

(globals)

Project C ROUNDROBIN.C

```
1 #include<stdio.h>
2 #include<conio.h>
3 int main()
4 {
5     int i, NOP, sum=0, count=0, y, quant, wt=0, tat=0, at[10], bt[10], temp[10];
6     float avg_wt, avg_tat;
7     printf("Total number of process in the system: ");
8     scanf("%d", &NOP);
9     y = NOP;
10    for(i=0; i<NOP; i++)
11    {
12        printf("Enter the Arrival and Burst time of the Process[%d]\n", i+1);
13        printf("Arrival time is: ");
14        scanf("%d", &at[i]);
15        printf("Burst time is: ");
16        scanf("%d", &bt[i]);
17        temp[i] = bt[i];
18    }
19    printf("Enter the Time Quantum for the process: ");
20    scanf("%d", &quant);
21    printf("Process No \t\tBurst Time \t\tTAT\t\tWaiting Time ");
22    for(sum=0, i = 0; y!=0; )
23    {
24        if(temp[i] <= quant && temp[i] > 0)
25        {
26            sum = sum + temp[i];
27            temp[i] = 0;
28            count=1;
29        }
30        else if(temp[i] > 0)
```

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31 {
32     temp[i] = temp[i] - quant;
33     sum = sum + quant;
34 }
35 if(temp[i]==0 && count==1)
36 {
37     y--;
38     printf("\nProcess No[%d] \t\t %d\t\t\t %d\t\t\t %d", i+1, bt[i], sum-at[i], sum-at[i]-bt[i]);
39     wt = wt+sum-at[i]-bt[i];
40     tat = tat+sum-at[i];
41     count =0;
42 }
43 if(i==NOP-1)
44 {
45     i=0;
46 }
47 else if(at[i+1]<=sum)
48 {
49     i++;
50 } |
51 else
52 {
53     i=0;
54 }
55 }
56 avg_wt = wt * 1.0/NOP;
57 avg_tat = tat * 1.0/NOP;
58 printf("\nAverage Turn Around Time: %f", avg_wt);
59 printf("\nAverage Waiting Time: %f", avg_tat);
60 return 0;
61 }
```

Total number of process in the system: 4

Enter the Arrival and Burst time of the Process[1]

Arrival time is: 0

Burst time is: 23

Enter the Arrival and Burst time of the Process[2]

Arrival time is: 8

Burst time is: 31

Enter the Arrival and Burst time of the Process[3]

Arrival time is: 22

Burst time is: 16

Enter the Arrival and Burst time of the Process[4]

Arrival time is: 18

Burst time is: 19

Enter the Time Quantum for the process: 6

Process No	Burst Time	TAT	Waiting Time
Process No[1]	23	47	24
Process No[3]	16	53	37
Process No[4]	19	70	51
Process No[2]	31	81	50

Average Turn Around Time: 40.500000

Average Waiting Time: 62.750000

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Process exited after 30.07 seconds with return value 0

Press any key to continue . . .