

Ex. No.: 7b

Date: 23 - 4 - 24

SHORTEST JOB FIRST

Aim:

To implement the Shortest Job First(SJF) scheduling technique

Algorithm:

1. Declare the structure and its elements.
2. Get number of processes as input from the user.
3. Read the process name, arrival time and burst time
4. Initialize waiting time, turnaround time & flag of read processes to zero.
5. Sort based on burst time of all processes in ascending order
6. Calculate the waiting time and turnaround time for each process.
7. Calculate the average waiting time and average turnaround time.
8. Display the results.

Program Code:

```
bt = []
print ("Enter no. of processes");
n = int(input())
processes = []
for i in range(0,n):
    processes .insert (i,i+1)
    print ("Enter the burst time of the
processes:\n"),
bt = list (map (int,raw_input().split()))
```

```

for i in range (0, len(bt)-1):
    for j in range (0, len(bt)-i-1):
        if (bt[j] > bt[j+1]):
            temp = bt[j]
            bt[j] = bt[j+1]
            bt[j+1] = temp

    temp = processes[j]
    processes[j] = processes[j+1]
    processes[j+1] = temp

wt[]

avgwt = 0
tab = []
avgtab = 0

wt.insert(0, 0)
tab.insert(0, bt[0])

for i in range (1, len(bt)):
    wt.insert(i, wt[i-1] + bt[i-1])
    tab.insert(i, wt[i] + bt[i])

    tab.insert(i, wt[i] + bt[i])

```

Output:

Enter no. of processes : 4

Enter the burst time of the processes :

8 4 9 5

Process	Burst Time	Waiting Time	TAT
2	4	0	4
4	5	4	9
1	8	9	17
3	9	17	26

Avg waiting time is: 7.5

Avg TAT: 13.0

Result: The above commands are executed successfully