

**PROGRAM :**

#include <iostream>

using namespace std;

int main() {

int n, burst\_time[10], arrival\_time[10], waiting\_time[10], turnaround\_time[10], completion\_time[10];

float avg\_waiting\_time = 0, avg\_turnaround\_time = 0;

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

cin >> n;

cout << "Enter burst time and arrival time for each process:\n";

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

cout << "Burst Time for process " << i + 1 << ": ";

cin >> burst\_time[i];

cout << "Arrival Time for process " << i + 1 << ": ";

cin >> arrival\_time[i];

}

completion\_time[0] = burst\_time[0] + arrival\_time[0];

waiting\_time[0] = 0;

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

completion\_time[i] = (completion\_time[i - 1] > arrival\_time[i]) ? completion\_time[i - 1] + burst\_time[i] : arrival\_time[i] + burst\_time[i];

waiting\_time[i] = (completion\_time[i - 1] > arrival\_time[i]) ? completion\_time[i - 1] - arrival\_time[i] : 0;

}

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

turnaround\_time[i] = waiting\_time[i] + burst\_time[i];

avg\_waiting\_time += waiting\_time[i];

avg\_turnaround\_time += turnaround\_time[i];

}

avg\_waiting\_time /= n;

avg\_turnaround\_time /= n;

cout << "\nProcess Burst Time Arrival Time Waiting Time Turnaround Time Completion Time\n";

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

cout << "P" << i + 1 << "\t" << burst\_time[i] << "\t" << arrival\_time[i] << "\t" << waiting\_time[i] << "\t" << turnaround\_time[i] << "\t" << completion\_time[i] << endl;

}

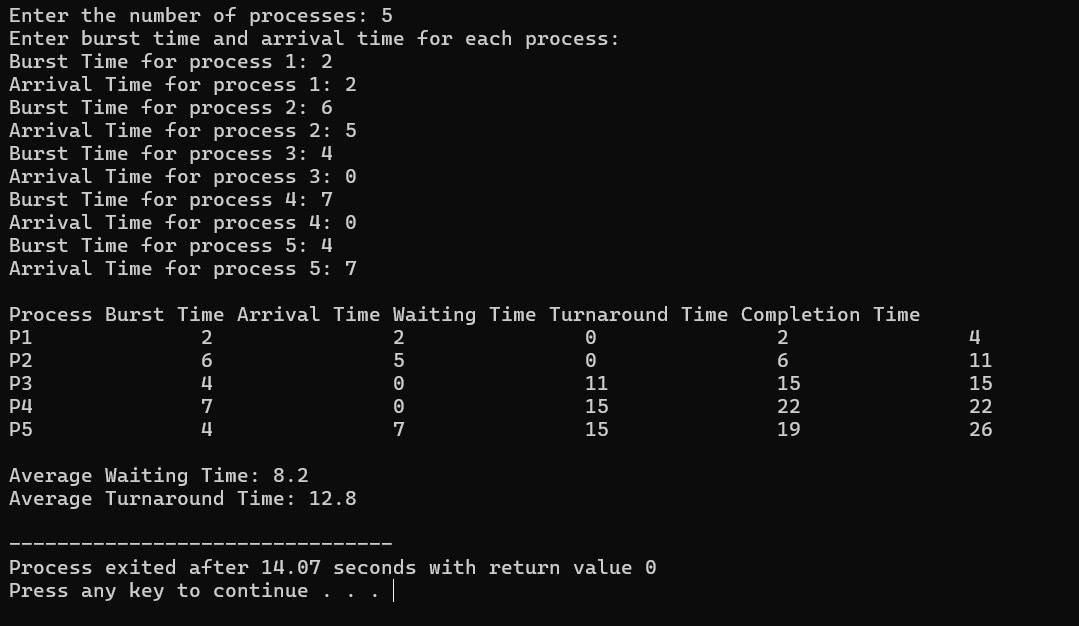
cout << "\nAverage Waiting Time: " << avg\_waiting\_time;

cout << "\nAverage Turnaround Time: " << avg\_turnaround\_time << endl;

return 0;

}

**OUTPUT :**

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