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1  #include<stdio.h>
2  struct priority_scheduling { char process_name;
3  int burst_time; int waiting_time;
4  int turn_around_time; int priority;
5  };
6  int main() {
7  int number_of_process; int total = 0;
8  struct priority_scheduling temp_process; int ASCII_number = 65;
9  int position;
10 float average_waiting_time; float average_turnaround_time;
11 printf("Enter the total number of Processes: "); scanf("%d", &
    number_of_process);
12 struct priority_scheduling process[number_of_process]; printf("\nPlease
    Enter the Burst Time and Priority of each process:\n"); for (int i =
    0; i < number_of_process; i++) {
13 process[i].process_name = (char) ASCII_number;
14 printf("\nEnter the details of the process %c \n", process[i]
    .process_name);
15 printf("Enter the burst time: "); scanf("%d", & process[i].burst_time);
    printf("Enter the priority: "); scanf("%d", & process[i].priority);
    ASCII_number++; }
16 for (int i = 0; i < number_of_process; i++) { position = i;
17 for (int j = i + 1; j < number_of_process; j++) {
18 if (process[j].priority > process[position].priority) position = j; }
19 temp_process = process[i]; process[i] = process[position];
    process[position] = temp_process; } process[0].waiting_time = 0;
20 for (int i = 1; i < number_of_process; i++) { process[i].waiting_time =
    0;
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21* for (int j = 0; j < i; j++) {
22     process[i].waiting_time += process[j].burst_time; } total += process[i]
        .waiting_time; }
23     average_waiting_time = (float) total / (float) number_of_process;
24     total = 0;
25     printf("\n\nProcess_name \t Burst Time \t Waiting Time \t Turnaround
        Time\n");
26* printf(" -----
        --\n"); for (int i = 0; i < number_of_process; i++) {
27     process[i].turn_around_time = process[i].burst_time + process[i]
        .waiting_time;
28     printf("\t %c \t\t\t\t %d \t\t\t\t %d \t\t\t\t %d", process[i]
        .process_name, process[i].burst_time, process[i].waiting_time,
        process[i].turn_around_time);
29     printf("\n-----
        ---- \n"); }
30     average_turnaround_time = (float) total / (float) number_of_process;
31     printf("\n\n Average Waiting Time : %f", average_waiting_time);
32     printf("\n Average Turnaround Time: %f\n", average_turnaround_time);
33     return 0;
34 }

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Enter the total number of Processes: 4

Please Enter the Burst Time and Priority of each process:

Enter the details of the process A

Enter the burst time: 3

Enter the priority: 2

Enter the details of the process B

Enter the burst time: 7

Enter the priority: 5

Enter the details of the process C

Enter the burst time: 6

Enter the priority: 3

Enter the details of the process D

Enter the burst time: 9

Enter the priority: 4

Process_name	Burst Time	Waiting Time	Turnaround Time
B	7	0	7
D	9	7	16
C	6	16	22
A	3	22	25

Average Waiting Time : 11.250000

Average Turnaround Time: 0.000000