**Requirement s of Marvel College’s Database**

Marvel College has decided to computerize its operations. You are provided the design and General Description of Marvel College’s Requirements that you will use to create a database for Marvel College that will satisfy a number of user requirements. Apply your knowledge you have achieved in this course to create the Database.

**Marvel College Report Requirements:**

Employees at Marvel College will require several reports to manage students, classes, schedules, and faculty members; here are some samples of some reports.

**Marvel College’s Report Card**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Department | Course Number | Course description | Grade | Credits Taken | Credits Earned | Grade Points |
| Computer Science | CS162 | Programming 1 | A | 4 | 4 | 16 |
| Mathematics | MTH201 | Calculus 1 | B+ | 3 | 3 | 9.3 |
|  |  |  |  |  |  |  |

**Current Semester Totals of a students**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Student# | Credits Taken | Credits Earned | GPA | Total Points |
| 123456789 | 7 | 7 | 3.7 | 25.9 |

**Cumulative Totals of a student**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Student# | Credits Taken | Credits Earned | GPA | Total Points |
| 123456789 | 44 | 44 | 3.39 | 149.2 |

**Student’s Address**

|  |  |  |  |
| --- | --- | --- | --- |
| Student Name | Address | Local Address (if different) |  |

**What you are submitting:**

1. Entity Relationship Diagram
2. SQL file which contains the script to create tables, set constraints and insertion of data.
3. Word document with screen shots which include Description of Query, Actual Query and its output for Q.2, 3a to 3f.

|  |  |  |
| --- | --- | --- |
| **Marking Scheme:** Activity | Level Range | Maximum Points Range |
| 1. Entity Relationship Diagram | Simple to complex | 0- 5 |
| 1. Write a script to create all the tables and set up constraints based on the E-R Diagram provided in class. | Simple to complex | 0-15 |
| 1. Make up the queries for the following operations based on your database | Simple to complex |  |
| 1. Generate a class list for each section of each course. | Simple to complex | 0-5 |
| 1. Grade verification report for the faculty to verify the grades of a class. | Simple to complex | 0-5 |
| 1. Generate a report card for a given student. | Simple to complex | 0-5 |
| 1. Display the schedule of all the courses for the given term. In other words, list all sections of all courses offered during a given semester. Each section has a unique four-digit schedule code. So this should list schedule code, section, time, room, faculty, number of credits, and pre-req. | Simple to complex | 0-5 |
| 1. Display student’s schedule. i.e. student #, term, name, address(es), schedule code, course number, course desc, section, credits, time and room. It should also display the total number of credits of current semester. | Simple to complex | 0-5 |
| 1. Generate a faculty information report by department. | Simple to complex | 0-5 |
| 1. Produce course report i.e. for each course it will list the code, name of dept, course number, description of course, and number of credits, along with department and course number of each pre-req. | Simple to complex | 0-5 |
| Clarity and presentation | Simple to complex | 0-5 |
| Total Points |  | 60 |