**PRACTICAL-9**

**AIM: WRITE A PROGRAM TO IMPLEMENT NON-PREEMPTIVE PRIORITY BASED SCHEDULING ALGORITHM.**

**SOL:**

**#include<stdio.h>**

**int main()**

**{**

**int bt[20],p[20],wt[20],tat[20],pr[20],i,j,n,total=0,pos,temp;**

**float avg\_wt,avg\_tat;**

**printf("\nEnter Total Number of Process: ");**

**scanf("%d",&n);**

**printf("\nEnter Burst Time and Priority:\n");**

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

**{**

**printf("\nProcess %d -> ",i+1);**

**printf("Burst Time: ");**

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

**printf("\t Priority: ");**

**scanf("%d",&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[i];**

**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=(float)total/n;**

**total=0;**

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

**{**

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

**total+=tat[i];**

**printf("\nProcess %d: \t Burst Time=%d \tWaiting Time=%d\tTurn Around Time=%d",p[i],bt[i],wt[i],tat[i]);**

**}**

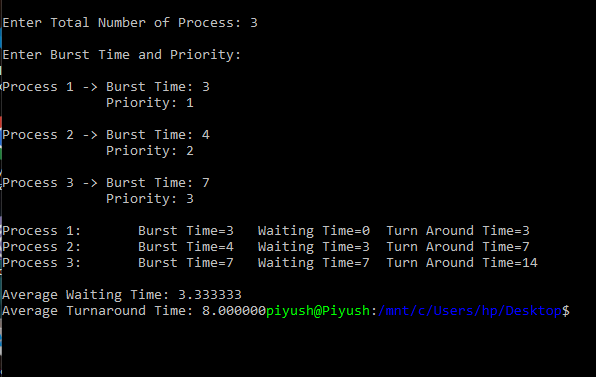
**avg\_tat=(float)total/n;**

**printf("\n\nAverage Waiting Time: %f",avg\_wt);**

**printf("\nAverage Turnaround Time: %f",avg\_tat);**

**}**

**OUTPUT:**

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