**Advanced Database Management System**

**Lab Exercise**

SStudent

|  |  |  |  |
| --- | --- | --- | --- |
| SNUM | SNAME | STANDING | GPA |
| 111  222  333 | Andy  Betty  Cindy | 4  2  3 |  |

Course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CNUM | CTITLE | CRHR | STANDING | CAPACITY |
| 240  301  380 | Intro to MIS  Statistics  Database | 3  3  3 | 2  3  3 | 5  5  3 |

Enroll

|  |  |  |  |
| --- | --- | --- | --- |
| EID | S# | C# | GRADE |
| 1  2  … | 111  333  ..... | 240  240  ..... | A  B  .... |

* For a given student, if his total credit hours is between 0-30, update his standing to “1”; if his total credit hours is between 31-60, update his standing to “2”; if his total credit hours is between 61-90, update his standing to “3”; if his total credit hours is greater than 91, then update his standing to “4”. Please write a PL/SQL program to do this.
* Write a procedure AddCourse(psnum, pcnum) that will enroll the student to a course. The program should check for the following things:

1. The student must be a valid student.

2. The course must be a valid course.

3. There is still room in the class.

4. After enrolling, the total credit hours of the student does not exceed 15 credit hours.

5. The student is not currently enrolled in this class. You can check for current enrollment by a NULL grade.

**CheckValidStudent(psnum)** that returns TRUE when the student exists in the STUDENT table; FALSE otherwise.

**CheckValidCourse(pcnum**) that returns TRUE when the course exists in the COURSE table; FALSE otherwise.

**CheckStanding(snum, cnum)** that will return True is the student has appropriate standing to take the course, false otherwise.

**CheckClassCapacity(cnum**) that will return true is the class still has room for one more student, and false otherwise.