

Chapter 4:

Problems and Exercises:

3. a) 3NF.
b) 3NF.
c) It is in 2NF because Capacity is a transitive dependency and relies on Room.
 CLASS(CourseNo, SectionNo)
 SECTION(SectionNo, Room)
 LOCATION(Room, Capacity)
- d) Capacity is still a transitive dependency and relies on Room, therefore this is still in 2NF. It still depends on the primary key for CLASS, CourseNo, even though CourseName was added.
 CLASS(CourseNo, SectionNo, CourseName)
 SECTION(SectionNo, Room)
 LOCATION(Room, Capacity)
4. a)
18.

Chapter 6:

Problems and Exercises:

4. a) ALTER TABLE Student
 ADD Class varchar(20);
b) DROP TABLE Registration
c) ALTER TABLE Faculty
 ALTER COLUMN FacultyName varchar(20);
5. a) INSERT INTO Student(ID, StudentName)
 VALUES(65798, Lopez);
b) DELETE FROM Student(StudentName)
 WHERE StudentName Lopez;
c) UPDATE Database
 SET CourseID = Introduction to Relational Databases;
 WHERE CourseID = ISM 4212;

6. a) SELECT StudentID;
FROM Student;
WHERE StudentID < 50,000;
b) SELECT FacultyID;
FROM Faculty;
WHERE FacultyID = 4756;
c) SELECT MIN(SectionNo) FROM Section;
7. a) SELECT DISTINCT SectionNo.;
FROM Registration;
WHERE SectionNo = 2714;
b) DELETE FROM Qualified;
WHERE DateQualified < 9/1993;
SELECT(FacultyID, CourseID, DateQualified);
9. a) SELECT DISTINCT CourseID;
FROM Section;
b) SELECT StudentName;
FROM Student;
ORDER BY StudentName, DESC;
c) SELECT CourseID;
FROM Course;
ORDER BY CourseID;