

Ex. No.: 6a)

Date: 20/2/25

### FIRST COME FIRST SERVE

Aim:

To implement First-come First-serve (FCFS) scheduling technique

Algorithm:

1. Get the number of processes from the user.
2. Read the process name and burst time.
3. Calculate the total process time.
4. Calculate the total waiting time and total turnaround time for each process 5.
- Display the process name & burst time for each process. 6. Display the total waiting time, average waiting time, turnaround time

Program Code:

```
#include <stdio.h>
int main() {
    int n, i;
    printf("Enter the number of Processes : ");
    scanf("%d", &n);
    int bt[n], ct[n], tat[n], wt[n], at[n];
    printf("Enter burst time for each process : \n");
    for (i = 0; i < n; i++) {
        scanf("%d", &bt[i]);
    }
    ct[0] = bt[0];
    for (i = 1; i < n; i++) {
        ct[i] = ct[i-1] + bt[i];
    }
}
```

```
for (i=0; i<n; i++){
```

```
    at[i]=0;
```

```
    tat[i] = ct[i] - at[i];
```

```
}
```

```
for (i=0; i<n; i++){
```

```
    wt[i] = tat[i] - bt[i];
```

```
}
```

```
float avg_wt=0, avg_tat=0;
```

```
for (i=0; i<n; i++){
```

```
    avg_wt = avg_wt + wt[i];
```

```
    avg_tat = avg_tat + tat[i];
```

```
}
```

```
avg_wt = avg_wt / n;
```

```
avg_tat = avg_tat / n;
```

```
printf ("In Process It Burst Time  
It Waiting Time It Turn Around  
Time\n");
```

```
for (i=0; i<n; i++){
```

```
    printf ("%d\t%d\t%d\t%d\t%d\n", i, bt[i], wt[i], tat[i], ct[i]);
```

```
}
```

```
printf ("Average waiting Time : %.1f\n", avg_wt);
```

```
printf ("Average36 Turn Around Time : %.1f\n", avg_tat);
```

```
}
```



Process	Burst Time	Waiting Time	Turn around Time
0	6	0	6
1	2	6	8
2	8	8	16
3	3	16	19
4	4	19	23

Average Waiting Time : 9.8

Average Turn around Time : 14.4

**Sample Output:**

Enter the number of process:

3

Enter the burst time of the processes:

24 3 3

Process	Burst Time	Waiting Time	Turn Around Time
0	24	0	24
1	3	24	27
2	3	27	30

Average waiting time is: 17.0

Average Turn around Time is: 19.0

**OUTPUT :**

Enter the number of process :

5

Enter the burst time of the processes :

6 2 8 3 4

**Result:**

Hence the program is implemented using First - Come First - serve scheduling .

Gulati