

Ex. No.: 6a)

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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>
void main()
{
    int n;
    printf("Enter the no. of processes");
    scanf("%d", &n);
    int at[n], bt[n], ct[n], tat[n], wt[n];
    float atat=0, awat=0;
    for(int i=1; i<=n; i++)
    {
        printf("Enter p%d arrival time ", i);
        scanf("%d", &at[i]);
    }
    for(int i=1; i<=n; i++)
    {
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        printf("Enter p%d burst time ", i);
        scanf("%d", &bt[i]);
    }
}
```

$ct[i] = bt + ct[j]$

$tat[i] = bt + ct[i];$

$wt[i] = 0;$

$atat = tat[i];$

for (int i=2; i<=n; i++)

{

$ct[i] = bt[i] + ct[i-1];$

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

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

$atat = atat + tat[i];$

$awt = awt + wt[i];$

}

$atat = atat/n;$

$awt = awt/n;$

printf("process %d \t Arrival time \t Burst time \t Completion
time \t Turnaround time \t
Waiting time \n");

for (int i=1; i<=n; i++)

{

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

}

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printf("Average ^{turnaround time} = %.1f", atat);

printf("Average ^{waiting time} = %.1f", awt);

}

Gantot Chart:

P1	P2	P3	P4	P5	Total State
0	2	9	12	19	28

Indicates if sink first if sink has $\lambda_1 > \lambda_2$ if $\lambda_1 < \lambda_2$ if sink
has more than one sink
if sink is partial

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

Enter the number of process : 5

Enter the burst time of processes :

14 25 33 47 59

Process	Burst time	Completion time	turnaround time	Waiting time
P1	4	4	4	0
P2	5	9	9	4
P3	3	12	12	9
P4	7	19	19	12
P5	9	28	28	19

Result: Average turnaround time = 14.4
 Average waiting time = 8.8

thus the first come first serve
 program implemented successfully.

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