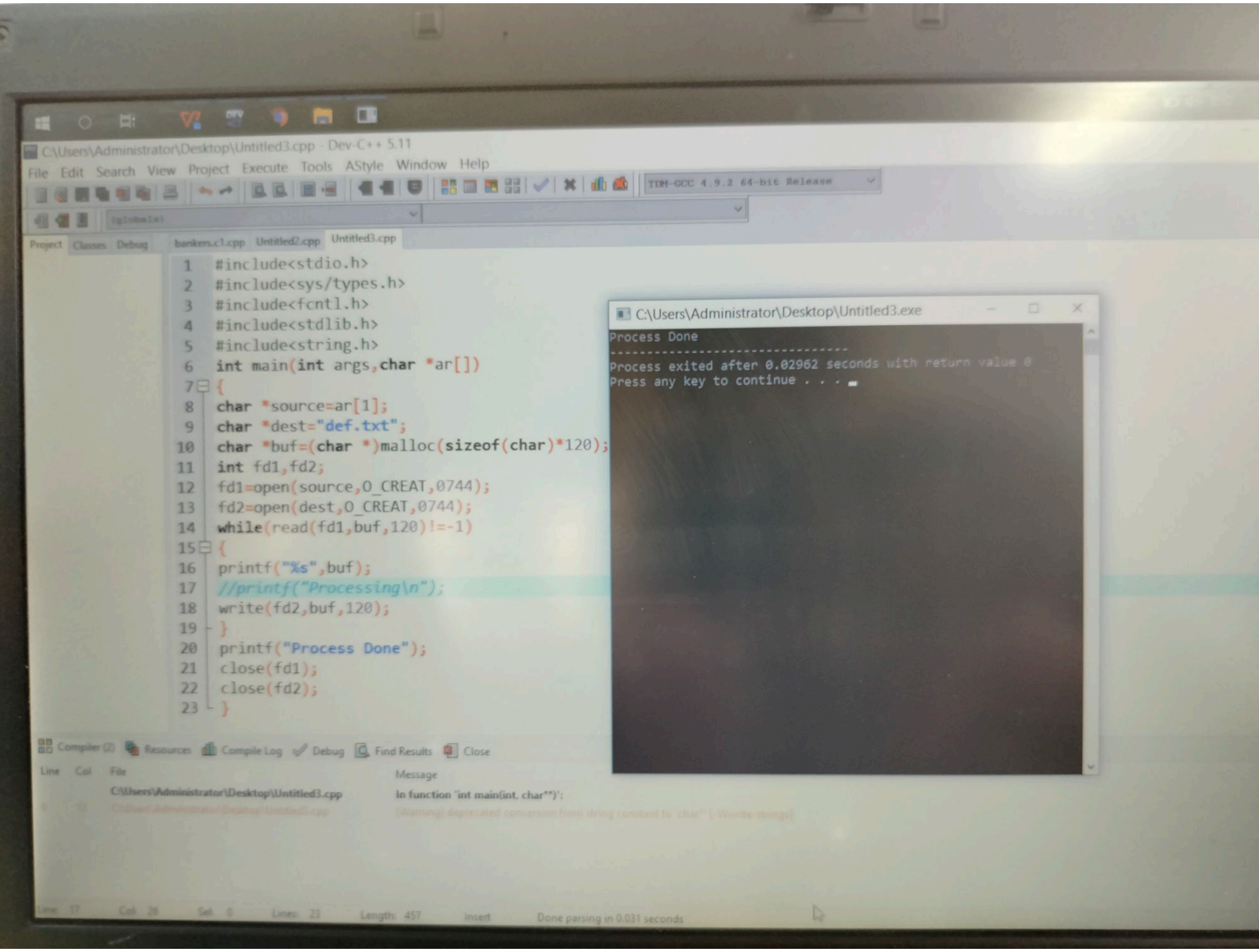
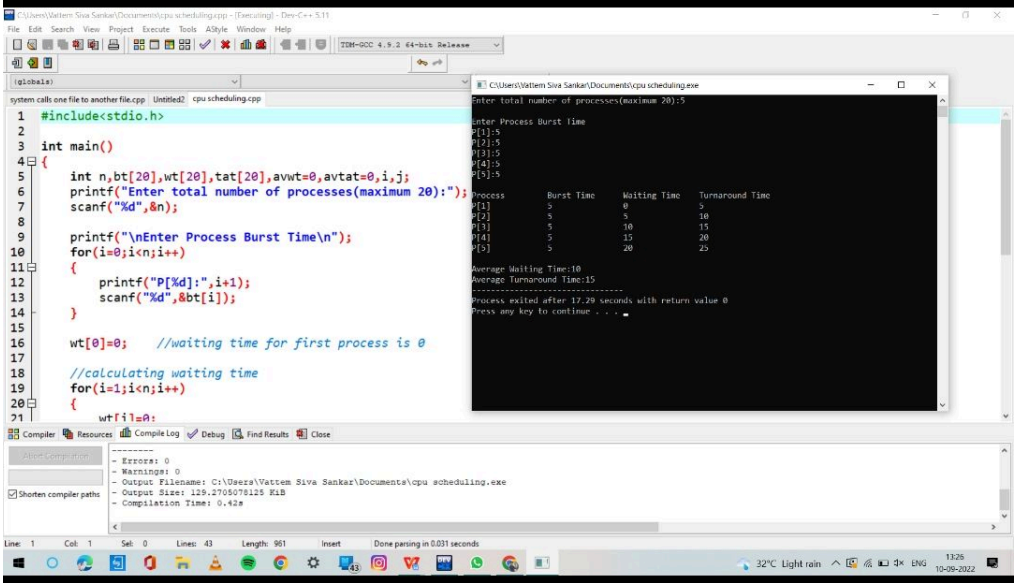

C:\Users\Administrator\Desktop\Untitled3.cpp - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
Project Classes Debug
bankers.c1.cpp Untitled2.cpp Untitled3.cpp
#include<stdio.h>
#include<sys/types.h>
#include<fcntl.h>
#include<stdlib.h>
#include<string.h>
int main(int args,char *ar[])
{
char *source=ar[1];
char *dest="def.txt";
char *buf=(char *)malloc(sizeof(char)*120);
int fd1,fd2;
fd1=open(source,O_CREAT,0744);
fd2=open(dest,O_CREAT,0744);
while(read(fd1,buf,120)!=-1)
{
printf("%s",buf);
//printf("Processing\n");
write(fd2,buf,120);
}
printf("Process Done");
close(fd1);
close(fd2);
}
C:\Users\Administrator\Desktop\Untitled3.exe
Process Done

Process exited after 0.02962 seconds with return value 0
Press any key to continue . . .
Compiler (2) Resources Compile Log Debug Find Results Close
Line Col File Message
C:\Users\Administrator\Desktop\Untitled3.cpp In function 'int main(int, char**)':
Done parsing in 0.031 seconds



```c
#include<stdio.h>

int main()
{
    int n,bt[20],wt[20],tat[20],avwt=0,avtat=0,i,j;
    printf("Enter total number of processes(maximum 20):");
    scanf("%d",&n);

    printf("\nEnter Process Burst Time\n");
    for(i=0;i<n;i++)
    {
        printf("P[%d]:",i+1);
        scanf("%d",&bt[i]);
    }

    wt[0]=0;    //waiting time for first process is 0

    //calculating waiting time
    for(i=1;i<n;i++)
    {
```

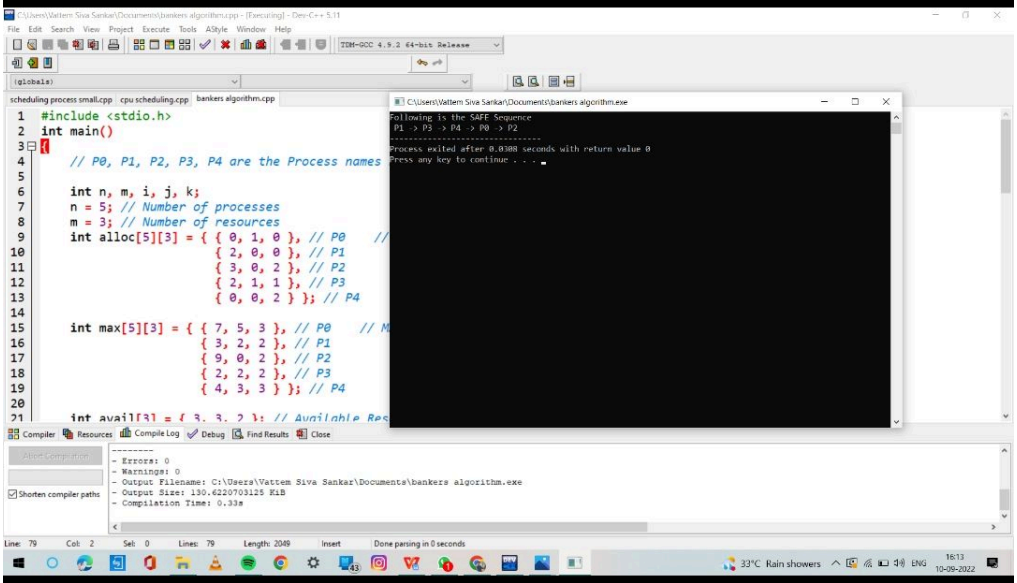
```
C:\Users\Vattem Siva Sankar\Documents\cpu scheduling.exe
Enter total number of processes(maximum 20):5

Enter Process Burst Time
P[1]:5
P[2]:5
P[3]:5
P[4]:5
P[5]:5

Process         Burst Time      Waiting Time    Turnaround Time
P[1]            5               0               5
P[2]            5               5               10
P[3]            5               10              15
P[4]            5               15              20
P[5]            5               20              25

Average Waiting Time:10
Average Turnaround Time:15
--------------------------------
Process exited after 17.29 seconds with return value 0
Press any key to continue . . .
```

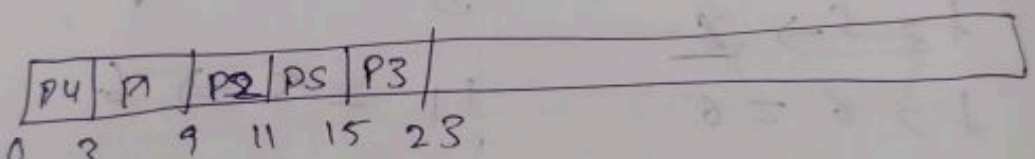
```
--------
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Vattem Siva Sankar\Documents\cpu scheduling.exe
- Output Size: 129.2705078125 KiB
- Compilation Time: 0.42s
```


File Edit Search View Project Execute Tools AStyle Window Help
scheduling process small.cpp
cpu scheduling.cpp
bankers algorithm.cpp
#include <stdio.h>
int main()
{
// P0, P1, P2, P3, P4 are the Process names
int n, m, i, j, k;
n = 5; // Number of processes
m = 3; // Number of resources
int alloc[5][3] = { { 0, 1, 0 }, // P0
{ 2, 0, 0 }, // P1
{ 3, 0, 2 }, // P2
{ 2, 1, 1 }, // P3
{ 0, 0, 2 } }; // P4
int max[5][3] = { { 7, 5, 3 }, // P0
{ 3, 2, 2 }, // P1
{ 9, 0, 2 }, // P2
{ 2, 2, 2 }, // P3
{ 4, 3, 3 } }; // P4
C:\Users\Vattem Siva Sankar\Documents\bankers algorithm.exe
Following is the SAFE Sequence
P1 -> P3 -> P4 -> P0 -> P2
Process exited after 0.0388 seconds with return value 0
Press any key to continue . . .
Compiler
Resources
Compile Log
Debug
Find Results
Close
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Vattem Siva Sankar\Documents\bankers algorithm.exe
- Output Size: 130.6220703125 KiB
- Compilation Time: 0.33s
Done parsing in 0 seconds

4) Process Queue | Burst time | Arrival time.

P_1	6	2
P_2	2	5
P_3	8	1
P_4	3	0
P_5	4	4

$t = 0$ $\quad$ $Bt = 3$



~~$t = 10$~~

~~$t = 11$~~

$t = 1 \rightarrow 8$

$t = 2 \rightarrow 6$

$t = 3 = 0$

$t = 4 \rightarrow 4$

$t = 5 = 2$

$t = 6 = 0$

$t = 7 = 0$

$t = 8 = 0$

$t = 9 = 0$

Average time

$P_1 = 9$

$P_2 = 11$

$P_3 = 23$

$P_4 = 3$

$P_5 = 15$

→ $P_1 = 9 - 2 = 7$

$P_2 = 11 - 5 = 6$

$P_3 = 23 - 1 = 22$

$P_4 = 3 - 0 = 3$

$P_5 = 15 - 4 = 11$

waiting time

Turn around time – Brust time

$P_1 = 7 - 6 \rightarrow 1$

$P_2 = 2 - 6 \rightarrow 4$

$P_3 = 8 - 22 \rightarrow 14$

$P_4 = 3 - 3 \rightarrow 0$

$P_5 = 26 - 11 \rightarrow 7$

$= 1 + 4 + 14 + 0 + 7$

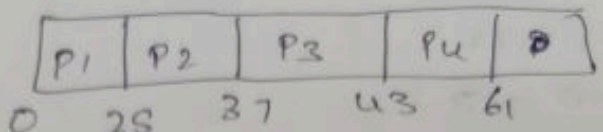
$= 26/5$

Average time	= 5.2 11

(1)

Process of	Brust time	priority
A	25	3
B	12	1
C	6	4
D	18	2

Frist come-frist serve.

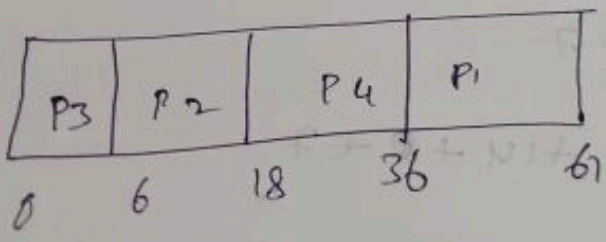


Average time = $\frac{0+25+37+43}{4}$

$= \frac{105}{4}$

$= 26.25$

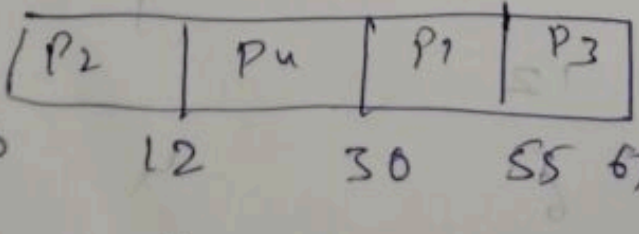
shortest job scheduing



$= \frac{0+6+18+36}{4}$

$= 15$

priority Scheduing



$= 24.25$

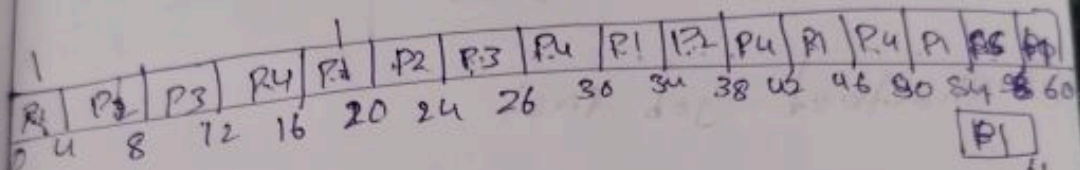
Round-Robin scheduling

25 = 4+4+4+4+4+4+1

12 = 4+4+4

6 = 4+2

18 = 4+4+4+4+2



$= \frac{60+38+26+56}{4}$

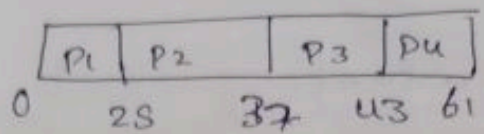
$= 45$

---

(2)

process	B.T	A.T	priority
A	25	2	3
B	12	12	1
C	6	18	4
D	18	21	2

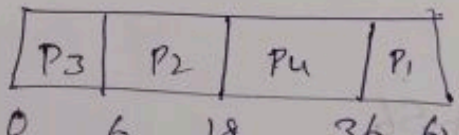
① FCFS



Average Time = $\frac{0+25+37+43}{4}$

= 26.25

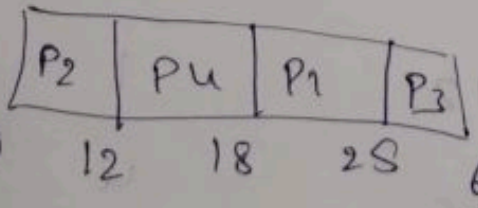
② Shortest job first



= $\frac{0+6+18+36}{4}$

= 15

③ Priority Scheduling



= 13.75

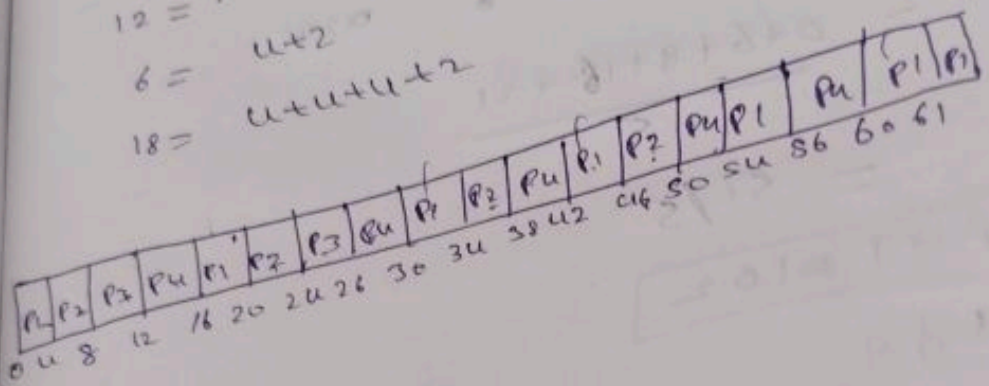
④ Round Robin with Quantum time 4.

28 = 4+4+4+4+4+4+4

12 = 4+4+4

6 = 4+2

18 = 4+4+4+4+2



Exit time	Turn around time (TAT)
61	61 - 2 = 59
50	50 - 12 = 38
26	26 - 18 = 8
54	18 - 21 = 3

Waiting time

59 - 25 = 34

38 - 12 = 26

8 - 6 = 2

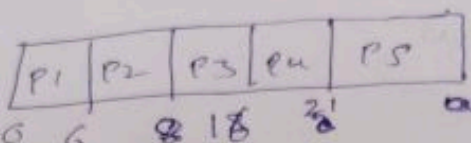
3 - 18 = 15

$$= \frac{34+26+2+15}{4}$$

Average waiting time = 77/4 = 19.25

(1) (2)

FCFS

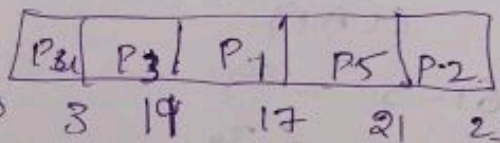


$= \frac{0+6+8+16+21}{5}$

$= 51/5$

(2) A.W.T = 10.2

SJS



$= \frac{0+3+11+17+21}{5}$

$= 52/5$

A.W.T = 10.4

~~Round Robin~~