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SUBJECT : OPERATING SYSTEM

IMPLEMENTATION OF FCFS SCHEDULING ALGORITHM

PROGRAM

```
#include int waitingtime(int proc[], int n, int burst_time[], int wait_time[]) {    wait_time[0]
0;
for (int i = 1; i}
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[]) {    intait_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; iprintf("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() {    inproc[] = { 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 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()

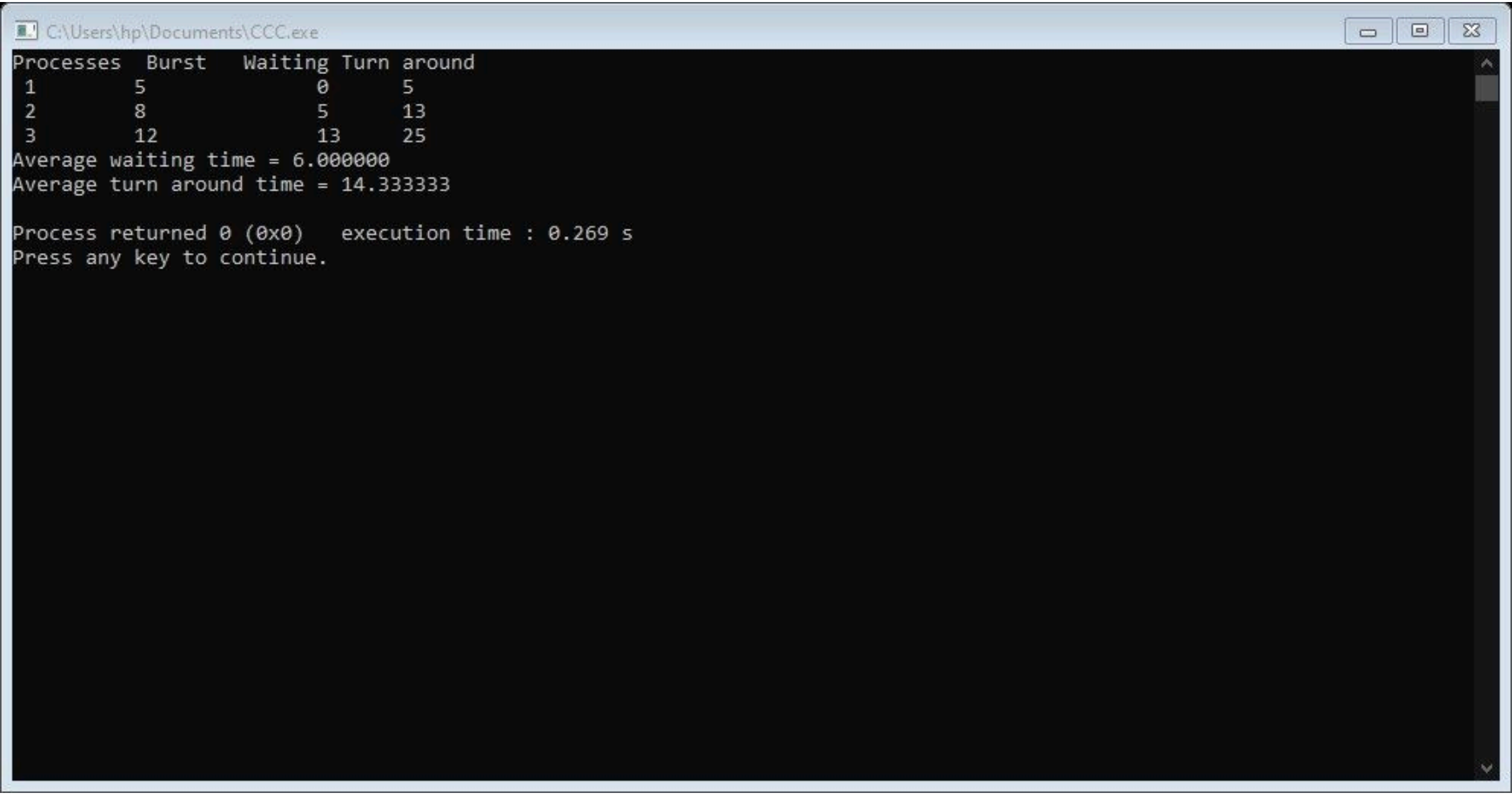
Declare the input int proc[] = { 1, 2, 3}

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

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

Call avgtime(proc, n, burst_time)

STOP


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.