#include <stdio.h>

int main() {

int n, i, j;

printf("Enter the number of processes: ");

scanf("%d", &n);

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

float total\_waiting = 0, total\_turnaround = 0;

printf("Enter burst times for each process:\n");

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

pid[i] = i + 1; // Process IDs

printf("P%d: ", pid[i]);

scanf("%d", &burst\_time[i]);

}

for (i = 0; i < n - 1; i++) {

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

if (burst\_time[i] > burst\_time[j]) {

int temp = burst\_time[i];

burst\_time[i] = burst\_time[j];

burst\_time[j] = temp;

temp = pid[i];

pid[i] = pid[j];

pid[j] = temp;

}

}

}

waiting\_time[0] = 0;

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

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

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

}

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

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

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

}

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

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

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

}

printf("\nAverage Waiting Time: %.2f\n", total\_waiting / n);

printf("Average Turnaround Time: %.2f\n", total\_turnaround / n);

return 0;

}

