

PROJECT 1:

1. Creating the database in MYSQL

#creating company database

```
create database company_db;
```

```
use company_db;
```

make it as default shema

```
create table employee(
```

```
    fname varchar(30),
```

```
    minit char(1),
```

```
    lname varchar(30),
```

```
    ssn char(9),
```

```
    bdate date,
```

```
    address varchar(30),
```

```
    sex char(1),
```

```
    salary float(10,2),
```

```
    super_ssn char(9),
```

```
    dno smallint(6),
```

```
    constraint pk_employee PRIMARY KEY (ssn)
```

```
);
```

```
create table department(
```

```
    dname varchar(30),
```

```
    dnumber smallint,
```

```
    mgr_ssn char(9),
```

```
    mgr_start_date date,
```

```
    constraint pk_department PRIMARY KEY (dnumber)
```

```
);
```

```
create table dept_locations(
```

```
    dnumber smallint,
```

```
    dlocation varchar(20),
```

```
    constraint pk_dept_loc PRIMARY KEY (dnumber,dlocation)
```

```
);
```

```
create table project(  
    pname varchar(30),  
    pnumber smallint,  
    plocation varchar(30),  
    dnum smallint,  
    constraint pk_project PRIMARY KEY (pnumber)  
);
```

```
create table works_on(  
    essn char(9),  
    pno smallint,  
    hours float(4,2),  
    constraint pk_works_on PRIMARY KEY (essn, pno)  
);
```

```
create table dependent(  
    essn char(9),  
    dependent_name varchar(30),  
    sex char(1),  
    bdate date,  
    relationship varchar(20),  
    constraint pk_dependent PRIMARY KEY (essn, dependent_name)  
);
```

```
insert into employee(fname,minit,lname,ssn,bdate,address,sex,salary,super_ssn,dno) VALUES  
(  
    'John','B','Smith','123456789','1965-01-09','731 Fondren, Houston, TX','M',30000,'333445555',5),  
    ('Franklin','T','Wong','333445555','1955-01-09','638 Fondren, Houston, TX','M',40000,'888665555',5),  
    ('Alicia','J','Zelaya','999887777','1968-01-09','3321 Fondren, Houston, TX','F',25000,'987654321',4),  
    ('Jennifer','S','Wallace','987654321','1941-01-09','21 Fondren, Houston, TX','F',43000,'888665555',4),  
    ('Ramesh','K','Narayan','666884444','1962-01-09','975 Fondren, Houston, TX','M',38000,'333445555',5),  
    ('Joyce','A','English','453453453','1972-01-09','5631 Fondren, Houston, TX','F',25000,'333445555',5),  
    ('Ahmad','V','Jabbar','987987987','1969-01-09','980 Fondren, Houston, TX','M',25000,'987654321',4),  
    ('James','E','Borg','888665555','1937-01-09','450 Fondren, Houston, TX','M',55000,NULL,1);
```

```
insert into department(dname,dnumber,mgr_ssn,mgr_start_date) VALUES  
(  
    'Research',5,333445555,'1988-05-22'),
```

```
('Administration',4,987654321,'1995-05-22'),
('Headquarters',1,888665555,'1981-05-22');
```

```
insert into dept_locations(dnumber,dlocation) values
(1, 'Houston'),
(4, 'Stafford'),
(5, 'Bellaire'),
(5, 'Sugarland'),
(5, 'Houston');
```

```
insert into works_on (essn, pno, hours) values
('123456789', 1, 32.5),
('123456789', 2, 7.5),
('666884444', 3, 40.0),
('453453453', 1, 20.0),
('453453453', 2, 20.0),
('333445555', 2, 10.0),
('333445555', 3, 10.0),
('333445555', 10, 10.0),
('333445555', 20, 10.0),
('999887777', 30, 30.0),
('999887777', 10, 10.0),
('987987987', 10, 35.0),
('987987987', 30, 5.0),
('987654321', 30, 20.0),
('987654321', 20, 15.0),
('888665555', 20, NULL);
```

```
insert into project(pname,pnumber,plocation,dnum) values
('ProductX', 1, 'Bellaire', 5),
('ProductY', 2, 'Sugarland', 5),
('ProductZ', 3, 'Houston', 5),
('Computerization', 10, 'Stafford', 4),
('Reorganization', 20, 'Houston', 1),
('Newbenefits', 30, 'Stafford', 4);
```

```
insert into dependent(essn,dependent_name,sex,bdate,relationship) values
('333445555', 'Alice', 'F', '1986-04-05', 'Daughter'),
```

('333445555', 'Theodore', 'M', '1983-04-05', 'Son'),
(
'333445555', 'Joy', 'F', '1958-04-05', 'Spouse'),
(
'987654321', 'Abner', 'M', '1942-04-05', 'Spouse'),
(
'123456789', 'Michael', 'M', '1988-04-05', 'Son'),
(
'123456789', 'Alice', 'M', '1988-04-05', 'Daughter'),
(
'123456789', 'Elizabeth', 'M', '1967-04-05', 'Spouse');