Business Rules and Data Models

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**Business Rules and Data Models**

The Database which I have designed is about the topic of **Business Rules and Data Models. As I have already talked about the purpose of this Database which I have been tasked by** Richland college to develop which will keep track of students and the courses they have taken. In addition to tracking the students and courses, the college wants the database to keep track of the instructors teaching each of the courses. Therefore, I would like to describe the design document of the database, the entities of the database and the attributes of each entity.

The designed database is made up of five entities which are the following: The Student, the class, the course, the enroll and the professor. The entities are subdivided into attributes which are the information which can be easily enter using the entry method and retrieve without any problem by any person who is trained to do the job. As along as the person have experience, these information is organized in such a way that it can be easily accessed, managed and updated.

The Student entity is characterized by their identification number, first name and last name which are represented by STU\_ID, STU\_FNAME and STU\_LNAME respectively. The Enroll entity is characterized by their class code, student identification number and the grade of the students which are represented by CLASS\_CODE, STUD\_ID and ENLOLL\_GRADE respectively. The Professor entity is characterized by their name, professor identification number and the department Identification which are represented by PROFESSOR\_NAME, PRO\_ID and DEPT\_ID respectively. The course entity is characterized by their course code, course title, course description and course credits which are represented by CRS\_CODE, CRS\_TITLE, CRS\_DESCRIPTION and CRS\_CREDITS respectively. And finally, the class entity is characterized by their course code, class section, class time and course credits which are represented by CLASS\_CODE, CLASS\_SECTION, CLASS\_TIME and CRS\_CODE respectively. Moreover, there are primary keys which is a unique identified in each table which is represented by the PK. In addition, there is a foreigner key which is a primary key and found in another table. It is represented by the FK which can be seem in the tables as well.

The final staffs which are important are the relationship which shows how each table is related to one another. This is shown by the lines which joined each of them. It can be a one to many, many to many or many to one. They can be seen in the design shown by those arrows at the beginning or the end of each line.

**Bibliography**

1. <https://strayer.vitalsource.com/#/books/9781305886841/cfi/99!/4/4@0.00:0.00>
2. <http://www.dbforums.com/showthread.php?1661762-How-to-Design-Relationships-for-School-Enrollment-Grades-Database>