#include <stdio.h>

#include <stdlib.h>

struct Process

{

int id;

int burstTime;

int startTime;

int endTime;

};

void nonPreemptiveSJF(struct Process \*processes, int n) {

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

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

if (processes[j].burstTime > processes[j + 1].burstTime) {

struct Process temp = processes[j];

processes[j] = processes[j + 1];

processes[j + 1] = temp;

}

}

}

int currentTime = 0;

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

processes[i].startTime = currentTime;

printf("Time %d: Executing Process %d (Burst Time %d)\n", currentTime, processes[i].id, processes[i].burstTime);

processes[i].endTime = currentTime + processes[i].burstTime;

currentTime = processes[i].endTime;

printf("Process %d completed at Time %d\n", processes[i].id, processes[i].endTime);

}

}

int main() {

int n;

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

scanf("%d", &n);

struct Process \*processes = (struct Process \*)malloc(n \* sizeof(struct Process));

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

processes[i].id = i + 1;

printf("Enter burst time for Process %d: ", i + 1);

scanf("%d", &processes[i].burstTime);

}

nonPreemptiveSJF(processes, n);

free(processes);

return 0;

}