5

Query 1 x

Limit to 1000 rows

```
1 •
2 • (a.aname) from aircraft a where a.aid in (select c.aid from certified c where c.eid in (select e.eid from employees e where e.salary>80000));
```

Result Grid

	aname
Dreamliner	
Dream	
747	
Boeing	

Result 5 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
58	11:42:13	select * from flights LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
59	11:43:51	use lab5	0 row(s) affected	0.000 sec
60	11:43:51	select distinct(a.aname) from aircraft a where a.aid in (select c.aid from certified c where c.eid in (select e.eid fr...	4 row(s) returned	0.015 sec / 0.000 sec

Object Info Session

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

2)

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

145  
lab1  
lab2  
lab3  
lab4  
lab5

Tables  
aircraft  
certified  
employees  
flights

Views  
Stored Procedures  
Functions

It1  
sakila  
sys  
world

Administration Schemas

Information

Schema: lab5

Query 1 x

Limit to 1000 rows

1  
2 | c,aircraft a where c.aid =a.aid and (select count(ca.aid) from certified ca where ca.eid=c.eid)>3 order by a.cruisingrange desc limit 1;

Result Grid

eid	cruisingrange
701	3500

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result 6 x

Read Only

Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
60	11:43:51	select distinct(a.aname) from aircraft a where a.aid in (select c.aid from certified c where c.eid in (select e.eid fr...	4 row(s) returned	0.015 sec / 0.000 sec
61	11:44:52	use lab5	0 row(s) affected	0.000 sec
62	11:44:52	select c.eid,a.cruisingrange from certified c,aircraft a where c.aid =a.aid and (select count(ca.aid) from certified ...	1 row(s) returned	0.015 sec / 0.000 sec

Object Info Session

3)

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

145  
lab1  
lab2  
lab3  
lab4  
lab5

Tables  
aircraft  
certified  
employees  
flights

Views  
Stored Procedures  
Functions

It1  
sakila  
sys  
world

Administration Schemas

Information

Schema: lab5

Query 1 x

Limit to 1000 rows

1  
2 | em.eid in( select e.eid from employees e where e.salary<(select min(f.price) from flights f where f.pfrom='Bangalore' and f.pto='Frankfurt'));

Result Grid

ename
A
E

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

employees 7 x

Read Only

Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
62	11:44:52	select c.eid,a.cruisingrange from certified c,aircraft a where c.aid =a.aid and (select count(ca.aid) from certified ...	1 row(s) returned	0.015 sec / 0.000 sec
63	11:45:39	use lab5	0 row(s) affected	0.000 sec
64	11:45:39	select em.ename from employees em where em.eid in( select e.eid from employees e where e.salary<(select min...	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

4)

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

145  
lab1  
lab2  
lab3  
lab4  
lab5

Tables  
aircraft  
certified  
employees  
flights  
Views  
Stored Procedures  
Functions

Information

Schema: lab5

Query 1

```
1 • 5;  
2 • c.aid,avg(e.salary) from employees e,certified c,aircraft a where e.eid=c.eid and a.cruisingrange>1000 and c.aid=a.aid group by c.aid;
```

Result Grid

aid	avg(e.salary)
101	75000.0000
104	113333.3333
105	96666.6667
106	50000.0000
107	113333.3333

Output

Action Output

#	Time	Action	Message	Duration / Fetch
64	11:45:39	select em.ename from employees em where em.eid in (select e.aid from employees e where e.salary<(select min...	2 row(s) returned	0.000 sec / 0.000 sec
65	11:46:40	use lab5	0 row(s) affected	0.000 sec
66	11:46:40	select c.aid,avg(e.salary) from employees e,certified c,aircraft a where e.eid=c.eid and a.cruisingrange>1000 ...	5 row(s) returned	0.000 sec / 0.000 sec

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

5)

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

145  
lab1  
lab2  
lab3  
lab4  
lab5

Tables  
aircraft  
certified  
employees  
flights  
Views  
Stored Procedures  
Functions

Information

Schema: lab5

Query 1

```
1 •  
2 • employees e where e.eid in (select c.eid from certified c where c.eid=e.eid and c.aid in (select a.aid from aircraft a where a.name='Boeing'));
```

Result Grid

ename
A
C
D

Output

Action Output

#	Time	Action	Message	Duration / Fetch
66	11:46:40	select c.aid,avg(e.salary) from employees e,certified c,aircraft a where e.eid=c.eid and a.cruisingrange>1000 ...	5 row(s) returned	0.000 sec / 0.000 sec
67	11:47:33	use lab5	0 row(s) affected	0.000 sec
68	11:47:33	select distinct(e.ename) from employees e where e.eid in (select c.eid from certified c where c.eid=e.eid and c...	3 row(s) returned	0.000 sec / 0.000 sec

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

6)

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

145  
lab1  
lab2  
lab3  
lab4  
lab5

Tables  
aircraft  
certified  
employees  
flights  
Views  
Stored Procedures  
Functions

Information

Schema: lab5

Query 1 x

Limit to 1000 rows

```
1 • use lab5;
2 • select a.aid from aircraft a where a.cruisingrange >= (select f.distance from flights f where pfrom='Bangalore' and f.pto='Delhi');
```

Result Grid

aid
101
104
105
107

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

aircraft 10 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
68	11:47:33	select distinct(e ename) from employees e where e.aid in (select c.aid from certified c where c.aid=e.aid and c...	3 row(s) returned	0.000 sec / 0.000 sec
69	11:48:55	use lab5	0 row(s) affected	0.000 sec
70	11:48:55	select a.aid from aircraft a where a.cruisingrange >= (select f.distance from flights f where pfrom='Bangalore' an...	4 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

7)

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

145  
lab1  
lab2  
lab3  
lab4  
lab5

Tables  
aircraft  
certified  
employees  
flights  
Views  
Stored Procedures  
Functions

Information

Schema: lab5

Query 1 x

Limit to 1000 rows

```
1 • use lab5;
2 • select f1.departs from flights f1, flights f2 where f1.pfrom='Madison' and f2.pto='New York' and f2.arrives<'18:00';
```

Result Grid

departs
07:15:31

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result 11 x

Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
70	11:48:55	select a.aid from aircraft a where a.cruisingrange >= (select f.distance from flights f where pfrom='Bangalore' an...	4 row(s) returned	0.000 sec / 0.000 sec
71	11:49:45	use lab5	0 row(s) affected	0.000 sec
72	11:49:45	select f1.departs from flights f1, flights f2 where f1.pfrom='Madison' and f2.pto='New York' and f2.arrives<'18:00'...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session