Q-Write a program to implement First Come First Serve (FCFS) job scheduling algorithm.

```
#include <iostream>
#include <vector>

using namespace std;

struct Process {
int id, arrival_time, burst_time, completion_time, turnaround_time, waiting_time;
};

void fcfs(vector<Process> processes, int n) {
int time = 0, count = 0;
vector<int> completion_time(n), turnaround_time(n), waiting_time(n);

while (count < n) {
if (processes[count].arrival_time == time) {
time += processes[count].burst_time;
          completion_time[count] = time;
count++;
      } else {
time++;
      }
   }

time = 0;
for (int i = 0; i < n; i++) {
      turnaround_time[i] = completion_time[i] - processes[i].arrival_time;
      waiting_time[i] = turnaround_time[i] - processes[i].burst_time;
time += processes[i].burst_time;
   }

cout<< "Process\tArrival Time\tBurst Time\tCompletion Time\tTurnaround Time\tWaiting Time" << endl;
for (int i = 0; i < n; i++) {
cout<< i + 1 << "\t\t" << processes[i].arrival_time << "\t\t" << processes[i].burst_time << "\t\t" << processes[i].completion_time << "\t\t" << processes[i].turnaround_time << "\t\t" << processes[i].waiting_time << endl;
   }
```

```
float avg_waiting_time = 0, avg_turnaround_time = 0;
for (int i = 0; i < n; i++) {
        avg_waiting_time += waiting_time[i];
        avg_turnaround_time += turnaround_time[i];
    }

cout<< "Average Waiting Time: " << avg_waiting_time / n << endl;
cout<< "Average Turnaround Time: " << avg_turnaround_time / n << endl;
}

int main() {
int n;
cout<< "Enter the number of processes: ";
cin>> n;

vector<Process> processes(n);
for (int i = 0; i < n; i++) {
cout<< "Enter details for process " << i + 1 << endl;
cout<< "Arrival time: ";
cin>> processes[i].arrival_time;
cout<< "Burst time: ";
cin>> processes[i].burst_time;
processes[i].id = i + 1;
processes[i].completion_time = 0;
processes[i].turnaround_time = 0;
processes[i].waiting_time = 0;
    }

fcfs(processes, n);

return 0;
}
```