Assignment 3

DBMS LAB

IT552

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Fifth Semester

Information Technology (HY)

Q1. Create a view using a single table. Perform insert, delete and update operations.

```
create table Customer (
C_id varchar(10) primary key,
F_name varchar(10) not null,
L_name varchar(10),
City varchar(10)
);
-- view
create view v1 as
select C_id, L_name
from Customer;
```

table contents

C_id	F_name	L_name	City
C1	Steve	Rogers	Brooklyn
C2	Tony	Stark	Malibu
C3	Peter	Parker	Queens
C4	Bruce	Wayne	Gotham
C5	Clark	Kent	Metropolis

View

C_id	L_name
C1	Rogers
C2	Stark
C3	Parker
C4	Wayne
C5	Kent

Insert

```
insert into v1 (C_id) values ('C8');
```

this insert operation does not take place as the column ‘F_name’ in the customer table has a not null condition so even if the column ‘C_id’ is the primary key and the column ‘L_name’ can have a null value, the insert

operation does not take place as there is no default value for the ‘F_name’ column

```
1    select * from v1;
```

Result Grid | Filter Rows:

C_id	L_name
C2	Stark
C3	Parker
C4	Wayne
C5	Kent

Delete

```
delete from v1 where C_id='C1';
```

this delete operation takes place as the primary key column ‘C_id’ is directly involved in the view v1 and therefore the entire row can be removed from the table as opposed to partial deletion that would take place if the primary had not been involved directly in the view.

```
1    select * from customer where C_id = 'C1';
```

Result Grid | Filter Rows: | Edit:

C_id	F_name	L_name	City
NULL	NULL	NULL	NULL

Update

```
update v1 set L_name = 'Lane' where C_id = 'C5';
```

this update operation takes place as the update operation is being performed in the view that is made up of a single table and thus it is feasible to perform the updates. Also the update is performed on the column which is not the primary key

```
1 •  select * from customer where C_id ='C5';
```

Result Grid | Filter Rows: | Edit:

C_id	F_name	L_name	City
C5	Clark	Lane	Metropolis

Q2. Create a view using multiple tables. Perform insert, delete and update operations.

```
create table Customer (
C_id varchar(10) primary key,
F_name varchar(10) not null,
L_name varchar(10),
City varchar(10)
);
```

	C_id	F_name	L_name	City
▶	C1	Steve	Rogers	Brooklyn
	C2	Tony	Stark	Malibu
	C3	Peter	Parker	Queens
	C4	Bruce	Wayne	Gotham
	C5	Clark	Kent	Metropolis

```
create table Students (
Id varchar(10) primary key,
F_name varchar(10) not null,
L_name varchar(10),
City varchar(10)
);
```

Id	F_name	L_name	City
S1	Flash	Thompson	Queens
S2	Ava	Ayala	Brooklyn
S3	Barbara	Gordon	Gotham
S4	Michelle	Jones	Brooklyn

View

```
create view v2 as
```

```
select customer.c_id as 'Customer_ID', customer.F_name as
'Customer_Name',

students.id as 'Student_ID', students.F_name as
'Student_Name', customer.city as 'City'

from customer, students where customer.city =
students.city;
```

Customer_ID	Customer_Name	Student_ID	Student_Name	City
C1	Steve	S4	Michelle	Brooklyn
C1	Steve	S2	Ava	Brooklyn
C3	Peter	S1	Flash	Queens
C4	Bruce	S3	Barbara	Gotham

Insert

```
insert into v2 (Customer_ID, Customer_Name, Student_ID,
Student_Name,City) values
('C7','Barton','S5','Neville','London');
```

the above operation does not take place as the view comprises of two tables ‘Customer’ and ‘Students’. More than one table can not be modified through a join view of the tables

Delete

```
delete from v2 where Customer_ID ='C!';
```

the above operation does not take place as the view comprises of two tables ‘Customer’ and ‘Students’. The delete operation can not be performed on the view comprising of the join of two tables

Update

```
update v2 set Customer_Name = 'Sevrus' where Customer_ID =
'C1';
```

the above update operation takes place as it is performed on a single base table despite of the view consisting of two tables joined together

	C_id	F_name	L_name	City
▶	C1	Sevrus	Rogers	Brooklyn