

NAME :: IBRAR BABAR

ROLL NO. :: 19P-0104

BS(CS) :: SECTION (4A)

DATABASE SYSTEM

ASSIGNMENT#2

1) Views

(a)

create view Customer_info as

select * from employee

where first_name not in ('John','Paul','Carl','Stanley');

```
mysql> create view Customer_info as
-> select * from employee
-> where first_name not in ('John','Paul','Carl','Stanley');
Query OK, 0 rows affected (0.09 sec)
```

Select * from customer_info;

```
mysql> select * from Customer_info;
```

EMP_ID	END_DATE	FIRST_NAME	LAST_NAME	START_DATE	TITLE	ASSIGNED_BRANCH_ID	DEPT_ID	SUPERIOR_EMP_ID
1	NULL	Michael	Smith	2001-06-22	President	1	3	NULL
2	NULL	Susan	Barker	2002-09-12	Vice President	1	3	1
3	NULL	Robert	Tyler	2000-02-09	Treasurer	1	3	1
4	NULL	Susan	Hawthorne	2002-04-24	Operations Manager	1	1	3
6	NULL	Helen	Fleming	2004-03-17	Head Teller	1	1	4
7	NULL	Chris	Tucker	2004-09-15	Teller	1	1	6
8	NULL	Sarah	Parker	2002-12-02	Teller	1	1	6
9	NULL	Jane	Grossman	2002-05-03	Teller	1	1	6
10	NULL	Paula	Roberts	2002-07-27	Head Teller	2	1	4
11	NULL	Thomas	Ziegler	2000-10-23	Teller	2	1	10
12	NULL	Samantha	Jameson	2003-01-08	Teller	2	1	10
14	NULL	Cindy	Mason	2002-08-09	Teller	3	1	13
15	NULL	Frank	Portman	2003-04-01	Teller	3	1	13
16	NULL	Theresa	Markham	2001-03-15	Head Teller	4	1	4
17	NULL	Beth	Fowler	2002-06-29	Teller	4	1	16
18	NULL	Rick	Tulman	2002-12-12	Teller	4	1	16

```
16 rows in set (0.03 sec)
```

(B)

create view individual_info as

select birth_date,first_name,Last_name,AVAIL_BALANCE

from individual join customer using (cust_id) join account using (cust_id);

```
mysql> create view individual_info as
-> select birth_date,first_name,last_name,AVAIL_BALANCE
-> from individual join customer using (cust_id) join account using (cust_id);
Query OK, 0 rows affected (0.08 sec)
```

Select * from individual_info;

```
mysql> Select * from individual_info;
+-----+-----+-----+-----+
| birth_date | first_name | Last_name | AVAIL_BALANCE |
+-----+-----+-----+-----+
| 1972-04-22 | James      | Hadley    | 1057.75        |
| 1972-04-22 | James      | Hadley    | 500            |
| 1972-04-22 | James      | Hadley    | 3000           |
| 1968-08-15 | Susan      | Tingley   | 2258.02        |
| 1968-08-15 | Susan      | Tingley   | 200            |
| 1958-02-06 | Frank      | Tucker   | 1057.75        |
| 1958-02-06 | Frank      | Tucker   | 2212.5         |
| 1966-12-22 | John       | Hayward   | 534.12         |
| 1966-12-22 | John       | Hayward   | 767.77         |
| 1966-12-22 | John       | Hayward   | 5487.09        |
| 1971-08-25 | Charles    | Frasier   | 2237.97        |
| 1962-09-14 | John       | Spencer   | 122.37         |
| 1962-09-14 | John       | Spencer   | 10000          |
| 1947-03-19 | Margaret   | Young     | 5000           |
| 1977-07-01 | Louis      | Blake     | 3487.19        |
| 1977-07-01 | Louis      | Blake     | 387.99         |
| 1968-06-16 | Richard    | Farley    | 125.67         |
| 1968-06-16 | Richard    | Farley    | 9345.55        |
| 1968-06-16 | Richard    | Farley    | 1500           |
+-----+-----+-----+-----+
19 rows in set (0.00 sec)
```

(C)

create view customer_accounts as

```
select ACCOUNT_ID,AVAIL_BALANCE,CLOSE_DATE,LAST_ACTIVITY_DATE,
OPEN_DATE,PENDING_BALANCE,STATUS,CUST_ID,OPEN_BRANCH_ID,OPEN_EMP_ID,PRODUCT_CD

from account join product using (product_cd) where product_type_cd='account' and
PENDING_BALANCE < 2000;
```

```
mysql> create view customer_accounts as
-> select ACCOUNT_ID,AVAIL_BALANCE,CLOSE_DATE,LAST_ACTIVITY_DATE,
-> OPEN_DATE,PENDING_BALANCE,STATUS,CUST_ID,OPEN_BRANCH_ID,OPEN_EMP_ID,PRODUCT_CD
-> from account join product using (product_cd) where product_type_cd='account' and PENDING_BALANCE < 2000;
Query OK, 0 rows affected (0.06 sec)
```

Select * from customer_accounts;

```
mysql> Select * from customer_accounts;
```

ACCOUNT_ID	AVAIL_BALANCE	CLOSE_DATE	LAST_ACTIVITY_DATE	OPEN_DATE	PENDING_BALANCE	STATUS	CUST_ID	OPEN_BRANCH_ID	OPEN_EMP_ID	PRODUCT_CD
23	1500	NULL	2004-06-30	2004-06-30	1500	ACTIVE	9	1	1	CD
1	1057.75	NULL	2005-01-04	2000-01-15	1057.75	ACTIVE	1	2	10	CHK
7	1057.75	NULL	2004-11-30	2002-11-23	1057.75	ACTIVE	3	3	13	CHK
10	534.12	NULL	2005-01-03	2003-09-12	534.12	ACTIVE	4	1	1	CHK
14	122.37	NULL	2004-11-29	2002-08-24	122.37	ACTIVE	6	1	1	CHK
21	125.67	NULL	2004-12-15	2003-07-30	125.67	ACTIVE	9	1	1	CHK
2	500	NULL	2004-12-19	2000-01-15	500	ACTIVE	1	2	10	SAV
5	200	NULL	2004-12-11	2001-03-12	200	ACTIVE	2	2	10	SAV
11	767.77	NULL	2004-10-24	2000-01-15	767.77	ACTIVE	4	1	1	SAV
19	387.99	NULL	2004-10-12	2001-05-23	387.99	ACTIVE	8	4	16	SAV

10 rows in set (0.00 sec)

(D)

create view senior_views as

-> select * from employee,branch where year(start_date) >=' 2002' and

-> employee.assigned_branch_id = branch.branch_id;

```
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
2	NULL	Susan	Barker	2002-09-12	Vice President	1	3	1	1	3882 Main St.	Wal
4	NULL	Susan	Hawthorne	2002-04-24	Operations Manager	1	1	3	1	3882 Main St.	Wal
5	NULL	John	Gooding	2003-11-14	Loan Manager	1	2	4	1	3882 Main St.	Wal
6	NULL	Helen	Fleming	2004-03-17	Head Teller	1	1	4	1	3882 Main St.	Wal
7	NULL	Chris	Tucker	2004-09-15	Teller	1	1	6	1	3882 Main St.	Wal
8	NULL	Sarah	Parker	2002-12-02	Teller	1	1	6	1	3882 Main St.	Wal
9	NULL	Jane	Grossman	2002-05-03	Teller	1	1	6	1	3882 Main St.	Wal
10	NULL	Paula	Roberts	2002-07-27	Head Teller	2	1	4	2	422 Maple St.	Wob
12	NULL	Samantha	Jameson	2003-01-08	Teller	2	1	10	2	422 Maple St.	Wob
14	NULL	Cindy	Mason	2002-08-09	Teller	3	1	13	3	125 Presidential Way	Qui
15	NULL	Frank	Portman	2003-04-01	Teller	3	1	13	3	125 Presidential Way	Qui
17	NULL	Beth	Fowler	2002-06-29	Teller	4	1	16	4	378 Maynard Ln.	Sal
18	NULL	Rick	Tulman	2002-12-12	Teller	4	1	16	4	378 Maynard Ln.	Sal

2). User Roles

(1)

CREATE USER 'P190104'@'localhost' IDENTIFIED BY 'helloworld';

```
mysql> CREATE USER 'P190104'@'localhost' IDENTIFIED BY 'helloworld';
Query OK, 0 rows affected (0.36 sec)
```

grant select on bank.* to 'P190104'@'localhost';

grant insert on bank.* to 'P190104'@'localhost';

grant update on bank.* to 'P190104'@'localhost';

grant delete on bank.* to 'P190104'@'localhost';

```
mysql> grant select on bank.* to 'P190104'@'localhost';
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> grant insert on bank.* to 'P190104'@'localhost';
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> grant update on bank.* to 'P190104'@'localhost';
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> grant delete on bank.* to 'P190104'@'localhost';
Query OK, 0 rows affected (0.00 sec)
```

------(P190104 User)-----

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

(INSERT)

I am going to insert data in the branch table;

insert into BRANCH values (5,'111 gulberg','lahore','middle branch','LH','35202');

insert into BRANCH values (6,'222 heartbar','sheikhupura','main branch','SK','35404');

insert into BRANCH values (7,'333 movmaal','islamabad','advert branch','IS','35606');

```
mysql> select * from branch;
```

BRANCH_ID	ADDRESS	CITY	NAME	STATE	ZIP_CODE
1	3882 Main St.	Waltham	Headquarters	MA	02451
2	422 Maple St.	Woburn	Woburn Branch	MA	01801
3	125 Presidential Way	Quincy	Quincy Branch	MA	02169
4	378 Maynard Ln.	Salem	So. NH Branch	NH	03079
5	111 gulberg	lahore	middle branch	LH	35202
6	222 heartbar	sheikhupura	main branch	SK	35404
7	333 movmaal	islamabad	advert branch	IS	35606

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

(UPDATE)

I am going to update data in the individual table;

update individual set birth_date='2000-01-23' where cust_ID=1;

update individual set FIRST_NAME='Rajput' where cust_ID=2;

update individual set LAST_NAME='BILAL' where cust_ID=3;

```
mysql> update individual set birth_date='2000-01-23' where cust_ID=1;
Query OK, 1 row affected (0.21 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update individual set FIRST_NAME='Rajput' where cust_ID=2;
Query OK, 1 row affected (0.08 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update individual set LAST_NAME='BILAL' where cust_ID=3;
Query OK, 1 row affected (0.05 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from individual;
```

BIRTH_DATE	FIRST_NAME	LAST_NAME	CUST_ID
2000-01-23	James	Hadley	1
1968-08-15	Rajput	Tingley	2
1958-02-06	Frank	BILAL	3
1966-12-22	John	Hayward	4
1971-08-25	Charles	Frasier	5
1962-09-14	John	Spencer	6
1947-03-19	Margaret	Young	7
1977-07-01	Louis	Blake	8
1968-06-16	Richard	Farley	9

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

(DELETE)

I am going to delete data from the customer table;

BEFORE DELETING

```
mysql> select * from customer;
```

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
10	7 Industrial Way	Salem	B	04-1111111	03079	NH
11	287A Corporate Ave	Wilmington	B	04-2222222	01887	MA
12	789 Main St	Salem	B	04-3333333	03079	NH
13	4772 Presidential Way	Quincy	B	04-4444444	02169	MA

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

delete from customer where postal_code=01940;

delete from customer where city='woburn';

delete from customer where address='18 Jessup Rd';

```
mysql> delete from customer where postal_code=01940;
Query OK, 1 row affected (0.22 sec)

mysql> delete from customer where city='woburn';
Query OK, 1 row affected (0.05 sec)

mysql> delete from customer where address='18 Jessup Rd';
Query OK, 1 row affected (0.06 sec)

mysql> select * from customer;
```

CUST_ID	ADDRESS	CITY	CUST_TYPE_CD	FED_ID	POSTAL_CODE	STATE
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
10	7 Industrial Way	Salem	B	04-1111111	03079	NH
11	287A Corporate Ave	Wilmington	B	04-2222222	01887	MA
12	789 Main St	Salem	B	04-3333333	03079	NH
13	4772 Presidential Way	Quincy	B	04-4444444	02169	MA

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

2). User Roles

(2)

grant insert,update on bank.product to '19P-0104'@'localhost';

```
mysql> grant insert,update on bank.product to '19P-0104'@'localhost';
Query OK, 0 rows affected (0.07 sec)
```

-----in (19P-0104 user)-----

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
+-----+
1 row in set (0.00 sec)

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)
```

INSERTION

insert into product values('PAK','2000-01-23',NULL,'milk Pack','amount');

insert into product values('ISB','2000-02-26',NULL,'Bullets','loan');

insert into product values('ATT','2000-05-03',NULL,'Serjury equip..','amount');

```
mysql> insert into product values('PAK','2000-01-23',NULL,'milk Pack','amount');
Query OK, 1 row affected (0.02 sec)

mysql> insert into product values('ISB','2000-02-26',NULL,'Bullets','loan');
Query OK, 1 row affected (0.03 sec)

mysql> insert into product values('ATT','2000-05-03',NULL,'Serjury equip..','amount');
Query OK, 1 row affected (0.03 sec)
```

I took this screenshot from root user, as select option is not accessible in 19P-0104 user.

```
mysql> select * from product;
```

PRODUCT_CD	DATE_OFFERED	DATE_RETIRED	NAME	PRODUCT_TYPE_CD
ATT	2000-05-03	NULL	Serjury equip..	amount
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	amount
CHK	2000-01-01	NULL	checking ACCOUNT	ACCOUNT
ISB	2000-02-26	NULL	Bullets	loan
MM	2000-01-01	NULL	money market ACCOUNT	ACCOUNT
MRT	2000-01-01	NULL	home mortgage	LOAN
PAK	2000-01-23	NULL	milk Pack	amount
SAV	2000-01-01	NULL	savings ACCOUNT	ACCOUNT
SBL	2000-01-01	NULL	small BUSINESS loan	LOAN

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

(UPDATE)

-----in (19P-0104 user)-----

update product set name='computer' where product_cd='att';

update product set name='security' where product_cd='bus';

update product set name='managment system' where product_cd='pak';

```
mysql>
mysql> update product set name='computer' where product_cd='att';
Query OK, 1 row affected (0.05 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update product set name='security' where product_cd='bus';
Query OK, 1 row affected (0.03 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update product set name='managment system' where product_cd='pak';
Query OK, 1 row affected (0.05 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

I took this screenshot from root user, as select option is not accessible in 19P-0104 user.


```
mysql> select * from product;
```

PRODUCT_CD	DATE_OFFERED	DATE_RETIRED	NAME	PRODUCT_TYPE_CD
ATT	2000-05-03	NULL	computer	amount
AUT	2000-01-01	NULL	auto loan	loan
bus	2000-01-01	NULL	security	loan
cd	2000-01-01	NULL	certificate of deposit	amount
CHK	2000-01-01	NULL	checking ACCOUNT	ACCOUNT
ISB	2000-02-26	NULL	Bullets	loan
MM	2000-01-01	NULL	money market ACCOUNT	ACCOUNT
MRT	2000-01-01	NULL	home mortgage	LOAN
PAK	2000-01-23	NULL	managment system	amount
SAV	2000-01-01	NULL	savings ACCOUNT	ACCOUNT
SBL	2000-01-01	NULL	small BUSINESS loan	LOAN

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