Strayer University

**Business Rules and Data Models.**

Week 2

**Assignment**

for the

Course of

### Intro To Relat Dbase Mgt Syst

.10/16/17

By

Kennedy Kabaso.

Professor: Besharatian Hossein.

**Business Rules and Data Models.**

This paper is about the topic of **Business Rules and Data Models. I have been tasked by** Richland college to develop a database that will keep track of students and the courses that 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 will describe the purpose of the database, the entities of the database and the attributes of each entity, then describe the business rules that could impact the structure of the database, determine the information that the conceptual model of the database would include and finally, determine the information that the physical model of the database would include.

Before I go any farther, I would like to define some terms to make an understand easy. A database is a collection of information that is organized so that it can be easily accessed, managed and updated. Data is organized into rows, columns and tables, and it is indexed to make it easier to find relevant information.

**Describe the purpose of the database.**

The main purpose of this database is to track all the students who are enrolled at the college. This is going to be the incoming freshmen, current and transferred students. In addition, it is going to track their courses that they have taken. Moreover, it would keep track of the instructors teaching each of the courses at Richland college.

.

**Based on your research and / or common knowledge of a college and the information tracked by a college, describe the entities of the database and the attributes of each entity.**

An entity is any object in the system that we want to model and store information about. In the database, there are recognized concepts like person, places, things, or events that are important to the database. In the database for the college, the entities are Employee, Student and Lecturer. The attributes are characteristics of entities objects or view objects. In the student’s databases there are their IDs, the first name, last name, the classes, activates and their grades. And these can correspond to the database column. On the Lecture part, the include, their names, the courses they teach and the students in their courses.

**Based on your research and / or common knowledge of a college and the information tracked by a college, describe the business rules that could impact the structure of the database.**

Business rules are the ones which are intended to prevent disruption in a company or business. There are used in our everyday lives to define entities, attributes, relationships and constraints. Usually though they are used for the organization that stores or uses data to be an explanation of a policy, procedure, or principle. At the college, there are departments that offers some Courses, there are Professor who teaches different Classes. To unique identifier, business rules should come with an identifier that may consist of the rule number and the department it affects. All students should have a business rule of grades levels which should start from 90% and above be awarded an A, then between 80%.and 90% should get a B, below 80% should be a C and an F should be below 50%. Talking about the different department of the school, each should be given a number so that they can be easily identified.

**Determine the information that the conceptual model of the database would include and determine the information that the physical model of the database would include.**

The conceptual model is also known as the data model which describe the conceptual schema when a database system is implemented. It is designed to hides the internal details of physical storage and targets on describing entities, datatype, relationships and constraints. A conceptual model is a representation of a system, made of the composition of concepts which are used to help people know, understand a subject the model represents. Therefore, the students table is going to relate to the Lectures table in some ways. These concept modes are going to show how their entities relate to one another.

A physical data model (or database design) is a representation of a data design as implemented, or intended to be implemented, in a database management system. The physical model will include the data entities which are going to have the Student and the Lectures which are going to be attributed by their grades, classes Departments, and names.

**Conclusion**

Finally, the Richland college database is going to work perfected after it has been implemented. It would track all the students who are enroll at the college in different areas such as their grade reports, their academic activities and their lectures in their classes. Moreover, a team of Information personal will be needed to carry out the whole database activates. In addition, student would be able to view their grades and print the report easily without any problem.

**Bibliography**

1. <https://msdn.microsoft.com/en-us/library/bb399731(v=vs.100).aspx>
2. <https://strayer.vitalsource.com/#/books/9781305886841/cfi/99!/4/4@0.00:0.00>
3. <http://www.dbforums.com/showthread.php?1661762-How-to-Design-Relationships-for-School-Enrollment-Grades-Database>
4. <http://www.develop-online.net/tools-and-tech/designing-an-mmo-ui/0117165>