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Project Report

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Data structures used:

- Priority Queue
- Circular Queue
- List

Algorithm Explanation:

- HPF: When a process arrives, It enques in the priority queue, forks and sends signal stop. Every time-step it first checks if the process is terminated, then dequeues from the priority queue to run the other process using a signal continue.
- SRTN: When a process arrives, it sets the process state to ready, forks and sends signal stop. Added a function to (Shortest Remaining) Loops on the list and gets the least remaining time (Ready or Running). Every time-step it:
 - 1) first checks if the process is terminated, then, sets the running_pid to -1 (indicates no process is running).
 - 2) Then it calls ShortestRemaining function to get the new running_pid, if It is different then it sends a signal stop to previous running_pid and sends signal continue to the new running_pid
- RR: When a process arrives. It enques in the circular queue, forks and sends signal stop. Every time step it checks if the process quantum is finished. If so it stops it and run the one next to it in the queue. If it terminates it runs the one next to it.

Assumptions:

- In RR, if there is only 1 process and its quantum finished. It gains new quantum.

Workload distribution:

1)	Pgenerator:	Omar	1 Day
2)	HPF:	Omar	2 Days
3)	RR:	Ali	4 Days
4)	SRTN:	Yousef	2 Days
5)	PERF:	Mohamed	1 Day
6)	LOG :	Yousef	1 Day
7)	PRI-QUEUE:	Mohamed	1 Day
8)	CIRC-QUEUE :	Ali	1 Day
9)	Process.c:	Mohamed	1 Day