Chapter 6(Hoffer, Ramesh, & Topi)

Problems and Exercises 1,2,3,4,5,6,7,8

1.

CREATE TABLE Student (

StudentID INTEGER,

StudentName VARCHAR2(25) NOT NULL,

CONSTRAINT Student\_PK PRIMARY KEY(StudentID));

CREATE TABLE Faculty (

FacultyID INTEGER,

FacultyName VARCHAR2(25),

CONSTRAINT Faculty\_PK PRIMARY KEY(FacultyID));

CREATE TABLE COURSE (

CourseID VARCHAR2 (8),

CourseName VARCHAR2(15),

CONSTRAINT Course\_PK PRIMARY KEY(CourseID));

CREATE TABLE QUALIFIED (

FacultyID INTEGER,

CourseID VARCHAR2(8),

DateQualified DATE,

CONSTRAINT Qualified\_PK PRIMARY KEY (FacultyID, CourseID),

CONSTRAINT Qualified\_FK1 FOREIGN KEY (FacultyID) REFERENCES Faculty (FacultyID),

CONSTRAINT Qualified\_FK2 FOREIGN KEY (CourseID) REFERENCES COURSE(CourseID));

CREATE TABLE SECTION (

SectionNo INTEGER,

Semester VARCHAR2(7),

CourseID VARCHAR (8),

CONTRAINT Section\_PK PRIMARY KEY (SectionNo),

CONTRAINT Section\_FK FOREIGN KEY (CourseID) REFERENCES COURSE(CourseID));

CREATE TABLE REGISTRATION (

StudentID INTEGER,

SectionNo INTEGER,

Semester VARCHAR2(7),

CONSTRAINT REGISTRATION\_PK PRIMARY KEY (StudentID, SectionNo),

CONSTRAINT REGISTRATION \_FK1 FOREIGN KEY (StudentID) REFERENCES STUDENT(StudentID),

CONSTRAINT REGISTRATION \_FK2 FOREIGN KEY (SectionNo) REFERENCES SECTION (SectionNo));

2.

CREATE VIEW StudentView

AS

SELECT StudentID, StudentName   
FROM STUDENT;

SELECT \* FROM StudentView order by StudentID;

3. ALTER TABLE SECTION ADD FOREIGN KEY (CourseID) REFERENCES COURSE (CourseID);

4.

a) ALTER TABLE STUDENT   
ADD CLASS VARCHAR (25);

b) DROP TABLE REGISTRATION;

c)ALTER TABLE FACULTY ALTER COLUMN FacultyName FIELD FROM VARCHAR (25) to VARCHAR (40);

5.  
a)

> INSERT INTO STUDENT (STUDENTID, STUDENTNAME) VALUES (65798, ‘Lopez’);

> INSERT INTO STUDENT VALUES (65798, ‘Lopez’);

b) DELETE FROM STUDENT WHERE STUDENTNAME = ‘Lopez’;

c) UPDATE COURSE SET COURSENAME = ‘INTRODUCTION TO RELATIONAL DATABASE’ WHERE COURSEID = ‘ISM4212’;

6.

a) SELECT \*

FROM STUDENT

WHERE StudentID < 50000;

b)

SELECT FacultyName

FROM FACULTY

WHERE FacultyID =4756;

c)

SELECT MIN(SectionNo) as SectionNo  
FROM SECTION

WHERE

Semester = ‘I-2008’;

7.

a) SELECT COUNT(SectionNo)

FROM SECTION

WHERE

SectionNo = 2714

AND Semester = ‘I-2008’;

b)

SELECT \* FROM QUALIFIED

WHERE DateQualified >=’01-01-1993’;

8.

a)

SELECT StudentName

FROM STUDENT

WHERE StudentID = (SELECT StudentID FROM REGISTRATION

WHERE SectionNo in (SELECT SectionNo FROM Section WHERE CourseID in(Select CourseID FROM COURSE WHERE COURSENAME = ‘Database’ or COURSENAME =’NETWORKING’)));

b)

SELECT FacultyName FROM Faculty

WHERE FacultyID = (Select distinct FacultyID FROM QUALIFIED WHERE CourseID not in(Select CourseID FROM COURSE WHERE CourseName =’Syst Analysis’ or CourseName =’Syst Design’));