THE OPEN UNIVERSITY OF SRI LANKA FACULTY OF ENGINEERING DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING BACHELOR OF TECHNOLOGY HONOURS IN ENGINEERING BACHELOR OF SOFTWARE ENGINEERING HONOURS



EEX5563/EEX5564 – COMPUTER ARCHITECTURE AND OPERATING SYSTEMS Academic Year – 2022/2023

Mini Project Report should be uploaded to the given link in Moodle on or before the given due date. Hard copies will not be evaluated.

Due Date: 16/12/2023

Design and implement a module for simulating Multilevel Queue (MLQ) CPU Scheduling. One drawback of employing MLQ CPU scheduling is the potential for certain processes to experience CPU starvation if higher-priority queues are continuously occupied. Your implementation should possess the capability to mitigate this issue.

You are expected to produce a report including the following sections;

- 1. Title Page
- 2. Table of Contents
- 3. List of Figures and Tables (if applicable)
- 4. Introduction
- 5. Requirements, Assumptions and justifications for the assumptions and/or Specifications
- 6. System Design for the Proposed Solution (Overview of the software architecture, design patterns, data structures, and algorithms used in the project.)
- 7. Implementation (Description of the software development process, programming languages, frameworks, tools, and technologies employed.)
- 8. User Interface (UI) Design (if applicable)
- 9. Functionality and Features
- 10. Code Structure and Documentation
- 11. GitHub Repository(Include your project and allow the public to access it. The link should be provided here for the examiner to evaluate)
- 12. Testing Results
- 13. Deployment and Installation (if applicable)
- 14. Conclusion
- 15. Future Enhancements(Suggestions for future improvements or additional features that could be implemented)
- 16. References
- 17. Appendix(Include the link to self reflection video of the project implementation)