#include<stdio.h>

int main()

{

int cnt,j,n,t,remain,flag=0,tq;

int wt=0,tat=0,at[10],bt[10],rt[10];

printf("Enter Total Process:\t ");

scanf("%d",&n);

remain=n;

for(cnt=0;cnt<n;cnt++)

{

printf("Enter Arrival Time and Burst Time for Process Process Number %d :",cnt+1);

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

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

rt[cnt]=bt[cnt];

}

printf("Enter Time Quantum:\t");

scanf("%d",&tq);

printf("\n\nProcess\t|Turnaround Time|Waiting Time\n\n");

for(t=0,cnt=0;remain!=0;)

{

if(rt[cnt]<=tq && rt[cnt]>0)

{

t+=rt[cnt];

rt[cnt]=0;

flag=1;

}

else if(rt[cnt]>0)

{

rt[cnt]-=tq;

t+=tq;

}

if(rt[cnt]==0 && flag==1)

{

remain--;

printf("P[%d]\t|\t%d\t|\t%d\n",cnt+1,t-at[cnt],t-at[cnt]-bt[cnt]);

wt+=t-at[cnt]-bt[cnt];

tat+=t-at[cnt];

flag=0;

}

if(cnt==n-1)

cnt=0;

else if(at[cnt+1]<=t)

cnt++;

else

cnt=0;

}

printf("\nAverage Waiting Time= %f\n",wt\*1.0/n);

printf("Avg Turnaround Time = %f",tat\*1.0/n);

return 0;

}

OUTPUT:

Enter Total Process: 4

Enter Arrival Time and Burst Time for Process Process Number 1 :12

34

Enter Arrival Time and Burst Time for Process Process Number 2 :6

76

Enter Arrival Time and Burst Time for Process Process Number 3 :45

34

Enter Arrival Time and Burst Time for Process Process Number 4 :78

9

Enter Time Quantum: 12

Process |Turnaround Time|Waiting Time

P[1] | 58 | 24

P[4] | 25 | 16

P[3] | 80 | 46

P[2] | 147 | 71

Average Waiting Time= 39.250000

Avg Turnaround Time = 77.500000

--------------------------------

Process exited after 14.17 seconds with return value 0