

Cairo University

Faculty of Engineering,

«Computer Engineering Department»

CMP 2030 – Fall 2024

«Scheduling Project»

Team « Kernix »

Data Structures Used:

QUEUE	ReadyQueue,RR algorithm
MinHeap	SRT and HPF algorithms
Linked List	PCB

Algorithm Explanation:

HPF (Non-pre-emptive Highest Priority First)

SRTN (Shortest Remaining Time Next)

RR (Round Robin)

Assumptions:

1-Priority values range from 0 to 10, with 0 being the highest priority

2-Time is measured in integer seconds with no fractions

3-For HPF, ties are broken by arrival time

4-For SRTN, ties are resolved by arrival time

5-Idle is wasted time

Workload:

Name	Work
Mohamed Abdelaziem Sayed	Input files HPF Worked in scheduler MINHEAP
Abdallah Ayman	Process generator SRTN Worked in scheduler MINHEAP
Omar Gamal	Process Worked in scheduler Process generator QUEUE
Omar Hassan	Output files RR Worked in scheduler QUEUE

TimeTaken:

Task	Time Spent (hours)
Design & Planning	3
Process Generator Implementation	2
Scheduler Core Implementation	5
HPF Algorithm	2
SRTN Algorithm	3
RR Algorithm	2
Process Module	1
Testing & Debugging	4
Documentation	2
Total	24