**FCFS SCHEDULING PROGRAM**

ALGORITHM :

1. Input the processes along with their burst time (BT) and arrival time (AT).
2. Find the completion time (CT) for all processes
3. For first process the completion time would be

CT[0]=BT[0]+AT[0]

1. Now find the completion time for given process i

CT[i]=CT[i-1]+BT[i];

1. Find turnaround time (TAT) for all processes
2. For first process the turn around time would be

TAT[0]=BT[0];

1. Then find the turn around time for a given process i.

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

1. Find waiting time (WT) for all processes
2. As first process that comes need not to wait so waiting time for process 1 will be 0 i.e

WT[0]=0

1. Find the waiting time for all other processes i.e for process i

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

1. Then find average waiting time (a\_WT)

A\_WT=Total waiting time/no. of processes

1. Find average turn around time(a\_TAT)

A\_TAT=Total turn around time/no. of processes

PROGRAM :

#include<iostream>

using namespace std;

int main()

{

float n,P[100],AT[100],BT[100],WT[100],CT[100],TAT[100],a\_WT=0,a\_TAT=0;

int i;

cout<<"\*\*\*\*\*\*FCFS SCHEDULING\*\*\*\*\*\*";

cout<<endl<<"Enter the number of processes";

cin>>n;

cout<<endl<<"Enter the arrival time and burst time of each processes"<<endl;

cout<<"\tA\_Time\tB\_Time"<<endl;

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

{ cout<<"P["<<i+1<<"]:";

cin>>AT[i]>>BT[i];

cout<<endl;

}

WT[0]=0;

CT[0]=BT[0]+AT[0];

TAT[0]=BT[0];

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

{

CT[i]=CT[i-1]+BT[i];

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

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

}

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

{

a\_WT=a\_WT+WT[i];

a\_TAT=a\_TAT+TAT[i];

}

cout<<"\tArrival Time\tBurst Time\tCompletion Time\tTurnaround Time\tWaiting Time";

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

{

cout<<endl<<"P["<<i+1<<"]\t\t"<<AT[i]<<"\t\t"<<BT[i]<<"\t\t"<<CT[i]<<"\t\t"<<TAT[i]<<"\t\t"<<WT[i]<<endl;

}

cout<<"\nAverage Waiting Time :"<<a\_WT/n;

cout<<"\nAverage Turn Around Time :"<<a\_TAT/n;

}

OUTPUT :

