#include<stdio.h>

int main()

{

//Input no of processed

int n,i;

int total = 0, counter = 0;

int time\_slot;

printf("Enter Total Number of Processes:");

scanf("%d", &n);

int wait\_time = 0, ta\_time = 0, arr\_time[n], burst\_time[n], temp\_burst\_time[n];

int x = n;

//Input details of processes

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

{

printf("Enter Details of Process %d \n", i + 1);

printf("Arrival Time: ");

scanf("%d", &arr\_time[i]);

printf("Burst Time: ");

scanf("%d", &burst\_time[i]);

temp\_burst\_time[i] = burst\_time[i];

}

//Input time slot

printf("Enter Time Slot:");

scanf("%d", &time\_slot);

printf("Process ID Burst Time Turnaround Time Waiting Time\n");

total=0;

i=0;

while(x!=0)

{

// define the conditions

if(temp\_burst\_time[i] <= time\_slot && temp\_burst\_time[i] > 0)

{

total = total + temp\_burst\_time[i];

temp\_burst\_time[i] = 0;

counter=1;

}

else if(temp\_burst\_time[i] > 0)

{

temp\_burst\_time[i] = temp\_burst\_time[i] - time\_slot;

total += time\_slot;

}

if(temp\_burst\_time[i]==0 && counter==1)

{

x--; //decrement the process no.

printf("\nProcess No %d \t\t %d\t\t\t\t %d\t\t\t %d", i+1, burst\_time[i],

total-arr\_time[i], total-arr\_time[i]-burst\_time[i]);

wait\_time = wait\_time+total-arr\_time[i]-burst\_time[i];

ta\_time += total -arr\_time[i];

counter =0;

}

if(i==n-1)

{

i=0;

}

else if(arr\_time[i+1]<=total)

{

i++;

}

else

{

i=0;

}

}

float average\_wait\_time = wait\_time \* 1.0 / n;

float average\_turnaround\_time = ta\_time \* 1.0 / n;

printf("\nAverage Waiting Time:%f", average\_wait\_time);

printf("\nAvg Turnaround Time:%f", average\_turnaround\_time);

return 0;

}