MERCY UNIVERSITY

CISC 471 Term Project

I. General Description

Software Engineering by its nature is the application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software. The study of the approaches is best done by hands-on projects. The project is not simply a programming project. It should include the following integral parts:

- A requirements definition
- An outlined architectural design.
- A detailed design specification.
- A prototype of the system user interface.
- A test specification.
- A user manual and associated help frames.
- A project plan and schedule setting out milestones and resource usage
- A live demo system.

The project is a group project. You need to learn how to work as a team and build the right chemistry among team members instead of creating a negative and resentful project environment. This is part of project management.

To make the project manageable, I define the project into milestones and your team needs to hand in required pieces called deliverables.

II. Project Requirements

Each team will have three to four members. Your team should meet (in-person or online, as the case may be) as often as necessary to discuss your project options and choices and formulate any questions you may have concerning project viability and project progress.

Your project should be the design and development of any software application for an organization – commercial, non-profit, or government. Usually, the former two types of organizations would be suitable at this level. Your application can be a web application, a stand-alone application, or a mobile application. That depends on the client and their requirements.

This semester, we will take on some real-world projects with real clients. You will be working with the client(s) for the design and development of the application.

When faced with an issue you are not familiar with, say web application development, you need to read some book to catch up on the material and use it. Since this is a capstone course, I expect that you have the ability to fill any gaps between what you do not know and what is expected of you in order to complete the project. You need to take a proactive approach in this course for your success. Well, if you need any help down the road, I am glad to help you.

As you know, Mercy University values academic honesty and integrity very highly. You must submit work that represents your original words or ideas. If any words or ideas are used that do not represent your original words or ideas, you must cite all relevant sources. You should also make clear the extent to which such sources were used. You do not make simple copy and paste; instead, you should use your own words to demonstrate your understanding of the topic.

Important - you **may not** use or purchase ready-made solutions for the project. There are several sites out there that students have used and are using for this purpose. Developers charge a certain amount of money, and they will do the development of the entire application for you. Do not do that. You will get an F automatically for the course if I sense that your project is not indeed yours.

Grading of projects will be based upon substantive content, appropriate organization and presentation style. Multiple errors in grammar and spelling are unprofessional and detract from the clarity of your report and will be graded accordingly, so use a spell checker!

III. Milestones, Deliverables and Deadlines

Phase 1: Project Concept Summary – due on March 11, 2025

The deliverable includes

- Team member names including brief bio, contact information and communication preference such as teleconference or face to face meeting.
- Team charter including each member's strength, weakness, commitment to the team project statement and your team leadership arrangement.
- Project concept summary. It should NOT be a general statement like "develop a medical system", instead you should give a very specific and focused statement. More specifically, you need to write down
    - Project selection and a rationale description of your selection. The key is to narrow down your project to be more specific and to be able to finish it before the deadline. You need to reason out that you are able to finish it.
    - An initial requirements definition draft
    - An initial architectural design draft
    - A first project plan and schedules including milestones according to the deliverable requirement
    - A record of all your references you used
    - At least one code file to show me you are experimenting with the coding environment. You can use Java, C++, php or any other language(s) you are good in.

Phase 2: Project Concept Proof – due on April 15, 2025

The deliverable includes

- A requirements definition
- An outline architectural design
- A design specification
- A revised project plan and scheduling
- A record of all the references you have used
- Initial running demo code to show your work

Phase 3: Project Completion – due on May 13, 2025

The deliverable includes

- Title page: project name and team member names
- Executive Summary page: one page to summarize what you have done
- A requirements definition
- An outline architectural design.
- A detailed design specification.
- A prototype of the system user interface.
- A test specification.
- A user manual and associated help frames.
- A project plan and schedule setting out milestones, resource usage and estimated costs.
- All references you used.
- Appendix of all codes
- Appendix of all other materials
- Instructions how to install and start your system if an administrator gets all your codes
- A live demo site for all (online and on-campus) students and a live presentation for on- campus students.

The Report

The components of each written report must be assembled as a single document from the entire team. This should be treated as a **professional business report** and will be judged as such. **Each report must contain a submission letter, a cover sheet, a table of contents, and an executive summary.** ***Be sure to incorporate all points of the "Style Guide" given as part of this handout.***

Project Presentation

You will present phases of your project using a professional presentation software package such as MS PowerPoint. I will set the presentation time(s) along with the project client. I will give you more details once the project starts. All members of a team are required to present portions of the material for every phase of the project.

Style Guide for Written Submissions

follow for each report

- Prepare a single, consistent, integrated, professional looking document.
- All documents must be word-processed; group members working on different parts of a document must coordinate with each other so that the combined result has a uniform look.
- **Use a cover sheet** with: the company name (and logo if any); your team name, logo, number, and member names; the class number and section; the instructor's name; the phase number(s); the date.
- Each report must have a **table of contents**, and an executive summary. Number ***all*** pages; number appendix pages separately, with prefixes; example: for Appendix A, number pages A1, A2, … Give each appendix a title page.
- Make it readable and pleasant looking. Leave plenty of white space, use a reasonable size font, make good use of paragraphs and indented sections, and headings. Either indent each paragraph or skip a line after each paragraph. Skip lines after titles and headings. Use bold type and underlining for emphasis, but don't overdo it.
- Don't overload the text with details. Present what is necessary for clarity in the body of the report and place supporting material in appendices.
- In sentences use numerals for values of 11 and over and write them out for values of ten and under. Exceptions: don't start a sentence with a numeral; use numbers for page, figure, and table references.
- Avoid run-on sentences, wordiness, and incomplete sentences.
- Be consistent in your use of tense.
- Make sure subjects and verbs agree.
- To make your sentences more interesting, use synonyms.
- Use proper punctuation.
- **SPELLING AND GRAMMAR COUNT.** You may use a spell-checker, but don't rely on it. Grammar-checkers are not reliable – they often give erroneous advice. So,
- **PROOFREAD**
- For additional guidance, consult a style manual – the library has several.

Group Meeting Log Sheet

Date of Meeting: _____/_____/_____ **Time of Meeting: _____**

Group : _____ **Recorder: _____**

Attending: _____ **_____**

_____ **_____**

_____ **_____**

Absent: _____ **Excused (circle)?: YES / NO**

_____ **YES / NO**

_____ **YES / NO**

Topics Discussed: _____

_____

_____

_____

_____

Tasks Assigned: _____

_____

_____

_____

_____

_____

Meeting Ending Time: _____

Performance Appraisal & Sign-off

Team member name (print)	Signature	Weekly Contribution
_____	_____	_____%
_____	_____	_____%
_____	_____	_____%
_____	_____	_____%
_____	_____	_____%
_____	_____	_____%