#include <stdio.h>

// Function to find the waiting time for all processes

int waitingtime(int proc[], int n,

int burst\_time[], int wait\_time[]) {

// waiting time for first process is 0

wait\_time[0] = 0;

// calculating waiting time

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

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

return 0;

}

// Function to calculate turn around time

int turnaroundtime( int proc[], int n,

int burst\_time[], int wait\_time[], int tat[]) {

// calculating turnaround time by adding

// burst\_time[i] + wait\_time[i]

int i;

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

tat[i] = burst\_time[i] + wait\_time[i];

return 0;

}

//Function to calculate average time

int avgtime( int proc[], int n, int burst\_time[]) {

int wait\_time[n], tat[n], total\_wt = 0, total\_tat = 0;

int i;

//Function to find waiting time of all processes

waitingtime(proc, n, burst\_time, wait\_time);

//Function to find turn around time for all processes

turnaroundtime(proc, n, burst\_time, wait\_time, tat);

//Display processes along with all details

printf("Processes Burst Waiting Turn around \n");

// Calculate total waiting time and total turn

// around time

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

total\_wt = total\_wt + wait\_time[i];

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

printf(" %d\t %d\t\t %d \t%d\n", i+1, burst\_time[i], wait\_time[i], tat[i]);

}

printf("Average waiting time = %f\n", (float)total\_wt / (float)n);

printf("Average turn around time = %f\n", (float)total\_tat / (float)n);

return 0;

}

// main function

int main() {

//process id's

int proc[] = { 1, 2, 3};

int n = sizeof proc / sizeof proc[0];

//Burst time of all processes

int burst\_time[] = {5, 8, 12};

avgtime(proc, n, burst\_time);

return 0;

}