

ASSIGNMENT #02

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SUBJECT: DATABASE SYSTEMS
SECTION: 6b
SUBMITTED TO: MISS SAFIA FATIMA

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
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

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 (0.01 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> _
```

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

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 (0.01 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.

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

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 (0.01 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> create view customer_account 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 (0.01 sec)

mysql> select * from customer_accounts;
ERROR 1146 (42S02): Table 'bank.customer_accounts' doesn't exist
mysql> select * from customer_account;
```

product_cd	date_offered	date_retired	name	product_type_cd	pending_balance
CD	2000-01-01	NULL	certificate of deposit	ACCOUNT	1057.75
CHK	2000-01-01	NULL	checking ACCOUNT	ACCOUNT	1057.75
MM	2000-01-01	NULL	money market ACCOUNT	ACCOUNT	1057.75
SAV	2000-01-01	NULL	savings ACCOUNT	ACCOUNT	1057.75

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

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.

```
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 (0.01 sec)

mysql> select * from senior_views;
```

EMP_ID	END_DATE	FIRST_NAME	LAST_NAME	START_DATE	TITLE	ASSIGNED_BRANCH_ID	DEPT_ID	SUPERIOR_EMP_ID	BRANCH_ID	ADDRESS	CITY	NAME	STATE	ZIP_CODE
1	NULL	Michael	Smith	2001-06-22	President	1	3	NULL	1	3882 Main St.	Waltham	Headquarters	MA	02451
2	NULL	Susan	Barker	2002-09-12	Vice President	1	3	1	2	422 Maple St.	Woburn	Woburn Branch	MA	01801
3	NULL	Robert	Tyler	2000-02-09	Treasurer	1	3	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 'P176124'@'localhost' IDENTIFIED BY 'fast123';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.acc_transaction  
TO 'P176124'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.account TO 'P176124'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.branch TO 'P176124'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.business TO 'P176124'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.customer TO 'P176124'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.department TO 'P176124'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.employee TO 'P176124'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.individual TO 'P176124'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.officer TO 'P176124'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.product TO 'P176124'@'localhost';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON bank.product_type  
TO 'P176124'@'localhost';
```

```

c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe
mysql> CREATE USER 'P176124'@'localhost' IDENTIFIED BY 'fast123';
Query OK, 0 rows affected (0.03 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.acc_transaction TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.01 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.account TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.branch TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.business TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.customer TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.department TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.employee TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.individual TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.officer TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.product TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT SELECT,INSERT,UPDATE,DELETE ON bank.product_type TO 'P176124'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql>

```

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

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

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

```
mysql> insert into BRANCH values (null, 'Headqters', '382 Main St.', 'ltham', 'MA', '451');
Query OK, 1 row affected (0.01 sec)

mysql> insert into BRANCH values (null, 'Headrters', '3882 Ma St.', 'Wtham', 'MA', '024');
Query OK, 1 row affected (0.01 sec)

mysql> insert into BRANCH values (null, 'Head', '32 Main St.', 'Walt', 'MA', '024');
Query OK, 1 row affected (0.01 sec)

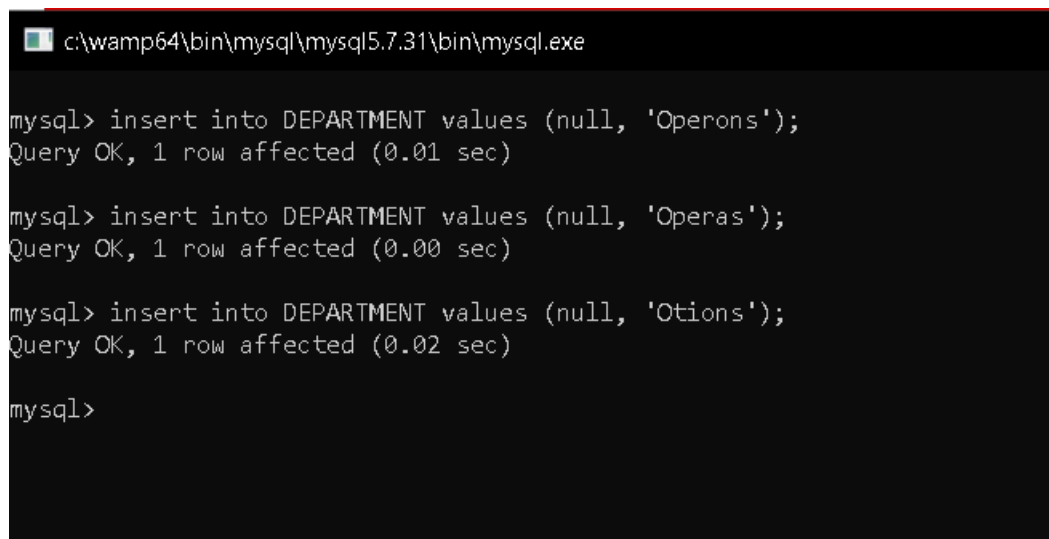
mysql>
```

insertion in Department

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

```
insert into DEPARTMENT values (null, 'Operas');
```

```
insert into DEPARTMENT values (null, 'Otions');
```



The screenshot shows a Windows command prompt window with the title bar "c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe". The prompt is "mysql>". The user enters three SQL insert statements, each followed by the output "Query OK, 1 row affected (X.XX sec)". The statements are:
1. `insert into DEPARTMENT values (null, 'Operons');`
2. `insert into DEPARTMENT values (null, 'Operas');`
3. `insert into DEPARTMENT values (null, 'Otions');`
The prompt returns to "mysql>" after the third statement.

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

mysql> insert into DEPARTMENT values (null, 'Operons');
Query OK, 1 row affected (0.01 sec)

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

mysql> insert into DEPARTMENT values (null, 'Otions');
Query OK, 1 row affected (0.02 sec)

mysql>
```

insertion in PRODUCT_TYPE

```
insert into PRODUCT_TYPE values ('ACCOUNT1', 'Customer Accounts');
```

```
insert into PRODUCT_TYPE values ('ACCOUNT2', 'Customer Accounts');
```

```
insert into PRODUCT_TYPE values ('ACCOUNT3', 'Customer Accounts');
```

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

```
mysql> insert into PRODUCT_TYPE values ('ACCOUNT1','Customer Accounts');
Query OK, 1 row affected (0.01 sec)

mysql> insert into PRODUCT_TYPE values ('ACCOUNT2','Customer Accounts');
Query OK, 1 row affected (0.00 sec)

mysql> insert into PRODUCT_TYPE values ('ACCOUNT3','Customer Accounts');
Query OK, 1 row affected (0.00 sec)

mysql>
```

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');
```

```
c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe
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 (0.01 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 (0.01 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>
```

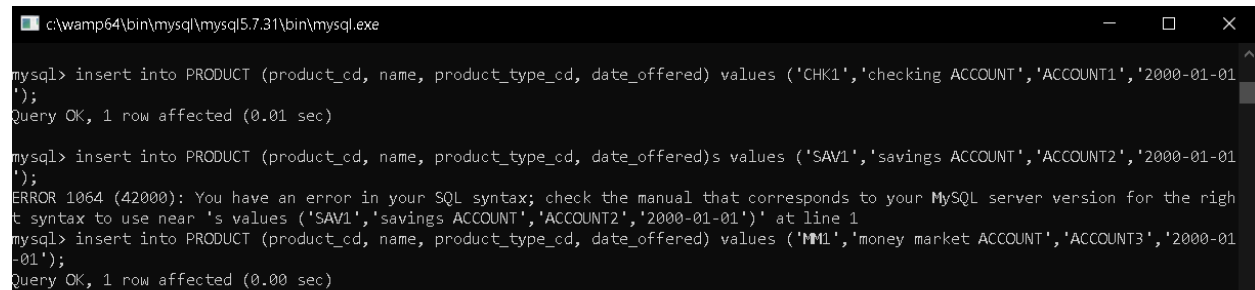
insertion in PRODUCT

```
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) 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');
```



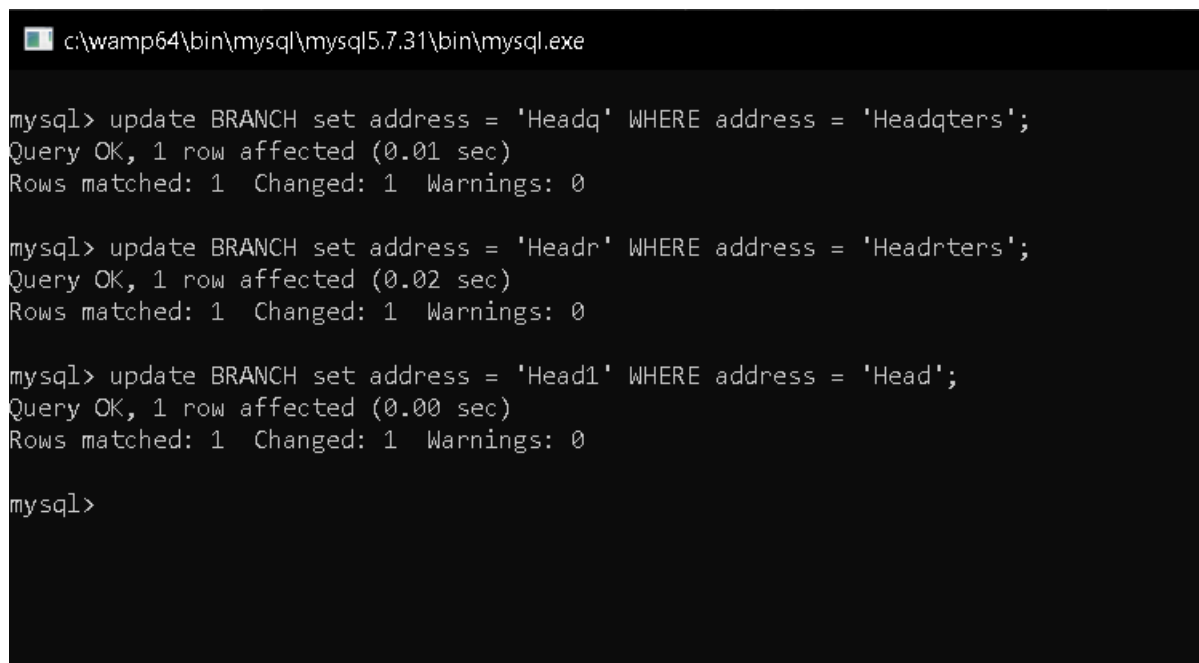
A screenshot of a MySQL command prompt window. The title bar shows the path 'c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe'. The prompt shows three SQL commands being executed. The first command is 'insert into PRODUCT (product_cd, name, product_type_cd, date_offered) values ('CHK1', 'checking ACCOUNT', 'ACCOUNT1', '2000-01-01');' and the result is 'Query OK, 1 row affected (0.01 sec)'. The second command is 'insert into PRODUCT (product_cd, name, product_type_cd, date_offered)s values ('SAV1', 'savings ACCOUNT', 'ACCOUNT2', '2000-01-01');' and the result is an error: '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 's values ('SAV1', 'savings ACCOUNT', 'ACCOUNT2', '2000-01-01')' at line 1'. The third command is 'insert into PRODUCT (product_cd, name, product_type_cd, date_offered) values ('MM1', 'money market ACCOUNT', 'ACCOUNT3', '2000-01-01');' and the result is 'Query OK, 1 row affected (0.00 sec)'.

UPDATE in BRANCH

```
update BRANCH set address = 'Headq' WHERE address = 'Headqters';
```

```
update BRANCH set address = 'Headr' WHERE address = 'Headrters';
```

```
update BRANCH set address = 'Head1' WHERE address = 'Head';
```



A screenshot of a MySQL command prompt window. The title bar shows the path 'c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe'. The prompt shows three SQL commands being executed. The first command is 'update BRANCH set address = 'Headq' WHERE address = 'Headqters';' and the result is 'Query OK, 1 row affected (0.01 sec)' followed by 'Rows matched: 1 Changed: 1 Warnings: 0'. The second command is 'update BRANCH set address = 'Headr' WHERE address = 'Headrters';' and the result is 'Query OK, 1 row affected (0.02 sec)' followed by 'Rows matched: 1 Changed: 1 Warnings: 0'. The third command is 'update BRANCH set address = 'Head1' WHERE address = 'Head';' and the result is 'Query OK, 1 row affected (0.00 sec)' followed by 'Rows matched: 1 Changed: 1 Warnings: 0'. The prompt ends with 'mysql>'.

UPDATE in DEPARTMENT

```
update DEPARTMENT set name = 'Operonsx' WHERE name = 'Operons';
```

```
update DEPARTMENT set name = 'Operasx' WHERE name = 'Operas';
```

```
update DEPARTMENT set name = 'Otionsx' WHERE name = 'Otions';
```

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

mysql> update DEPARTMENT set name = 'Operonsx' WHERE name = 'Operons';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

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

mysql> update DEPARTMENT set name = 'Otionsx' 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';
```

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

mysql> update PRODUCT_TYPE set name = 'Customer1' WHERE product_type_cd = 'ACCOUNT1';
Query OK, 1 row affected (0.01 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 (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

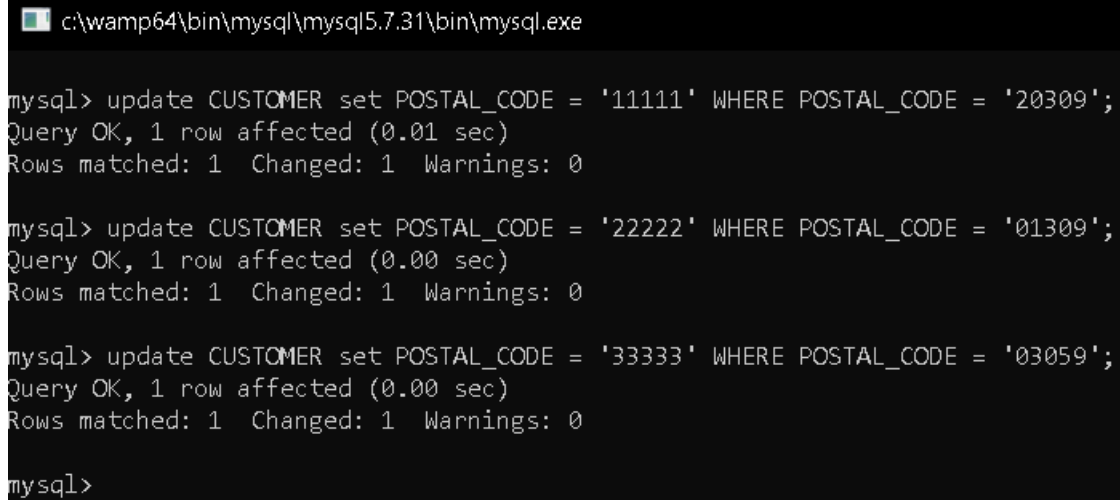
mysql>
```

UPDATE in CUSTOMER

```
update CUSTOMER set POSTAL_CODE = '11111' WHERE POSTAL_CODE = '20309';
```

```
update CUSTOMER set POSTAL_CODE = '22222' WHERE POSTAL_CODE = '01309';
```

```
update CUSTOMER set POSTAL_CODE = '33333' WHERE POSTAL_CODE = '03059';
```



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

mysql> update CUSTOMER set POSTAL_CODE = '11111' WHERE POSTAL_CODE = '20309';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update CUSTOMER set POSTAL_CODE = '22222' WHERE POSTAL_CODE = '01309';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update CUSTOMER set POSTAL_CODE = '33333' WHERE POSTAL_CODE = '03059';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

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';
```

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

mysql> update PRODUCT set date_offered = '2001-10-21' WHERE product_cd = 'CHK1';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

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> update product set date_offered = '2003-12-23' WHERE product_cd = 'MM1';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
```

DELETE in BRANCH

```
DELETE FROM BRANCH WHERE ADDRESS = 'Headq';
```

```
DELETE FROM BRANCH WHERE ADDRESS = 'Headr';
```

```
DELETE FROM BRANCH WHERE ADDRESS = 'Head1';
```

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

mysql> DELETE FROM BRANCH WHERE ADDRESS = 'Headq';
Query OK, 1 row affected (0.01 sec)

mysql> DELETE FROM BRANCH WHERE ADDRESS = 'Headr';
Query OK, 1 row affected (0.01 sec)

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

mysql>
```

DELETE in DEPARTMENT

```
DELETE FROM DEPARTMENT WHERE name = 'Operonsx';
```

```
DELETE FROM DEPARTMENT WHERE name = 'Operasx';
```

```
DELETE FROM DEPARTMENT WHERE name = 'Otionsx';
```

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

mysql> DELETE FROM DEPARTMENT WHERE name = 'Operonsx';
Query OK, 1 row affected (0.01 sec)

mysql> DELETE FROM DEPARTMENT WHERE name = 'Operasx';
Query OK, 1 row affected (0.01 sec)

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

mysql>
```

DELETE in PRODUCT_TYPE

```
DELETE FROM PRODUCT_TYPE WHERE name = 'Customer1';
```

```
DELETE FROM PRODUCT_TYPE WHERE name = 'Customer2';
```

```
DELETE FROM PRODUCT_TYPE WHERE name = 'Customer3';
```

DELETE in CUSTOMER

```
DELETE FROM CUSTOMER WHERE postal_code = '11111';
```

```
DELETE FROM CUSTOMER WHERE postal_code = '22222';
```

```
DELETE FROM CUSTOMER WHERE postal_code = '33333';
```

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

mysql> DELETE FROM CUSTOMER WHERE postal_code = '11111';
Query OK, 1 row affected (0.01 sec)

mysql> DELETE FROM CUSTOMER WHERE postal_code = '22222';
Query OK, 1 row affected (0.01 sec)

mysql> DELETE FROM CUSTOMER WHERE postal_code = '33333';
Query OK, 1 row affected (0.00 sec)

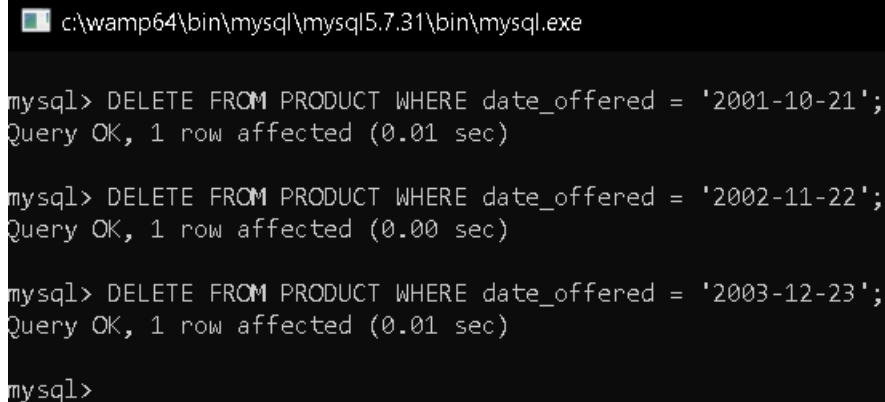
mysql> _
```

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';
```



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

mysql> DELETE FROM PRODUCT WHERE date_offered = '2001-10-21';
Query OK, 1 row affected (0.01 sec)

mysql> DELETE FROM PRODUCT WHERE date_offered = '2002-11-22';
Query OK, 1 row affected (0.00 sec)

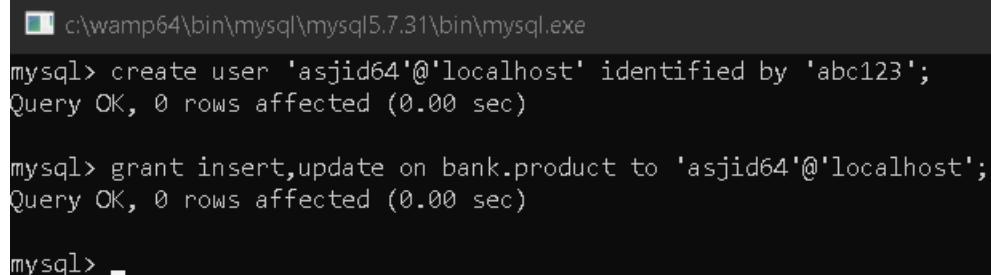
mysql> DELETE FROM PRODUCT WHERE date_offered = '2003-12-23';
Query OK, 1 row affected (0.01 sec)

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.

Login as root user and use database “bank” then create new user named as ‘asjid’ with password ‘abc123’. Then give INSERT and UPDATE privileges to this user in PRODUCT table.



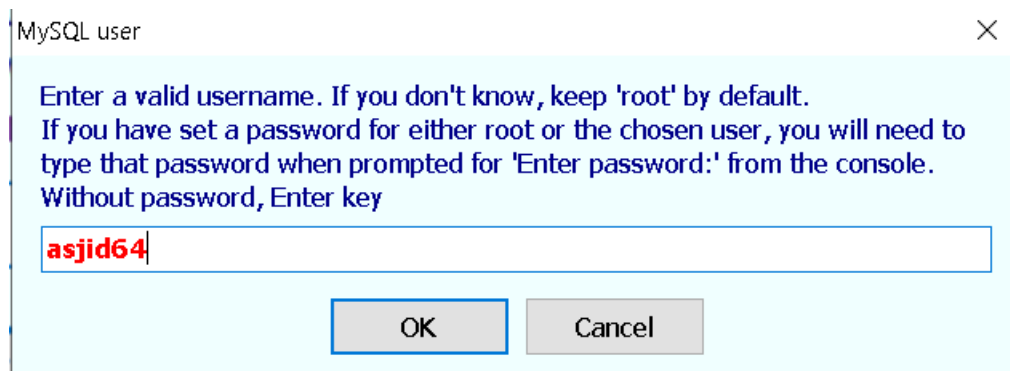
```
c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe

mysql> create user 'asjid64'@'localhost' identified by 'abc123';
Query OK, 0 rows affected (0.00 sec)

mysql> grant insert,update on bank.product to 'asjid64'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> _
```

Open with new user named as asjid64 and enter the Password



Access to database named as bank and its table in the bank named as PRODUCT can be seen in the following screenshot.

```
c:\wamp64\bin\mysql\mysql5.7.31\bin\mysql.exe
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| bank |
+-----+
2 rows in set (0.00 sec)

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

mysql>
```

Now inserting three commands into PRODUCT table of bank database.

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

mysql> insert into product(product_cd,name,product_type_cd,date_offered)
-> values ('HAR','checking','ACCOUNT','2000-01-04');
Query OK, 1 row affected (0.01 sec)

mysql> insert into product(product_cd,name,product_type_cd,date_offered)
-> values ('KAN','checking','ACCOUNT','2007-06-05');
Query OK, 1 row affected (0.01 sec)

mysql> insert into product(product_cd,name,product_type_cd,date_offered)
-> values ('FAR','checking','ACCOUNT','2010-05-04');
Query OK, 1 row affected (0.01 sec)

mysql> _
```

Now open root console and see the results.

```
mysql> use bank;
Database changed
mysql> select * from products;
ERROR 1146 (42S02): Table 'bank.products' doesn't exist
mysql> select * from product;

+-----+-----+-----+-----+-----+
| PRODUCT_CD | DATE_OFFERED | DATE_RETIRED | NAME | PRODUCT_TYPE_CD |
+-----+-----+-----+-----+-----+
| AUT | 2000-01-01 | NULL | auto loan | LOAN |
| BUS | 2000-01-01 | NULL | BUSINESS line of credit | LOAN |
| CD | 2000-01-01 | NULL | certificate of deposit | ACCOUNT |
| CHK | 2000-01-01 | NULL | checking ACCOUNT | ACCOUNT |
| FAR | 2010-05-04 | NULL | checking | ACCOUNT |
| HAR | 2000-01-04 | NULL | checking | ACCOUNT |
| KAN | 2007-06-05 | NULL | checking | ACCOUNT |
| MM | 2000-01-01 | NULL | money market ACCOUNT | ACCOUNT |
| MRT | 2000-01-01 | NULL | home mortgage | LOAN |
| SAV | 2000-01-01 | NULL | savings ACCOUNT | ACCOUNT |
| SBL | 2000-01-01 | NULL | small BUSINESS loan | LOAN |
+-----+-----+-----+-----+-----+
11 rows in set (0.00 sec)
```

For update:

Now we open root user and give Select Privilege to PRODUCT table of bank database. Now the three update queries can be performed.


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

mysql> grant select on bank.product to 'asjid64'@'localhost';
Query OK, 0 rows affected (0.02 sec)

mysql> update product set date_offered = '2001-99-30'
    -> where product_cd = 'KAN';
ERROR 1292 (22007): Incorrect date value: '2001-99-30' for column 'DATE_OFFERED' at row 1
mysql> update product set date_offered = '2001-09-30'
    -> where product_cd = 'KAN';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update product set date_offered = '2010-05-20'
    -> where product_cd = 'HAR';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update product set date_offered = '2007-11-22'
    -> where product_cd = 'FAR';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
```

The results are below after the update query

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

mysql> select * from product;
+-----+-----+-----+-----+-----+
| PRODUCT_CD | DATE_OFFERED | DATE_RETIRED | NAME | PRODUCT_TYPE_CD |
+-----+-----+-----+-----+-----+
| AUT | 2000-01-01 | NULL | auto loan | LOAN |
| BUS | 2000-01-01 | NULL | BUSINESS line of credit | LOAN |
| CD | 2000-01-01 | NULL | certificate of deposit | ACCOUNT |
| CHK | 2000-01-01 | NULL | checking ACCOUNT | ACCOUNT |
| FAR | 2007-11-22 | NULL | checking | ACCOUNT |
| HAR | 2010-05-20 | NULL | checking | ACCOUNT |
| KAN | 2001-09-30 | NULL | checking | ACCOUNT |
| MM | 2000-01-01 | NULL | money market ACCOUNT | ACCOUNT |
| MRT | 2000-01-01 | NULL | home mortgage | LOAN |
| SAV | 2000-01-01 | NULL | savings ACCOUNT | ACCOUNT |
| SBL | 2000-01-01 | NULL | small BUSINESS loan | LOAN |
+-----+-----+-----+-----+-----+
11 rows in set (0.00 sec)

mysql>
```

-----END-----