

Step 1:- consider the ready queue as a stack

- value  $\alpha$ , calculate

a) waiting time for process (n) = waiting time of process (n-1) + burst time of process (n-1) + the time difference in getting the CPU from process (n).

Let Step 2: calculate

c) average waiting time =  $\frac{\text{Total waiting time}}{\text{Number of process}}$

d) average Turnaround Time =  $\frac{\text{Total waiting time}}{\text{Number of process}}$

d) average Turnaround time =  $\frac{\text{Total Turnaround Time}}{\text{Number of process}}$

Step 8:- Stop the process

Source code

#include <stdio.h>

~~main()~~

main()

{

int

i, j, n, bu[10], wa[10], tat[10], t, c

~~main~~

float

at  $t = 0$ , at  $t = 0$ , temp = 0;

clear screen();

printf("Enter the no of processes --");  
scanf("%d", &n);

~~scanf~~ for ( $i = 0$ ;  $i < n$ ;  $i++$ )

{  
printf("Enter burst time for process %d",  $i+1$ );

scanf("%d", &bu[i]);

ct[i] = bu[i];

}

printf("Enter the size of time slice | n");

scanf("%d", &t);

max = bu[0];

for ( $i = 1$ ;  $i < n$ ;  $i++$ )

if ( $\text{max} < \text{bu}[i]$ )

max = bu[i];

for ( $j = 0$ ;  $j < (\text{max}/t) + 1$ ;  $j++$ )

for ( $i = 0$ ;  $i < n$ ;  $i++$ )

if ( $\text{bu}[i] \neq 0$ )

if ( $\text{bu}[i] \leq t$ )

bu[i] = bu[i];

ct[i] = temp +

~~bu[i]~~

temp = temp + bu[i];

bu[i] = 0;

to E

}

else

{

max;



$$bu[i] = bu[i] - 1;$$
$$l_{\text{comp}} = \text{temp} + x;$$

3

```
for (i = 0; i < n; i++)
```

L

$$w_u[i] = \text{lat}[i] - \text{ct}[i];$$
$$a_{it} + \dots = \text{lat}[i];$$
$$a_w t_f = w_a [i];$$

✓

print f("The average turnaround time is %0.6f\n", avgT)

printf("The average waiting time is %f", awt/n);

```
print f(" | n | t Process | t Burst Time | t waiting time |  
Turn around time | n");
```

for ( $i = 0; i < n; i++$ )

```
printf(" | + %d | * %d | + | * %d | + | * %d |")
```

$s+1, \text{cat}[i], \text{wa}[i], \text{tat}[i]; \text{getch()}; \}$

### Input

Enter no of processes - 3

Enter Burst time for process 1 - 24

Enter Burst time for process 2 - 3

Enter Burst time for process 3 - 3

Enter Size of Time Slice - 3

### Output

process	Burst Time	waiting time	Turnaround Time
1	24	6	30
2	3	4	7
3	3	7	10

The average Turnaround time is 15.666667

The average waiting time is 5.666667

Chart  
?



main.c

```
1 #include<stdio.h>
2 int main()
3 {
```

main.c: In function 'main':

main.c:22:1: warning: implicit declaration of function 'getch'; did you mean 'getc'?

```
22 | getch();}
    | ^~~~~
    | getc
```

Enter the number of processes --- 2

Enter the Burst Time & Priority of Process 0 --- 5

7

Enter the Burst Time & Priority of Process 1 --- 8

9

PROCESS	PRIORITY	BURST TIME	WAITING TIME	TURNAROUND TIME
0	7	5	0	5
1	9	8	5	13

Average Waiting Time is --- 2.500000

Average Turnaround Time is --- 9.000000

...Program finished with exit code 0

Press ENTER to exit console.

MacBook Pro