**Script 1**

DROP TABLE Project CASCADE CONSTRAINTS;

DROP TABLE Client CASCADE CONSTRAINTS;

DROP TABLE Department CASCADE CONSTRAINTS;

DROP TABLE Assignment CASCADE CONSTRAINTS;

DROP TABLE Training   CASCADE CONSTRAINTS;

DROP TABLE Skill   CASCADE CONSTRAINTS;

DROP TABLE Employee   CASCADE CONSTRAINTS;

CREATE TABLE Skill

(Code      VARCHAR2(7),

Description  VARCHAR2(50),

CONSTRAINT Skill\_Code\_PK PRIMARY KEY(Code));

CREATE TABLE Department

(Dept\_Code   VARCHAR2(7),

Name     VARCHAR2(25),

Location VARCHAR2(25),

Phone    VARCHAR2(25),

Manager\_ID   VARCHAR2(7),

CONSTRAINT Department\_DeptCode\_PK PRIMARY KEY (Dept\_Code));

CREATE TABLE Employee

(Emp\_Num   VARCHAR2(7),

Emp\_Last   VARCHAR2(20),

Emp\_First  VARCHAR2(20),

DOB        DATE,

Hire\_Date  DATE DEFAULT SYSDATE,

Super\_ID   VARCHAR2(7),

Dept\_Code  VARCHAR2(7),

CONSTRAINT Employee\_DOB\_CK CHECK(MONTHS\_BETWEEN(Hire\_Date, DOB) > 204 AND (DOB < Hire\_Date)),

CONSTRAINT Employee\_EmpNum\_PK PRIMARY KEY(Emp\_Num),

CONSTRAINT Employee\_SuperID\_CK CHECK(Emp\_Num <> Super\_ID),

CONSTRAINT Employee\_SuperID\_FK FOREIGN KEY (Super\_ID) REFERENCES Employee(Emp\_Num),

CONSTRAINT Employee\_DeptCode\_FK FOREIGN KEY (Dept\_Code) REFERENCES Department(Dept\_Code));

CREATE TABLE Training

(Train\_Num     VARCHAR2(7),

Code           VARCHAR2(7),

Emp\_Num     VARCHAR2(7),

Date\_Acquired  DATE,

Name           VARCHAR2(60),

Comments       VARCHAR2(60),

CONSTRAINT Training\_TrainNum\_PK PRIMARY KEY(Train\_Num),

CONSTRAINT Training\_Code\_FK FOREIGN KEY(Code) REFERENCES Skill (Code),

CONSTRAINT Training\_EmpNum\_FK FOREIGN KEY(Emp\_Num) REFERENCES Employee (Emp\_Num));

CREATE TABLE Client

(Client\_ID VARCHAR2(7),

Name     VARCHAR2(20),

Street    VARCHAR2(30),

City     VARCHAR2(20),

State     VARCHAR2(2),

Zip\_Code NUMBER(5),

Industry VARCHAR2(20),

Web\_Address   VARCHAR2(40),

Phone     VARCHAR2(25),

Contact\_Name VARCHAR2(20)，

CONSTRAINT Client\_ClientID\_PK PRIMARY KEY(Client\_ID));

CREATE TABLE Project

(Proj\_Number  VARCHAR2(7),

Name      VARCHAR2(25),

Start\_Date    DATE DEFAULT SYSDATE,

Total\_cost    NUMBER(10) DEFAULT NULL,

Dept\_Code     VARCHAR2(7),

Client\_ID     VARCHAR2(7),

CONSTRAINT Project\_ProjectNum\_PK PRIMARY KEY (Proj\_Number),

CONSTRAINT   Project\_DeptCode\_FK FOREIGN KEY (Dept\_Code) REFERENCES Department (Dept\_Code),

CONSTRAINT Project\_ClientID\_FK FOREIGN KEY (Client\_ID) REFERENCES Client(Client\_ID));

CREATE TABLE Assignment

(Assign\_Num   VARCHAR2(7),

Proj\_Number  VARCHAR2(7),

Emp\_Num      VARCHAR2(7),

Date\_Assigned   DATE DEFAULT SYSDATE,

Date\_Ended   DATE DEFAULT NULL,

Hours\_Used   Number(4) DEFAULT NULL,

CONSTRAINT Assignment\_AssignNum\_PK PRIMARY KEY (Assign\_Num),

CONSTRAINT Assignment\_DateEnded\_CK CHECK( Date\_Ended >= Date\_Assigned),

CONSTRAINT Assignment\_ProjectNum\_FK FOREIGN KEY (Proj\_Number) REFERENCES Project (Proj\_Number),

CONSTRAINT Assignment\_EmpNum\_FK FOREIGN KEY (Emp\_Num) REFERENCES Employee(Emp\_Num),

CONSTRAINT Assignment\_DateRange\_CK CHECK ((Date\_Ended- Date\_Assigned) <= 31),

CONSTRAINT Assignment\_HoursUsed\_CK CHECK (((Date\_Ended- Date\_Assigned)\*24) >= Hours\_Used));

ALTER TABLE Department

ADD CONSTRAINT Department\_ManagerID\_FK

    FOREIGN KEY(Manager\_ID)

    REFERENCES Employee (Emp\_Num);