## DEPARTMENT OF COMPUTER SCIENCE <u>DCIT 208 - SOFTWARE ENGINEERING</u> <u>ASSIGNMENT 2 (INDIVIDUAL)</u>



## **INSTRUCTIONS**

Answer the following questions in a few sentences. It would be best to express yourself in your own words, based on the knowledge you gained from the Reading Assignment and Video Lecture. You must also construct good, correct sentences free of grammatical errors. Only answers should be typed and uploaded to the Sakai course site as instructed. There are always deadlines to meet.

**NB:** All submissions will be subjected to **PLAGIARISM and AI CHECKING**. Therefore, students are advised to desist from any such act that will attract severe consequences.

- 1. Describe the difference between user and system requirements in the context of software engineering. Give examples of each and explain why it's critical to distinguish between them during the requirements engineering process.
- 2. Assume you are building an online banking system. Draft a set of sample user requirements and system requirements. Discuss how the process of gathering these requirements might differ and how these requirements will guide the design and development of the system.
- 3. Discuss the principles and essential practices of Agile process models in software engineering. How do these models handle changing requirements, and what benefits do they offer over traditional waterfall models? Use a specific Agile methodology (e.g., Scrum, Kanban) for your discussion.
- 4. Discuss the importance of process flow diagrams and use cases in software engineering. How do they aid in understanding and communicating system functionality? Use a tool like MS Office Visio or LucidChart to create a sample process flow diagram for a restaurant ordering system. (Aside from the student including the flow diagram in the submission file, the student also must indicate the tool used and attach a saved version in the original format of the file)
- 5. Explain the concepts of user stories, epics, and features in Agile software development. How do they contribute to the requirements engineering process? Write a user story, an epic, and a feature for a hypothetical project of your choice and explain the relationship between them.