**Lab\_Program\_1**

/\***create database and use it**\*/

create database if not exists Employee\_db;

use Employee\_db;

**/\*provide primary key with this command only\*/**

**/\*Emp\_ssn and super\_ssn should have same data type i.e. int otherwise it will throw key constraint violation\*/**

**/\* create table Employee\*/**

create table if not exists Employee (F\_name varchar(50),M\_name varchar(50),L\_name varchar(50),Gender varchar(50),Emp\_ssn int,Salary decimal,Dob date,Address varchar(50) , Hours varchar(50),Project varchar(50),D\_no int,Super\_ssn int, primary key (Emp\_ssn));

select \* from Employee;

/\* **create table Department** \*/

create table if not exists Department (D\_name varchar(50),D\_no int ,Emp\_ssn int,Doj date , primary key (D\_no));

select \* from Department;

**/\*Add Foreign key\*/**

alter table Employee add foreign key (D\_no) references Department (D\_no) ,add foreign key (Super\_ssn) references Employee (Emp\_ssn);

desc Employee;

**/\*Add Foreign key\*/**

alter table Department add foreign key (Emp\_ssn) references Employee (Emp\_ssn);

desc Department;

**/\*create table Department\_location and Add Foreign key\*/**

Create table if not exists Deparment\_location (Department\_location varchar(50),D\_no int,foreign key (D\_no) references Department (D\_no), primary key (Department\_location,D\_no));

select \* from Deparment\_location;

**/\*always try to give primary give and foreign key adjacent to each other, it is easy to read\*/**

**/\*don't use alter key to add foreign key if it can be added with table creation. it is not a good practice\*/**

**/\*create table Project and Add Foreign key\*/**

create table if not exists Project (P\_name varchar(50),P\_no int,D\_no int,P\_location varchar(50),Budjet varchar(50),P\_startdate date,P\_enddate date, primary key (P\_no), foreign key (D\_no) references Department (D\_no));

select \* from Project;

desc Project;

**/\*create table Project\_location and Add Foreign key\*/**

Create table if not exists Project\_location (Location varchar(50),P\_no int,foreign key (P\_no) references Project (P\_no), primary key (Location,P\_no));

select \* from Project\_location;

desc Project\_location;

**/\*create table Dependent and Add Foreign key\*/**

create table if not exists Dependent (Dependent\_name varchar(50),Emp\_ssn int,Dependent\_biodata varchar(50),Dependent\_gender varchar(50),Relationship varchar(50),foreign key (Emp\_ssn) references Employee (Emp\_ssn),primary key(Dependent\_name,Emp\_ssn));

select \* from Dependent;

desc Dependent;

**/\*create table Work\_on and Add Foreign key\*/**

create table if not exists Work\_on (Emp\_ssn int,P\_no int,Hours varchar(50),foreign key (Emp\_ssn) references Employee (Emp\_ssn),foreign key (P\_no) references Project (P\_no),primary key(Emp\_ssn,P\_no));

select \* from Work\_on;

desc Work\_on;

**/\*Insert values\*/**

insert into Employee values('Lakshit',null,'Mittal','Male',100,42000,'2010-06-30','Delhi','8 hrs','Development',null,null),

('Piyush',null,'Gupta','Male',101,65000,'2004-05-21','Delhi','9 hrs','Software\_Development',null,null),

('Tanisha','sp','Aggarwal','Female',102,800000,'2003-01-01','Bengaluru','8 hrs','Development',null,null);

insert into Department values ('Security Department',200,100,'2020-04-01'),

('Project Management',201,101,'2020-04-10'),

('Project Management',202,102,'2021-06-30');

UPDATE Employee SET D\_no = 200 WHERE Emp\_ssn = 100;

UPDATE Employee SET D\_no = 201 WHERE Emp\_ssn = 101;

UPDATE Employee SET D\_no = 202 WHERE Emp\_ssn = 102;

UPDATE Employee SET Super\_ssn = 100 WHERE Emp\_ssn IN (100,101,102);

insert into Deparment\_location values ('!st floor',200),('2nd floor',201),('!st floor',202);

insert into Project values ('Mobile App Development',300,200,'1st floor',400000,'2023-05-01','2025-05-01'),

('Cloud Migration Project',301,201,'2nd floor',600000,'2022-05-01','2024-05-01'),

('Network Infrastructure Upgrade',302,202,'1st floor',800000,'2022-08-01','2024-08-01');

insert into Project\_location values ('!st floor',300),('2nd floor',301),('!st floor',302);

insert into Dependent values ('Lalit Mittal',100,'987456321','Male','parent'),

('Anuj Gupta',101,'987456789','Male','parent'),

('Rajeev Goyal',102,'987456123','Male','parent');

insert into Work\_on values (100,300,'8 hrs'),(101,301,'9 hrs'),(102,302,'8 hrs');