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Course - BSc IT

Q2 SJF

Solution:

```
#include <stdio.h>
int main()
{
int bt[20], p[20], wt[20], tat[20], i, j, n, total=0, pos, temp;
float avg_wt, avg_tat;
printf("Enter number of process:");
scanf("%d", &n);
printf("\n Enter Burst Time:\n");
for(i=0; i<n; i++)
{
printf("p%d:", i+1);
scanf("%d", &bt[i]);
p[i] = i+1;
}
// Sorting of burst times
for(i=0; i<n; i++)
{
pos = i;
for(j=i+1; j<n; j++)
{
if(bt[j] < bt[pos])
pos = j;
}
```

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```
        temp = bt[i];
        bt[i] = bt[pos];
        bt[pos] = temp;

        temp = p[i];
        p[i] = p[pos];
        p[pos] = temp;
    }
    wt[0] = 0;
    for (i=1; i<n; i++)
    {
        wt[i] = 0;
        for (j=0; j<i; j++)
            wt[i] += bt[j];
        total += wt[i];
    }
    avg_wt = (float) total / n;
    total = 0;
    printf("\n Process\t Burst Time \t Waiting Time\t
            Turnaround Time");
    for (i=0; i<n; i++)
    {
        tat[i] = bt[i] + wt[i];
```

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```
    total += tat[i];
    printf("\np%d\t%d\t%d\t%d", p[i], bt[i], wt[i], tat[i]);
  }
  avg_tat = (float) total / n;
  printf("\n\nAverage Waiting Time = %f", avg_wt);
  printf("\nAverage Turnaround Time = %f\n", avg_tat);
  return 0;
}
```

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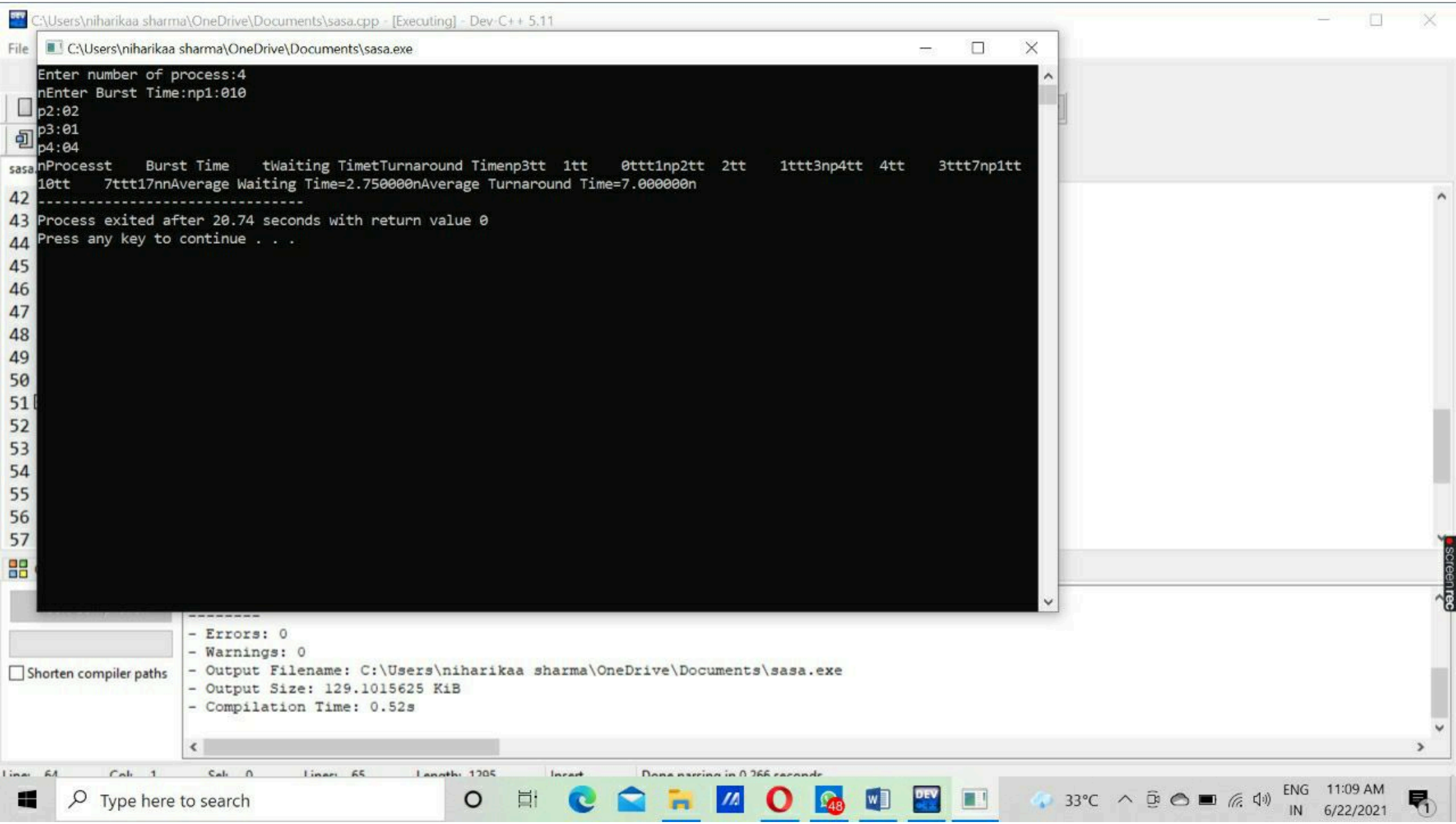
C:\Users\niharikaa sharma\OneDrive\Documents\sasa.cpp - [Executing] - Dev-C++ 5.11
C:\Users\niharikaa sharma\OneDrive\Documents\sasa.exe
Enter number of process:4
nEnter Burst Time:np1:010
p2:02
p3:01
p4:04
nProcesst Burst Time tWaiting TimetTurnaround Timenp3tt 1tt 0ttt1np2tt 2tt 1ttt3np4tt 4tt 3ttt7np1tt
10tt 7ttt17nnAverage Waiting Time=2.750000nAverage Turnaround Time=7.000000n
Process exited after 20.74 seconds with return value 0
Press any key to continue . . .
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\niharikaa sharma\OneDrive\Documents\sasa.exe
- Output Size: 129.1015625 KiB
- Compilation Time: 0.52s
Shorten compiler paths
Type here to search
33°C
ENG
IN
11:09 AM
6/22/2021