# OS ASSIGNMENT

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DATE – 01/12/22

#include<stdio.h>

int main() {

printf("Enter number of processes: ");

int n;

scanf("%d", &n);

int BT[n],AT[n];

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

printf("Enter arrival time of process p%d : ",i);

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

}

int temp;

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

{

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

{

if(AT[i]>AT[i+1])

{

temp=AT[i];

AT[i]=AT[i+1];

AT[i+1]=temp;

}

}

}

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

printf("Enter burst time of process p%d : ",i);

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

}

int CT[n];

int a = 0;

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

CT[i] = CT[i] + a;

a = CT[i];

}

int TAT[n];

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

TAT[i] = CT[i] - AT[i];

}

int WT[n];

WT[0] = 0;

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

WT[i] = TAT[i] - BT[i] ;

}

int total\_wt=0;

int total\_tat=0;

printf("Pid\tAT\tBT\tCT\tWT\tTAT\n");

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

{

total\_wt = total\_wt + WT[i];

total\_tat = total\_tat + TAT[i];

printf("p%d\t%d\t%d\t%d\t%d\t%d\n",(i),AT[i],BT[i],CT[i],WT[i],TAT[i]);

}

float s = total\_wt / n;

float t = total\_tat / n;

printf("Average waiting time = %.2f",s);

printf("\n");

printf("Average turn around time=%.2f",t);

}

