## Project Development - Database design

## Reading Data from Tables:

## Filter Data:

1. Where Clause: where clause will provide the condition for the select statement Syntax: select Selmect\_list from Table\_Name where Condition;



```
/* I want to get the details of User whose belongs to Country of USA */
select * from customers where country = 'USA';

/* whose credit limit is more than 50000 */
select * from customers where creditLimit >= 50000;

/* Whose credit limit is between 50000 and 100000 */
select * from customers where creditlimit between 50000 and 100000;

/* I need the customer names whose country is Germany or USA */
select * from customers where country = 'USA' or country = 'Germany';

/* above query can be replaced with in operator */
select * from customers where country in ('USA', 'Germany');
```

```
/* Order by lastname */
select lastname from employees order by lastname;

/* distinct clause : Unique records */
select distinct lastname from employees order by lastname;

select * from customers;

/* Unique country Names, Unique State names, unique city names */
select distinct country from customers order by country;

select distinct state from customers order by state;

select distinct city from customers order by city;

select * from customers where state is null;

select * from customers where state is not null;
```

Difference between Group by and distinct:

Generally distinct is a special kind of group by clause and the difference is group by sorts the result set and distinct does not sort the result set.

```
/* Group by clause */
select state from customers group by state;
select distinct state from customers;
```

```
/* Aggregate Functions
     Sum , Avg, Count, max, min
  */
  select * from customers;
  /* Alias Name : alternate name for the table or column */
  select customername as Customer_Name from customers;
  select sum(creditlimit) as SumCredit from customers;
  select Avg(creditlimit) as Average from customers;
 /* Count(*) represent the records count in table */
 select count(*) as RecordCount from customers;
/* Null values are displayed */
 select state from customers;
 /* Count(state) which returns the number having the values in the column */
 select count(state) from customers;
 select max(creditLimit) as MaxCreditLimit from customers;
 select Min(creditLimit) as MinCreditLimit from customers;
 /* strings filters like operator */
 /* gives the customer names whose start character is a and rest of characters can anything */
 select * from customers where customername like 'a%';
 /* Gives the records where last character of the customer name is a */
 select * from customers where customername like '%a';
/* Gives the records the first character is a, second character can be anything
 third character again e
 If you want a character space then we have use underscore symbol
 select * from customers where customername like 'a_e%';
```

```
SELECT * FROM CUSTOMERS LIMIT 5;

SELECT * FROM CUSTOMERS LIMIT 0,10;

/* Union, Union All, intersect and mimus
    Select Statement
    union/union all/intersect/minus
    Select Statement
*/
```

Union: Allows to combine the two or more results sets of queries into a single result set. Both select statements should have the same type data columns. Union operator will removes the duplicates.

```
create table t1_emp(
    Id int auto_increment,
    EmpName varchar(50) not null,
    EmpDesg varchar(50) not null,
    EmpSal int,
    primary key(Id)
);
create table t2_emp(
    Id int auto_increment,
    EmpName varchar(50) not null,
    EmpDesg varchar(50) not null,
    EmpSal int,
    primary key(Id)
);
```

insert into t2\_Emp(EmpName,EmpDesg,EmpSal) values('Anil','Trainer',1200),('Harsha','Developer',1233),('Dinesh','Developer',1345),('Ajay','Trainer',5567),
('Sandeesh','Junior Developer',123),('SaiTeja','Developer',981),('Ritesh','Junior Developer',234),('Rakesh','Developer',1871);
select Count(\*) from t2\_Emp;

```
select EmpName from t1_Emp
union
select EmpName from t2_Emp;

select EmpName from t1_Emp
union all
select EmpDesg from t2_Emp;

select EmpDesg from t2_Emp;

select EmpDesg from t2_Emp;

select EmpDesg from t2_Emp;

select EmpDesg from t2_Emp;
```