

mySQL Part2 Assignment Answers

ASSIGNMENT 1)

```
mysql> create table customers(Cid int primary key,Cname varchar(30),Cemail varchar(50) unique,Cphno int(10),Crating int(2));
```

Query OK, 0 rows affected, 2 warnings (2.05 sec)

```
mysql> desc customers
```

```
-> ;
```

```
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| Cid   | int       | NO   | PRI | NULL    |      |
| Cname | varchar(30) | YES  |     | NULL    |      |
| Cemail | varchar(50) | YES  | UNI | NULL    |      |
| Cphno | int       | YES  |     | NULL    |      |
| Crating | int      | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+
```

5 rows in set (0.03 sec)

```
mysql> insert into customers(Cid,Cname,Cemail,Cphno,Crating)
```

```
-> values
```

```
(1,"abhijith","abhi@123",123123,4),(2,"sai","sai@123",234234,5),(3,"jith","jith@123",345345,1)
```

```
-> ;
```

Query OK, 3 rows affected (0.27 sec)

Records: 3 Duplicates: 0 Warnings: 0

```
mysql> select * from customers;
```

```
+-----+-----+-----+-----+-----+
| Cid | Cname  | Cemail | Cphno | Crating |
+-----+-----+-----+-----+-----+
|  1 | abhijith | abhi@123 | 123123 |    4 |
|  2 | sai     | sai@123 | 234234 |    5 |
|  3 | jith    | jith@123 | 345345 |    1 |
+-----+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> select Cname,Cemail form customers;
```

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'customers' at line 1

```
mysql> select Cname,Cemail from customers;
```

```
+-----+-----+
| Cname  | Cemail |
+-----+-----+
| abhijith | abhi@123 |
| sai     | sai@123 |
| jith    | jith@123 |
+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> alter table customers add Ccity varchar(50);
```

Query OK, 0 rows affected (0.33 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> update customers set Ccity = "Hyderabad" where Cid=1;
```

Query OK, 1 row affected (0.04 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> update customers set Ccity = "Hyderabad" where Cid=2;
```

Query OK, 1 row affected (0.07 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> update customers set Ccity = "delhi" where Cid=3;
```

Query OK, 1 row affected (0.05 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> select * from customers;
```

```
+-----+-----+-----+-----+-----+-----+
| Cid | Cname  | Cemail | Cphno | Crating | Ccity  |
+-----+-----+-----+-----+-----+-----+
| 1 | abhijith | abhi@123 | 123123 | 4 | Hyderabad |
| 2 | sai     | sai@123 | 234234 | 5 | Hyderabad |
| 3 | jith    | jith@123 | 345345 | 1 | delhi    |
+-----+-----+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> select cname, cemail from customer where ccity="hyderabad";
```

ERROR 1146 (42S02): Table 'abhidb.customer' doesn't exist

```
mysql> select cname, cemail from customers where ccity="hyderabad";
```

```
+-----+-----+
| cname  | cemail |
+-----+-----+
| abhijith | abhi@123 |
| sai     | sai@123 |
+-----+-----+
```

2 rows in set (0.00 sec)

```
MySQL 8.0 Command Line Client
mysql> alter table customers add Ccity varchar(50);
Query OK, 0 rows affected (0.33 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> update customers set Ccity = "Hyderabad" where Cid=1;
Query OK, 1 row affected (0.04 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> update customers set Ccity = "Hyderabad" where Cid=2;
Query OK, 1 row affected (0.07 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> update customers set Ccity = "delhi" where Cid=3;
Query OK, 1 row affected (0.05 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from customers;
+----+-----+-----+-----+-----+-----+
| Cid | Cname | Cemail | Cphno | Crating | Ccity |
+----+-----+-----+-----+-----+-----+
| 1   | abhijith | abhi@123 | 123123 | 4   | Hyderabad |
| 2   | sai     | sai@123  | 234234 | 5   | Hyderabad |
| 3   | jith    | jith@123 | 345345 | 1   | delhi      |
+----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select cname,cemail from customer where ccity="hyderabad";
ERROR 1146 (42502): Table 'abhibd.customer' doesn't exist
mysql> select cname,cemail from customers where ccity="hyderabad";
+-----+-----+
| cname | cemail |
+-----+-----+
| abhijith | abhi@123 |
| sai     | sai@123  |
+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client
mysql> create table customers(Cid int primary key,Cname varchar(30),Cemail varchar(50) unique,Cphno int(10),Crating int(2));
Query OK, 0 rows affected, 2 warnings (2.05 sec)

mysql> desc customers
+----+
-> ;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Cid   | int           | NO   | PRI | NULL    |       |
| Cname | varchar(30)   | YES  |     | NULL    |       |
| Cemail | varchar(50)   | YES  | UNI | NULL    |       |
| Cphno | int           | YES  |     | NULL    |       |
| Crating | int          | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.03 sec)

mysql> insert into customers(Cid,Cname,Cemail,Cphno,Crating)
-> values (1,"abhijith","abhi@123",123123,4),(2,"sai","sai@123",234234,5),(3,"jith","jith@123",345345,1)
-> ;
Query OK, 3 rows affected (0.27 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> select * from customers;
+----+-----+-----+-----+-----+
| Cid | Cname | Cemail | Cphno | Crating |
+----+-----+-----+-----+-----+
| 1   | abhijith | abhi@123 | 123123 | 4   |
| 2   | sai     | sai@123  | 234234 | 5   |
| 3   | jith    | jith@123 | 345345 | 1   |
+----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select Cname,Cemail form customers;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'customers' a
t line 1
mysql> select Cname,Cemail from customers;
+-----+-----+
| Cname | Cemail |
+-----+-----+
| abhijith | abhi@123 |
| sai     | sai@123  |
| jith    | jith@123 |
+-----+-----+
3 rows in set (0.00 sec)
```

ASSIGNMENT 2)

```
mysql> show tables;
```

```
+-----+
| Tables_in_abhidb |
+-----+
| customers      |
| dept           |
| employee       |
| orders         |
| sales_table    |
| students       |
+-----+
```

```
6 rows in set (0.00 sec)
```

```
mysql> select * from customers;
```

```
+---+-----+-----+-----+-----+-----+-----+
| Cid | Cname  | Cemail  | Cphno | Crating | Ccity   | Oid |
+---+-----+-----+-----+-----+-----+-----+
| 1 | abhijith | abhi@123 | 123123 | 4 | Hyderabad | 100 |
| 2 | sai     | sai@123  | 234234 | 5 | Hyderabad | 103 |
| 3 | jith    | jith@123 | 345345 | 1 | delhi     | 102 |
| 4 | ajay    | ajay@123 | 456456 | 2 | andhra    | 100 |
| 5 | raju    | raju@123 | 567567 | 5 | maharastra | 103 |
| 6 | ramu    | ramu@123 | 678678 | 4 | mumbai    | 101 |
| 7 | pooja   | pooja@123 | 234232 | 5 | kolkatta  | NULL |
```

```
+-----+-----+-----+-----+-----+-----+-----+
```

7 rows in set (0.00 sec)

```
mysql> select * from orders;
```

```
+-----+-----+-----+
```

```
| Oid | OProduct_name | OPrice |
```

```
+-----+-----+-----+
```

```
| 100 | laptop      | 60000 |
```

```
| 101 | mobile      | 30000 |
```

```
| 102 | sunglasses   | 2500  |
```

```
| 103 | toys        | 10000 |
```

```
| 104 | television   | 100000 |
```

```
+-----+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> select * from customers inner join orders where (customers.oid=orders.oid) and ccity in ("hyderabad","delhi","maharastra");
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

```
| Cid | Cname  | Cemail | Cphno | Crating | Ccity  | Oid | Oid | OProduct_name | OPrice |
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

```
| 1 | abhijith | abhi@123 | 123123 | 4 | Hyderabad | 100 | 100 | laptop      | 60000 |
```

```
| 2 | sai      | sai@123 | 234234 | 5 | Hyderabad | 103 | 103 | toys        | 10000 |
```

```
| 3 | jith     | jith@123 | 345345 | 1 | delhi     | 102 | 102 | sunglasses   | 2500  |
```

```
| 5 | raju     | raju@123 | 567567 | 5 | maharastra | 103 | 103 | toys        | 10000 |
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

4 rows in set (0.00 sec)

```
mysql> select * from customers left join orders on (customers.oid=orders.oid);
```

Cid	Cname	Cemail	Cphno	Crating	Ccity	Oid	Oid	OProduct_name	OPrice
1	abhijith	abhi@123	123123	4	Hyderabad	100	100	laptop	60000
2	sai	sai@123	234234	5	Hyderabad	103	103	toys	10000
3	jith	jith@123	345345	1	delhi	102	102	sunglasses	2500
4	ajay	ajay@123	456456	2	andhra	100	100	laptop	60000
5	raju	raju@123	567567	5	maharastra	103	103	toys	10000
6	ramu	ramu@123	678678	4	mumbai	101	101	mobile	30000
7	pooja	pooja@123	234232	5	kolkatta	NULL	NULL	NULL	NULL

```
7 rows in set (0.00 sec)
```

MySQL 8.0 Command Line Client

```
mysql> show tables;
```

```
Tables in abhidb
```

customers	
dept	
employee	
orders	
sales_table	
students	

```
6 rows in set (0.00 sec)
```

```
mysql> select * from customers;
```

Cid	Cname	Cemail	Cphno	Ccrang	Ccity	Coid
1	abhi	abhi@123	123123	4	Hyderabad	100
2	sai	sai@123	234234	5	Hyderabad	103
3	jith	jith@123	345345	1	delhi	102
4	ajay	ajay@123	456456	2	andhra	100
5	raju	raju@123	567567	5	maharashtra	103
6	ramu	ramu@123	678678	4	mumbai	101
7	pooja	pooja@123	234232	5	kolkatka	NULL

```
7 rows in set (0.00 sec)
```

```
mysql> select * from orders;
```

Oid	OProduct_name	OPrice
100	laptop	60000
101	mobile	30000
102	sunglasses	2500
103	toys	10000
104	television	100000

```
5 rows in set (0.00 sec)
```

```
mysql> select * from customers inner join orders where (customers.oid=orders.oid) and ccity in ("hyderabad","delhi","maharastra");
```

Cid	Cname	Cemail	Cphno	Crating	Ccity	Oid	Oid	OProduct_name	OPrice
-----	-------	--------	-------	---------	-------	-----	-----	---------------	--------

[illegible]

MySQL 8.0 Command Line Client

```
mysql> select * from orders;
```

OID	Product_name	Price
100	laptop	60000
101	mobile	30000
102	sunglasses	2500
103	toys	10000
104	television	100000

```
5 rows in set (0.00 sec)
```

```
mysql> select * from customers inner join orders where (customers.oid=orders.oid) and ccity in ("hyderabad","delhi","maharashtra");
```

Cid	Cname	Cemail	Cphno	Crating	Ccity	Oid	Oid	OProduct_name	OPrice
1	abhi@jith	abhi@123	123123	4	Hyderabad	100	100	laptop	60000
2	sai	sai@123	234234	5	Hyderabad	103	103	toys	10000
3	jith	jith@123	345345	1	delhi	102	102	sunglasses	2500
5	raju	raju@123	567567	5	maharashtra	103	103	toys	10000

```
4 rows in set (0.00 sec)
```

```
mysql> select * from customers left join orders on (customers.oid=orders.oid);
```

Cid	Cname	Cemail	Cphno	Crating	Ccity	Oid	Oid	OProduct_name	OPrice
1	abhiijith	abhi@123	123123	4	Hyderabad	100	100	laptop	60000
2	sal	sal@123	234234	5	Hyderabad	103	103	toys	10000
3	jith	jith@123	345456	1	delhi	102	102	sunglasses	2500
4	ajay	ajay@123	456456	2	andhra	100	100	laptop	60000
5	raju	raju@123	567567	5	maharastra	103	103	toys	10000
6	ramu	ramu@123	678678	4	mumbai	101	101	mobile	30000
7	pooja	pooja@123	234232	5	kolkatta	NULL	NULL	NULL	NULL
8	pooja	pooja@123	234232	5	kolkatta	NULL	NULL	NULL	NULL

```
7 rows in set (0.00 sec)
```

```
mysql>
```

Windows taskbar showing search bar, taskbar icons (File Explorer, Edge, Word, PowerPoint, Teams, Outlook, Chrome, WhatsApp, OneDrive, OneNote, Photos, Mail, Calendar, Clock, Task View, Settings, Power, Network, Volume, Language, Time, Date, Notification Area Icons), and system tray (Language: ENG, Time: 7:56 PM, Date: 5/2/2025, Notification Area Icons).

ENG 7:56 PM
IN 5/2/2025

Assignment 3)

mysql> select * from customers;

Cid	Cname	Cemail	Cphno	Crating	Ccity	Oid
1	abhijith	abhi@123	123123	4	Hyderabad	100
2	sai	sai@123	234234	5	Hyderabad	103
3	jith	jith@123	345345	1	delhi	102
4	ajay	ajay@123	456456	2	andhra	100
5	raju	raju@123	567567	5	maharastra	103
6	ramu	ramu@123	678678	4	mumbai	101
7	pooja	pooja@123	234232	5	kolkatta	NULL

7 rows in set (0.00 sec)

mysql> select * from orders;

Oid	OProduct_name	OPrice
100	laptop	60000
101	mobile	30000
102	sunglasses	2500
103	toys	10000
104	television	100000
105	wardrobe	75000

+-----+-----+-----+

6 rows in set (0.00 sec)

mysql> select customers.cid,customers.cname,customers.oid,orders.oprice from customers inner join orders where (customers.oid=orders.oid) and oprice > (select avg(oprice) from orders);

+-----+-----+-----+

| cid | cname | oid | oprice |

+-----+-----+-----+

| 1 | abhijith | 100 | 60000 |

| 4 | ajay | 100 | 60000 |

+-----+-----+-----+

2 rows in set (0.00 sec)

```
MySQL 8.0 Command Line Client

mysql> select * from customers;
+----+-----+-----+-----+-----+-----+
| cid | cname | cemail | cphno | crating | ccity | oid |
+----+-----+-----+-----+-----+-----+
| 1 | abhijith | abhi@123 | 123123 | 4 | Hyderabad | 100 |
| 2 | sai | sai@123 | 234234 | 5 | Hyderabad | 103 |
| 3 | jith | jith@123 | 345345 | 1 | delhi | 102 |
| 4 | ajay | ajay@123 | 456456 | 2 | andhra | 100 |
| 5 | raju | raj@123 | 567567 | 5 | maharashtra | 103 |
| 6 | ramu | ramu@123 | 678678 | 4 | mumbai | 101 |
| 7 | pooja | pooja@123 | 234232 | 5 | kolkatta | NULL |
+----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql> select * from orders;
+----+-----+-----+
| oid | oproduct_name | oprice |
+----+-----+-----+
| 100 | laptop | 60000 |
| 101 | mobile | 30000 |
| 102 | sunglasses | 2500 |
| 103 | toys | 10000 |
| 104 | television | 10000 |
| 105 | wardrobe | 75000 |
+----+-----+-----+
6 rows in set (0.00 sec)

mysql> select C.cid,c.cname,c.oid,o.oid,o.oprice from customers c inner join orders o where (c.oid=o.oid) and oprice > (select avg(orders) from orders);
ERROR 1054 (42S22): Unknown column 'orders' in 'field list'
mysql> select C.cid,c.cname,c.oid,o.oid,o.oprice from customers c inner join orders o where (c.oid=o.oid) and oprice > (select avg(orders) from o);
ERROR 1146 (42S02): Table 'abhidb.o' doesn't exist
mysql> select customers.cid,customers.cname,customers.oid,orders.oprice from customers inner join orders where (customers.oid=orders.oid) and oprice > (select avg(oprice) from orders);
+----+-----+-----+-----+
| cid | cname | oid | oprice |
+----+-----+-----+
| 1 | abhijith | 100 | 60000 |
| 4 | ajay | 100 | 60000 |
+----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

```
mysql> select * from friends;
```

```
+-----+
```

```
| name  |
```

```
+-----+
```

```
| saredy |
```

```
| puli   |
```

```
| babbi  |
```

```
| pooja  |
```

```
| rohith |
```

```
| vishnu |
```

```
| karan  |
```

```
| abhijith |
```

```
+-----+
```

```
8 rows in set (0.00 sec)
```

```
mysql> select * from best_friends;
```

```
+-----+
```

```
| name  |
```

```
+-----+
```

```
| vinay |
```

```
| babbi |
```

```
| pooja |
```

```
| vishnu |
```

```
+-----+
```

```
4 rows in set (0.00 sec)
```

```
mysql> select * from friends
```

```
-> union
```

```
-> select * from best_friends;
```

```
+-----+
```

```
| name  |
```

```
+-----+
```

```
| sareddy |
```

```
| puli   |
```

```
| babbi  |
```

```
| pooja  |
```

```
| rohith |
```

```
| vishnu |
```

```
| karan  |
```

```
| abhijith |
```

```
| vinay  |
```

```
+-----+
```

```
9 rows in set (0.00 sec)
```

```
MySQL 8.0 Command Line Client

mysql> select * from friends;
+-----+
| name |
+-----+
| sareddy |
| pulli |
| babbi |
| pooja |
| rohith |
| vishnu |
| karan |
| abhijith |
+-----+
8 rows in set (0.00 sec)

mysql> select * from best_friends;
+-----+
| name |
+-----+
| vinay |
| babbi |
| pooja |
| vishnu |
+-----+
4 rows in set (0.00 sec)

mysql> select * from friends
-> union
-> select * from best_friends;
+-----+
| name |
+-----+
| sareddy |
| pulli |
| babbi |
| pooja |
| rohith |
| vishnu |
| karan |
| abhijith |
| vinay |
+-----+
9 rows in set (0.00 sec)
```

ASSIGNMENT 4)

```
mysql> select * from productId;
```

```
+-----+-----+
| Pid | oProduct_name |
+-----+-----+
| 1 | laptop      |
| 2 | mobile      |
| 3 | sunglasses  |
| 4 | toys       |
| 5 | television  |
| 6 | wardrobe   |
+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> select * from orders;
```

```
+-----+-----+-----+
| Oid | OProduct_name | OPrice |
+-----+-----+-----+
| 100 | laptop      | 60000 |
| 101 | mobile      | 30000 |
| 102 | sunglasses  | 2500  |
| 103 | toys       | 10000 |
| 104 | television  | 100000 |
| 105 | wardrobe   | 75000 |
+-----+-----+-----+
```

6 rows in set (0.00 sec)

mysql> start transaction;

Query OK, 0 rows affected (0.00 sec)

mysql> insert into orders (oid,oproudct_name,oprice) values (106,"earpods",30000);

ERROR 1054 (42S22): Unknown column 'oproudct_name' in 'field list'

mysql> insert into orders (oid,oproduct_name,oprice) values (106,"earpods",30000);

Query OK, 1 row affected (0.00 sec)

mysql> select * from orders;

```
+-----+-----+-----+
| Oid | OProduct_name | OPrice |
+-----+-----+-----+
| 100 | laptop      | 60000 |
| 101 | mobile      | 30000 |
| 102 | sunglasses   | 2500  |
| 103 | toys        | 10000 |
| 104 | television   | 100000|
| 105 | wardrobe     | 75000 |
| 106 | earpods      | 30000 |
+-----+-----+-----+
```

7 rows in set (0.00 sec)

mysql> commit;

Query OK, 0 rows affected (0.06 sec)

```
mysql> start transcation;
```

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'transcation' at line 1

```
mysql> start transaction;
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> insert into productId (pid,oProduct_name) values (7,"earpods");
```

Query OK, 1 row affected (0.00 sec)

```
mysql> select * from productId;
```

```
+-----+-----+
| Pid | oProduct_name |
+-----+-----+
| 1 | laptop      |
| 2 | mobile      |
| 3 | sunglasses   |
| 4 | toys        |
| 5 | television   |
| 6 | wardrobe     |
| 7 | earpods      |
+-----+-----+
```

7 rows in set (0.00 sec)

```
mysql> rollback;
```

Query OK, 0 rows affected (0.04 sec)


```
mysql> select * from productId;
```

```
+-----+-----+
| Pid | oProduct_name |
+-----+-----+
| 1 | laptop      |
| 2 | mobile      |
| 3 | sunglasses   |
| 4 | toys        |
| 5 | television   |
| 6 | wardrobe     |
+-----+-----+

6 rows in set (0.00 sec)
```

```
mysql> select * from orders;
```

```
+-----+-----+-----+
| Oid | OProduct_name | OPrice |
+-----+-----+-----+
| 100 | laptop        | 60000 |
| 101 | mobile        | 30000 |
| 102 | sunglasses     | 2500  |
| 103 | toys         | 10000 |
| 104 | television     | 100000 |
| 105 | wardrobe      | 75000 |
| 106 | earpods       | 30000 |
+-----+-----+-----+
```

7 rows in set (0.00 sec)

```
MySQL 8.0 Command Line Client
mysql> start transaction;
Query OK, 0 rows affected (0.00 sec)

mysql> insert into orders (oid,oproduct_name,oprice) values (106,"earpods",30000);
ERROR 1054 (42S22): Unknown column 'oproduct_name' in 'field list'
mysql> insert into orders (oid,oproduct_name,oprice) values (106,"earpods",30000);
Query OK, 1 row affected (0.00 sec)

mysql> select * from orders;
+-----+-----+-----+
| Oid | OProduct_name | OPrice |
+-----+-----+-----+
| 100 | laptop        | 60000  |
| 101 | mobile        | 30000  |
| 102 | sunglasses    | 2500   |
| 103 | toys         | 10000  |
| 104 | television    | 100000 |
| 105 | wardrobe     | 75000  |
| 106 | earpods       | 30000  |
+-----+-----+-----+
7 rows in set (0.00 sec)

mysql> commit;
Query OK, 0 rows affected (0.06 sec)

mysql> start transaction;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'transcation'
at line 1
mysql> start transaction;
Query OK, 0 rows affected (0.00 sec)

mysql> insert into productId (pid,oproduct_name) values (7,"earpods");
Query OK, 1 row affected (0.00 sec)

mysql> select * from productId;
+-----+-----+
| Pid | oProduct_name |
+-----+-----+
| 1   | laptop        |
| 2   | mobile        |
| 3   | sunglasses    |
| 4   | toys         |
| 5   | television    |
| 6   | wardrobe     |
+-----+-----+
```

```
MySQL 8.0 Command Line Client
7 rows in set (0.00 sec)

mysql> rollback;
Query OK, 0 rows affected (0.04 sec)

mysql> select * from productId;
+-----+-----+
| Pid | oProduct_name |
+-----+-----+
| 1   | laptop        |
| 2   | mobile        |
| 3   | sunglasses    |
| 4   | toys         |
| 5   | television    |
| 6   | wardrobe     |
+-----+-----+
6 rows in set (0.00 sec)

mysql> select * from orders;
+-----+-----+-----+
| Oid | OProduct_name | OPrice |
+-----+-----+-----+
| 100 | laptop        | 60000  |
| 101 | mobile        | 30000  |
| 102 | sunglasses    | 2500   |
| 103 | toys         | 10000  |
| 104 | television    | 100000 |
| 105 | wardrobe     | 75000  |
| 106 | earpods       | 30000  |
+-----+-----+-----+
7 rows in set (0.00 sec)

mysql>
```

Assignment 5):

```
mysql> select * from orders;
```

```
+-----+-----+-----+  
| Oid | OProduct_name | OPrice |  
+-----+-----+-----+  
| 100 | laptop      | 60000 |  
| 101 | mobile      | 30000 |  
| 102 | sunglasses   | 2500  |  
| 103 | toys        | 10000 |  
| 104 | television   | 100000|  
| 105 | wardrobe     | 75000 |  
| 106 | earpods      | 30000 |  
+-----+-----+-----+
```

```
7 rows in set (0.00 sec)
```

```
mysql> start transaction;
```

```
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> insert into orders (oid,oproduct_name,oprice) values (107,"clothing",10000),(108,"food",5000);
```

```
Query OK, 2 rows affected (0.00 sec)
```

```
Records: 2 Duplicates: 0 Warnings: 0
```

```
mysql> savepoint s1;
```

```
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> insert into orders (oid,oproduct_name,oprice) values  
(109,"education",100000),(110,"car",250000);
```

Query OK, 2 rows affected (0.00 sec)

Records: 2 Duplicates: 0 Warnings: 0

```
mysql> select * from orders;
```

```
+-----+-----+-----+  
| Oid | OProduct_name | OPrice |  
+-----+-----+-----+  
| 100 | laptop      | 60000 |  
| 101 | mobile      | 30000 |  
| 102 | sunglasses   | 2500  |  
| 103 | toys        | 10000 |  
| 104 | television   | 100000 |  
| 105 | wardrobe     | 75000 |  
| 106 | earpods      | 30000 |  
| 107 | clothing     | 10000 |  
| 108 | food         | 5000  |  
| 109 | education    | 100000 |  
| 110 | car          | 250000 |  
+-----+-----+-----+
```

11 rows in set (0.00 sec)

```
mysql> savepoint s2;
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> insert into orders (oid,oproduct_name,oprice) values (111,"books",1000),(112,"bad",2500);
```

```
Query OK, 2 rows affected (0.00 sec)
```

```
Records: 2 Duplicates: 0 Warnings: 0
```

```
mysql> rollback s1;
```

```
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 's1' at line 1
```

```
mysql> rollback to s1;
```

```
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> select * from ordersl
```

```
-> ;
```

```
ERROR 1146 (42S02): Table 'abhidb.ordersl' doesn't exist
```

```
mysql> select * from orders;
```

```
+-----+-----+-----+
| Oid | OProduct_name | OPrice |
+-----+-----+-----+
| 100 | laptop      | 60000 |
| 101 | mobile      | 30000 |
| 102 | sunglasses   | 2500  |
| 103 | toys        | 10000 |
| 104 | television   | 100000 |
| 105 | wardrobe     | 75000 |
| 106 | earpods      | 30000 |
| 107 | clothing     | 10000 |
| 108 | food         | 5000  |
+-----+-----+-----+
```

9 rows in set (0.00 sec)

```
MySQL 8.0 Command Line Client
7 rows in set (0.00 sec)

mysql> select * from orders;
+-----+
| Oid | OProduct_name | OPrice |
+-----+
| 100 | laptop        | 60000  |
| 101 | mobile        | 30000  |
| 102 | sunglasses    | 2500   |
| 103 | toys         | 10000  |
| 104 | television    | 100000 |
| 105 | wardrobe     | 75000  |
| 106 | earpods       | 30000  |
+-----+
7 rows in set (0.00 sec)

mysql> start transaction;
Query OK, 0 rows affected (0.00 sec)

mysql> insert into orders (oid,oproduct_name,oprice) values (107,"clothing",10000),(108,"food",5000);
Query OK, 2 rows affected (0.00 sec)
Records: 2 Duplicates: 0 Warnings: 0

mysql> savepoint s1;
Query OK, 0 rows affected (0.00 sec)

mysql> insert into orders (oid,oproduct_name,oprice) values (109,"education",100000),(110,"car",250000);
Query OK, 2 rows affected (0.00 sec)
Records: 2 Duplicates: 0 Warnings: 0

mysql> select * from orders;
+-----+
| Oid | OProduct_name | OPrice |
+-----+
| 100 | laptop        | 60000  |
| 101 | mobile        | 30000  |
| 102 | sunglasses    | 2500   |
| 103 | toys         | 10000  |
| 104 | television    | 100000 |
| 105 | wardrobe     | 75000  |
| 106 | earpods       | 30000  |
| 107 | clothing      | 10000  |
| 108 | food          | 5000   |
| 109 | education     | 100000 |
+-----+
```

```
MySQL 8.0 Command Line Client
11 rows in set (0.00 sec)

mysql> savepoint s2;
Query OK, 0 rows affected (0.00 sec)

mysql> insert into orders (oid,oproduct_name,oprice) values (111,"books",1000),(112,"bad",2500);
Query OK, 2 rows affected (0.00 sec)
Records: 2 Duplicates: 0 Warnings: 0

mysql> rollback s1;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 's1' at line 1

mysql> rollback to s1;
Query OK, 0 rows affected (0.00 sec)

mysql> select * from orders1
-> ;
ERROR 1146 (42502): Table 'abhidb.orders1' doesn't exist
mysql> select * from orders;
+-----+
| Oid | OProduct_name | OPrice |
+-----+
| 100 | laptop        | 60000  |
| 101 | mobile        | 30000  |
| 102 | sunglasses    | 2500   |
| 103 | toys         | 10000  |
| 104 | television    | 100000 |
| 105 | wardrobe     | 75000  |
| 106 | earpods       | 30000  |
| 107 | clothing      | 10000  |
| 108 | food          | 5000   |
+-----+
9 rows in set (0.00 sec)

mysql>
```

Assignment 6)

Transaction plays an important role in data consistency, data integrity and efficiency in database management systems (DBMS). It is used to ensure data integrity and support data recovery in the event of system failures. These logs record all changes made to the database, including additions, deletions, and updates, in the order they occur.

Each time a transaction is executed, the DBMS writes the operation details into the transaction log before applying the changes to the database. This process, known as write-ahead logging, ensures that even if a system crashes, the log retains a record of all transactions. During recovery, the DBMS uses this log to redo committed transactions and undo incomplete ones, thus restoring the database to a consistent state.

Any transaction has 4 properties to achieve those are called ACID properties, atomicity, consistency, integrity and durability.

Let us consider a situation :

Consider a university's student database system used for managing exam registrations. A student registers for an exam at 10:05 AM, and the system records this action in the transaction log. At 10:07 AM, before the changes are written to the actual database, the server experiences a power outage.

Upon reboot, the DBMS detects that the last shutdown was unclean. It scans the transaction log and finds the recorded transaction for the student's exam registration. Since the transaction was committed but not yet applied to the main database, the system uses the log to redo the transaction. This ensures the student's registration is not lost despite the unexpected failure.

Transaction logs provide a reliable method for recovering data in the event of crashes or unexpected shutdowns. Their role in maintaining data consistency and enabling point-in-time recovery makes them indispensable in any robust database system.