EXPERIMENT - 7

Operating Systems Lab

AIM

Write a program to implement CPU scheduling for first come first serve.

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Aim:

Write a program to implement CPU scheduling for first come first serve.

Source Code:

```
process=("p1" "p2" "p3" "p4" "p5")
bt=(0 0 0 0 0)
wt=(0 0 0 0 0)
tat=(0 0 0 0 0)

bt[0]=1
factor=0
wtSum=0
tatSum=0

echo "We will be using FCFS for 5 processes"

for ((i=0; i<5; i++))
do
  echo "Enter burst time for process ${process[i]}"
  read ele
  bt[i]=$ele
  wt[i]=$factor
  factor=$((factor + ele))
  tat[i]=$((bt[i] + wt[i]))
  wtSum=$((wt[i] + wtSum))
  tatSum=$((tat[i] + tatSum))
done

echo ""
echo "Process | Burst Time | Wait Time | Turn Around Time"

for ((i=0; i<5; i++))
do
  echo "${process[i]}      | ${bt[i]}         | ${wt[i]}         | ${tat[i]}"
done

echo ""
echo "Average waiting time = $((wtSum/5))"
echo "Average turn around time = $((tatSum/5))"
```

Output:

```
reeha@Reeha:/mnt/e/sem 6/Operating Systems$ ./fcfs.sh
We will be using FCFS for 5 processes
Enter burst time for process p1
4
Enter burst time for process p2
7
Enter burst time for process p3
2
Enter burst time for process p4
5
Enter burst time for process p5
9

Process | Burst Time | Wait Time | Turn Around Time
p1      | 4          | 0         | 4
p2      | 7          | 4         | 11
p3      | 2          | 11        | 13
p4      | 5          | 13        | 18
p5      | 9          | 18        | 27

Average waiting time = 9
Average turn around time = 14
```

```
reeha@Reeha:/mnt/e/sem 6/Operating Systems$ ./fcfs.sh
We will be using FCFS for 5 processes
Enter burst time for process p1
12
Enter burst time for process p2
23
Enter burst time for process p3
34
Enter burst time for process p4
5
Enter burst time for process p5
34

Process | Burst Time | Wait Time | Turn Around Time
p1      | 12         | 0         | 12
p2      | 23         | 12        | 35
p3      | 34         | 35        | 69
p4      | 5          | 69        | 74
p5      | 34         | 74        | 108

Average waiting time = 38
Average turn around time = 59
```