**Name: Hasmukh Makvana**

**Assignment: Sql\_Spl ProjectTypeAssignment\_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 \***

create database IT\_FIRM\_DB

use IT\_FIRM\_DB

-- create clients table

create table clients(

client\_id int primary key,

cname varchar(40) not null,

Address varchar(30),

email varchar(30) unique,

phone varchar(10) check(phone not like '%[^0-9]%'),

business varchar(20)

)

--create department table

create table department(

deptno int primary key,

dname varchar(15) not null,

location varchar(20)

)

-- create employee table

create table employee(

empno int,

ename varchar(20) not null,

job varchar(15),

salary int constraint CK\_employee\_salary check(salary>0),

deptno int,

primary key(empno),

foreign key(deptno) references department(deptno)

)

-- create projects table

create table projects(

project\_id int primary key,

descr varchar(30) not null,

start\_date date,

planned\_end\_date date,

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

budget int check(budget > 0),

client\_id int,

foreign key(client\_id) references clients(client\_id),

)

--create emp\_project\_task table

create table Emp\_Project\_Tasks(

project\_id int,

empno int,

start\_date date,

end\_date date,

task varchar(25) not null,

status varchar(15) check(status='in progress' or status='complete' or status='cancelled') not null,

primary key(project\_id, empno),

foreign key(project\_id) references projects(project\_id),

foreign key(empno) references employee(empno)

)

-- insert into clients table

insert into clients values

(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

insert into department values

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

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

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

(40,'Document','Mumbai')

select \* from department

--insert into employee table

insert into 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

insert into projects values

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

insert into 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

insert into Emp\_Project\_Tasks values

(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 \* from Emp\_Project\_Tasks