Technical Proof of Concept Document

Introduction

This document presents a technical proof of concept (TPOC) for implementing the MVC design pattern in a simple application. The application includes a landing page with an input field and a button, logic that processes the button click, and a result page that displays the input and stored result.

Implementation Details

The application is divided into three components:

1. **Model**: Manages data storage and retrieval.
2. **View**: Displays the input field and result to the user.
3. **Controller**: Processes user input and updates the model.

Advantages and Disadvantages

Advantages:

- **Modularity**: Separation of concerns makes the application modular and easier to manage.
- **Scalability**: Individual components can be modified without affecting the others.
- **Reusability**: Components can be reused across different parts of the application.

Disadvantages:

- **Complexity**: For simple applications, MVC can introduce unnecessary complexity.
- **Overhead**: Requires a structured approach, which may slow down initial development.

Conclusion

The MVC pattern provides a robust framework for building applications with clear separation between data management, user interface, and user input processing. This proof of concept demonstrates the feasibility of using MVC for future projects, including the development of a chatbot application.

To run the application, run the following command in VS code terminal: ‘python3 ~/COMP301_Project/literature_lab/manage.py run_gui’