16. Write a program to compute the average waiting time and average turnaround time based on First Come First Serve for the following process with the given CPU burst times, (and the assumption that all jobs arrive at the same time.)

Process Burst Time

P1 10

P2 15

P3 25

#include<stdio.h>

int main() {

int n = 3; // Number of processes

int burst\_time[] = {10, 15, 25}; // Burst time of processes

int waiting\_time[n], turnaround\_time[n];

int total\_waiting\_time = 0, total\_turnaround\_time = 0;

// Calculate waiting time and turnaround time for each process

waiting\_time[0] = 0;

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

waiting\_time[i] = waiting\_time[i-1] + burst\_time[i-1];

}

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

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

}

// Calculate total waiting time and total turnaround time

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

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

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

}

// Calculate average waiting time and average turnaround time

float avg\_waiting\_time = (float) total\_waiting\_time / n;

float avg\_turnaround\_time = (float) total\_turnaround\_time / n;

// Print results

printf("Process\tBurst Time\tWaiting Time\tTurnaround Time\n");

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

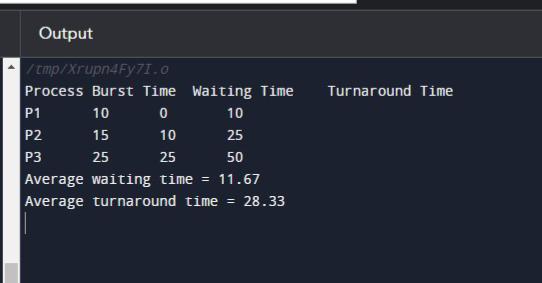
printf("P%d\t\t%d\t\t%d\t\t%d\n", i+1, burst\_time[i], waiting\_time[i], turnaround\_time[i]);

}

printf("Average waiting time = %.2f\n", avg\_waiting\_time);

printf("Average turnaround time = %.2f\n", avg\_turnaround\_time);

return 0;

}