SVKM'S NMIMS

MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT& ENGINEERING

(Campus Name)

Academic Year: 2022-2023

Practical 2-First Come First Serve Scheduling algorithm

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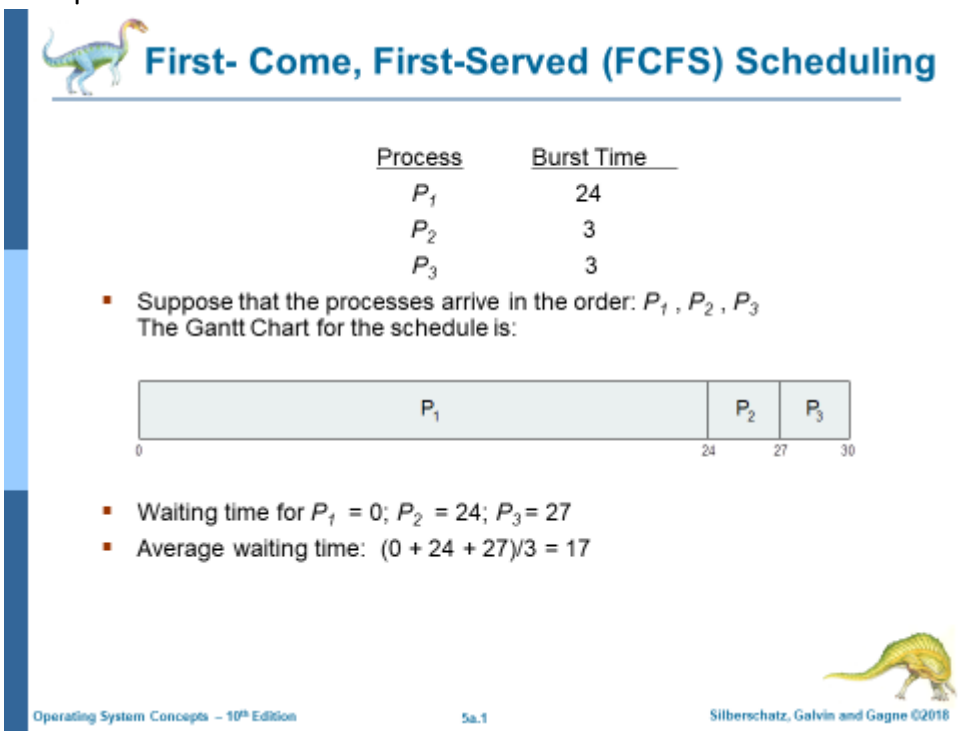
Dear all,

Kindly complete the following task with your name in output file.

Example 1:-



Example 2

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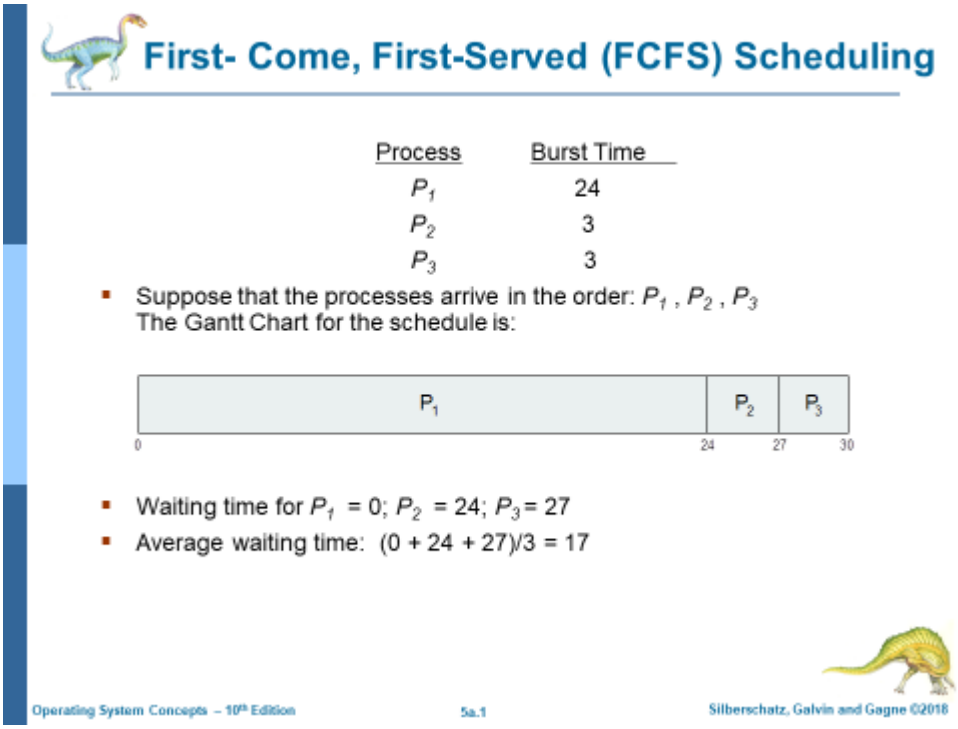


Example 3

Process	Arrival time	Burst time
P1	0	5
P2	1	6
P3	2	7

Theoretical calculation:

Program:

```
# List of processes with (Process ID, Burst Time)
processes = [(1, 5), (2, 3), (3, 8), (4, 6)]

# Initialize waiting time and turnaround time lists
waiting_time = [0] * len(processes)
turnaround_time = [0] * len(processes)

# Calculate waiting time
for i in range(1, len(processes)):
```

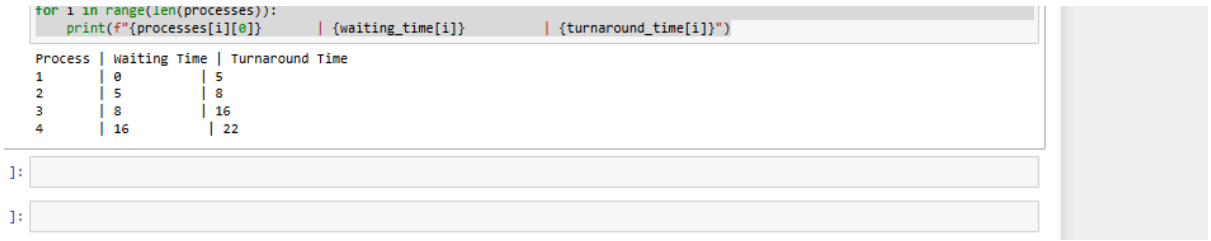
```
    waiting_time[i] = processes[i - 1][1] + waiting_time[i - 1]


# Calculate turnaround time
for i in range(len(processes)):
    turnaround_time[i] = processes[i][1] + waiting_time[i]


# Print the results
print("Process | Waiting Time | Turnaround Time")
for i in range(len(processes)):
    print(f"{processes[i][0]}       | {waiting_time[i]}          | {turnaround_time[i]}")
```

Example 2:

Result screenshot:



Conclusion:-

Write your observation about FCFS algorithm. how the waiting time can be reduced in FCFS algorithm? Write your idea.

In conclusion, the FCFS scheduling algorithm is one of the basic scheduling algorithms used in operating systems. It schedules the processes in the order in which they arrive in the ready queue, which is fair to all the processes.

References:

1. https://www.geeksforgeeks.org/preemptive-and-non-preemptive-scheduling/
2. https://www.guru99.com/fcfs-scheduling.html
3. https://www.javatpoint.com/os-fcfs-scheduling