

```

#include<stdio.h>
void main()
{
int at[10],bt[10],rt[10],ct=0,i,quantum,counter,n;
float sum_wait,sum_turnaround;
printf("\n Enter the number of processes=");
scanf("%d",&n);
counter=n;
    for(i=0;i<n;i++)
    {
        printf("Enter the arrival time for P%d=",i+1);
        scanf("%d",&at[i]);
        printf("Enter the burst time for P%d=",i+1);
        scanf("%d",&bt[i]);
        rt[i]=bt[i];
    }
printf("\nEnter the time quantum=");
scanf("%d",&quantum);
printf("Given snapshot of execution is");
printf("\nProcess|Arrival|Burst");
for(i=0;i<n;i++)
{
printf("\nP[%d]|\t %d|\t %d",i+1,at[i],bt[i]);
}
printf("\n\nProcess|Burst|TA Time|Wait_Time");
    for(ct=0,i=0;counter!=0;)
    {
        if(rt[i]<=quantum && rt[i]>0)
        {
            ct=ct+rt[i];
            rt[i]=0;
            counter--;
printf("\nP[%d]|\t %d|\t %d|\t %d",i+1,bt[i],ct-at[i],ct-at[i]-bt[i]);
            sum_wait=sum_wait+ct-at[i]-bt[i];
            sum_turnaround=sum_turnaround+ct-at[i];
        }

        else if(rt[i]>0)
        {
            rt[i]=rt[i]-quantum;
            ct=ct+quantum;
        }

        if(i==n-1)
        {
            i=0;
        }

        else if(at[i+1]<=ct)
        {

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i++;
}
else
{
i=0;
}
}
printf("\naverage waiting time is %f",sum_wait/n);
printf("\naverage Turnaround time is %f",sum_turnaround/n);

}

```

OUTPUT:-

```

Enter the number of processes=5
Enter the arrival time for P1=0
Enter the burst time for P1=8
Enter the arrival time for P2=5
Enter the burst time for P2=2
Enter the arrival time for P3=1
Enter the burst time for P3=7
Enter the arrival time for P4=6
Enter the burst time for P4=3
Enter the arrival time for P5=8
Enter the burst time for P5=5

```

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Enter the time quantum=2
Given snapshot of execution is
Process|Arrival|Burst

```

```

P[1]| 0| 8
P[2]| 5| 2
P[3]| 1| 7
P[4]| 6| 3
P[5]| 8| 5

```

```

Process|Burst|TA Time|Wait_Time

```

```

P[2]| 2| 3| 1
P[1]| 8| 16| 8
P[4]| 3| 13| 10
P[5]| 5| 16| 11
P[3]| 7| 24| 17

```

```

average waiting time is 9.400000
average Turnaround time is 14.400000

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...Program finished with exit code 0
Press ENTER to exit console.

```