Design Document – Shortest Job First Scheduler

The Shortest Job First OS Scheduler assembles a priority queue with the time to complete a process being the priority in the queue. It will then execute the job that takes the least time to complete.

Animation Specification

- The simulation was built using HTML, CSS and Javascript. No additional tools were used.

- You add a process to the table by adding the process name and the process duration to the table. Confirm this by pressing the “Add Row” button.

- You remove the process that was the last added by pressing the “Delete Row” button.

- The simulation starts when the “Execute” button is pressed.

- The simulation shows the tasks being completed as a bar loaded across the screen. The time the task finished executing is also updated in the table.

Design Specificaiton

Data Structures - JavaScript

QElement – Class to hold the element in the Priority Queue.

Attributes:

- Element = Stores the process name.

- Priority = Stores the process duration.

PriorityQueue – Class that maintains the Priority Queue

Attributes:

* Items = An array to store the contents of the Queue