Team Data

1) Workload:

Name	Workload
Mohamed Ashraf	HPF, SRTN Algorithms
Nesma Osama	IPC and RR Algorithm
Ali Samy	Output files and calculations

2) Data Structure used:

a) Ready List: We used the linked list due to its flexibility, called "Ready".

b) Some structs such as:

- Process structs.
- Time structs.
- Node structs.
- Etc.......

c) IPC: We used message queues and shared memory.

3) Algorithms explanations:

- **HPF:** implementing a function called" AddSortedPriority" which adds the new process to the list in descending order of priority, the running process is always at the head of the list, after finishing we remove it from the head of the list and start rerunning the head as we sort in descending order of priority.

- **SRTN:** implementing a function called" AddSorted" which adds the new process to the list in ascending order of the remaining time, of course, this happens after stopping the running process if it has less RM then we start to rerun the head as this algorithm is preemptive so the head might be changed to a new process which has the lowest remaining time.

- **RR (queue):** When a process arrives, it's added to the tail of the ready. The scheduler checks if there's a running process. If not, it selects the first process from the ready queue to execute.
  Each process is given a time slice (slice) to execute. If a process isn't complete within its time slice, it's preempted and placed back at the tail of the ready queue.

4) Time taken for each task:

Name	Time taken
Mohamed Ashraf	1 Week
Nesma Osama	2 Weeks
Ali Samy	2 – 3 Days

5) Assumptions:

- **SRTN: if a process of remaining time 3 is running and another process with remaining time 3 arrives keep running the first process.**

- **RR: if one process remains it will be an output cont. / stopped.**