

C Program to Implement FCFS:

```
#include<stdio.h>
```

```
int main(){
```

```
    int bt[10]={0},at[10]={0},tat[10]={0},wt[10]={0},ct[10]={0};
```

```
    int n,sum=0;
```

```
    float totalTAT=0,totalWT=0;
```

```
    printf("Enter number of processes:");
```

```
    scanf("%d",&n);
```

```
    printf("Enter arrival time and burst time for each process:\n\n");
```

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

```
    {
```

```
        printf("Arrival time of process[%d]    ",i+1);
```

```
        scanf("%d",&at[i]);
```

```
        printf("Burst time of process[%d]    ",i+1);
```

```
        scanf("%d",&bt[i]);
```

```
        printf("\n");
```

```
    }
```

```
    for(int j=0;j<n;j++)                //calculate completion time of processes
```

```
    {
```

```
        sum+=bt[j];
```

```
        ct[j]+=sum;
```

```
    }
```

```
    for(int k=0;k<n;k++)                //calculate turnaround time and waiting times
```

```
    {
```

```

        tat[k]=ct[k]-at[k];

        totalTAT+=tat[k];

    }

    for(int k=0;k<n;k++)

    {

        wt[k]=tat[k]-bt[k];

        totalWT+=wt[k];

    }

    printf("\n\n");

    printf("P\tAT\tBT\tCT\tTat\tWT\n\n");

    for(int i=0;i<n;i++)

    {

        printf("P%d\t%d\t%d\t%d\t%d\t%d\n",i+1,at[i],bt[i],ct[i],tat[i],wt[i]);

    }

    printf("\n\n Average Turnaround Time = %f\n", totalTAT/n);

    printf("Average WT = %f\n\n", totalWT/n);

    return 0;

}

```

Output:

```

Enter number of processes: 3
Enter arrival time and burst time for each process: 2 6
5 3
1 8
0 3
4 4

```

```

Arrival time of process[1]    Burst time of process[1]
Arrival time of process[2]    Burst time of process[2]

```

Arrival time of process[3] Burst time of process[3]
Arrival time of process[4] Burst time of process[4]
Arrival time of process[5] Burst time of process[5]

| P | AT | BT | CT | Tat | WT |
|----|----|----|----|-----|----|
| P1 | 2 | 6 | 6 | 4 | 0 |
| P2 | 5 | 3 | 9 | 4 | 1 |
| P3 | 1 | 8 | 17 | 16 | 8 |
| P4 | 0 | 3 | 20 | 20 | 17 |
| P5 | 4 | 4 | 24 | 20 | 16 |

Average Turnaround Time = 12.800000

Average WT = 8.000000