**Assignment: Sql\_SplProjectTypeAssignment\_solution**

**A small IT firm designing business software for its clients wants to store and manage its data.**

**It has identified the following entities for which, it will maintain data.**

**Clients**

**Employees**

**Departments**

**Projects**

**EmpProjectTasks \***

createdatabase IT\_FIRM\_DB

use IT\_FIRM\_DB

-- create clients table

createtableclients(

client\_idintprimarykey,

cnamevarchar(40)notnull,

Addressvarchar(30),

email varchar(30)unique,

phone varchar(10)check(phone notlike'%[^0-9]%'),

business varchar(20)

)

--create department table

createtabledepartment(

deptnointprimarykey,

dnamevarchar(15)notnull,

locationvarchar(20)

)

-- create employee table

createtableemployee(

empnoint,

enamevarchar(20)notnull,

job varchar(15),

salary intconstraintCK\_employee\_salarycheck(salary>0),

deptnoint,

primarykey(https://github.com/Mayank-Joshi-1725/dotnet-training-assignments.gitempno),

foreignkey(deptno)references department(deptno)

)

-- create projects table

createtableprojects(

project\_idintprimarykey,

descrvarchar(30)notnull,

start\_datedate,

planned\_end\_datedate,

actual\_end\_datedate,check(actual\_end\_date>planned\_end\_date),

budget intcheck(budget > 0),

client\_idint,

foreignkey(client\_id)references clients(client\_id),

)

--create emp\_project\_task table

createtableEmp\_Project\_Tasks(

project\_idint,

empnoint,

start\_datedate,

end\_datedate,

task varchar(25)notnull,

statusvarchar(15)check(status='in progress'orstatus='complete'orstatus='cancelled')notnull,

primarykey(project\_id,empno),

foreignkey(project\_id)references projects(project\_id),

foreignkey(empno)references employee(empno)

)

-- insert into clients table

insertintoclientsvalues

(1001,'ACME Utilities','Noida','contact@acmeutil.com','9567880032','Manufacturing'),

(1002,'Trackon Consultants','Mumbai','consult@trackon.com','8734210090','Consultant'),

(1003,'MoneySaver Distributors','Kolkata','save@moneysaver.com','7799886655','Reseller'),

(1004,'Lawful Corp','Chennai','justice@lawful.com','9210342219','Professional')

select\*from clients

-- insert into department table

insertinto department values

(10,'Design','Pune'),

(20,'Development','Pune'),

(30,'Testing','Mumbai'),

(40,'Document','Mumbai')

select\*from department

--insert into employee table

insertinto employee values

(7001,'Sandeep','Analyst',25000,10),

(7002,'Rajesh','Designer',30000,10),

(7003,'Madhav','Developer',40000,20),

(7004,'Manoj','Developer',40000,20),

(7005,'Abhay','Designer',35000,10),

(7006,'Uma','Tester',30000,30),

(7007,'Gita','Tech. Writer',30000,40),

(7008,'Priya','Tester',35000,30),

(7009,'Nutan','Developer',45000,20),

(7010,'Smita','Analyst',20000,10),

(7011,'Anand','Project Mgr',65000,10)

select\*from employee

-- insert into project table

insertinto projects values

(401,'Inventory','01-Apr-11','01-Oct-11','31-Oct-11',150000,1001)

insertinto projects(project\_id,descr,start\_date,planned\_end\_date,budget,client\_id)values

(402,'Accounting','01-Aug-11','01-Jan-12',500000,1002),

(403,'Payroll','01-Oct-11','31-Dec-11',75000,1003),

(404,'Contact Mgmt','01-Nov-11','31-Dec-11',50000,1004)

select\*from projects

-- insert into emp project task table

insertintoEmp\_Project\_Tasksvalues

(401,7001,'01-Apr-11','20-Apr-11','System Analysis','complete'),

(401,7002,'21-Apr-11','30-May-11','System Design','complete'),

(401,7003,'01-Jun-11','15-Jul-11','Coding','complete'),

(401,7004,'18-Jul-11','01-Sep-11','Coding','complete'),

(401,7006,'03-Sep-11','15-Sep-11','Testing','complete'),

(401,7009,'18-Sep-11','05-Oct-11','Code Change','complete'),

(401,7008,'06-Oct-11','16-Oct-11','Testing','complete'),

(401,7007,'06-Oct-11','22-Oct-11','Documentation','complete'),

(401,7011,'22-Oct-11','31-Oct-11','Sign off','complete'),

(402,7010,'01-Aug-11','20-Aug-11','System Analysis','complete'),

(402,7002,'22-Aug-11','30-Sep-11','System Design','complete'),

(402,7004,'01-Oct-11',null,'Coding','in progress')

select\*fromEmp\_Project\_Tasks