

Mateo Cordeiro
CS3360 : : Kecheng Yang
02/04/2024

Programming Assignment #2

Description:

The provided Python scripts implement a discrete-time event simulator for evaluating the performance of a First-Come First-Served (FCFS) CPU scheduling algorithm. The simulator generates a sequence of processes, simulates their arrivals and departures, and calculates various performance metrics such as average turnaround time, total throughput, average CPU utilization, and average number of processes in the ready queue.

The following metrics were obtained for each simulation run:

Average Turnaround Time: Represents the average time taken for a process to complete from the time of arrival.

Total Throughput: Indicates the total number of processes completed per unit time.

Average CPU Utilization: Represents the average percentage of time the CPU is busy processing tasks.

Average Ready Queue Length: Indicates the average number of processes waiting in the ready queue.

The results were plotted against the average arrival rate to visualize the impact of different workloads on the performance metrics.