**Exercise 1/2**

---Create Department Table---

CREATE Table Department(

dno int not null,

dname varchar(50),

CONSTRAINT Pk\_Department PRIMARY KEY(dno)

);

---Create Employee Table---

CREATE Table Employee(

eno int not null,

nic char(10),

ename varchar(50),

address varchar(50),

dnumber int,

CONSTRAINT Pk\_Employee PRIMARY KEY(eno),

CONSTRAINT FK\_Employee FOREIGN KEY (dnumber) REFERENCES Department(dno)

);

---Create Project Table---

CREATE Table Project(

pno int not null,

pname varchar(20),

location varchar(50),

CONSTRAINT Pk\_Project PRIMARY KEY(pno)

);

---Create Work on Table---

CREATE Table Work\_on(

eno int not null,

pno int not null,

hired\_date date,

hours int,

CONSTRAINT Pk\_Work\_on PRIMARY KEY(eno,pno)

);

**Exercise 3**

DROP Table Employee;

DROP Table Work\_on;

DROP Table Department;

DROP Table Project;

**Exercise 4**

---Create Department Table---

---Check Department name---

CREATE Table Department(

dno int not null,

dname varchar(50),

CONSTRAINT Pk\_Department PRIMARY KEY(dno),

CONSTRAINT Ch\_dname CHECK(dname='Headquarters' or dname='Administration' or dname='Research')

);

---Create Employee Table---

---Employee name is not null / Check Employee number---

---Check Employee NIC number---

CREATE Table Employee(

eno int not null,

nic char(10),

ename varchar(50) not null,

address varchar(50),

dnumber int,

CONSTRAINT Pk\_Employee PRIMARY KEY(eno),

CONSTRAINT FK\_Employee FOREIGN KEY (dnumber) REFERENCES Department(dno),

CONSTRAINT Ch\_eno CHECK(eno like '[0-9][0-9][0-9]'),

CONSTRAINT Ch\_nic CHECK(NIC like '[0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][A-Z/a-z]')

);

---Create Project Table---

CREATE Table Project(

pno int not null,

pname varchar(20),

location varchar(50),

CONSTRAINT Pk\_Project PRIMARY KEY(pno),

);

---Create Work on Table---

---Check working hours---

CREATE Table Work\_on(

eno int not null,

pno int not null,

hired\_date date,

hours int,

CONSTRAINT Pk\_Work\_on PRIMARY KEY(eno,pno),

CONSTRAINT Ch\_hours CHECK(hours>0)

);

**Exercise 5**

----Insert data to Employee table----

INSERT into Employee VALUES('100','901250087V','Smith,John B','731,Fondren,Houston','5');

INSERT into Employee VALUES('101','895290452V','Wrong, Franklin T.','638 Voss, Houston','5');

INSERT into Employee VALUES('102','923859070V','Zelaya, Alicia J.','33321 Castle, Spring','4');

INSERT into Employee VALUES('103','918257988V','Wallace, Jennifer S.','291 Berry, Bellaria','4');

INSERT into Employee VALUES('104','904850045V','Narayan, Remesh K.','975 Fire Oak, Humble','5');

INSERT into Employee VALUES('105','889950600V','English, Joyce A.','5631 Rice, Houston','1');

INSERT into Employee VALUES('106','915850123V','Jabbar, Ahamad V','980 Dallas, Houston','1');

----Insert data Department----

INSERT into Department VALUES('1','Headquarters');

INSERT into Department VALUES('2','Administration');

INSERT into Department VALUES('3','Research');

----Insert data Project----

INSERT into Project VALUES('1','Road Construction','Bellaire');

INSERT into Project VALUES('2','Power Plant','Sugarland');

INSERT into Project VALUES('3','Reproduction','Houstan');

INSERT into Project VALUES('4','Recycling','Stafford');

----Insert data Work\_On----

INSERT into Work\_on VALUES('100','1','2011-04-12','12');

INSERT into Work\_on VALUES('100','2','2011-02-25','1');

INSERT into Work\_on VALUES('100','3','2011-05-15','20');

INSERT into Work\_on VALUES('101','1','2011-06-02','50');

INSERT into Work\_on VALUES('102','4','2011-06-08','5');

INSERT into Work\_on VALUES('103','3','2011-07-12','3');

INSERT into Work\_on VALUES('104','2','2011-07-02','40');

INSERT into Work\_on VALUES('105','3','2011-05-18','1');

INSERT into Work\_on VALUES('105','1','2011-07-01','11');

INSERT into Work\_on VALUES('106','4','2011-06-27','1');

**Exercise 6**

---- Delete “***Wallace, Jennifer S.”***  from the Employee table----

DELETE from Employee

WHERE ename='Wallace, Jennifer S.';

**Exercise 7**

----Update **“Recycling**” to **“Water Recycling”**----

UPDATE project

SET pname= 'Water Recycling'

WHERE pno=4;