



Run

Output

```

1 #include <stdio.h>
2 int main() {
3     int n, i, j;
4     printf("Enter the number of processes: ");
5     scanf("%d", &n);
6     int burst_time[n], priority[n], process[n], completion_time[n], turnaround_time[n], waiting_time[n];
7     printf("Enter Burst Times and Priorities for each process:\n");
8     for (i = 0; i < n; i++) {
9         printf("Process %d Burst Time: ", i + 1);
10        scanf("%d", &burst_time[i]);
11        printf("Process %d Priority: ", i + 1);
12        scanf("%d", &priority[i]);
13        process[i] = i + 1;
14    }
15    for (i = 0; i < n - 1; i++) {
16        for (j = 0; j < n - i - 1; j++) {
17            if (priority[j] > priority[j + 1]) {
18                int temp = priority[j];
19                priority[j] = priority[j + 1];
20                priority[j + 1] = temp;
21                temp = burst_time[j];
22                burst_time[j] = burst_time[j + 1];
23                burst_time[j + 1] = temp;
24                temp = process[j];
25                process[j] = process[j + 1];
26                process[j + 1] = temp;
27            }
28        }
29    }
30    completion_time[0] = burst_time[0];
31    for (i = 1; i < n; i++) {
32        completion_time[i] = completion_time[i - 1] + burst_time[i];
33    }
34    for (i = 0; i < n; i++) {
35        turnaround_time[i] = completion_time[i];
36        waiting_time[i] = turnaround_time[i] - burst_time[i];
37    }
38    printf("\nProcess\tPriority\tBurst Time\tCompletion Time\tTurnaround Time\tWaiting Time\n");
39    for (i = 0; i < n; i++) {
40        printf("%d\t%d\t%d\t\t%d\t\t%d\t\t%d\n", process[i], priority[i], burst_time[i],
41            completion_time[i], turnaround_time[i], waiting_time[i]);
42    }
43    return 0;
44 }

```

* Enter the number of processes: 2

Enter Burst Times and Priorities for each process:

Process 1 Burst Time: 5

Process 1 Priority: 2

Process 2 Burst Time: 3

Process 2 Priority: 1

Process	Priority	Burst Time	Completion Time	Turnaround Time	Waiting Time
P1	1	10	10	10	0
P2	2	5	15	15	0
P3	3	4	19	19	0
P4	4	3	22	22	0
P5	5	2	24	24	0

1 2 5 8 8 3

```
== Code Execution Successful ==
```

main.c



Run

Output

```

1 #include <stdio.h>
2 #define MAX 100
3 struct Process {
4     int pid;
5     int arrival_time;
6     int burst_time;
7     int priority;
8     int remaining_time;
9     int completion_time;
10    int turnaround_time;
11    int waiting_time;
12 };
13 int main() {
14     int n, time = 0, completed = 0;
15     printf("Enter the number of processes: ");
16     scanf("%d", &n);
17     struct Process p[MAX];
18     for (int i = 0; i < n; i++) {
19         p[i].pid = i + 1;
20         printf("\nProcess %d Arrival Time: ", i + 1);
21         scanf("%d", &p[i].arrival_time);
22         printf("Process %d Burst Time: ", i + 1);
23         scanf("%d", &p[i].burst_time);
24         printf("Process %d Priority: ", i + 1);
25         scanf("%d", &p[i].priority);
26         p[i].remaining_time = p[i].burst_time;
27     }
28     int min_priority_index;
29     while (completed != n) {
30         min_priority_index = -1;
31         for (int i = 0; i < n; i++) {
32             if (p[i].arrival_time <= time && p[i].remaining_time > 0) {
33                 if (min_priority_index == -1 || p[i].priority < p[min_priority_index].priority) {
34                     min_priority_index = i;
35                 }
36             }
37         }
38         if (min_priority_index == -1) {
39             time++;
40         } else {
41             p[min_priority_index].remaining_time--;
42             time++;
43             if (p[min_priority_index].remaining_time == 0) {
44                 completed++;
45                 p[min_priority_index].completion_time = time;
46                 p[min_priority_index].turnaround_time = p[min_priority_index].completion_time - p[min_priority_index].arrival_time;
47                 p[min_priority_index].waiting_time = p[min_priority_index].turnaround_time - p[min_priority_index].burst_time;
48             }
49         }
50     }
51     printf("\nProcess\tArrival Time\tBurst Time\tPriority\tCompletion Time\tTurnaround Time\tWaiting Time\n");
52     for (int i = 0; i < n; i++) {
53         printf("%d\t%d\t%d\t%d\t%d\t%d\t%d\n",
54             p[i].pid, p[i].arrival_time, p[i].burst_time, p[i].priority,
55             p[i].completion_time, p[i].turnaround_time, p[i].waiting_time);
56     }
57     return 0;
58 }

```

Enter the number of processes: 2

Process 1 Arrival Time: 5

Process 1 Burst Time: 3

Process 1 Priority: 2

Process 2 Arrival Time: 8

Process 2 Burst Time: 4

Process 2 Priority: 1

Process	Arrival time	Burst time	Priority	Completion time	turnaround time	Waiting time
1	5	3	2	8	3	0
2	8	4	1	12	4	0

--- Code Execution Successful ---