package pakage;

import java.util.\*;

public class Priority {

public static void main(String args[]) {

Scanner s = new Scanner(System.in);

int x,n,p[],pp[],bt[],w[],t[],awt,atat,i;

p = new int[10];

pp = new int[10];

bt = new int[10];

w = new int[10];

t = new int[10];

//n is number of process

//p is process

//pp is process priority

//bt is process burst time

//w is wait time

// t is turnaround time

//awt is average waiting time

//atat is average turnaround time

System.out.print("Enter the number of process : ");

n = s.nextInt();

System.out.print("\n\t Enter burst time : time priorities \n");

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

{

System.out.print("\nProcess["+(i+1)+"]:");

bt[i] = s.nextInt();

pp[i] = s.nextInt();

p[i]=i+1;

}

//sorting on the basis of priority

for(i=0;i<n-1;i++) {

for(int j=i+1;j<n;j++) {

if(pp[i]>pp[j]) {

x=pp[i];

pp[i]=pp[j];

pp[j]=x;

x=bt[i];

bt[i]=bt[j];

bt[j]=x;

x=p[i];

p[i]=p[j];

p[j]=x;

}

}

}

w[0]=0;

awt=0;

t[0]=bt[0];

atat=t[0];

for(i=1;i<n;i++) {

w[i]=t[i-1];

awt+=w[i];

t[i]=w[i]+bt[i];

atat+=t[i];

}

//Displaying the process

System.out.print("\n\nProcess \t Burst Time \t Wait Time \t Turn Around Time Priority \n");

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

System.out.print("\n "+p[i]+"\t\t "+bt[i]+"\t\t "+w[i]+"\t\t "+t[i]+"\t\t "+pp[i]+"\n");

awt/=n;

atat/=n;

System.out.print("\n Average Wait Time : "+awt);

System.out.print("\n Average Turn Around Time : "+atat);

}

}