**CSCE 5640: Operating System Design**

**Project Execution Instructions**

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**Step 1**: **Compile all the algorithms**

Use the following command to complete all the Java programs:

* *javac Task.java FCFS.java SJF.java PriorityScheduling.java RR.java PriorityWithRR.java*

**Step 2: (Optional) Execute individual algorithms for a single file.**

Use the following commands to run each algorithm for a particular file.

* *java SJF data/**schedule.txt*
* *java FCFS data/schedule.txt*
* *java RR data/schedule.txt*
* *java PriorityScheduling data/schedule.txt*
* *java PriorityWithRR data/schedule.txt*

**Assumption**: the file that has the process is named ‘schedule.txt’ and is located in the folder named ‘data.’

**Step 3: Create test cases**

generateScheduleFiles.java has the code to generate test cases.

To execute the file run the following commands:

* *javac ScheduleFileGenerator.java*
* *java ScheduleFileGenerator*

**Step 4: (Optional) Run all the algorithms for a single file**

To run all five algorithms for a single file, run the following commands:

* *javac SchedulerRunner.java*
* *java SchedulerRunner data/schedule.txt*

**Assumption**: the file that has the process is named ‘schedule.txt’ and is located in the folder named ‘data.’

**Step 5: Run all the algorithms for all the files**

To run and analyze all the algorithms for all the files present in the ‘data’ folder use the following commands.

* *javac AnalyzeScheduler.java*
* *java AnalyzeScheduler*

**Step 6: (Optional) Visualize the result.**

To visualize the results, execute the Python code *“plot\_scheduling\_results”*in Google Collab.