

main.c



Run

Output

```
1
2 #include <stdio.h>
3
4 void findWaitingTime(int processes[], int n, int burst_time[], int
    wait_time[]) {
5     wait_time[0] = 0;
6
7     for (int i = 1; i < n; i++) {
8         wait_time[i] = burst_time[i - 1] + wait_time[i - 1];
9     }
10 }
11
12 void findTurnAroundTime(int processes[], int n, int burst_time[],
    int wait_time[], int tat[]) {
13     for (int i = 0; i < n; i++) {
14         tat[i] = burst_time[i] + wait_time[i];
15     }
16 }
17
18 void findavgTime(int processes[], int n, int burst_time[]) {
19     int wait_time[n], tat[n];
20     float total_wt = 0, total_tat = 0;
```

Processes	Burst time	Waiting time	Turn around time
1	21	0	21
2	3	21	24
3	6	24	30
4	2	30	32

Average waiting time = 18.75

Average turn around time = 26.75

=== Code Execution Successful ===



Construction on Kush...



11:52

05/05/2024



main.c

Run

Output

```
1
2
3 #include <stdio.h>
4
5 void swap(int *xp, int *yp) {
6     int temp = *xp;
7     *xp = *yp;
8     *yp = temp;
9 }
10
11 void sortProcessByBurst(int n, int burst[], int process[]) {
12     for (int i = 0; i < n-1; i++)
13         for (int j = 0; j < n-i-1; j++)
14             if (burst[j] > burst[j+1]) {
15                 swap(&burst[j], &burst[j+1]);
16                 swap(&process[j], &process[j+1]);
17             }
18 }
19
20 void calculateTimes(int processes[], int n, int burst_time[]) {
21     int wait_time[n], tat[n], total_wt = 0, total_tat = 0;
22
```

Processes	Burst time	Waiting time	Turn around time
1	3	0	3
2	6	3	9
3	7	9	16
4	8	16	24

Average waiting time = 7.00  
Average turn around time = 13.00

=== Code Execution Successful ===

main.c



Run

Output

Clear

```

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

```

```

Processes Burst time Priority Waiting time Turn around time
2         5         0         0         5
3         8         1         5        13
1        10         2        13        23
Average waiting time = 6.00
Average turn around time = 13.67

```

=== Code Execution Successful ===



main.c

Output

```
1
2
3 #include <stdio.h>
4
5 typedef struct {
6     int id;
7     int burstTime;
8 } Process;
9
10 void findWaitingTime(Process processes[], int n, int quantum) {
11     int rem_bt[n];
12     for (int i = 0; i < n; i++)
13         rem_bt[i] = processes[i].burstTime;
14
15     int t = 0; // Current time
16
17     while (1) {
18         int done = 1;
19
20         for (int i = 0; i < n; i++) {
21             if (rem_bt[i] > 0) {
22                 done = 0; // There is a pending process
```

```
Processes Burst time Waiting time Turn around time
1          60          60          120
2          14          14           28
3          20          20           40
Average waiting time = 31.33
Average turn around time = 62.67
```

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



main.c



Run

Output

```
1 // Online C compiler to run C program online
2 #include <stdlib.h>
3 #include <stdio.h>
4 typedef struct {
5     int id;
6     int burstTime;
7     int priority;
8     int arrivalTime;
9     int waitingTime;
10    int turnaroundTime;
11 } Process;
12
13 // Utility function to sort processes by arrival time
14 int compareArrival(const void *a, const void *b) {
15     Process *p1 = (Process *)a;
16     Process *p2 = (Process *)b;
17     return p1->arrivalTime - p2->arrivalTime;
18 }
19
20 // Utility function to sort processes by burst time for SJF
21 int compareBurstTime(const void *a, const void *b) {
22     Process *p1 = (Process *)a;
```

/tmp/muPt12bzbW.o

FCFS:

Average Waiting Time = 9.50

Average Turnaround Time = 15.50

SJF: