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IMPLEMENTATION OF FCFS CPU SCHEDULING ALGORITHM :

CODE

```
#include <stdio.h>
int waitingtime(int proc[], int n,
int burst_time[], int wait_time[]) {
    wait_time[0] = 0;
    for (int i = 1; i < n ; i++ )
    wait_time[i] = burst_time[i-1] + wait_time[i-1] ;
    return 0;
}
int turnaroundtime( int proc[], int n,
int burst_time[], int wait_time[], int tat[]) {
    int i;
    for ( i = 0; i < n ; i++)
    tat[i] = burst_time[i] + wait_time[i];
    return 0;
}
int avgtime( int proc[], int n, int burst_time[]) {
    int wait_time[n], tat[n], total_wt = 0, total_tat = 0;
    int i;
    waitingtime(proc, n, burst_time, wait_time);
    turnaroundtime(proc, n, burst_time, wait_time,
    tat); printf("Processes Burst Waiting Turn around
    \n"); for ( i=0; i<n; i++) {
        total_wt = total_wt + wait_time[i];
        total_tat = total_tat + tat[i];
        printf(" %d\t %d\t\t %d \t%d\n", i+1, burst_time[i], wait_time[i], tat[i]);
```

```
    }
    printf("Average waiting time = %f\n", (float)total_wt / (float)n);
    printf("Average turn around time = %f\n", (float)total_tat /
    (float)n); return 0;
}
int main() {
    int proc[] = { 1, 2, 3};
    int n = sizeof proc / sizeof proc[0];
    int burst_time[] = {5, 8, 12};
    avgtime(proc, n, burst_time);
    return 0;
}
```

ALGORITHM

START

 Step 1- In function int waitingtime(int proc[], int n, int burst_time[], int
   wait_time[]) Set wait_time[0] = 0
   Loop For i = 1 and i < n and i++
     Set wait_time[i] = burst_time[i-1] + wait_time[i-
   1] End For

Step 2- In function int turnaroundtime(int proc[], int n, int burst_time[], int wait_time[], int
   tat[]) Loop For i = 0 and i < n and i++
     Set tat[i] = burst_time[i] + wait_time[i]
   End For

Step 3- In function int avgtime(int proc[], int n, int burst_time[])
   Declare and initialize wait_time[n], tat[n], total_wt = 0, total_tat = 0;
   Call waitingtime(proc, n, burst_time, wait_time)
   Call turnaroundtime(proc, n, burst_time, wait_time, tat)
   Loop For i=0 and i<n and i++
     Set total_wt = total_wt + wait_time[i]
     Set total_tat = total_tat + tat[i]

Print process number, burstime wait time and turnaround time End For

Print "Average waiting time =i.e. total_wt / n

Print "Average turn around time = i.e. total_tat / n

Step 4- In int main()

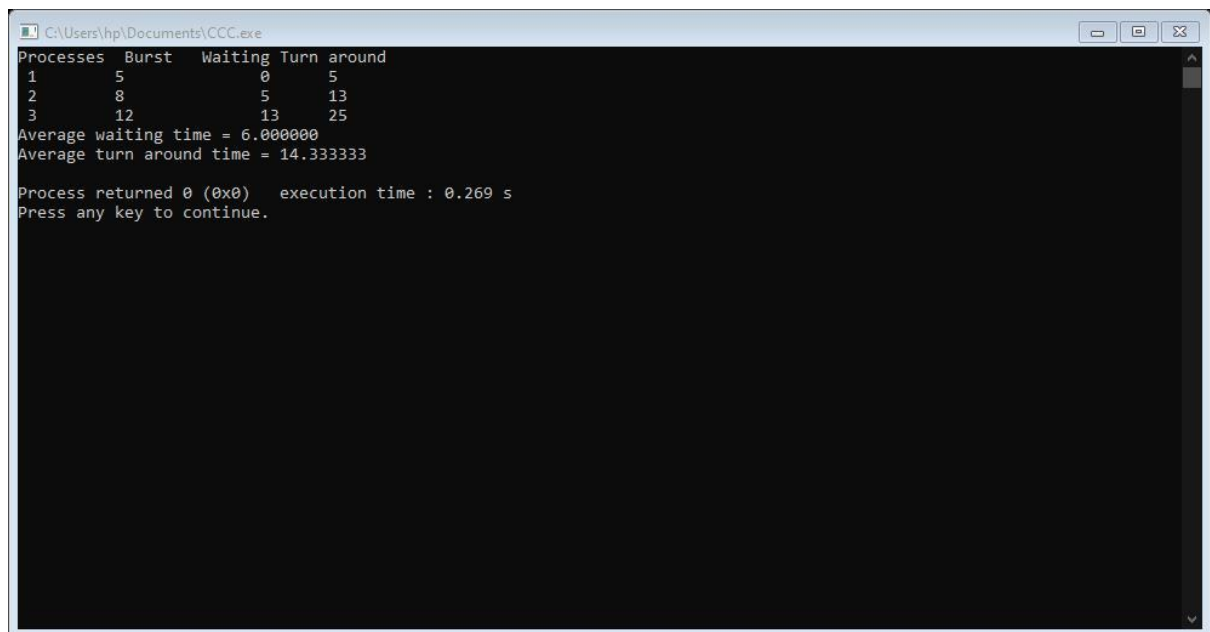Declare the input int proc[] = { 1, 2, 3}

Declare and initialize n = sizeof proc / sizeof proc[0]

Declare and initialize burst_time[] = {10, 5, 8}

Call avgtime(proc, n, burst_time)

STOP

OUTPUT


```
C:\Users\hp\Documents\CCC.exe
Processes  Burst    Waiting Turn around
1          5             0      5
2          8             5      13
3          12            13     25
Average waiting time = 6.000000
Average turn around time = 14.333333

Process returned 0 (0x0)   execution time : 0.269 s
Press any key to continue.
```