User Interface (UI) Design (if applicable)

User Interface (UI) Design

The user interface for the MLQ CPU Scheduling module provide an intuitive and user-friendly way for users to interact with the simulation. The UI allow users to add new processes, set priorities, and view statistics and metrics. The following are the design considerations for the UI.

- Navigation

The UI should have clear and consistent navigation to help users move between different screens and functionalities.

A menu bar or sidebar can be used to provide easy access to different features.

- Process Input

The UI should provide a form or dialog box for users to input details about new processes, such as arrival time, CPU burst time, and priority level.

Users should be able to add multiple processes at once and see a summary of the added processes.

- Priority Management

The UI should allow users to set or update the priority levels of processes.

Users should be able to view the current priority levels of all processes.

- Simulation Control

The UI should provide controls for starting, pausing, and stopping the simulation.

Users should be able to adjust the simulation speed and view progress indicators.

- Statistics and Metrics

The UI should display relevant statistics and metrics, such as average waiting time, turnaround time, and CPU utilization.

Users should be able to view statistics for individual processes or for the entire simulation.

- Error Handling

The UI should provide clear and informative error messages when users encounter errors or invalid inputs.

Users should be able to easily correct errors and continue using the simulation.

- Visual Design

The UI should have a clean and modern visual design that is easy on the eyes.

Colors, typography, and icons can be used to enhance the usability and aesthetics of the UI.

- Tools and Technologies

The UI can be designed using tools such as Adobe XD, Sketch, or Figma.

Front-end frameworks such as React or Angular can be used to implement the UI in web applications.

Libraries such as Bootstrap or Material Design can be used to enhance the visual design and responsiveness of the UI.