





```
Project Execute Tools AStyle Window Help
[?] Untitled1.cpp os 1st.cpp os 2nd.cpp os 3rd.cpp os 4th.cpp
1 #include <stdio.h>
2 int main()
3 {
4     int bt[20], p[20], wt[20], tat[20], n, total = 0, pos, temp;
5     float avg_wt = 0, avg_tat = 0;
6     printf("Enter number of processes:");
7     scanf("%d", &n);
8     printf("Enter Burst Time:\n");
9     for (int i = 0; i < n; i++) {
10         printf("p%d: ", i + 1);
11         scanf("%d", &bt[i]);
12         p[i] = i + 1;
13     }
14     for (int i = 0; i < n; i++) {
15         pos = 1;
16         for (int j = i + 1; j < n; j++) {
17             if (bt[j] < bt[pos])
18                 pos = j;
19         }
20         temp = bt[i]; bt[i] = bt[pos]; bt[pos] = temp;
21         temp = p[i]; p[i] = p[pos]; p[pos] = temp;
22     }
23     wt[0] = 0;
24     for (int i = 1; i < n; i++) {
25         wt[i] = 0;
26         for (int j = 0; j < i; j++)
27             wt[i] += bt[j];
28         total += wt[i];
29     }
30     printf("\nProcess\tBurst Time\tWaiting Time\tTurnaround Time\n");
31     for (int i = 0; i < n; i++) {
32         tat[i] = bt[i] + wt[i];
33         total += tat[i];
34         printf("p%d\t%d\t\t%d\t\t%d\n", p[i], bt[i], wt[i], tat[i]);
35     }
36     avg_wt = total / n;
37     avg_tat = total / n;
38     printf("\nAverage Waiting Time= %.6f\n", avg_wt);
39     printf("Average Turnaround Time= %.6f\n", avg_tat);
40     return 0;
41 }
```

```
C:\Users\Administrator\Docu... x + - □ x
Enter number of processes:4
Enter Burst Time:
p1:3
p2:4
p3:1
p4:2

Process Burst Time      Waiting Time      Turnaround T
ime
p3       1              0                1
p4       2              1                3
p1       3              3                6
p2       4              6                10

Average Waiting Time= 7.500000
Average Turnaround Time= 7.500000

-----
Process exited after 14.92 seconds with return value
0
Press any key to continue . . . |
```



[\*] Untitled1.cpp os 1st.cpp os 2nd.cpp os 3rd.cpp os 4th.cpp os 5th.cpp

```
1 #include <stdio.h>
2 struct process {
3     char name;
4     int burst, wait, turnaround, priority;
5 };
6 int main() {
7     int n, total = 0, pos;
8     float avg_wait = 0, avg_turn = 0;
9     printf("Enter the total number of Processes: ");
10    scanf("%d", &n);
11    struct process p[n], temp;
12    for (int i = 0; i < n; i++) {
13        p[i].name = 'A' + i;
14        printf("\nEnter burst time and priority for process %c: ", p[i].name);
15        scanf("%d%d", &p[i].burst, &p[i].priority);
16    }
17    for (int i = 0; i < n; i++) {
18        pos = i;
19        for (int j = i + 1; j < n; j++)
20            if (p[j].priority > p[pos].priority) pos = j;
21        temp = p[i]; p[i] = p[pos]; p[pos] = temp;
22    }
23    p[0].wait = 0;
24    for (int i = 1; i < n; i++) {
25        p[i].wait = 0;
26        for (int j = 0; j < i; j++) p[i].wait += p[j].burst;
27        total += p[i].wait;
28    }
29    printf("\nProcess\tBurst\tWaiting\tTurnaround\n");
30    for (int i = 0; i < n; i++) {
31        p[i].turnaround = p[i].burst + p[i].wait;
32        total += p[i].turnaround;
33        printf("%c\t%d\t%d\t%d\n", p[i].name, p[i].burst, p[i].wait, p[i].turnaround);
34    }
```

Compile Log Debug Find Results Close

Compilation results...

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Administrator\Documents\os 5th
- Output Size: 130.7705078125 KiB
- Compilation Time: 1.11s
```

C:\Users\Administrator\Docu... x + -

```
Enter the total number of Processes: 5
Enter burst time and priority for process A: 0 2
Enter burst time and priority for process B: 4 1
Enter burst time and priority for process C: 3 6
Enter burst time and priority for process D: 2 0
Enter burst time and priority for process E: 1 3
```

Process	Burst	Waiting	Turnaround
C	3	0	3
E	1	3	4
A	0	4	4
B	4	4	8
D	2	8	10

```
Avg Wait: 9.60
Avg Turn: 9.60
```

```
Project  execute  tools  Astyle  window  help
[+] Untitled1.cpp  os 1st.cpp  os 2nd.cpp  os 3rd.cpp  os 4th.cpp  os 5th.cpp  os 6th.cpp
1  #include<stdio.h>
2  int main()
3
4  int i, NOP, sum=0, count=0, y, quant, wt=0, tat=0, at[10], bt[10], temp[10];
5  float avg_wt, avg_tat;
6
7  printf("Total number of processes in the system: ");
8  scanf("%d", &NOP);
9  y = NOP;
10 for(i=0; i<NOP; i++)
11 {
12     printf("\nEnter the Arrival and Burst time of Process[%d]\n", i+1);
13     printf("Arrival time: ");
14     scanf("%d", &at[i]);
15     printf("Burst time: ");
16     scanf("%d", &bt[i]);
17     temp[i] = bt[i];
18 }
19 printf("Enter the Time Quantum for the process: ");
20 scanf("%d", &quant);
21 for(i=0; i<NOP-1; i++) {
22     for(int j=i+1; j<NOP; j++) {
```

sources Compile Log Debug Find Results Close

Files (x86)\Dev-Cpp\MinGW64\x86\_64-w64-... cannot open output file C:\Users\Administrator\Documents\collect2.exe  
Administrator\Documents\collect2.exe [Error] ld returned 1 exit status

Sel: 0 Lines: 62 Length: 1908 Insert Done parsing in 0.031 seconds

```
C:\Users\Administrator
]
Arrival time: 3
Burst time: 2

Enter the Arrival and Burst time of Process[5]
Arrival time: 4
Burst time: 3
Enter the Time Quantum for the process: 2

Process No      Burst Time      TAT      Waiti
ng Time
Process No[3]      1      3
2
Process No[4]      2      4
2
Process No[2]      3      11
8
Process No[5]      3      9
6
Process No[1]      5      14
9

Average Turn Around Time: 8.20
Average Waiting Time: 5.40

-----
Process exited after 37.19 seconds with return value 0
Press any key to continue . . .
```

```
1 #include <stdio.h>
2 typedef struct {
3     int process_id;
4     int arrival_time;
5     int burst_time;
6 } Process;
7 void sjf(Process processes[], int n) {
8     int waiting_time[n], turnaround_time[n];
9     for (int i = 0; i < n; i++) {
10         waiting_time[i] = 0;
11         turnaround_time[i] = 0;
12     }
13     for (int i = 0; i < n - 1; i++) {
14         for (int j = 0; j < n - i - 1; j++) {
15             if (processes[j].arrival_time > processes[j + 1].arrival_time) {
16                 Process temp = processes[j];
17                 processes[j] = processes[j + 1];
18                 processes[j + 1] = temp;
19             }
20         }
21     }
22 }
```

Compilation results...

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Administrator\Documents\os 7th.exe
- Output Size: 130.8046875 KiB
- Compilation Time: 0.66s
```

```
C:\Users\Administrator x + - □ x

Enter the number of processes: 3
Enter arrival time and burst time for process
1: 0
2
Enter arrival time and burst time for process
2: 3
1
Enter arrival time and burst time for process
3: 5
6
Process Arrival Time Burst Time Waiti
ng Time Turnaround Time
1 0 2 0
2 3 1 0
3 5 6 0
6
Average Waiting Time: 0.00
Average Turnaround Time: 3.00

-----
Process exited after 27.59 seconds with retur
n value 0
Press any key to continue . . . |
```



```
[*] Untitled1.cpp  os 1st.cpp  os 2nd.cpp  os 3rd.cpp  os 4th.cpp  os 5th.cpp  os 6th.cpp  os 7th.cpp  os 8th.cpp
1  #include<stdio.h>
2  #include<stdlib.h>
3  #define MAX_PROCESSES 10
4  struct Process {
5      int id;
6      int priority;
7  };
8  struct Process selectHighestPriority(struct Process processes[], int n) {
9      struct Process highestPriorityProcess = processes[0];
10     for (int i = 1; i < n; i++) {
11         if (processes[i].priority > highestPriorityProcess.priority) {
12             highestPriorityProcess = processes[i];
13         }
14     }
15     return highestPriorityProcess;
16 }
17 int main() {
18     struct Process processes[MAX_PROCESSES];
19     int n;
20     printf("Enter the number of processes: ");
21     scanf("%d", &n);
22     printf("Enter details of each process:\n");
23     for (int i = 0; i < n; i++) {
24         printf("Process %d: \n", i + 1);
25         printf("Priority: ");
26         scanf("%d", &processes[i].priority);
27     }
28     struct Process highestPriorityProcess = selectHighestPriority(processes, n);
29     printf("Process with the highest priority: \n");
30     printf("ID: %d\n", highestPriorityProcess.id);
31     printf("Priority: %d\n", highestPriorityProcess.priority);
32 }
```

Compile Log Debug Find Results Close

Compilation results...

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- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Administrator\Documents\os 8th.exe
- Output Size: 128 3332421875 KB

```
C:\Users\Administrator\Docu  X  +  v  -

Enter the number of processes: 5
Enter details of each process:
Process 1:
Priority: 3
Process 2:
Priority: 4
Process 3:
Priority: 4
Process 4:
Priority: 5
Process 5:
Priority: 2
Process with the highest priority:
ID: 4
Priority: 5

-----
Process exited after 92.06 seconds with return
0
Press any key to continue . . . |
```