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Three check CONSTRAINT:

1. Employees' hire date - employees' DOB is bigger than 18 years
2. Comments in the training table should be either pass or good or excellent
3. Total cost of a project should be larger than or equal to 0

ALTER TABLE department

DROP CONSTRAINT department\_manager\_ID\_FK;

DROP TABLE Assignment;

DROP TABLE Project;

DROP TABLE Client;

DROP TABLE training;

DROP TABLE employee;

DROP TABLE skill;

DROP TABLE department;

---create table skill

CREATE TABLE Skill

(Code NUMBER(4),

Name VARCHAR2(20),

Category VARCHAR2(20),

CONSTRAINT skill\_code\_PK PRIMARY KEY(code));

---create table department

CREATE TABLE Department

(Dept\_Code NUMBER(4),

Name VARCHAR2(50),

Location VARCHAR(30),

Phone NUMBER(10),

Manager\_ID NUMBER(6),

CONSTRAINT department\_dept\_code\_PK PRIMARY KEY(dept\_code));

---create table employee

---check constraint: employees' hire date - employees' DOB is bigger than 18 years

CREATE TABLE Employee

(Emp\_Num NUMBER(6),

LName VARCHAR(10),

FName VARCHAR(10),

DOB DATE DEFAULT CURRENT\_DATE,

Hire\_Date DATE,

Super\_ID NUMBER(6)

CONSTRAINT employee\_super\_id\_FK

REFERENCES Employee(Emp\_Num),

Dept\_Code NUMBER(4)

CONSTRAINT employee\_dept\_code\_FK

REFERENCES Department (dept\_code),

CONSTRAINT employee\_emp\_num\_PK PRIMARY KEY(emp\_num),

CONSTRAINT employee\_DOB\_Hire\_CK

CHECK (MONTHS\_BETWEEN(Hire\_date,DOB)>18\*12));

---create table training

---check constraint:comments in the training table should be either pass or good or excellent

CREATE TABLE Training

(Train\_Num NUMBER(4),

Code NUMBER(4)

CONSTRAINT training\_code\_FK

REFERENCES Skill(code),

Emp\_Num NUMBER(6)

CONSTRAINT training\_emp\_num\_FK

REFERENCES Employee(Emp\_Num),

Name VARCHAR2(40),

Date\_Acquired DATE,

Comments VARCHAR2(9),

CONSTRAINT train\_num\_PK PRIMARY KEY(train\_num),

CONSTRAINT training\_Comments\_CK

Check (comments IN('Pass','Good','Excellent')));

---create table client

CREATE TABLE Client

(Client\_ID NUMBER(5)

CONSTRAINT client\_ID\_PK PRIMARY KEY,

Name VARCHAR2(15),

Street VARCHAR2(18),

City VARCHAR2(15),

State VARCHAR2(20),

Zip\_Code VARCHAR2(5),

Industry VARCHAR2(10),

Web\_Address VARCHAR2(50),

Phone VARCHAR2(12),

Contact\_Lname VARCHAR2(15),

Contact\_Fname VARCHAR2(10));

---create table project

---check constraint: total cost should be larger than or equal to 0

CREATE TABLE Project

(Proj\_NUMBER NUMBER(5)

CONSTRAINT Project\_Number\_PK PRIMARY KEY,

Name VARCHAR2(15),

Start\_Date DATE DEFAULT SYSDATE,

Total\_Cost NUMBER(10) DEFAULT 0

CONSTRAINT Project\_Total\_Cost\_ck CHECK (Total\_Cost>=0) ,

Dept\_Code NUMBER(6) CONSTRAINT Project\_Dept\_Dode\_FK

REFERENCES Department (Dept\_Code),

Client\_ID NUMBER(5) CONSTRAINT Project\_Client\_ID\_FK

REFERENCES Client (Client\_ID) ,

Code NUMBER(4) CONSTRAINT Project\_Code\_FK

REFERENCES Skill (Code));

---create table assignment

CREATE TABLE Assignment

(Assign\_Num NUMBER(5)

CONSTRAINT Assign\_Num\_PK PRIMARY KEY,

Proj\_number number(4) CONSTRAINT Assignment\_projnum\_FK

REFERENCES Project(Proj\_number),

Emp\_Num NUMBER(6) CONSTRAINT Assignment\_Emp\_Num\_FK

REFERENCES Employee(Emp\_Num),

Date\_Assigned DATE DEFAULT SYSDATE,

Date\_Ended DATE,

Hours\_Used NUMBER(5),

CONSTRAINT Assignment\_DateAssignEnd\_ck CHECK (Date\_Assigned <= Date\_Ended));

---add fk constrant to table department

ALTER TABLE department

ADD CONSTRAINT department\_manager\_ID\_FK

FOREIGN KEY(Manager\_ID)

REFERENCES Employee(Emp\_Num);