

# A Database that stores Student, Course, Section, Grade Report, Prerequisite, Faculty

## 1) Student:

```
create table student (Student_Name varchar2(10), Student_number int, Student_Class int, Major varchar2(5))
```

```
insert into student values ('Smith',17,1,'CS');
```

```
insert into student values ('Brown',8,2,'CS');
```

```
select * from student;
```

## Output:

| STUDENT_NAME | STUDENT_NUMBER | STUDENT_CLASS | MAJOR |
|--------------|----------------|---------------|-------|
| Smith        | 17             | 1             | CS    |
| Brown        | 8              | 2             | CS    |

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2 rows selected.

## 2) Course:

```
create table course (Course_name varchar2(30), Course_number varchar2(10), Credit_hours int, Department varchar2(5))
```

```
insert into course values ('Intro to Computer Science','CS1310',4,'CS');
```

```
insert into course values ('Data Structures','CS3320',4,'CS');
```

```
insert into course values ('Discrete Mathematics','MATH2410',3,'MATH');
```

```
insert into course values ('Database','CS3380',3,'CS');
```

```
select * from course;
```

### **Output:**

| COURSE_NAME               | COURSE_NUMBER | CREDIT_HOURS | DEPARTMENT |
|---------------------------|---------------|--------------|------------|
| Intro to Computer Science | CS1310        | 4            | CS         |
| Data Structures           | CS3320        | 4            | CS         |
| Discrete Mathematics      | MATH2410      | 3            | MATH       |
| Database                  | CS3380        | 3            | CS         |

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4 rows selected.

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### **3)Section:**

```
create table section (Section_identifier int, Course_number varchar2(10),Semester  
varchar2(10), Section_Year int, Instructor varchar2(10))
```

```
insert into section values (85,'MATH2410','Fall',07,'King');
```

```
insert into section values (92,'CS1310','Fall',07,'Anderson');
```

```
insert into section values (102,'CS3320','Spring',08,'Knuth');
```

```
insert into section values (112,'MATH2410','Fall',08,'Chang');
```

```
insert into section values (119,'CS1310','Fall',08,'Anderson');
```

```
insert into section values (135,'CS3380','Fall',08,'Stone');
```

```
select * from section;
```

### **Output:**

| SECTION_IDENTIFIER | COURSE_NUMBER | SEMESTER | SECTION_YEAR | INSTRUCTOR |
|--------------------|---------------|----------|--------------|------------|
| 85                 | MATH2410      | Fall     | 7            | King       |
| 92                 | CS1310        | Fall     | 7            | Anderson   |
| 102                | CS3320        | Spring   | 8            | Knuth      |
| 112                | MATH2410      | Fall     | 8            | Chang      |
| 119                | CS1310        | Fall     | 8            | Anderson   |
| 135                | CS3380        | Fall     | 8            | Stone      |

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6 rows selected.

#### **4)Grade Report:**

```
create table grade_report (Student_number int,Section_identifier int,Grade varchar2(1))
```

```
insert into grade_report values (17,112,'B');
```

```
insert into grade_report values (17,119,'C');
```

```
insert into grade_report values (8,85,'A');
```

```
insert into grade_report values (8,92,'A');
```

```
insert into grade_report values (8,102,'B');
```

```
insert into grade_report values (8,135,'A');
```

```
select * from grade_report;
```

#### **Output:**

| STUDENT_NUMBER | SECTION_IDENTIFIER | GRADE |
|----------------|--------------------|-------|
| 17             | 112                | B     |
| 17             | 119                | C     |
| 8              | 85                 | A     |
| 8              | 92                 | A     |
| 8              | 102                | B     |
| 8              | 135                | A     |

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6 rows selected.

### **5)Prerequisite**

create table prerequisite (Course\_number varchar2(10),Prerequisite\_number varchar2(10))

insert into prerequisite values ('CS3380','CS3320');

insert into prerequisite values ('CS3380','MATH2410');

insert into prerequisite values ('CS3320','CS1310');

select \* from prerequisite;

### **Output:**

| COURSE_NUMBER | PREREQUISITE_NUMBER |
|---------------|---------------------|
| CS3380        | CS3320              |
| CS3380        | MATH2410            |
| CS3320        | CS1310              |

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3 rows selected.

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#### **6)Faculty:**

```
create table faculty (Faculty_id int, Faculty_name varchar2(10), Faculty_position
varchar2(30), Salary int)
```

```
insert into faculty values (1,'King','Sr.Professor for MATH',1800000);
```

```
insert into faculty values (2,'Anderson','Sr.Professor for CS',1900000);
```

```
insert into faculty values (3,'Knuth','Asst Sr.Professor for CS',1700000);
```

```
insert into faculty values (4,'Chang','Asst Sr.Professor for MATH',1600000);
```

```
insert into faculty values (5,'Stone','Jr.Professor for CS',1500000);
```

```
select * from faculty;
```

| FACULTY_ID | FACULTY_NAME | FACULTY_POSITION           | SALARY  |
|------------|--------------|----------------------------|---------|
| 1          | King         | Sr.Professor for MATH      | 1800000 |
| 2          | Anderson     | Sr.Professor for CS        | 1900000 |
| 3          | Knuth        | Asst Sr.Professor for CS   | 1700000 |
| 4          | Chang        | Asst Sr.Professor for MATH | 1600000 |
| 5          | Stone        | Jr.Professor for CS        | 1500000 |

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5 rows selected.

**Submitted by:** Gelle Hruthesh Reddy, 20BCB7031