**Week 3 OS LAB**

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**Q. Priority Scheduling using C language (non-preemptive)**

**INPUT :**

#include <stdio.h>

struct process{

int burst;

int arr\_time;

int waiting\_time;

int priority;

int turn\_time;

};

typedef struct process proc;

void priority(proc processes[],int n){

int comp\_time=0;

float avg\_tat=0;

float avg\_wait=0;

proc temp;

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

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

if(processes[j+1].priority<processes[j].priority){

temp=processes[j];

processes[j]=processes[j+1];

processes[j+1]=temp;

}

}

}

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

comp\_time+=processes[i].burst;

processes[i].turn\_time=comp\_time-processes[i].arr\_time;

avg\_tat+=processes[i].turn\_time;

}

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

processes[i].waiting\_time=processes[i].turn\_time-processes[i].burst;

avg\_wait+=processes[i].waiting\_time;

}

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

printf("\nburst, arrival time for process:%d\t",i+1);

printf("%d\t",processes[i].burst);

printf("%d\t",processes[i].arr\_time);

printf("%d\t",processes[i].turn\_time);

printf("%d\n",processes[i].waiting\_time);

}

printf("average waiting time: %f\n",avg\_wait/n);

printf("average turn around time: %f\n",avg\_tat/n);

}

int main(){

int n;

printf("enter the number of processes:\t");

scanf("%d",&n);

proc processes[n];

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

printf("enter the burst, arrival time, priority for process:%d\n",i+1);

scanf("%d",&processes[i].burst);

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

scanf("%d",&processes[i].priority);

}

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

printf("burst, arrival time for process:%d\t",i+1);

printf("%d\t",processes[i].burst);

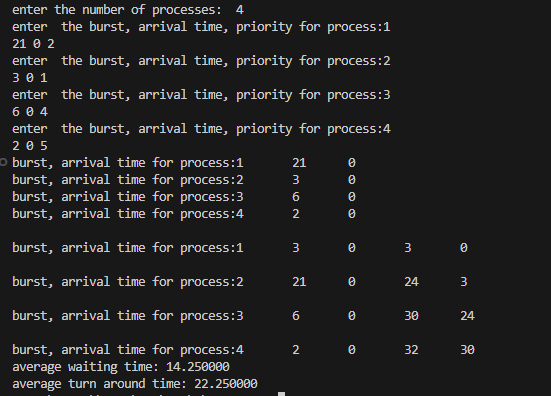
printf("%d\n",processes[i].arr\_time);

}

priority(processes,n);

}

**Output :**

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