

ASSIGNMENT #02

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ROLL NO:17P6102

SUBJECT: DATABASE SYSTEMS

SECTION: 6b

TEACHER: MISS.SAFIA FATIMA

Dated: 5/2/2021

1.Views

Question #01

Let's say this bank has some authorization requirements which restricts employees of bank from seeing records or information about officers who are also customers. So create a view, named 'customer_info' which lets the employees see all customers and their information except those customers who are officers.

c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use bank;

Database changed

mysql> show full tables;

Tables_in_bank	Table_type
acc_transaction	BASE TABLE
account	BASE TABLE
branch	BASE TABLE
business	BASE TABLE
customer	BASE TABLE
department	BASE TABLE
employee	BASE TABLE
individual	BASE TABLE
officer	BASE TABLE
product	BASE TABLE
product_type	BASE TABLE

11 rows in set (0.00 sec)

mysql>

c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe

11 rows in set (0.00 sec)

```
mysql> CREATE VIEW customer_info AS
  -> SELECT * FROM CUSTOMER WHERE CUSTOMER.CUST_ID
  -> NOT IN (SELECT Officer.CUST_ID FROM officer);
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> show full tables;
```

Tables_in_bank	Table_type
acc_transaction	BASE TABLE
account	BASE TABLE
branch	BASE TABLE
business	BASE TABLE
customer	BASE TABLE
customer_info	VIEW
department	BASE TABLE
employee	BASE TABLE
individual	BASE TABLE
officer	BASE TABLE
product	BASE TABLE
product_type	BASE TABLE

12 rows in set (0.00 sec)

```
mysql>
```

9 rows in set (0.00 sec)

```
mysql> select * from customer_info;
```

CUST_ID	ADDRESS	CITY	CUST_TYPE_CD	FED_ID	POSTAL_CODE	STATE
1	47 Mockingbird Ln	Lynnfield	I	111-11-1111	01940	MA
2	372 Clearwater Blvd	Woburn	I	222-22-2222	01801	MA
3	18 Jessup Rd	Quincy	I	333-33-3333	02169	MA
4	12 Buchanan Ln	Waltham	I	444-44-4444	02451	MA
5	2341 Main St	Salem	I	555-55-5555	03079	NH
6	12 Blaylock Ln	Waltham	I	666-66-6666	02451	MA
7	29 Admiral Ln	Wilmington	I	777-77-7777	01887	MA
8	472 Freedom Rd	Salem	I	888-88-8888	03079	NH
9	29 Maple St	Newton	I	999-99-9999	02458	MA

9 rows in set (0.00 sec)

```
mysql>
```

Question #02

Create a view named 'individual_info' which shows all information of individuals except their customer Ids and also lists how much balance each individual has in his/her account.

```
mysql>
mysql>
mysql>
mysql> CREATE VIEW individual_info AS
      -> SELECT BIRTH_DATE, FIRST_NAME, LAST_NAME, coalesce(AVAIL_BALANCE, 0)
      -> AS BALANCE_IN_ACCOUNT
      -> FROM INDIVIDUAL
      -> LEFT JOIN ACCOUNT
      -> ON INDIVIDUAL.CUST_ID = ACCOUNT.CUST_ID
      -> GROUP BY INDIVIDUAL.cust_id;
Query OK, 0 rows affected (0.06 sec)

mysql> select * from individual_info;
+-----+-----+-----+-----+
| BIRTH_DATE | FIRST_NAME | LAST_NAME | BALANCE_IN_ACCOUNT |
+-----+-----+-----+-----+
| 1972-04-22 | James     | Hadley    | 1057.75             |
| 1968-08-15 | Susan     | Tingley   | 2258.02001953125    |
| 1958-02-06 | Frank     | Tucker   | 1057.75             |
| 1966-12-22 | John      | Hayward   | 534.1199951171875    |
| 1971-08-25 | Charles   | Frasier   | 2237.969970703125    |
| 1962-09-14 | John      | Spencer   | 122.37000274658203    |
| 1947-03-19 | Margaret  | Young     | 5000                 |
| 1977-07-01 | Louis     | Blake     | 3487.18994140625     |
| 1968-06-16 | Richard   | Farley    | 125.66999816894531    |
+-----+-----+-----+-----+
9 rows in set (0.00 sec)

mysql>
```

Question #03

Create a view named 'customer_accounts' which shows information of only those accounts which have PRODUCT_TYPE_CD as 'Account' and which have pending balance less than '2000'

```
mysql>
mysql>
mysql>
mysql> CREATE VIEW customer_accounts AS
    -> select product.product_cd, product.date_offered,
    -> product.date_retired, product.name,
    -> product.product_type_cd, account.pending_balance
    -> from product, account
    -> where product.product_type_cd like "ACCOUNT"
    -> and account.pending_balance <2000
    -> GROUP by product_cd;
Query OK, 0 rows affected (0.06 sec)

mysql> select * from customer_accounts;
+-----+-----+-----+-----+-----+-----+
| product_cd | date_offered | date_retired | name | product_type_cd | pending_balance |
+-----+-----+-----+-----+-----+-----+
| BAS | 2002-11-22 | NULL | checking ACCOUNT | ACCOUNT | 1057.75 |
| CD | 2000-01-01 | NULL | certificate of deposit | ACCOUNT | 1057.75 |
| CHK | 2000-01-01 | NULL | checking ACCOUNT | ACCOUNT | 1057.75 |
| HAR | 2001-10-21 | NULL | checking ACCOUNT | ACCOUNT | 1057.75 |
| MM | 2000-01-01 | NULL | money market ACCOUNT | ACCOUNT | 1057.75 |
| PAK | 2003-12-23 | NULL | checking ACCOUNT | ACCOUNT | 1057.75 |
| SAV | 2000-01-01 | NULL | savings ACCOUNT | ACCOUNT | 1057.75 |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql>
```

Question #04

Create a view named 'senior_views' which presents all information about employees with start dates in 2002 or after it. This view shall also include information about the branches that these employees are stationed to.

```

+-----+-----+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql>
mysql>
mysql> CREATE VIEW senior_views AS
-> select * from employee,branch
-> where start_date < "2003=%m%-%d%"
-> and employee.emp_id = branch.branch_id;
Query OK, 0 rows affected (0.06 sec)

mysql> select * from senior_views;
+-----+-----+-----+-----+-----+-----+-----+-----+
| EMP_ID | END_DATE | FIRST_NAME | LAST_NAME | START_DATE | TITLE | ASSIGNED_BRANCH_ID | DEPT_ID |
| EMP_ID | BRANCH_ID | ADDRESS | CITY | NAME | STATE | ZIP_CODE | |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | NULL | Michael | Smith | 2001-06-22 | President | 1 | 1 |
| NULL | 1 | 3882 Main St. | Waltham | Headquarters | MA | 02451 | |
| 2 | NULL | Susan | Barker | 2002-09-12 | Vice President | 1 | 1 |
| 1 | 2 | 422 Maple St. | Woburn | Woburn Branch | MA | 01801 | |
| 3 | NULL | Robert | Tyler | 2000-02-09 | Treasurer | 1 | 1 |
| 1 | 3 | 125 Presidential Way | Quincy | Quincy Branch | MA | 02169 | |
| 4 | NULL | Susan | Hawthorne | 2002-04-24 | Operations Manager | 1 | 1 |
| 3 | 4 | 378 Maynard Ln. | Salem | So. NH Branch | NH | 03079 | |
+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set, 1 warning (0.00 sec)

mysql>

```

2. User Roles

Question #01

You need to now create a user which has the name set as your roll number and assign any password of your liking. Let's say a user is created with name 'P180058' and password 'fast123'. Note: You MUST use your own roll number as user name. Now, grant this user that you have created, the permissions to run SELECT, INSERT, UPDATE AND DELETE commands against all tables. You need to then issue 3

commands each for INSERT, UPDATE, and DELETE, for the tables of any 5 tables.

```
CREATE USER 'P176102'@'localhost'IDENTIFIED BY 'fast123';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.acc_transaction TO'P176102'@'localhost';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.account TO'P176102'@'localhost';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.branch TO'P176102'@'localhost';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.business TO'P176102'@'localhost';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.customer TO'P176102'@'localhost';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.department TO'P176102'@'localhost';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.employee TO'P176102'@'localhost';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.individual TO'P176102'@'localhost';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.officer TO'P176102'@'localhost';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.product TO'P176102'@'localhost';
```

```
GRANT SELECT,INSERT,UPDATE,DELETE ON bank.product_type TO'P176102'@'localhost';
```

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```
mysql> use bank;
Database changed
mysql> CREATE USER 'P176102'@'localhost' IDENTIFIED BY 'fast123';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.acc_transaction TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.account TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.branch TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.business TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.customer TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.department TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.employee TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.individual TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.officer TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.product TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.product_type TO 'P176102'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql>
```


inodb_index_stats

inodb_table_stats

db_binlog_index

login

roc

rocs_priv

roxies_priv

ervers

erver_cost

lave_master_info

lave_relay_log_info

lave_worker_info

low_log

ibles_priv

me_zone

me_zone_leap_second

me_zone_name

me_zone_transition

me_zone_transition_type

ser

:

rmanence_schema

ol_system

Show all

Number of rows: 25

Filter rows: Search this table

Sort by key: None

+ Options

←

→

Host

Db

User

Table_name

Grantor

Timestamp

Table_priv

Edit

Copy

Delete

localhost

mysql

mysql.session

user

boot@connecting host

0000-00-00 00:00:00

Select

Edit

Copy

Delete

localhost

sys

mysql.sys

sys_config

root@localhost

2021-03-20 17:36:10

Select

Edit

Copy

Delete

localhost

bs_6b

basharat

employee

root@localhost

0000-00-00 00:00:00

Select

Edit

Copy

Delete

localhost

bs_6b

BASHARAT HUSSAIN

employee

root@localhost

0000-00-00 00:00:00

Select,Insert

Edit

Copy

Delete

localhost

bs_6b

BASHARAT HUSSAIN

ticket

root@localhost

0000-00-00 00:00:00

Insert

Edit

Copy

Delete

localhost

bank

khnan

product

root@localhost

0000-00-00 00:00:00

Select,Insert,Update

Edit

Copy

Delete

localhost

bank

P176102

acc_transaction

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

Edit

Copy

Delete

localhost

bank

P176102

account

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

Edit

Copy

Delete

localhost

bank

P176102

branch

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

Edit

Copy

Delete

localhost

bank

P176102

business

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

Edit

Copy

Delete

localhost

bank

P176102

customer

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

Edit

Copy

Delete

localhost

bank

P176102

department

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

Edit

Copy

Delete

localhost

bank

P176102

employee

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

Edit

Copy

Delete

localhost

bank

P176102

individual

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

Edit

Copy

Delete

localhost

bank

P176102

officer

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

Edit

Copy

Delete

localhost

bank

P176102

product

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

Edit

Copy

Delete

localhost

bank

P176102

product type

root@localhost

0000-00-00 00:00:00

Select,Insert,Update,Delete

</

You need to then issue 3 commands each for INSERT, UPDATE, and DELETE, for the tables of any 5 tables.

Insertion in BRANCH

```
insert into BRANCH (branch_id, name, address, city, state, Zip_Code)
```

```
values (null, 'Headqters', '382 Main St.', 'ltham', 'MA', '451');
```

```
insert into BRANCH (branch_id, name, address, city, state, Zip_Code)
```

```
values (null, 'Headrters', '3882 Ma St.', 'Wtham', 'MA', '024');
```

```
insert into BRANCH (branch_id, name, address, city, state, Zip_Code)
```

```
values (null, 'Head', '32 Main St.', 'Walt', 'MA', '024');
```

insertion in Department

```
insert into DEPARTMENT (dept_id, name)values (null, 'Operons');
```

insert into DEPARTMENT (dept_id, name)values (null, 'Operas');

insert into DEPARTMENT (dept_id, name)values (null, 'Otions');

```
mysql>
mysql>
mysql> insert into BRANCH (branch_id, name, address, city, state, Zip_Code)
-> values (null, 'Headqters', '382 Main St.', 'ltham', 'MA', '451');
Query OK, 1 row affected (0.00 sec)

mysql> insert into BRANCH (branch_id, name, address, city, state, Zip_Code)
-> values (null, 'Headrters', '3882 Ma St.', 'Wtham', 'MA', '024');
Query OK, 1 row affected (0.00 sec)

mysql> insert into BRANCH (branch_id, name, address, city, state, Zip_Code)
-> values (null, 'Head', '32 Main St.', 'Walt', 'MA', '024');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql>
mysql>
mysql>
mysql> insert into DEPARTMENT (dept_id, name)values (null, 'Operons');
Query OK, 1 row affected (0.00 sec)

mysql> insert into DEPARTMENT (dept_id, name)values (null, 'Operas');
Query OK, 1 row affected (0.00 sec)

mysql> insert into DEPARTMENT (dept_id, name)values (null, 'Otions');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql>
mysql>
```

insertion in PRODUCT_TYPE

insert into PRODUCT_TYPE (product_type_cd, name)

values ('ACCOUNT1','Customer Accounts');

insert into PRODUCT_TYPE (product_type_cd, name)

values ('ACCOUNT2','Customer Accounts');

insert into PRODUCT_TYPE (product_type_cd, name)

values ('ACCOUNT3','Customer Accounts');

insertion in CUSTOMER

```
insert into CUSTOMER (cust_id, fed_id, cust_type_cd,  
    address, city, state, postal_code)  
values (null, '04-1111111', 'B', '7 Industrial Way', 'Salem', 'NH', '20309');  
  
insert into CUSTOMER (cust_id, fed_id, cust_type_cd,  
    address, city, state, postal_code)  
values (null, '04-1111111', 'B', '7 Industrial Way', 'Salem', 'NH', '01309');  
  
insert into CUSTOMER (cust_id, fed_id, cust_type_cd,  
    address, city, state, postal_code)  
values (null, '04-1111111', 'B', '7 Industrial Way', 'Salem', 'NH', '03059');
```

```
mysql>  
mysql> insert into PRODUCT_TYPE (product_type_cd, name)  
    -> values ('ACCOUNT1', 'Customer Accounts');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> insert into PRODUCT_TYPE (product_type_cd, name)  
    -> values ('ACCOUNT2', 'Customer Accounts');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> insert into PRODUCT_TYPE (product_type_cd, name)  
    -> values ('ACCOUNT3', 'Customer Accounts');  
Query OK, 1 row affected (0.00 sec)  
  
mysql>  
mysql>  
mysql>  
mysql>  
mysql> insert into CUSTOMER (cust_id, fed_id, cust_type_cd,  
    -> address, city, state, postal_code)  
    -> values (null, '04-1111111', 'B', '7 Industrial Way', 'Salem', 'NH', '20309');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> insert into CUSTOMER (cust_id, fed_id, cust_type_cd,  
    -> address, city, state, postal_code)  
    -> values (null, '04-1111111', 'B', '7 Industrial Way', 'Salem', 'NH', '01309');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> insert into CUSTOMER (cust_id, fed_id, cust_type_cd,  
    -> address, city, state, postal_code)  
    -> values (null, '04-1111111', 'B', '7 Industrial Way', 'Salem', 'NH', '03059');  
Query OK, 1 row affected (0.00 sec)  
  
mysql>  
mysql>  
mysql>
```

insertion in PRODUCT

insert into PRODUCT (product_cd, name, product_type_cd, date_offered)

values ('CHK1','checking ACCOUNT','ACCOUNT1','2000-01-01');

insert into PRODUCT (product_cd, name, product_type_cd, date_offered)s

values ('SAV1','savings ACCOUNT','ACCOUNT2','2000-01-01');

insert into PRODUCT (product_cd, name, product_type_cd, date_offered)

values ('MM1','money market ACCOUNT','ACCOUNT3','2000-01-01');

```
mysql>
mysql>
mysql>
mysql> insert into PRODUCT (product_cd, name, product_type_cd, date_offered)
-> values ('CHK1','checking ACCOUNT','ACCOUNT1','2000-01-01');
Query OK, 1 row affected (0.00 sec)

mysql> insert into PRODUCT (product_cd, name, product_type_cd, date_offered)
-> values ('SAV1','savings ACCOUNT','ACCOUNT2','2000-01-01');
Query OK, 1 row affected (0.00 sec)

mysql> insert into PRODUCT (product_cd, name, product_type_cd, date_offered)
-> values ('MM1','money market ACCOUNT','ACCOUNT3','2000-01-01');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql>
```

UPDATE in BRANCH

update BRANCH set name = 'Headqters1'

WHERE name = 'Headqters';

update BRANCH set name = 'Headrters1'

WHERE name = 'Headrters';

update BRANCH set name = 'Head1'

WHERE name = 'Head';

UPDATE in DEPARTMENT

update DEPARTMENT set name = 'Operons1'

WHERE name = 'Operons';

update DEPARTMENT set name = 'Operas2'

WHERE name = 'Operas';

update DEPARTMENT set name = 'Otions3'

WHERE name = 'Otions';

```
mysql>
mysql>
mysql> update BRANCH set name = 'Headqters1'
    -> WHERE name = 'Headqters';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update BRANCH set name = 'Headrters1'
    -> WHERE name = 'Headrters';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update BRANCH set name = 'Head1'
    -> WHERE name = 'Head';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql>
mysql>
mysql>
mysql> update DEPARTMENT set name = 'Operons1'
    -> WHERE name = 'Operons';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update DEPARTMENT set name = 'Operas2'
    -> WHERE name = 'Operas';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update DEPARTMENT set name = 'Otions3'
    -> WHERE name = 'Otions';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
```

UPDATE in PRODUCT_TYPE

update PRODUCT_TYPE set name = 'Customer1'

WHERE product_type_cd = 'ACCOUNT1';

update PRODUCT_TYPE set name = 'Customer2'

WHERE product_type_cd = 'ACCOUNT2';

update PRODUCT_TYPE set name = 'Customer3'

WHERE product_type_cd = 'ACCOUNT3';

UPDATE in CUSTOMER

update CUSTOMER set cust_type_cd = '20000'

WHERE cust_type_cd = '20309';

update CUSTOMER set cust_type_cd = '30000'

WHERE cust_type_cd = '01309';

update CUSTOMER set cust_type_cd = '40000'

WHERE cust_type_cd = '03059';

```

mysql>
mysql>
mysql> update PRODUCT_TYPE set name = 'Customer1'
    -> WHERE product_type_cd = 'ACCOUNT1';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update PRODUCT_TYPE set name = 'Customer2'
    -> WHERE product_type_cd = 'ACCOUNT2';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update PRODUCT_TYPE set name = 'Customer3'
    -> WHERE product_type_cd = 'ACCOUNT3';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql>
mysql>
mysql>
mysql> update CUSTOMER set cust_type_cd = '20000'
    -> WHERE cust_type_cd = '20309';
Query OK, 0 rows affected (0.00 sec)
Rows matched: 0  Changed: 0  Warnings: 0

mysql> update CUSTOMER set cust_type_cd = '30000'
    -> WHERE cust_type_cd = '01309';
Query OK, 0 rows affected (0.00 sec)
Rows matched: 0  Changed: 0  Warnings: 0

mysql> update CUSTOMER set cust_type_cd = '40000'
    -> WHERE cust_type_cd = '03059';
Query OK, 0 rows affected (0.00 sec)
Rows matched: 0  Changed: 0  Warnings: 0

mysql>
mysql>
mysql>

```

UPDATE in PRODUCT

update PRODUCT set date_offered = '2001-10-21'

WHERE product_cd = 'CHK1';

update product set date_offered = '2002-11-22'

WHERE product_cd = 'SAV1';

update product set date_offered = '2003-12-23'

WHERE product_cd = 'MM1';

```
mysql>
mysql> update PRODUCT set date_offered = '2001-10-21'
    -> WHERE product_cd = 'CHK1';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql> update product set date_offered = '2002-11-22'
    -> WHERE product_cd = 'SAV1';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql> update product set date_offered = '2003-12-23'
    -> WHERE product_cd = 'MM1';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql>
```

DELETE in BRANCH

DELETE FROM BRANCH WHERE name = 'Headqters1';

DELETE FROM BRANCH WHERE name = 'Headrters1';

DELETE FROM BRANCH WHERE name = 'Head1';


```
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql> DELETE FROM BRANCH WHERE name = 'Headqters1';
Query OK, 1 row affected (0.00 sec)

mysql> DELETE FROM BRANCH WHERE name = 'Headrters1';
Query OK, 1 row affected (0.00 sec)

mysql> DELETE FROM BRANCH WHERE name = 'Head1';
Query OK, 1 row affected (0.00 sec)


mysql>
```

DELETE in DEPARTMENT

DELETE FROM DEPARTMENT WHERE name = 'Operons1';

DELETE FROM DEPARTMENT WHERE name = 'Operas2';

DELETE FROM DEPARTMENT WHERE name = 'Otions3';

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```
mysql> DELETE FROM DEPARTMENT WHERE name = 'Operons1';
Query OK, 1 row affected (0.00 sec)

mysql> DELETE FROM DEPARTMENT WHERE name = 'Operas2';
Query OK, 1 row affected (0.00 sec)

mysql> DELETE FROM DEPARTMENT WHERE name = 'Otions3';
Query OK, 1 row affected (0.00 sec)

mysql>
mysql>
```

DELETE in PRODUCT_TYPE

DELETE FROM PRODUCT_TYPE WHERE name = 'Customer1';

DELETE FROM PRODUCT_TYPE WHERE name = 'Customer2';

DELETE FROM SPRODUCT_TYPE WHERE name = 'Customer3';

c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe

```
mysql>
mysql> DELETE FROM PRODUCT_TYPE WHERE name = 'Customer1';
Query OK, 1 row affected (0.00 sec)

mysql> DELETE FROM PRODUCT_TYPE WHERE name = 'Customer2';
Query OK, 1 row affected (0.00 sec)

mysql> DELETE FROM PRODUCT_TYPE WHERE name = 'Customer3';
Query OK, 1 row affected (0.00 sec)

mysql>
mysql>
```

DELETE in CUSTOMER

DELETE FROM CUSTOMER WHERE cust_type_cd = '20000';

DELETE FROM CUSTOMER WHERE cust_type_cd = '30000';

DELETE FROM CUSTOMER WHERE cust_type_cd = '40000';

c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe

```
Query OK, 1 row affected (0.00 sec)

mysql>
mysql>
mysql>
mysql> DELETE FROM CUSTOMER WHERE cust_type_cd = '20000';
Query OK, 0 rows affected (0.00 sec)

mysql> DELETE FROM CUSTOMER WHERE cust_type_cd = '30000';
Query OK, 0 rows affected (0.00 sec)

mysql> DELETE FROM CUSTOMER WHERE cust_type_cd = '40000';
Query OK, 0 rows affected (0.00 sec)


mysql>
mysql>
```

DELETE in PRODUCT

DELETE FROM PRODUCT WHERE date_offered = '2001-10-21';

DELETE FROM PRODUCT WHERE date_offered = '2002-11-22';

DELETE FROM PRODUCT WHERE date_offered = '2003-12-23';

 Select c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe

Query OK, 0 rows affected (0.00 sec)

mysql>

mysql> DELETE FROM PRODUCT WHERE date_offered = '2001-10-21';

Query OK, 2 rows affected (0.04 sec)

mysql> DELETE FROM PRODUCT WHERE date_offered = '2002-11-22';

Query OK, 2 rows affected (0.00 sec)

mysql> DELETE FROM PRODUCT WHERE date_offered = '2003-12-23';

Query OK, 2 rows affected (0.00 sec)

mysql>

mysql>

Question #02

Let us assume that an officer is allowed to insert and update but NOT to delete information about products. So create a new user with any name and password of your liking which can only INSERT and UPDATE on the PRODUCT table. Issue 3 commands of INSERT and 3 commands of UPDATE by this user on the Product table.

First of all, we open root user

and use database “bank”

then we create new user named as ‘khan’ with password ‘12345’.

The we give INSERT, UPDATE privilege to this user in PRODUCT table.

```
c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe

owners.

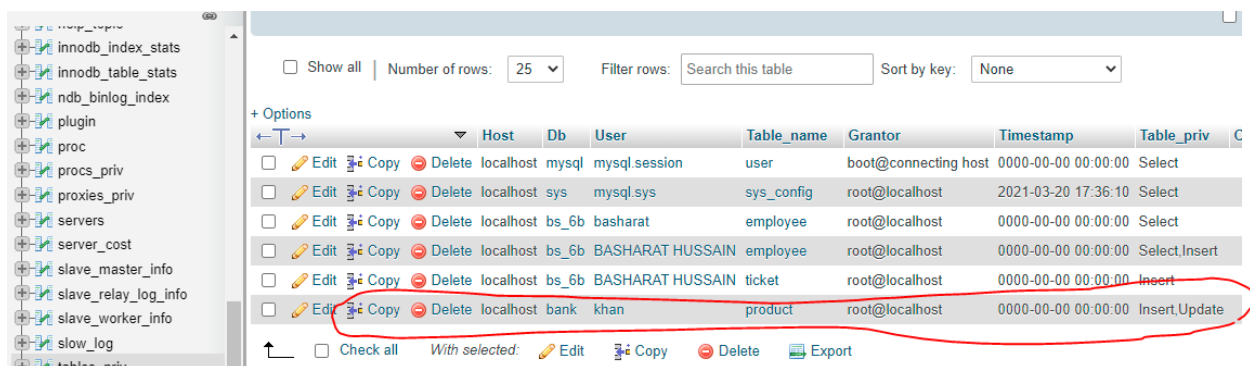
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use bank;
Database changed
mysql>
mysql> CREATE USER 'khan'@'localhost' IDENTIFIED BY '12345';
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> GRANT INSERT,UPDATE ON bank.product TO 'khan'@'localhost';
Query OK, 0 rows affected (0.00 sec)

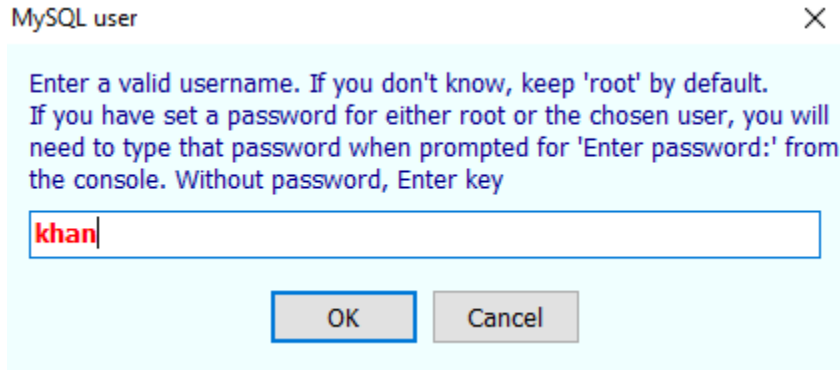
mysql>
mysql>
```

Here we can see the results.



	Host	Db	User	Table_name	Grantor	Timestamp	Table_priv
<input type="checkbox"/> Edit Copy Delete	localhost	mysql	mysql.session	user	boot@connecting host	0000-00-00 00:00:00	Select
<input type="checkbox"/> Edit Copy Delete	localhost	sys	mysql.sys	sys_config	root@localhost	2021-03-20 17:36:10	Select
<input type="checkbox"/> Edit Copy Delete	localhost	bs_6b	basharat	employee	root@localhost	0000-00-00 00:00:00	Select
<input type="checkbox"/> Edit Copy Delete	localhost	bs_6b	BASHARAT HUSSAIN	employee	root@localhost	0000-00-00 00:00:00	Select,Insert
<input type="checkbox"/> Edit Copy Delete	localhost	bs_6b	BASHARAT HUSSAIN	ticket	root@localhost	0000-00-00 00:00:00	Insert
<input type="checkbox"/> Edit Copy Delete	localhost	bank	khan	product	root@localhost	0000-00-00 00:00:00	Insert,Update

Now we open with new user named as Khan and enter the Password



Here we see database named as bank and tis table in the bank named as PRODUCT.

```
c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 627
Server version: 5.7.31 MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| bank      |
+-----+
2 rows in set (0.00 sec)

mysql> use bank;
Database changed
mysql>
mysql> show tables;
+-----+
| Tables_in_bank |
+-----+
| product        |
+-----+
1 row in set (0.00 sec)

mysql>
```

Now insert three commands in to this table of bank database.

```
1 row in set (0.00 sec)

mysql> insert into PRODUCT (product_cd, name, product_type_cd, date_offered)
-> values ('BAS','checking ACCOUNT','ACCOUNT','2000-01-01');
Query OK, 1 row affected (0.00 sec)

mysql> insert into PRODUCT (product_cd, name, product_type_cd, date_offered)
-> values ('HAR','checking ACCOUNT','ACCOUNT','2000-01-01');
Query OK, 1 row affected (0.00 sec)

mysql> insert into PRODUCT (product_cd, name, product_type_cd, date_offered)
-> values ('PAK','checking ACCOUNT','ACCOUNT','2000-01-01');
Query OK, 1 row affected (0.00 sec)

mysql>
```

Now we open root console and see the results. Here we can easily see insertion is completely successfully in the product table of bank database.

```
c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe

mysql>
mysql> CREATE USER 'khan'@'localhost' IDENTIFIED BY '12345';
Query OK, 0 rows affected (0.01 sec)

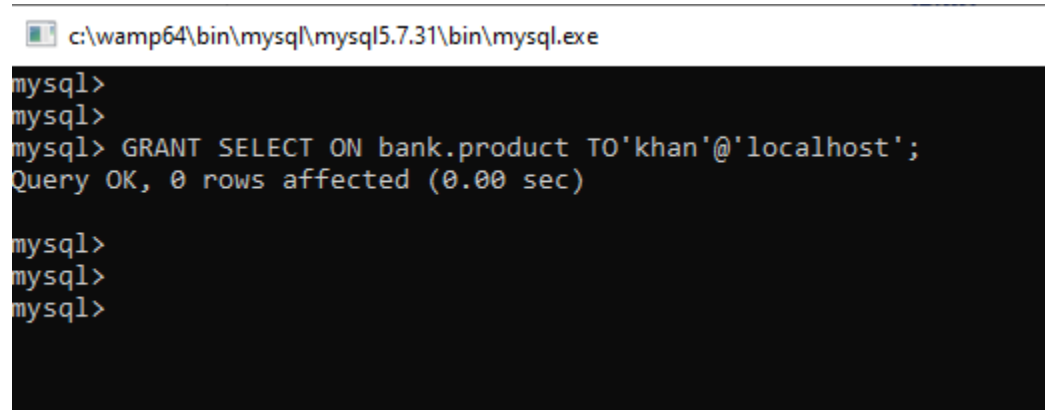
mysql>
mysql> GRANT INSERT,UPDATE ON bank.product TO 'khan'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql>
mysql>
mysql> select * from product;
+-----+-----+-----+-----+-----+
| PRODUCT_CD | DATE_OFFERED | DATE_RETIRED | NAME | PRODUCT_TYPE_CD |
+-----+-----+-----+-----+-----+
| CHK | 2000-01-01 | NULL | checking ACCOUNT | ACCOUNT |
| SAV | 2000-01-01 | NULL | savings ACCOUNT | ACCOUNT |
| MM | 2000-01-01 | NULL | money market ACCOUNT | ACCOUNT |
| CD | 2000-01-01 | NULL | certificate of deposit | ACCOUNT |
| MRT | 2000-01-01 | NULL | home mortgage | LOAN |
| AUT | 2000-01-01 | NULL | auto loan | LOAN |
| BUS | 2000-01-01 | NULL | BUSINESS line of credit | LOAN |
| SBL | 2000-01-01 | NULL | small BUSINESS loan | LOAN |
| BAS | 2000-01-01 | NULL | checking ACCOUNT | ACCOUNT |
| HAR | 2000-01-01 | NULL | checking ACCOUNT | ACCOUNT |
| PAK | 2000-01-01 | NULL | checking ACCOUNT | ACCOUNT |
+-----+-----+-----+-----+-----+
11 rows in set (0.01 sec)

mysql>
```

For update:

Now we open root user and give Select Privilege to this table of bank database.

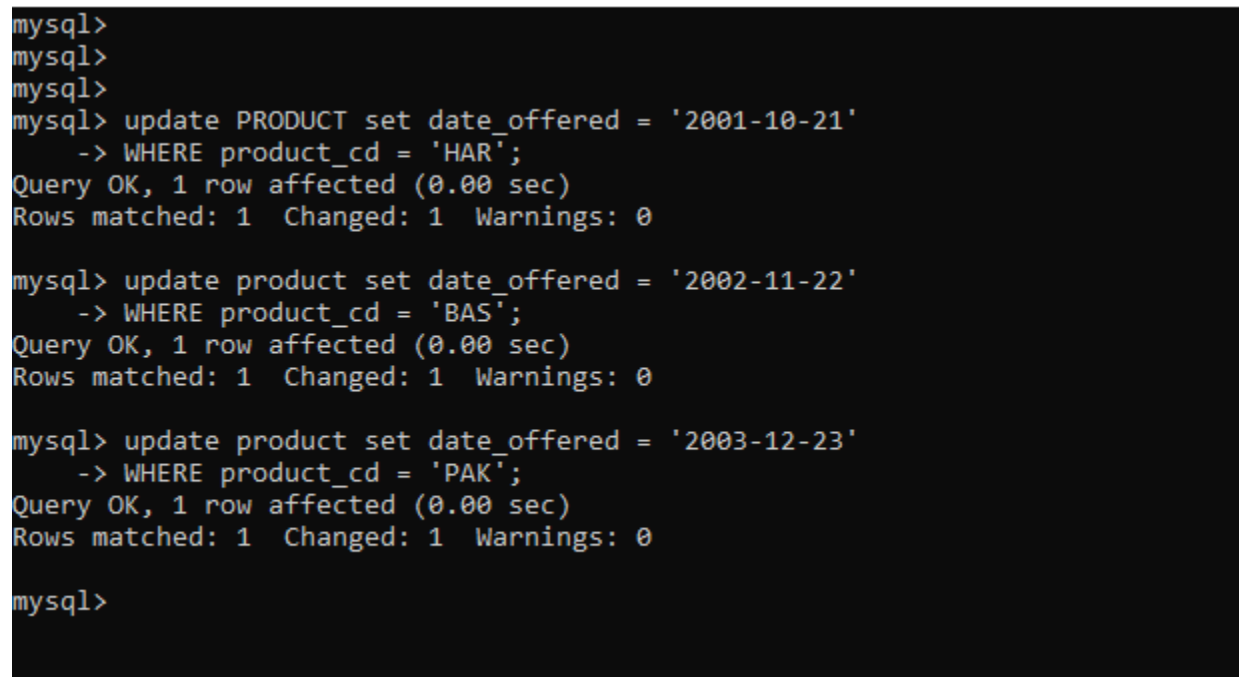


```
c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe
mysql>
mysql>
mysql> GRANT SELECT ON bank.product TO 'khan'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql>
mysql>
```

Now we can easily update this table by using below queries.

Here are three update queries.



```
mysql>
mysql>
mysql>
mysql> update PRODUCT set date_offered = '2001-10-21'
    -> WHERE product_cd = 'HAR';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update product set date_offered = '2002-11-22'
    -> WHERE product_cd = 'BAS';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update product set date_offered = '2003-12-23'
    -> WHERE product_cd = 'PAK';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
```

