

DBMS Assignment-5

(By Group 3 -
18BCS089,18BCS092,18BCS095,18BCS117,18BCS041,18BCS098
)

1. INNER JOIN - 3 queries

The screenshot shows the MySQL Workbench interface. The 'Query 1' window contains the following SQL code:

```
1 • show databases;
2 • use mydb;
3 • select * from tickets inner join
4 transactions on
5 tickets.Transactions= transactions.transactions_id and
6 transactions.transactions_id=1;
```

The 'Result Grid' shows the following data:

Ticket_id	BoardingTime	DepartureTime	Agency	Transactions	Conveyance_mode	BoardingPlace	DeparturePlace	transactions_id	Transaction_mode	Amount	Date
11000	2020-04-08 15:30:35	2020-05-12 18:30:35	12034	1	200	4	2	1	Online	100	9999-11
11001	2020-07-08 17:30:35	2020-08-12 07:30:35	12001	1	200	4	2	1	Online	100	9999-11
11002	2020-07-08 17:30:35	2020-08-12 09:30:35	12034	1	201	4	1	1	Online	100	9999-11

The 'Output' window shows the following results:

Action	Time	Message	Duration / Fetch
104	19:33:01	select * from tickets inner join transactions on tickets.Transactions=transactions.transactions_id LIMIT 0, 1000	6 row(s) returned
105	19:34:27	select * from tickets left join transactions on tickets.Transactions=transactions.transactions_id LIMIT 0, 1000	6 row(s) returned
106	19:37:25	select * from tickets inner join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	3 row(s) returned
107	19:38:04	select * from tickets left join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned
108	19:38:44	select * from tickets right join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned
109	19:41:16	select * from tickets inner join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	3 row(s) returned

a) Inner join tickets and transactions based on transition id

MySQL Workbench

Local instance MySQL80

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Query 1

```

1 • show databases;
2 • use mydb;
3 • select * from tickets inner join
4 transactions on
5 tickets.Transactions= transactions.transactions_id and
6 transactions.Transaction_mode like "On%";

```

Result Grid

Ticket_Uid	BoardingTime	DepartureTime	Agency	Transactions	Conveyance_mode	BoardingPlace	DeparturePlace	transactions_id	Transaction_mode	Amount	Date_
11000	2020-04-08 15:30:35	2020-05-12 18:30:35	12034	1	200	4	2	1	Online	100	9999-1
11001	2020-07-08 17:30:35	2020-08-12 07:30:35	12001	1	200	4	2	1	Online	100	9999-1
11002	2020-07-08 17:30:35	2020-08-12 09:30:35	12034	1	201	4	1	1	Online	100	9999-1
11003	2020-04-09 15:30:35	2020-05-14 18:30:35	12001	2	201	4	1	2	Online	300	2000-1
11004	2020-07-11 17:30:35	2020-08-16 07:30:35	12001	3	201	2	1	3	Online	512	2002-1

Administration Schemas

Information

No object selected

Result 76

Output

Action Output

#	Time	Action	Message	Duration / Fetch
108	19:38:44	select * from tickets right join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
109	19:41:16	select * from tickets inner join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
110	19:46:40	select * from tickets left join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
111	19:47:04	select * from tickets right join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
112	19:49:03	select * from tickets right join transactions on tickets.Transactions=transactions.transactions_id and transactions.Transaction_mode like "On%" LIMIT	6 row(s) returned	0.000 sec / 0.000 sec
113	19:50:55	select * from tickets inner join transactions on tickets.Transactions=transactions.transactions_id and transactions.Transaction_mode like "On%" LIMIT	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

b) Inner join tickets and transactions based on mode of transition

MySQL Workbench

Local instance MySQL80

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world

Query 1

```

1 • select concat(FirstName, ' ', LastName) as FullName, Phone, Amount from
2 use mydb;
3
4 select concat(FirstName, ' ', LastName) as FullName, Phone, Amount from
5 ((customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id)
6 inner join Tickets on Tickets.Ticket_uid = CT.Tickets_Ticket_uid )
7 inner join Transactions on Transactions.Transactions_id = Transactions.transactions_id and
8 (Transactions.Amount>100 and Transactions.Amount<500)

```

Result Grid

FullName	Phone	Amount
Rajes samuel	9118991	300
Pray Cray	548487	318

Administration Schemas

Information

No object selected

Result 46

Output

Action Output

#	Time	Action	Message	Duration / Fetch
60	07:46:19	select concat(FirstName, ' ', LastName) as FullName, Phone from (customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id)	6 row(s) returned	0.000 sec / 0.000 sec
61	07:47:16	select concat(FirstName, ' ', LastName) as FullName, Phone from (customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id)	2 row(s) returned	0.000 sec / 0.000 sec
62	07:47:41	select concat(FirstName, ' ', LastName) as FullName, Phone from (customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id)	4 row(s) returned	0.000 sec / 0.000 sec
63	07:48:20	select concat(FirstName, ' ', LastName) as FullName, Phone, Amount from (customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id)	4 row(s) returned	0.000 sec / 0.000 sec
64	07:49:06	select concat(FirstName, ' ', LastName) as FullName, Phone, Amount from (customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id)	6 row(s) returned	0.000 sec / 0.000 sec
65	07:49:27	select concat(FirstName, ' ', LastName) as FullName, Phone, Amount from (customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id)	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

c) Inner join customers and transactions based on amount transitioned by joining 2 tables in between (customers_has_tickets and tickets)

2. LEFT OUTER JOIN – 3 Queries

The screenshot displays the MySQL Workbench interface. The 'Query' tab is active, showing a SQL query that performs a left join between the 'tickets' and 'transactions' tables on the 'transactions_id' column. The query is as follows:

```
1 • show databases;
2 • use mydb;
3 • select * from tickets left join
4   transactions on
5   tickets.Transactions= transactions.transactions_id and
6   transactions.transactions_id=1;
```

The 'Result Grid' shows the output of the query, which includes columns for Ticket_id, BoardingTime, DepartureTime, Agency, Transactions, Conveyance_mode, BoardingPlace, DeparturePlace, transactions_id, Transaction_mode, Amount, and Date. The results are limited to 1000 rows.

The 'Output' tab at the bottom shows the execution log, indicating that the query was executed successfully and returned 6 rows.

Ticket_id	BoardingTime	DepartureTime	Agency	Transactions	Conveyance_mode	BoardingPlace	DeparturePlace	transactions_id	Transaction_mode	Amount	Date
11000	2020-04-08 15:30:35	2020-05-12 18:30:35	12034	1	200	4	2	1	Online	100	9999-11-11
11001	2020-07-08 17:30:35	2020-08-12 07:30:35	12001	1	200	4	2	1	Online	100	9999-11-11
11002	2020-07-08 17:30:35	2020-08-12 09:30:35	12034	1	201	4	1	1	Online	100	9999-11-11
11003	2020-04-09 15:30:35	2020-05-14 18:30:35	12001	2	201	4	1	1	Online	100	9999-11-11
11004	2020-07-11 17:30:35	2020-08-16 07:30:35	12001	3	201	2	1	1	Online	100	9999-11-11
11005	2020-07-14 17:30:35	2020-08-17 09:30:35	12034	4	201	3	1	1	Online	100	9999-11-11

a) Left outer join tickets and transactions based on transition id

MySQL Workbench interface showing a SQL query in the Query Editor:

```

1 • show databases;
2 • use mydb;
3 • select * from tickets left join
4 transactions on
5 tickets.Transactions= transactions.transactions_id and
6 transactions.Transaction_mode like "OnX";

```

The Result Grid displays the following data:

Ticket_id	BoardingTime	DepartureTime	Agency	Transactions	Conveyance_mode	BoardingPlace	DeparturePlace	transactions_id	Transaction_mode	Amount	Date
11000	2020-04-08 15:30:35	2020-05-12 18:30:35	12034	1	200	4	2	1	Online	100	9999-1
11001	2020-07-08 17:30:35	2020-08-12 07:30:35	12001	1	200	4	2	1	Online	100	9999-1
11002	2020-07-08 17:30:35	2020-08-12 09:30:35	12034	1	201	4	1	1	Online	200	9999-1
11003	2020-04-08 15:30:35	2020-05-14 18:30:35	12001	2	201	4	1	2	Online	300	2000-1
11004	2020-07-11 17:30:35	2020-08-16 07:30:35	12001	3	201	2	1	3	Online	512	2002-1
11005	2020-07-14 17:30:35	2020-08-17 09:30:35	12034	4	201	3	1				

The Action Output pane shows the execution of the query, indicating that 6 rows were returned.

b) Left outer join tickets and transactions based on mode of transition

MySQL Workbench interface showing a SQL query in the Query Editor:

```

1 • show databases;
2 • use mydb;
3
4 • select concat(FirstName, " ", LastName) as FullName, Phone, Amount from
5 ((customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id)
6 inner join Tickets on Tickets.Ticket_uid = CT.Tickets_Ticket_uid )
7 left join Transactions on Transactions.Transactions_id = Transactions.transactions_id and
8 (Transactions.Amount > 100 and Transactions.Amount < 500)

```

The Result Grid displays the following data:

FullName	Phone	Amount
Ajay Heger	9849597	318
Jay Hinduja	179487	318
Ajay Hinduja	678487	318
Rajes samuel	9118991	300
Athe kahr	9918781	318
Jay Gray	548487	318

The Action Output pane shows the execution of the query, indicating that 6 rows were returned.

c) Left outer join customers and transactions based on amount transitioned by joining 2 tables in between (customers_has_tickets and tickets)

3. RIGHT OUTER JOINS – 3 QUERIES

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

```
1 • Execute the statement under the keyboard cursor
2 • use mydb;
3 • select * from tickets right join
4 transactions on
5 tickets.Transactions= transactions.transactions_id and
6 transactions.transactions_id=1;
```

The Result Grid shows the output of the query:

Ticket_id	BoardingTime	DepartureTime	Agency	Transactions	Conveyance_mode	BoardingPlace	DeparturePlace	transactions_id	Transaction_mode	Amount	Date
11000	2020-04-08 15:30:35	2020-05-12 28:30:35	12034	1	200	4	2	1	Online	100	9999-1
11001	2020-07-08 17:30:35	2020-08-12 07:30:35	12001	1	200	4	2	1	Online	100	9999-1
11002	2020-07-08 17:30:35	2020-08-12 09:30:35	12034	1	201	4	1	1	Online	100	9999-1
11018	0000	0000	0000	0000	0000	0000	0000	2	Online	300	2000-1
11018	0000	0000	0000	0000	0000	0000	0000	3	Online	512	2002-1
11018	0000	0000	0000	0000	0000	0000	0000	4	Offline	318	2004-1

The Action Output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
106	19:37:25	select * from tickets inner join transactions on tickets.Transactions= transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
107	19:38:04	select * from tickets left join transactions on tickets.Transactions= transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
108	19:38:44	select * from tickets right join transactions on tickets.Transactions= transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
109	19:41:16	select * from tickets inner join transactions on tickets.Transactions= transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
110	19:46:40	select * from tickets left join transactions on tickets.Transactions= transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
111	19:47:04	select * from tickets right join transactions on tickets.Transactions= transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

a) Right outer join tickets and transactions based on transition id

MySQL Workbench

Local instance MySQL80

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Query 1

```

1 • show databases;
2 • use mydb;
3 • select * from tickets right join
4 transactions on
5 tickets.Transactions= transactions.transactions_id and
6 transactions.Transaction_mode like "On%";

```

Result Grid

Ticket_Uid	BoardingTime	DepartureTime	Agency	Transactions	Conveyance_mode	BoardingPlace	DeparturePlace	transactions_id	Transaction_mode	Amount	Date
11000	2020-04-08 15:30:35	2020-05-12 18:30:35	12034	1	200	4	2	1	Online	100	9999-11
11001	2020-07-08 17:30:35	2020-08-12 07:30:35	12001	1	200	4	2	1	Online	100	9999-11
11002	2020-07-08 17:30:35	2020-08-12 09:30:35	12034	1	201	4	1	1	Online	100	9999-11
11003	2020-04-09 15:30:35	2020-05-14 18:30:35	12001	2	201	4	1	2	Online	300	2000-11
11004	2020-07-11 17:30:35	2020-08-16 07:30:35	12001	3	201	2	1	3	Online	512	2002-11
11005	2020-07-11 17:30:35	2020-08-16 07:30:35	12001	3	201	2	1	3	Offline	318	2004-11

SQL Additions

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

Result 77

Output

Action Output

#	Time	Action	Message	Duration / Fetch
109	19:41:16	select * from tickets inner join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
110	19:46:40	select * from tickets left join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
111	19:47:04	select * from tickets right join transactions on tickets.Transactions=transactions.transactions_id and transactions.transactions_id=1 LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
112	19:49:03	select * from tickets right join transactions on tickets.Transactions=transactions.transactions_id and transactions.Transaction_mode like "On%" LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
113	19:50:55	select * from tickets inner join transactions on tickets.Transactions=transactions.transactions_id and transactions.Transaction_mode like "On%" LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
114	19:52:48	select * from tickets right join transactions on tickets.Transactions=transactions.transactions_id and transactions.Transaction_mode like "On%" LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

b) Right outer join tickets and transactions based on mode of transition

MySQL Workbench

Local instance MySQL80

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Query 1

```

1 • show databases;
2 • use mydb;
3
4 • select concat(FirstName, ' ', LastName) as FullName, Phone, Amount from
5 ((customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id)
6 inner join Tickets on Tickets.Ticket_uid = CT.Tickets_Ticket_uid )
7 right join Transactions on Tickets.Transactions = Transactions.transactions_id and
8 (Transactions.Amount>100 and Transactions.Amount<500)

```

Result Grid

FullName	Phone	Amount
John	9118991	100
Rajes samuel	512	300
Pray Cray	548487	318

SQL Additions

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

Result 44

Output

Action Output

#	Time	Action	Message	Duration / Fetch
58	07:46:19	show databases	8 row(s) returned	0.000 sec / 0.000 sec
59	07:46:19	use mydb	0 row(s) affected	0.000 sec
60	07:46:19	select concat(FirstName, ' ', LastName) as FullName, Phone from (customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id)	6 row(s) returned	0.000 sec / 0.000 sec
61	07:47:16	select concat(FirstName, ' ', LastName) as FullName, Phone from (customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id) inner join Tickets on Tickets.Ticket_uid = CT.Tickets_Ticket_uid	2 row(s) returned	0.000 sec / 0.000 sec
62	07:47:41	select concat(FirstName, ' ', LastName) as FullName, Phone, Amount from (customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id) inner join Tickets on Tickets.Ticket_uid = CT.Tickets_Ticket_uid	4 row(s) returned	0.000 sec / 0.000 sec
63	07:48:20	select concat(FirstName, ' ', LastName) as FullName, Phone, Amount from (customers inner join Customers_has_tickets CT on customers.customer_id = CT.Customers_Customer_id) inner join Tickets on Tickets.Ticket_uid = CT.Tickets_Ticket_uid right join Transactions on Tickets.Transactions = Transactions.transactions_id and (Transactions.Amount > 100 and Transactions.Amount < 500)	4 row(s) returned	0.000 sec / 0.000 sec

c) Right outer join customers and transactions based on amount transitioned by joining 2 tables in between (customers_has_tickets and tickets)

