**CS 687**

**Project 1**

**Embeded SQL Programming in C**

**Using PostgreSQL**

**Prepared By:**

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**Prepared For:**

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**Project Milestone:**

6th October – Created Tables.

16th October – Executed ecpg file with commands.

20th October – Requirement 1 Completed

21st October - Requirement 3 Completed

22nd October – Command Line Completed

24th and 25th October – Requirement 2 Completed

25th October - Document Completion and Submission.

**Create Schema:**

CREATE SCHEMA akashjeevan;

**Create Table:**

CREATE TABLE akashjeevan.EMPLOYEE(Fname VARCHAR(15) NOT NULL,Minit CHAR,Lname VARCHAR(15) NOT NULL,Ssn CHAR(9) NOT NULL,Bdate DATE, Address VARCHAR(30), Sex CHAR,Salary DECIMAL(10,2),Super\_ssn CHAR(9), Dno INT NOT NULL, PRIMARY KEY(Ssn));

CREATE TABLE akashjeevan.DEPARTMENT(Dname VARCHAR(15) NOT NULL, Dnumber INT NOT NULL, Mgr\_ssn CHAR(9) NOT NULL, Mgr\_start\_date DATE, PRIMARY KEY(Dnumber), UNIQUE(Dname), FOREIGN KEY(Mgr\_ssn) REFERENCES akashjeevan.EMPLOYEE(Ssn));

CREATE TABLE akashjeevan.DEPT\_LOCATIONS(Dnumber INT NOT NULL, Dlocation VARCHAR(15) NOT NULL, PRIMARY KEY(Dnumber,Dlocation),FOREIGN KEY(Dnumber) REFERENCES akashjeevan.DEPARTMENT(Dnumber));

CREATE TABLE akashjeevan.PROJECT(Pname VARCHAR(15) NOT NULL, Pnumber INT NOT NULL,Plocation VARCHAR(15),Dnum INT NOT NULL, PRIMARY KEY(Pnumber), UNIQUE(Pname),FOREIGN KEY(Dnum) REFERENCES akashjeevan.DEPARTMENT(Dnumber));

CREATE TABLE akashjeevan.WORKS\_ON(Essn CHAR(9) NOT NULL, Pno INT NOT NULL, Hours DECIMAL(3,1) NOT NULL, PRIMARY KEY(Essn,Pno), FOREIGN KEY(Essn) REFERENCES akashjeevan.EMPLOYEE(Ssn), FOREIGN KEY(Pno) REFERENCES akashjeevan.PROJECT(Pnumber));

CREATE TABLE akashjeevan.DEPENDENT(Essn CHAR(9) NOT NULL, Dependent\_name VARCHAR(15) NOT NULL, Sex CHAR, Bdate DATE, Relationship VARCHAR(8), PRIMARY KEY(Essn,Dependent\_name), FOREIGN KEY(Essn) REFERENCES akashjeevan.EMPLOYEE(Ssn));

**Employee Table:**

SELECT \* from akashjeevan.EMPLOYEE;

fname | minit | lname | ssn | bdate | address | sex | salary | super\_ssn | dno

----------+-------+----------+-----------+------------+--------------------------+-----+----------+-----------+-----

John | B | Smith | 123456789 | 1965-01-09 | 731 Fondren, Houston, TX | M | 30000.00 | 333445555 | 5

Franklin | T | Wong | 333445555 | 1955-12-08 | 638 Voss,Houston,TX | M | 40000.00 | 888665555 | 5

Alicia | J | Zelaya | 999887777 | 1968-01-19 | 3321 Castle,Spring,TX | F | 25000.00 | 987654321 | 4

Jennifer | S | Wallace | 987654321 | 1947-06-20 | 291 Berry,Bellaire,TX | F | 43000.00 | 888665555 | 4

Ramesh | K | Narayana | 666884444 | 1962-09-15 | 975 Fire Oak,Humble,TX | M | 38000.00 | 33344555 | 5

Joyce | A | English | 453453453 | 1972-07-31 | 5631 Rice,Houston,TX | F | 25000.00 | 333445555 | 5

Ahmad | V | Jabbar | 987987987 | 1969-03-29 | 980 Dallas,Houston,TX | M | 25000.00 | 987654321 | 4

James | E | Borg | 888665555 | 1937-11-10 | 450 Stone,Houston,TX | M | 55000.00 | NULL | 1

(8 rows)

**Department Table:**

SELECT \* from akashjeevan.DEPARTMENT;

dname | dnumber | mgr\_ssn | mgr\_start\_date

----------------+---------+-----------+----------------

Research | 5 | 333445555 | 1988-05-22

Administration | 4 | 987654321 | 1995-01-01

Headquarters | 1 | 888665555 | 1981-06-19

(3 rows)

**Dept\_Locations Table:**

SELECT \* from akashjeevan.DEPT\_LOCATIONS;

dnumber | dlocation

---------+-----------

1 | Houston

4 | Stafford

5 | Bellaire

5 | Sugarland

5 | Houston

(5 rows)

**Project Table:**

SELECT \* from akashjeevan.PROJECT;

pname | pnumber | plocation | dnum

-----------------+---------+-----------+------

ProductX | 1 | Bellaire | 5

Producty | 2 | Sugarland | 5

ProductZ | 3 | Houston | 5

Computerization | 10 | Stafford | 4

Reorganization | 20 | Houston | 1

Newbenefits | 30 | Stafford | 4

(6 rows)

**Works\_On Table:**

SELECT \* from akashjeevan.WORKS\_ON;

essn | pno | hours

-----------+-----+-------

333445555 | 3 | 10.0

999887777 | 30 | 30.0

333445555 | 20 | 10.0

888665555 | 20 | 1.0

123456789 | 2 | 7.5

453453453 | 2 | 20.0

123456789 | 1 | 32.5

666884444 | 3 | 40.0

453453453 | 1 | 20.0

333445555 | 2 | 10.0

333445555 | 10 | 10.0

999887777 | 10 | 10.0

987987987 | 10 | 35.0

987987987 | 30 | 5.0

987654321 | 30 | 20.0

987654321 | 20 | 15.0

(16 rows)

**Dependent Table:**

SELECT \* from akashjeevan.DEPENDENT;

essn | dependent\_name | sex | bdate | relationship

-----------+----------------+-----+------------+--------------

333445555 | Alice | F | 1986-04-05 | Daughter

333445555 | Theodore | M | 1983-10-25 | Son

333445555 | Joy | F | 1958-05-03 | Spouse

987654321 | Abner | M | 1942-02-28 | Spouse

123456789 | Michael | M | 1988-01-04 | Son

123456789 | Alice | F | 1988-12-30 | Daughter

123456789 | Elizabeth | F | 1967-05-05 | Spouse

(7 rows)