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');