

Progress Report #1	
Course Code: CPE201L	Program: Computer Engineering
Course Title: Data Structures and Algorithm	Date Performed: September 13, 2025
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1. Objectives	
<ul style="list-style-type: none"> ● To create and implement a queue-based chatbot system for UCC AIMS portal assistance ● To demonstrate practical application of queue data structures in actual situations ● To create a prototype that can handle basic academic inquiries from students ● To create or to provide a foundation for future enhancements using more complex data structures 	
2. Discussion	
<p>We noticed that UCC AIMS has several problems in handling and sharing academic information with both students and teachers. These challenges often include the difficulty of getting quick answers to common questions, delays in accessing important information, confusion in navigating the system, and the lack of a simple way to guide users step by step.</p> <p>To address this concern, we would like to create a chatbot system using Queues called AIMSSIST. This chatbot is designed to assist users by answering specific questions, providing guidance on how to use different features of AIMS, and helping students and faculty save time when looking for information. AIMSSIST will act like a virtual assistant that can organize queries in order, respond in real time, and ensure that no question is overlooked. By using Queues, the chatbot can manage multiple user requests efficiently, making the system more reliable and user-friendly.</p>	
3. Materials and Equipment	
<ul style="list-style-type: none"> ● PyCharm ● Streamlit ● Python 	
4. Procedure	
<ol style="list-style-type: none"> 1. Brainstorming and collaborating with each other's ideas. 2. Identify the UCC AIMS portal as a practical use case. 3. Identify the problem and create a way to solve it. 4. Designed the basic interface using Canva. 5. Create a simple knowledge base on enrollment and grades procedures. 6. Built basic Streamlit interface for prototype and demonstration. 	
5. Output	

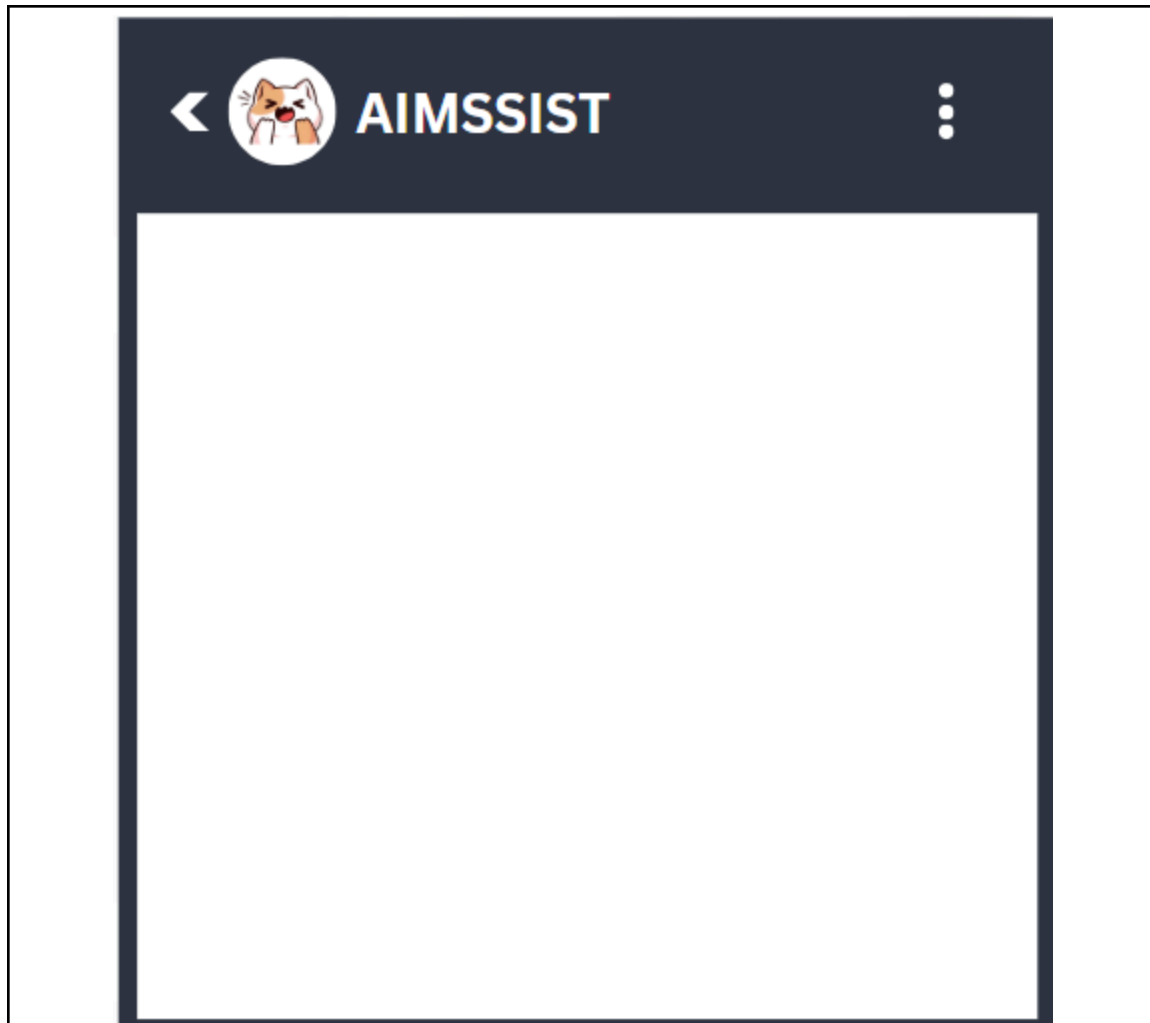


Figure 1. Interface Example

We have created an example of how the interface would look like, this isn't the final design of the interface. We used Canva to visualize the basic layout before actual implementation.

6. Conclusion

At this first progress report, we have successfully brainstormed ideas and planning phases for our queue-based project. As for the project we have chosen to make a chatbot that revolves around guides for our student portal AIMS. We designed the interface layout using Canva and identified key features and requirements such as the use of Streamlit on completing this project, this establishes a solid foundation for the actual coding on our next progress report or development phase.