Lab Performance 1: FCFS

ID – 202003112

Name – Pranesh Chowdhury

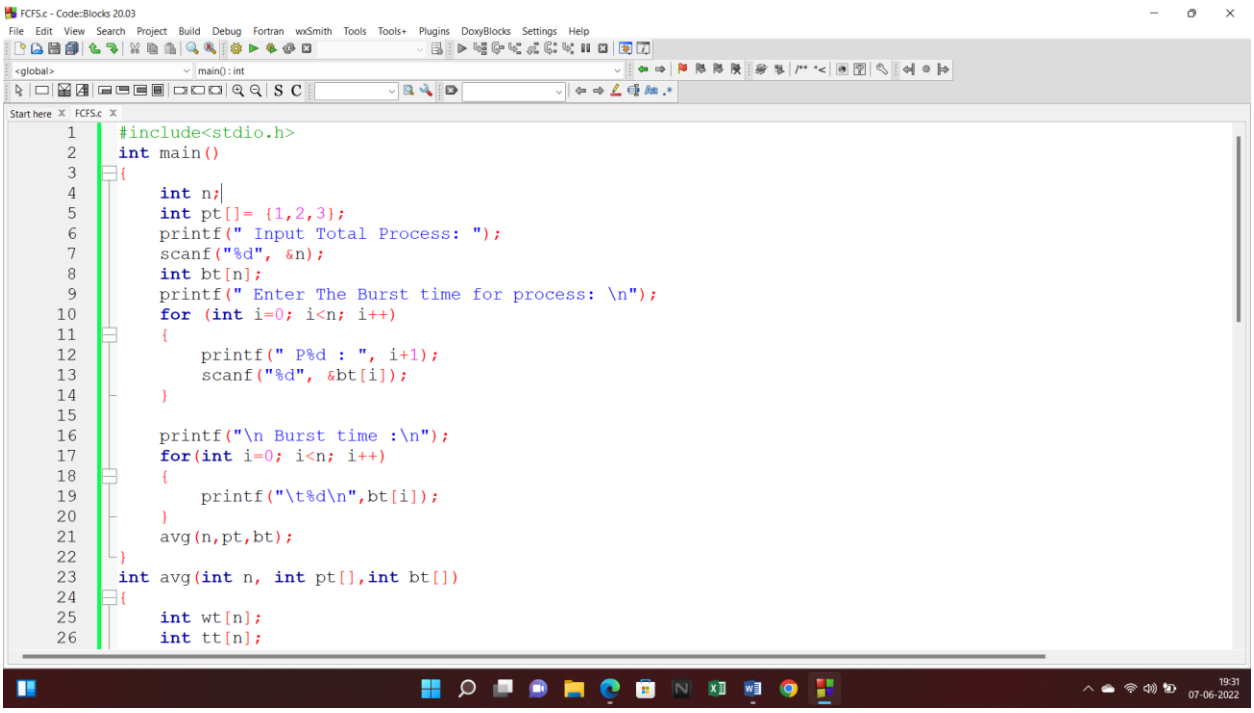
FCFS Algorithm implemented by C Programming:

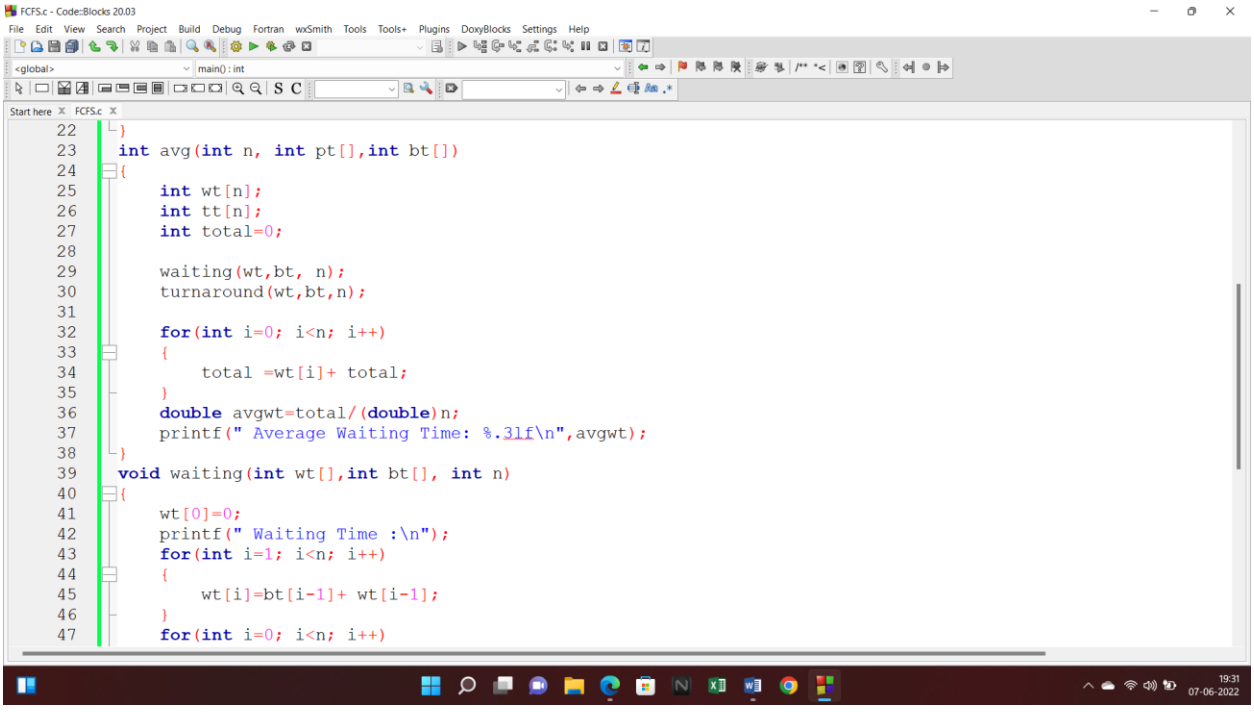
```
#include<stdio.h>
int main()
{
   int n;
   int pt[]= {1,2,3};
   printf(" Input Total Process: ");
   scanf("%d", &n);
   int bt[n];
   printf(" Enter The Burst time for process: \n");
   for (int i=0; i<n; i++)
   {
      printf(" P%d : ", i+1);
      scanf("%d", &bt[i]);
   }

   printf("\n Burst time :\n");
   for(int i=0; i<n; i++)
   {
      printf("\t%d\n",bt[i]);
   }
   avg(n,pt,bt);
}
int avg(int n, int pt[],int bt[])
```

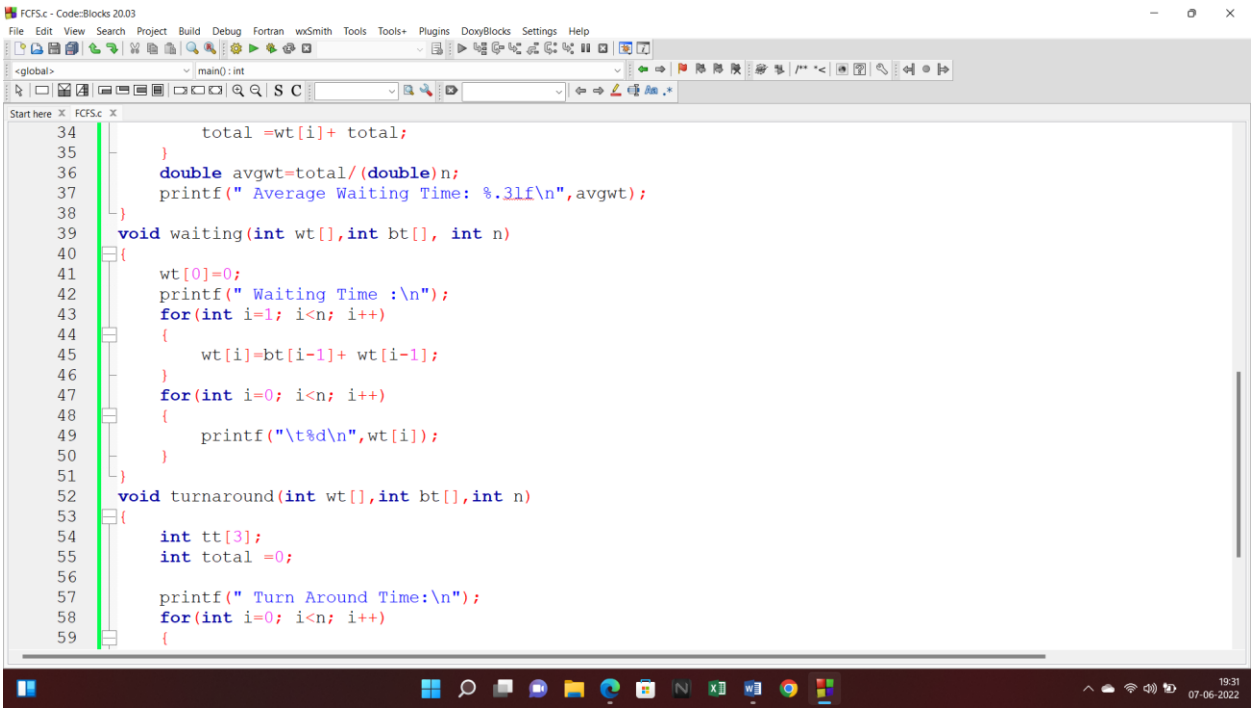
```
{
   int wt[n];
   int tt[n];
   int total=0;

   waiting(wt,bt, n);
   turnaround(wt,bt,n);

   for(int i=0; i<n; i++)
   {
      total =wt[i]+ total;
   }
   double avgwt=total/(double)n;
   printf(" Average Waiting Time: %.3lf\n",avgwt);
}
void waiting(int wt[],int bt[], int n)
{
   wt[0]=0;
   printf(" Waiting Time :\n");
   for(int i=1; i<n; i++)
   {
      wt[i]=bt[i-1]+ wt[i-1];
   }
   for(int i=0; i<n; i++)
   {
      printf("\t%d\n",wt[i]);
   }
```

```
}
void turnaround(int wt[],int bt[],int n)
{
   int tt[3];
   int total =0;

   printf(" Turn Around Time:\n");
   for(int i=0; i<n; i++)
   {
      tt[i]=wt[i]+bt[i];
      printf("\t%d\n",tt[i]);
   }
   for(int i=0; i<n; i++)
   {
      total=tt[i]+total;
   }
   double avgtt = total/(double)n;
   printf(" The Average Turn around Time: %.3lf\n",avgtt);
}
```

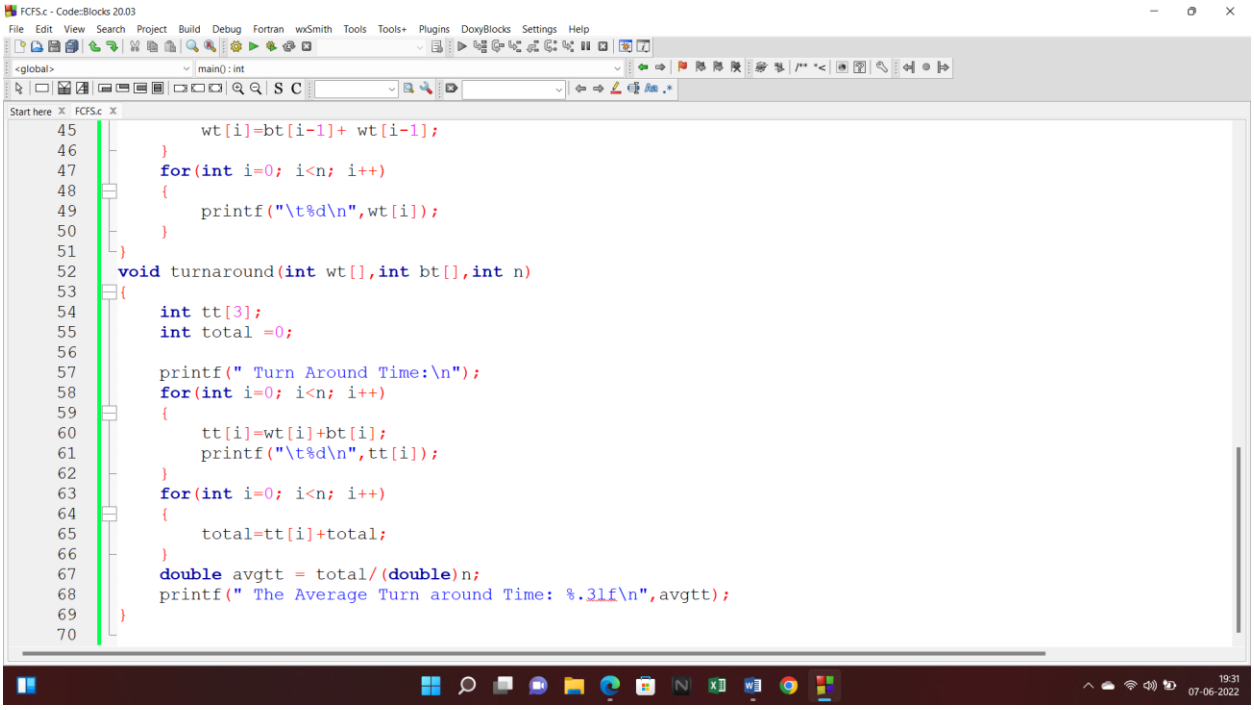
Screenshot of IDE (code):


FCFS.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
<global>
main() : int
Start here
FCFS.c
#include<stdio.h>
int main()
{
int n;
int pt[]= {1,2,3};
printf(" Input Total Process: ");
scanf("%d", &n);
int bt[n];
printf(" Enter The Burst time for process: \n");
for (int i=0; i<n; i++)
{
printf(" P%d : ", i+1);
scanf("%d", &bt[i]);
}
printf("\n Burst time :\n");
for(int i=0; i<n; i++)
{
printf("\t%d\n",bt[i]);
}
avg(n,pt,bt);
}
int avg(int n, int pt[],int bt[])
{
int wt[n];
int tt[n];
19:31
07-06-2022


FCFS.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
<global>
main() : int
Start here
FCFS.c
}
int avg(int n, int pt[],int bt[])
{
int wt[n];
int tt[n];
int total=0;
waiting(wt,bt, n);
turnaround(wt,bt,n);
for(int i=0; i<n; i++)
{
total =wt[i]+ total;
}
double avgwt=total/(double)n;
printf(" Average Waiting Time: %.3lf\n",avgwt);
}
void waiting(int wt[],int bt[], int n)
{
wt[0]=0;
printf(" Waiting Time :\n");
for(int i=1; i<n; i++)
{
wt[i]=bt[i-1]+ wt[i-1];
}
for(int i=0; i<n; i++)
19:31
07-06-2022

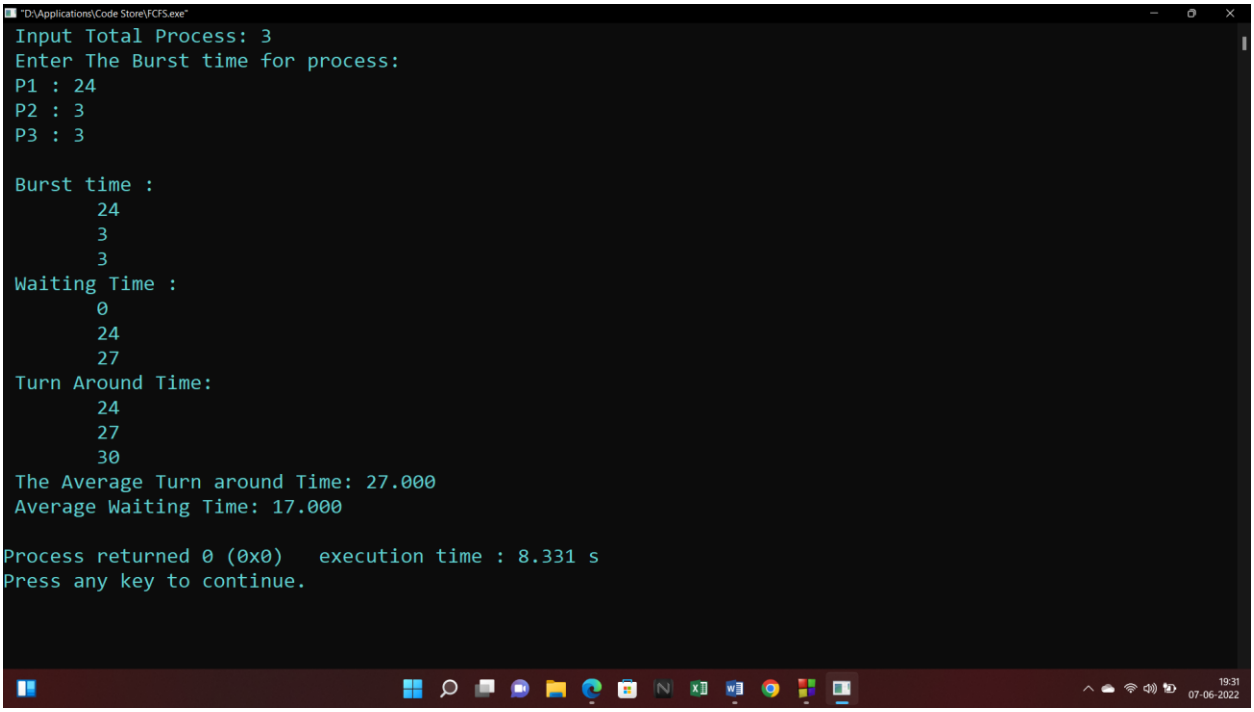


```
        total =wt[i]+ total;
    }
    double avgwt=total/(double)n;
    printf(" Average Waiting Time: %.3lf\n",avgwt);
}
void waiting(int wt[],int bt[], int n)
{
    wt[0]=0;
    printf(" Waiting Time :\n");
    for(int i=1; i<n; i++)
    {
        wt[i]=bt[i-1]+ wt[i-1];
    }
    for(int i=0; i<n; i++)
    {
        printf("\t%d\n",wt[i]);
    }
}
void turnaround(int wt[],int bt[],int n)
{
    int tt[3];
    int total =0;

    printf(" Turn Around Time:\n");
    for(int i=0; i<n; i++)
    {
```



```
        wt[i]=bt[i-1]+ wt[i-1];
    }
    for(int i=0; i<n; i++)
    {
        printf("\t%d\n",wt[i]);
    }
}
void turnaround(int wt[],int bt[],int n)
{
    int tt[3];
    int total =0;

    printf(" Turn Around Time:\n");
    for(int i=0; i<n; i++)
    {
        tt[i]=wt[i]+bt[i];
        printf("\t%d\n",tt[i]);
    }
    for(int i=0; i<n; i++)
    {
        total=tt[i]+total;
    }
    double avgtt = total/(double)n;
    printf(" The Average Turn around Time: %.3lf\n",avgtt);
}
```

Output:


"D:\Applications\Code Store\FCFS.exe"
Input Total Process: 3
Enter The Burst time for process:
P1 : 24
P2 : 3
P3 : 3
Burst time :
24
3
3
Waiting Time :
0
24
27
Turn Around Time:
24
27
30
The Average Turn around Time: 27.000
Average Waiting Time: 17.000
Process returned 0 (0x0) execution time : 8.331 s
Press any key to continue.
19:31
07-06-2022