

# LAB-4

## BANKING\_DATABASE

### OUTPUT SCREENSHOTS-

The screenshot displays the MySQL Workbench interface for a local instance of MySQL 8.0. The main window shows a query editor with the following SQL code:

```
53 (1003,'C',7500),
54 (1004,'D',50000),
55 (1005,'D',75000),
56 (1006,'E',500),
57 (1007,'B',500),
58 (1008,'B',1500);
59 select *from accounts;
60
61 insert into customer(customer_name,customer_street,customer_city) VALUES
```

The left sidebar shows the Schemas pane with a tree view containing 'book\_dealer', 'order\_processing', and 'sys'. The 'order\_processing' schema is selected. The bottom pane shows the 'Result Grid' with the following data:

acno	branch_name	balance
1001	A	10000
1002	B	5000
1004	D	50000
1005	D	75000
1006	E	500
1007	B	500
1008	B	1500

The bottom pane shows the 'Action Output' log with the following entries:

#	Time	Action	Message	Duration / Fetch
21	17:46:42	select from borrower LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
22	17:46:42	select customer_name from depositor join accounts on depositor acno = accounts acno where accounts bra...	1 row(s) returned	0.000 sec / 0.000 sec
23	17:46:42	select customer_name from depositor join accounts on accounts acno = depositor acno join branch on bran...	1 row(s) returned	0.000 sec / 0.000 sec
24	17:46:42	delete from accounts where branch_name in (select branch_name from branch where branch_city="Delhi")	1 row(s) affected	0.000 sec
25	17:46:42	select from accounts LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
26	17:50:15	select from accounts LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

order\_processing SQL File 11'

Limit to 1000 rows

```

61 insert into customer(customer_name,customer_street,customer_city) VALUES
62 ("Ravi","Dasarahalli","Bangalore"),
63 ("Shyam","Indiranagar","Delhi"),
64 ("Seema","Vasanthnagar","Chennai"),
65 ("Arpita","Church Street","Bangalore"),
66 ("Vinay","MG Road","Chennai");
67 select *from customer;
68
69 insert into depositor(customer_name,acno) VALUES

```

Result Grid

customer_name	customer_street	customer_city
Arpita	Church Street	Bangalore
Ravi	Dasarahalli	Bangalore
Seema	Vasanthnagar	Chennai
Shyam	Indiranagar	Delhi
Vinay	MG Road	Chennai

Output

Action Output

#	Time	Action	Message	Duration / Fetch
22	17:46:42	select customer_name from depositor join accounts on depositor.acno = accounts.acno where accounts bra...	1 row(s) returned	0.000 sec / 0.000 sec
23	17:46:42	select customer_name from depositor join accounts on accounts.acno = depositor.acno join branch on bran...	1 row(s) returned	0.000 sec / 0.000 sec
24	17:46:42	delete from accounts where branch_name in (select branch_name from branch where branch_city="Delhi")	1 row(s) affected	0.000 sec
25	17:46:42	select *from accounts LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
26	17:50:15	select *from accounts LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
27	17:51:12	select *from customer LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

17:51 21-05-2021

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

order\_processing SQL File 11'

Limit to 1000 rows

```

45 ('C','Delhi',235344),
46 ('D','Chennai',1059560),
47 ('E','Chennai',678909);
48 select *from branch;
49
50 insert into accounts(acno,branch_name,balance) VALUES
51 (1001,'A',10000),
52 (1002,'B',5000),
53 (1003,'C',7500),

```

Result Grid

branch_name	branch_city	assets
A	Bangalore	190000
B	Bangalore	200000
C	Delhi	235344
D	Chennai	1059560
E	Chennai	678909

Output

Action Output

#	Time	Action	Message	Duration / Fetch
23	17:46:42	select customer_name from depositor join accounts on depositor.acno = accounts.acno join branch on bran...	1 row(s) returned	0.000 sec / 0.000 sec
24	17:46:42	delete from accounts where branch_name in (select branch_name from branch where branch_city="Delhi")	1 row(s) affected	0.000 sec
25	17:46:42	select *from accounts LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
26	17:50:15	select *from accounts LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
27	17:51:12	select *from customer LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
28	17:52:40	select *from branch LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

17:52 21-05-2021

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

order\_processing SQL File 11'

Limit to 1000 rows

```

77  ("Vinay",1000);
78  select *from depositor;
79
80
81  insert into loan(loan_number,branch_name,amount) VALUES
82  (001,'A',10000),
83  (002,'B',25000),
84  (003,'B',250000),
85  (004,'C',5000),

```

Result Grid

customer_name	acno
Ravi	1001
Ravi	1002
Seema	1004
Seema	1005
Arpita	1006
Vinay	1007
Vinay	1008

depositor14 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
24	17:46:42	delete from accounts where branch_name in (select branch_name from branch where branch_city="Delhi")	1 row(s) affected	0.000 sec
25	17:46:42	select *from accounts LIMIT 0. 1000	7 row(s) returned	0.000 sec / 0.000 sec
26	17:50:15	select *from accounts LIMIT 0. 1000	7 row(s) returned	0.000 sec / 0.000 sec
27	17:51:12	select *from customer LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec
28	17:52:40	select *from branch LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec
29	17:53:36	select *from depositor LIMIT 0. 1000	7 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

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

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

order\_processing SQL File 11'

Limit to 1000 rows

```

85  (004,'C',5000),
86  (005,'E',90000);
87  select *from loan;
88
89  insert into borrower(customer_name,loan_number) VALUES
90  ("Arpita",001),
91  ("Ravi",002),
92  ("Arpita",003),
93  ("Shyam",004),

```

Result Grid

loan_number	branch_name	amount
1	A	10000
2	B	25000
3	B	250000
4	C	5000
5	E	90000

loan 15 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
25	17:46:42	select *from accounts LIMIT 0. 1000	7 row(s) returned	0.000 sec / 0.000 sec
26	17:50:15	select *from accounts LIMIT 0. 1000	7 row(s) returned	0.000 sec / 0.000 sec
27	17:51:12	select *from customer LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec
28	17:52:40	select *from branch LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec
29	17:53:36	select *from depositor LIMIT 0. 1000	7 row(s) returned	0.000 sec / 0.000 sec
30	17:54:08	select *from loan LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

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

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

order\_processing SQL File 11'

Limit to 1000 rows

97 /\*iii. Find all the customers who have at least two accounts at the Main branch \*/  
 98  
 99 select customer\_name from depositor  
 100 join accounts on depositor.accto = accounts.accto where accounts.branch\_name = "D"  
 101 group by depositor.customer\_name having count(depositor.customer\_name) >= 2  
 102  
 103 /\* iv. Find all the customers who have an account at all the branches located in a specific city.\*/  
 104  
 105 select customer\_name from depositor

Result Grid

customer\_name

Seema

Output

Action Output

#	Time	Action	Message	Duration / Fetch
27	17:51:12	select from customer LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
28	17:52:40	select from branch LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
29	17:53:36	select from depositor LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
30	17:54:08	select from loan LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
31	17:54:34	select from borrower LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
32	17:56:07	select customer_name from depositor join accounts on depositor.accto = accounts.accto where accounts.branch_name = "D"	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

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

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

order\_processing SQL File 11'

Limit to 1000 rows

104  
 105 select customer\_name from depositor  
 106 join accounts on accounts.accto = depositor.accto  
 107 join branch on branch.branch\_name = accounts.branch\_name  
 108 where branch.branch\_city = "Bangalore"  
 109 GROUP BY depositor.customer\_name  
 110 having count(DISTINCT branch.branch\_name) = (SELECT COUNT(branch\_name)  
 111 FROM branch  
 112 WHERE branch\_city = "Bangalore"))

Result Grid

customer\_name

Ravi

Output

Action Output

#	Time	Action	Message	Duration / Fetch
28	17:52:40	select from branch LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
29	17:53:36	select from depositor LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
30	17:54:08	select from loan LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
31	17:54:34	select from borrower LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
32	17:56:07	select customer_name from depositor join accounts on depositor.accto = accounts.accto where accounts.branch_name = "D"	1 row(s) returned	0.000 sec / 0.000 sec
33	18:01:18	select customer_name from depositor join accounts on accounts.accto = depositor.accto join branch on branch.branch_name = accounts.branch_name where branch.branch_city = "Bangalore" GROUP BY depositor.customer_name having count(DISTINCT branch.branch_name) = (SELECT COUNT(branch_name) FROM branch WHERE branch_city = "Bangalore"))	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

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

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

order\_processing SQL File 11"

Limit to 1000 rows

109 GROUP BY depositor.customer\_name  
 110 having count(DISTINCT branch.branch\_name) = (SELECT COUNT(branch\_name)  
 111 FROM branch  
 112 WHERE branch\_city = 'Bangalore');  
 113  
 114 /\*v. Demonstrate how you delete all account tuples at every branch located in a specific city.\*/  
 115 delete from accounts where branch\_name in  
 116 (select branch\_name from branch where branch\_city='Delhi');  
 117 select \*from accounts;

Result Grid

acno	branch_name	balance
1001	A	10000
1002	B	5000
1004	D	50000
1005	D	75000
1006	E	500
1007	B	500
1008	B	1500

accounts 19 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
29	17:53:36	select from depositor LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
30	17:54:08	select from loan LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
31	17:54:34	select from borrower LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
32	17:56:07	select customer_name from depositor join accounts on depositor.acno = accounts.acno where accounts bra...	1 row(s) returned	0.000 sec / 0.000 sec
33	18:01:18	select customer_name from depositor join accounts on accounts.acno = depositor.acno join branch on bran...	1 row(s) returned	0.000 sec / 0.000 sec
34	18:02:07	select from accounts LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

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

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

order\_processing SQL File 11"

Limit to 1000 rows

37 loan\_number int,  
 38 primary key(customer\_name, loan\_number),  
 39 foreign key (customer\_name) references customer(customer\_name) on delete cascade on update cascade,  
 40 foreign key (loan\_number) references loan(loan\_number) on delete cascade on update cascade);  
 41 show tables;  
 42 insert into branch(branch\_name,branch\_city,assets) values  
 43 ('A','Bangalore',1000000),  
 44 ('B','Bangalore',2000000),  
 45 ('C','Delhi',235344);

Result Grid

Tables\_in\_banking

- accounts
- borrower
- branch
- customer
- depositor
- loan

Result 20 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
30	17:54:08	select from loan LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
31	17:54:34	select from borrower LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
32	17:56:07	select customer_name from depositor join accounts on depositor.acno = accounts.acno where accounts bra...	1 row(s) returned	0.000 sec / 0.000 sec
33	18:01:18	select customer_name from depositor join accounts on accounts.acno = depositor.acno join branch on bran...	1 row(s) returned	0.000 sec / 0.000 sec
34	18:02:07	select from accounts LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
35	18:02:42	show tables	6 row(s) returned	0.015 sec / 0.000 sec

Object Info Session

Type here to search

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