# Project Database Design

## Views:-

1. Simple View
   a. A view should have only single table select statement
2. Complex View
   a. A view should have more than one table select statement it means it suppose to be Join query

```
/*
    Views:-
        View can be called as Subset of Table, it means we have query basically executes and returns the output
        View is mirror image of the table
        View can be created with select statement
        to create view : Create View
*/


use classicmodels;
select * from customers;

select customerNumber,customerName,phone,city,state,country,creditLimit from customers;

/* Create the view */
create view getCustomerData
as
select customerNumber,customerName,phone,city,state,country,creditLimit from customers;

/* to execute the view will use select statement */

select * from getCustomerData;

/* Only few columns from View */
select customerNumber,customerName,phone from getCustomerData;
```

The record is not inserting here:

```
insert into getCustomerData(customerNumber,customerName,phone,city,state,country,creditLimit) values
(1889,'Anil','9988776611','Hyd','TS','India',1889.0)
```

A view can be updated under certain conditions which are given below −

- The SELECT clause may not contain the keyword DISTINCT.
- The SELECT clause may not contain summary functions.
- The SELECT clause may not contain set functions.

- The SELECT clause may not contain set operators.
- The SELECT clause may not contain an ORDER BY clause.
- The FROM clause may not contain multiple tables.
- The WHERE clause may not contain subqueries.
- The query may not contain GROUP BY or HAVING.
- Calculated columns may not be updated.
- All NOT NULL columns from the base table must be included in the view in order for the INSERT query to function.

```
/* Complex View */
create view getCustomerOrdersData
as
select a.customerName,a.phone,a.addressLine1,b.orderDate,b.status
from customers a,orders b
where a.customerNumber = b.customerNumber;

select * from getCustomerOrdersData;


/*re-name the view
    rename table Original_View_name
    to new_View_name
*/

  rename table getCustmerCountryName
  to getCustmerCountryName_new


/* To view all the views */
SHOW FULL TABLES IN classicmodels WHERE TABLE_TYPE LIKE 'VIEW';
```

Table Rename:

```
/* Re-name table also
     rename table original_table_name
     to new_tablename
*/
rename table sample
to sample_new
```

Table Alter :

```
/* alter table : Add a new column, Remove the existing column, change the column datatype */

/* Add a new column
     alter table <tableName>
     add column Colum_name Column_Defination
*/

alter table sample_new
add column EmailID varchar(100) not null

describe sample_new;
/* Adding more than single column*/
alter table sample_new
add column phone bigint unique,
add column address varchar(300)




/* Delete the existing Column
     Alter table <Table_Name>
     drop column_Name;
*/

     alter table sample_new
     drop address


          '
/*
     alter table <tableName>
     rename column Original to New
*/
     alter table sample_new
     rename column phone to phonenumber
```

```sql
/* Drop tables
    drop table <table_name>
*/


drop table sample_new


/* truncate
    truncate table <table_name>
*/

truncate table employees;

/* Difference between Delete, Truncate and Drop
    Delete : Delete query it deletes some records or all the records from the table , Table defination for the further reference
    Tunncate : It deletes all the records in single shot and it would be very faster, Table defination for the further reference
    Drop : It removes the databse object from the server, You won't have table defination

*/
```