

**CIS 331**  
**University Management System**  
**Group Project Part 2: Console-Based Prototype**

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Now that your team has submitted and gotten feedback on your Part 1 Planning deliverables, you are ready to write some actual code.

**Part 2 Deliverable:**

- For Part 2, you are building a console-based Java application to serve as the first “proof-of-concept” prototype for this system. GUI and Database integration will come later.
- The system must use a menu system that will allow the user to choose from several options (or an option then sub-options -> Your team should think about efficient design!), and continue using options until they choose to quit.
- Your system must use Java classes that you defined and planned in Part 1. You can create additional ones that were not in your Part 1 planning if you think it is necessary (you might check with Dr. Ezell on this as well). Your Java classes must work as you planned / designed them in Part 1. Any issues that were noted with your Part 1 plan (via Canvas Feedback) must be resolved.
- Your system must allow for the creation **and** editing of Students, Faculty, Courses, and Semesters.
- Your system must allow for the assignment of a Faculty to a Course in a particular Semester.
- Your system must allow for the enrollment of a Student in a Course in a particular Semester.
- Your system must be capable of the following, separate reports. Reports should be printed in neat, column aligned, formatted output, business-appropriate style. For all of these reports, you should prompt the user to make the appropriate selection of desired Faculty member, Student, Course, or Semester:
  - Your system must allow for the printing of a report of all Courses taught in a Semester.
  - Your system must allow for the printing of all the Courses taught by a single Faculty member in a semester.
  - Your system must show all Courses a Student is enrolled in for a single Semester.
  - Your system must show all students enrolled in a single Course in a certain Semester.
- You are free to use standard Java arrays or the ArrayList<E> Class (Chapter 7) for this assignment.
- Your code must be sufficiently documented with code comments throughout. You might even have team members label parts of the code they worked on in particular.

- It must have a code header at the top listing names of team members, date, and description of the system.
- **Your team must evenly divide the code work out among the team members. No one-two team members should do all this work!**

Ensure this is the work of only your group and adhere to the JMU Honor Code while working on this and all other Group Project Parts.