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| --- |
| /\* PRIORITY(premtive)\*/ |
|  | #include<iostream> |
|  | # define max 30 |
|  | using namespace std; |
|  | int main() |
|  | { |
|  | int n,i,j,k=1,t,b=0,min,temp[max],bt[max],wt[max],at[max],pr[max],tat[max]; |
|  | float awt=0, atat=0; |
|  | cout<<"Enter the number of process:- "<<endl; |
|  | cin>>n; |
|  | cout<<"Enter the burst time, arrival time & priority of the process\n"; |
|  | for(int i=0;i<n;i++) |
|  | { |
|  | cin>>bt[i]>>at[i]>>pr[i]; |
|  | } |
|  | for(int i=0; i<n; i++) |
|  | { |
|  | for(int j=0;i<n; ++j) |
|  | { |
|  | if(at[i]<at[j]) |
|  | { |
|  | t=at[j]; |
|  | at[j]=at[i]; |
|  | at[i]=t; |
|  |  |
|  | t=bt[j]; |
|  | bt[j]=bt[i]; |
|  | bt[i]=t; |
|  | } |
|  | } |
|  | } |
|  | for(int j=0;i<n;i++) |
|  | { |
|  | b=b+bt[j]; |
|  | min=bt[k]; |
|  | for(int i=k;i<n;i++) |
|  | { |
|  | min= pr[k]; |
|  | if(b>=at[i]) |
|  | { |
|  | if(pr[i]<min) |
|  | { |
|  | t=at[k]; |
|  | at[k]=at[i]; |
|  | at[i]=t; |
|  |  |
|  | t= bt[k]; |
|  | bt[k]= bt[i]; |
|  | bt[i]=t; |
|  |  |
|  | t=pr[k]; |
|  | pr[k]=pr[i]; |
|  | pr[i]=t; |
|  | } |
|  | } |
|  | } |
|  | k++; |
|  | } |
|  | temp[0]=0; |
|  | cout<<"Process\t burst time\t arrival time\t priority\t waiting time\t turn around time\n"; |
|  | for(int i=0;i<n;i++) |
|  | { |
|  | wt[i]=0; |
|  | tat[i]=0; |
|  | temp[i+1]= temp[i]+bt[i]; |
|  | wt[i]= temp[i]+at[i]; |
|  | tat[i]=wt[i]+bt[i]; |
|  | awt=awt+wt[i]; |
|  | atat=atat+tat[i]; |
|  | cout<<"\t"<<i+1<<"\t\t"<<bt[i]<<"\t\t"<<at[i]<<"\t\t"<<pr[i]<<"\t\t"<<wt[i]<<"\t\t"<<tat[i]<<endl; |
|  |  |
|  | } |
|  | awt=awt/n; |
|  | atat=atat/n; |
|  | cout<<"Average waiting time= "<<awt<<endl; |
|  | cout<<"Average turn around time= "<<atat<<endl; |
|  | return 0; |
|  | } |