Stage 2. Prototype Implementation (Marks: 25)

In this stage, you will implement a proof-of-concept prototype based on the architectural design from Stage 1. The prototype will be presented to stakeholders (tutors). Each group is expected to collaborate using the Agile software development model, which will be covered in lectures.

Your prototype should meet the following criteria:

1. Implementation of Stage 1 Requirements and Design (8 Marks)
   Develop the prototype by following the design and requirements from Stage 1. Most of the models should be implemented.
2. Demonstrating AI Agent Capabilities (5 Marks)
   Showcase how the Large Language Model (LLM) enhances the agent's ability to perceive, make decisions, and interact effectively within the system.
3. Agile Development Experience (6 Marks)
   Reflect the group's experience of using the Agile software development model, including iterative development, feedback loops, and team collaboration.
4. Incorporation of Advanced Technologies (6 Marks)
   Utilize advanced IT technologies in your prototype to demonstrate innovation. Examples include but are not limited to:
   (1) Application frameworks (e.g., React, Flutter)
   (2) Cloud services (e.g., AWS, Google Cloud)
   (3) Deployment systems (e.g., CICD, Kubernetes)
   (4) New AI tools or techniques (e.g., Code Generation)
   Creativity is encouraged! If you justify the effective use of a technology, even one we haven't covered, it will be considered.

Note:

Demonstration will be held in the final week. The due date for submitting your source code is November 2, 2025, at 11:59 PM. During the Week 13 demonstration, you will be required to download your source code directly from Canvas and deploy it on site. Therefore, please carefully check your code before uploading to ensure it is accurate, error-free, and executable.