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:

```c
# include < stdio.h>
int avg (int a[], int n)
{
    int s = 0;
    for (int i = 0; i < n; i++)
        s += a[i];
    return s/n;
}
int main ()
{
    int n;
    scanf ("%d", &n);
    int bt [n], at [n], ct [n], tat [n], wt [n], sum = 0;
    for (int i = 0; i < n; i++)
        scanf ("%d", & bt [i]);
    for (int i = 0; i < n; i++)
        scanf ("%d", & at [i]);
    ct [0] = at [0] + bt [0];
    for (int i = 1; i < n; i++)
        ct [i] = ct [i-1] + bt [i];
    for (int i = 0; i < n; i++) {
        tat [i] = ct [i] + at [i];
        wt [i] = tat [i] - bt [i];
    }
```

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```c
printf("\n Process : burst time : Arrival Time : Completion Time:
        Turn Around Time : Wait Time \n");
for (int i = 0; i < n; i++)
    printf(" p%-9d %-15d %-15d %-15d %-15d\n",
           i+1, bt[i], at[i], ct[i], tat[i], wt[i]);
    printf(" Avg Turn Around Time : %d\n Avg Average Wait Time:
           %d\n" avg(tat, n), avg(wt, n)));

}
```

Output:-

No of Process:
3
Burst Time of Process:
5 3 4
Arrival Time of Process:
2 0 4

Process	Burst Time	Arrival Time	Completion Time	Turn Around Time	Wait Time
P1	5	2	7	5	0
P2	3	0	10	10	7
P3	4	4	14	10	6

Avg Turn Around Time : 8

Avg Wait Time : 4

No of Process :
3
Burst Time of Process:
24 3 3
Arrival Time of Process:
0 0 0

Process	Burst Time	Arrival Time	Completion Time	Turn Around Time	Wait Time
P1	24	0	24	24	0
P2	3	0	27	27	24
P3	3	0	30	30	27

Avg Turn Around Time: 27
Avg Wait Time : 17

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 The FCFS Scheduling is Implemented and Executed