Implement a list scheduling algorithm,assign priority to the process and simulate the working using c++

1- First input the processes with their burst time

and priority.

2- Sort the processes, burst time and priority

according to the priority.

#include <iostream>

using namespace std;

int main()

{

int bt[20],p[20],wt[20],tat[20],pr[20],i,j,n,total=0,pos,temp,avg\_wt,avg\_tat;

cout<<"Enter total number of process:";

cin>>n;

cout<<"\n Enter burst time and priority\n";

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

{

cout<<"\nP["<<i+1<<"]\n";

cout<<"burst time:";

cin>>bt[i];

cout<<"priority:";

cin>>pr[i];

p[i]=i+1;

}

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

{

pos=i;

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

{

if(pr[j]<pr[pos])

pos=j;

}

temp=pr[i];

pr[i]=pr[pos];

pr[pos]=temp;

temp=bt[pos];

bt[i]=bt[pos];

bt[pos]=temp;

temp=p[i];

p[i]=p[pos];

p[pos]=temp;

}

wt[0]=0;

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

{

wt[i]=0;

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

wt[i]+=bt[j];

total+=wt[i];

}

avg\_wt=total/n;

total=0;

cout<<"\nProcess\t burst time \t waiting time\tTurnaround time";

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

{

tat[i]=bt[i]+wt[i];

total+=tat[i];

cout<<"\nP["<<p[i]<<"]\t\t "<<bt[i]<<"\t\t "<<wt[i]<<"\t\t\t"<<tat[i];

}

avg\_tat=total/n;

cout<<"\n\nAverage waiting time="<<avg\_wt;

cout<<"\nAverage turnaround time="<<avg\_tat;

return 0;

}

Output:

