

CPRE 458 Final Project Proposal

Team Member:

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Project Title:

Uniprocessor Scheduling with Utilization-based Test and Exact Analysis

Project Statement:

Project Type: GUI Simulator (Type 1)

Project Goal:

The goal of this project is to create an Android application that generates a visual schedule from a set of tasks which is entered by a user. The application will accept user's input of the parameters of tasks. The parameters can include period, execution time, deadline, priority, and etc, depending on the type of the scheduler. Three types of scheduling algorithms will be implemented: RMS, EDF, and LLF.

Approach:

- The Android application will be implemented in Android Studio, and then, tested on Android devices.
- Simulation of a set of task will be carried out by both utilization-based test and exact analysis.
- The simulation algorithm will be implemented in Java.

Expected Outcomes:

- The user will be able to choose one of the three schedulers to start a simulation.
- The user will be able to input the parameters of each tasks he/she entered.
- A fully functional Android application that can display a visual schedule generated from a set of tasks which input by user.

Simulation/Implementation platform:

The project will be an Android Application. It is going to be implemented in Android Studio.

References:

- Lecture 4 & 5.