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>
int main()
{
  int n,ar;
  printf("Enter the no of processes:");
  scanf("%d",&n);
  int b[n],c[n],ta[n],w[n];
  printf("Enter arrival time for all the processes:");
  scanf("%d",&ar);
  print("Enter the burst times for the processes:");
  for(int i=0;i<n;i++)
  {
    scanf("%d",&b[i]);
  }
  for(int i=0;i<n;i++)
  { if(i==0){
    c[i]=b[i];
  }
```

```
    else{
        c[i]=c[i-1]+b[i];
    }
}
for(int i=0;i<n;i++)
{
    ta[i]=c[i]-ar;
}
int sum1=0;
for(int i=0;i<n;i++)
{
    sum1=sum1+ta[i];
}
int avg_ta=sum1/n;
for(int i=0;i<n;i++)
{
    w[i]=ta[i]-b[i];
}
int sum2=0;
for(int i=0;i<n;i++)
{
    sum2=sum2+w[i];
}
int avg_w=sum2/n;
Print("Process\t BurstTime\t Waiting Time\t TurnAround Time\n");
for(int i=0;i<n;i++)
{
    printf("%d\t",i);
    printf("%d\t %d\t %d\n", b[i],w[i],ta[i]);
}
Print(" AVg Waiting Time is: %d\n", avg_w);
Print("AVg TurnAround Time is: %d", avg_ta);
}
```

Input:

Enter the no.of processes: 3
Enter arrival time for all processes: 0 0 0
Enter burst times for the processes: 5 3 8

Output:

| Process | Arrival Time | Burst Time | Waiting Time | Turn Around Time |
|---|---|---|---|---|
| 0 | 0 | 5 | 0 | 5 |
| 1 | 0 | 3 | 5 | 8 |
| 2 | 0 | 8 | 8 | 16 |

The average Waiting Time is: 4.33
The average Turnaround Time is: 9.67

**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

**Result:**

Hence C program for FCFS Scheduling has been executed and compiled successfully.