

## Trainer and Student

```
create table trainer (tid int primary key,  
tname varchar(10) not null,  
tech varchar(10) not null);
```

```
create table student(sid int primary key,  
sname varchar(10) not null,  
age int,  
tsid int, foreign key(tsid) references trainer(tid));
```

## Product

PK

Pid	Pname	price	qty	etc
1	TV	45000	10	
2	Computer	65000	5	

## Order

PK

Oid	date	totalprice
1111	08-29-2023	10000

## ProductOrder

PK	FK	FK
Poid	Pid	Oid
1	1	1111
2	2	1111

## Join concept

Join is use to retrieve more than one column from more than one table with or without conditions.

While applying join on table we can join using pk and fk.

To change column name

```
alter table student rename column tsid to tid;
```

```
select tname,sname, tech from trainer,student where trainer.tid=student.tid;
```

```
select trainer.tname,student.sname, trainer.tech from trainer,student where  
trainer.tid=student.tid;
```

using table alias

**Equi – Join :** using where clause we compare two table

```
select t.tname,s.sname,t.tech from trainer t,student s where t.tid=s.tid;
```

**Inner Join :** using on clause we can compare two table

```
select t.tname,s.sname,t.tech from trainer t inner join student s on t.tid = s.tid;
```

inner join or equi join : it display all those record which present in both the table with conditions.

Left outer join : it display common record present in both the table as well as left or first table remaining records

Right outer join t display common record present in both the table as well as right or second table remaining records

## My SQL functions

Function is use to perform a specific task.

Mysql provided different types of function

Function provide name and it takes one or more parameter or values and it return result.

Pre defined function

2 types

1. Single row function : this function functionality apply each record individually.

### String function

upper() : upper function take one parameter or value and return the result in upper case.

lower()

length()

date function

curdate()

sysdate()

**select date\_format(sysdate(), '%d-%m-%Y');**

my sql by default date format is yyyy-mm-dd

oracle database default date form is dd-mon-yy

2. Multi row function : this function functionality apply for all records in table base upon group.

Or aggregate functions.

count()

sum()

select sum(numberOfStd) from college;

min()

select min(numberOfStd) from college;

max()

select max(numberOfStd) from college;

avg()

select avg(numberOfStd) from college;

### group by

by default whole table consider as one group

but if we want to make sub group then we can use group by clause.

```
select city,sum(numberofStd) from college group by city;
```

### having clause

having clause is like a where clause

but having clause we need to use with group by clause.

Having clause apply condition for group of records but where

Clause apply the condition for each records.

Where clause before group by

Having clause after group by

User defined function