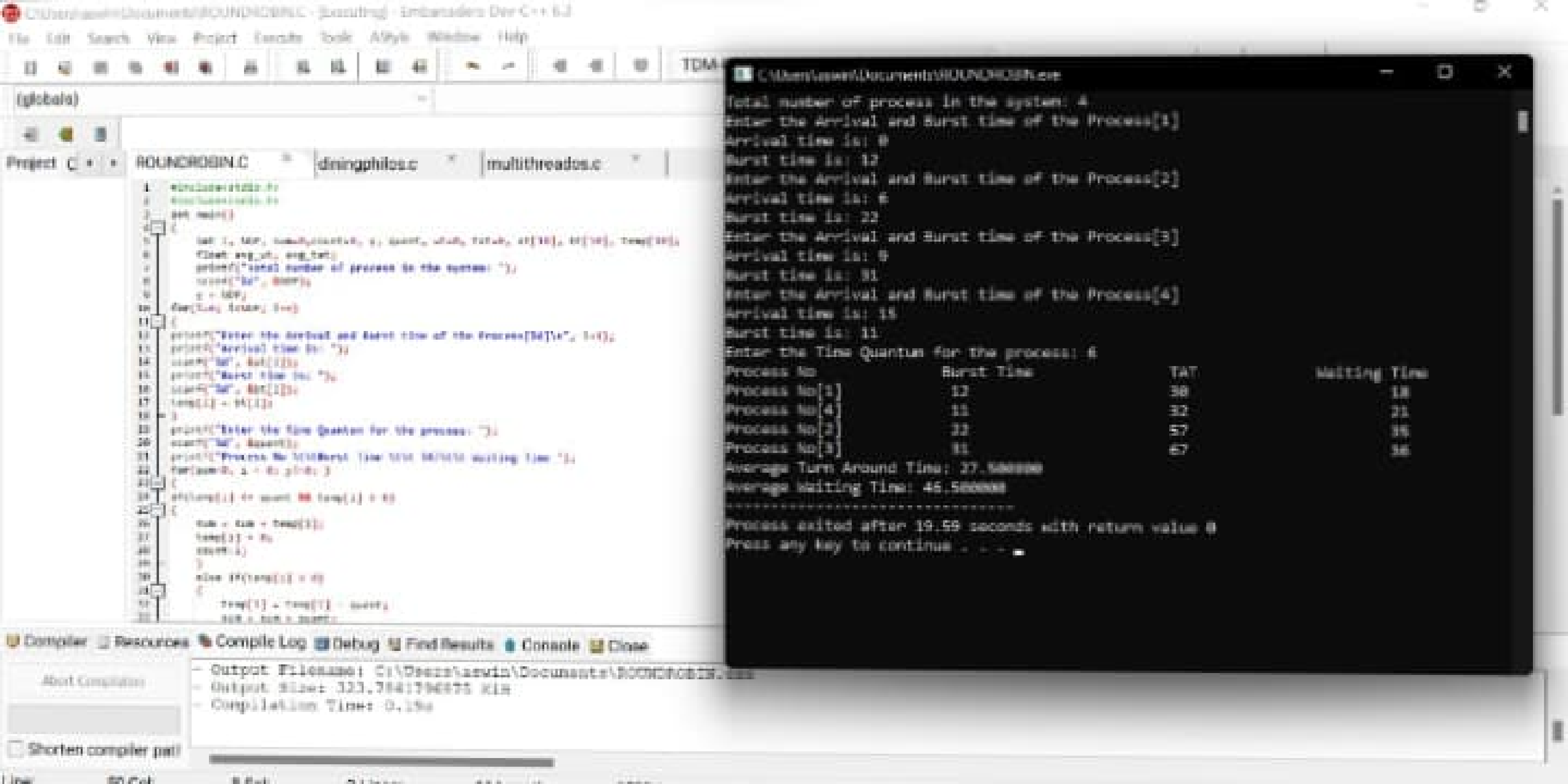
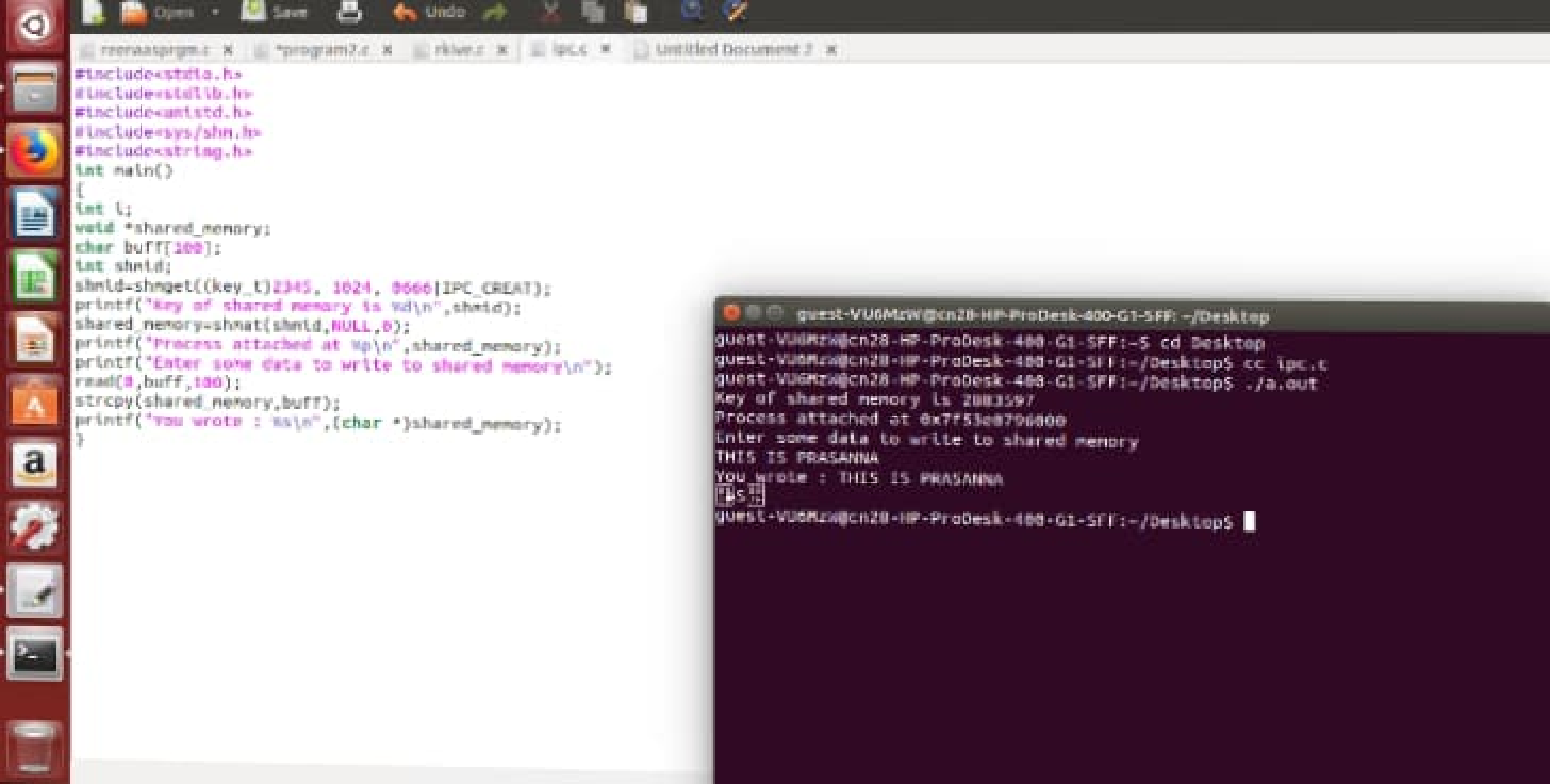


C:\Users\aswin\Documents\ROUNDROBIN.C - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM
(globals)
Project C
ROUNDROBIN.C
diningphilos.c
multithreados.c
Compiler Resources Compile Log Debug Find Results Console Close
Abort Compilation
Shorten compiler paths
C:\Users\aswin\Documents\ROUNDROBIN.exe

```c
#include<stdio.h>
#include<conio.h>
int main()
{
    int i, NOP, sum=0,count=0, y, quant, wt=0, tat=0, at[10], bt[10], temp[10];
    float avg_wt, avg_tat;
    printf("Total number of process in the system: ");
    scanf("%d", &NOP);
    y = NOP;
for(i=0; i<NOP; i++)
{
printf("Enter the Arrival and Burst time of the Process[%d]\n", i+1);
printf("Arrival time is: ");
scanf("%d", &at[i]);
printf("Burst time is: ");
scanf("%d", &bt[i]);
temp[i] = bt[i];
}
printf("Enter the Time Quantum for the process: ");
scanf("%d", &quant);
printf("Process No \t\t Burst Time \t\t TAT \t\t Waiting Time ");
for(sum=0, i = 0; y!=0; )
{
if(temp[i] <= quant && temp[i] > 0)
{
    sum = sum + temp[i];
    temp[i] = 0;
    count=1;
    }
    else if(temp[i] > 0)
    {
        temp[i] = temp[i] - quant;
        sum = sum + quant;
```

```
Total number of process in the system: 4
Enter the Arrival and Burst time of the Process[1]
Arrival time is: 0
Burst time is: 12
Enter the Arrival and Burst time of the Process[2]
Arrival time is: 6
Burst time is: 22
Enter the Arrival and Burst time of the Process[3]
Arrival time is: 9
Burst time is: 31
Enter the Arrival and Burst time of the Process[4]
Arrival time is: 15
Burst time is: 11
Enter the Time Quantum for the process: 6
Process No              Burst Time              TAT             Waiting Time
Process No[1]            12                     38                      18
Process No[4]            11                     32                      21
Process No[2]            22                     57                      35
Process No[3]            31                     67                      36
Average Turn Around Time: 27.500000
Average Waiting Time: 46.500000
--------------------------------
Process exited after 19.59 seconds with return value 0
Press any key to continue . . .
```

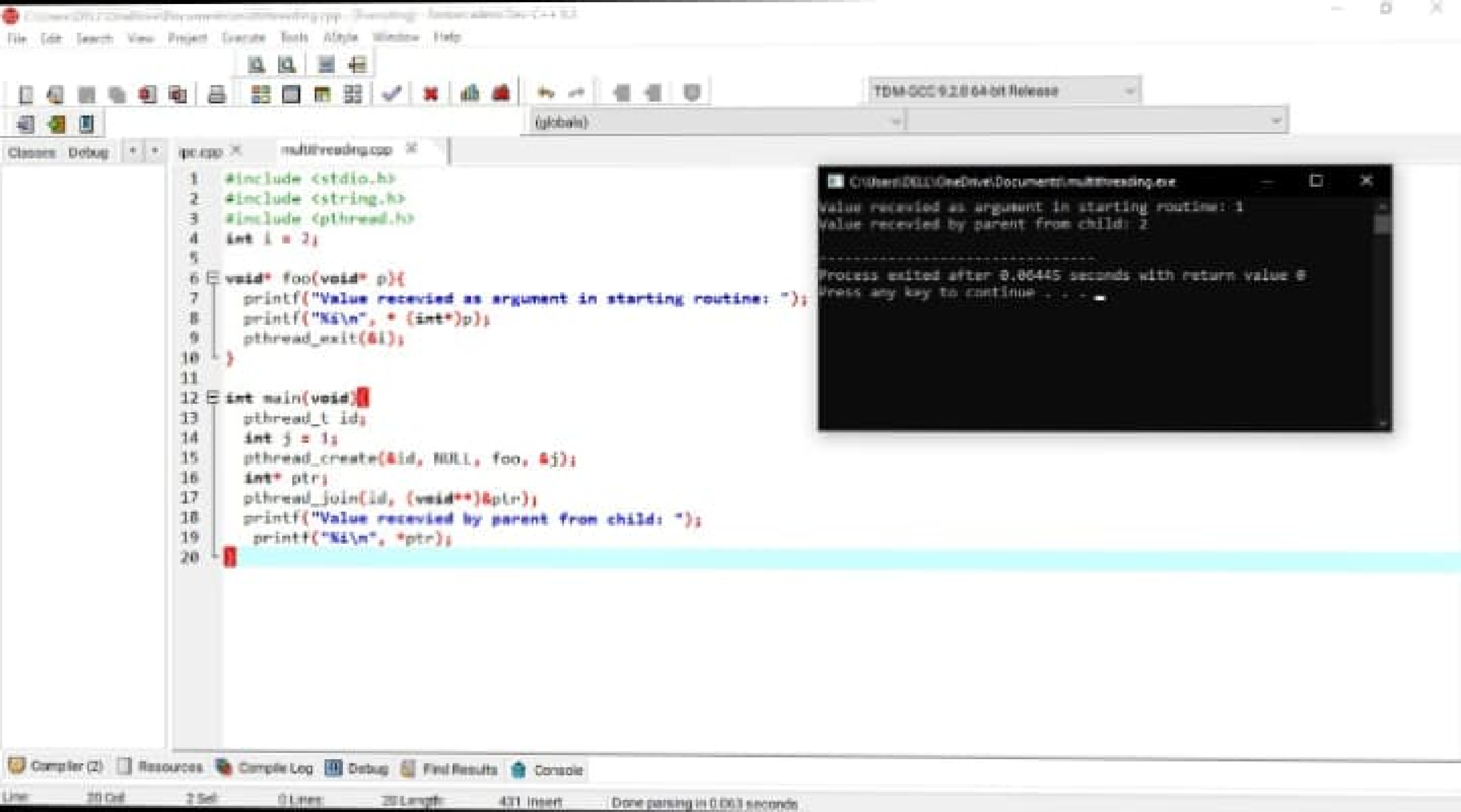
```
- Output Filename: C:\Users\aswin\Documents\ROUNDROBIN.exe
- Output Size: 323.7841796875 KiB
- Compilation Time: 0.19s
```



```
#include<stdio.h>
#include<stdlib.h>
#include<unistd.h>
#include<sys/shm.h>
#include<string.h>
int main()
{
int i;
void *shared_memory;
char buff[100];
int shmid;
shmid=shmget((key_t)2345, 1024, 0666|IPC_CREAT);
printf("Key of shared memory is %d\n",shmid);
shared_memory=shmat(shmid,NULL,0);
printf("Process attached at %p\n",shared_memory);
printf("Enter some data to write to shared memory\n");
read(0,buff,100);
strcpy(shared_memory,buff);
printf("You wrote : %s\n",(char *)shared_memory);
}
```

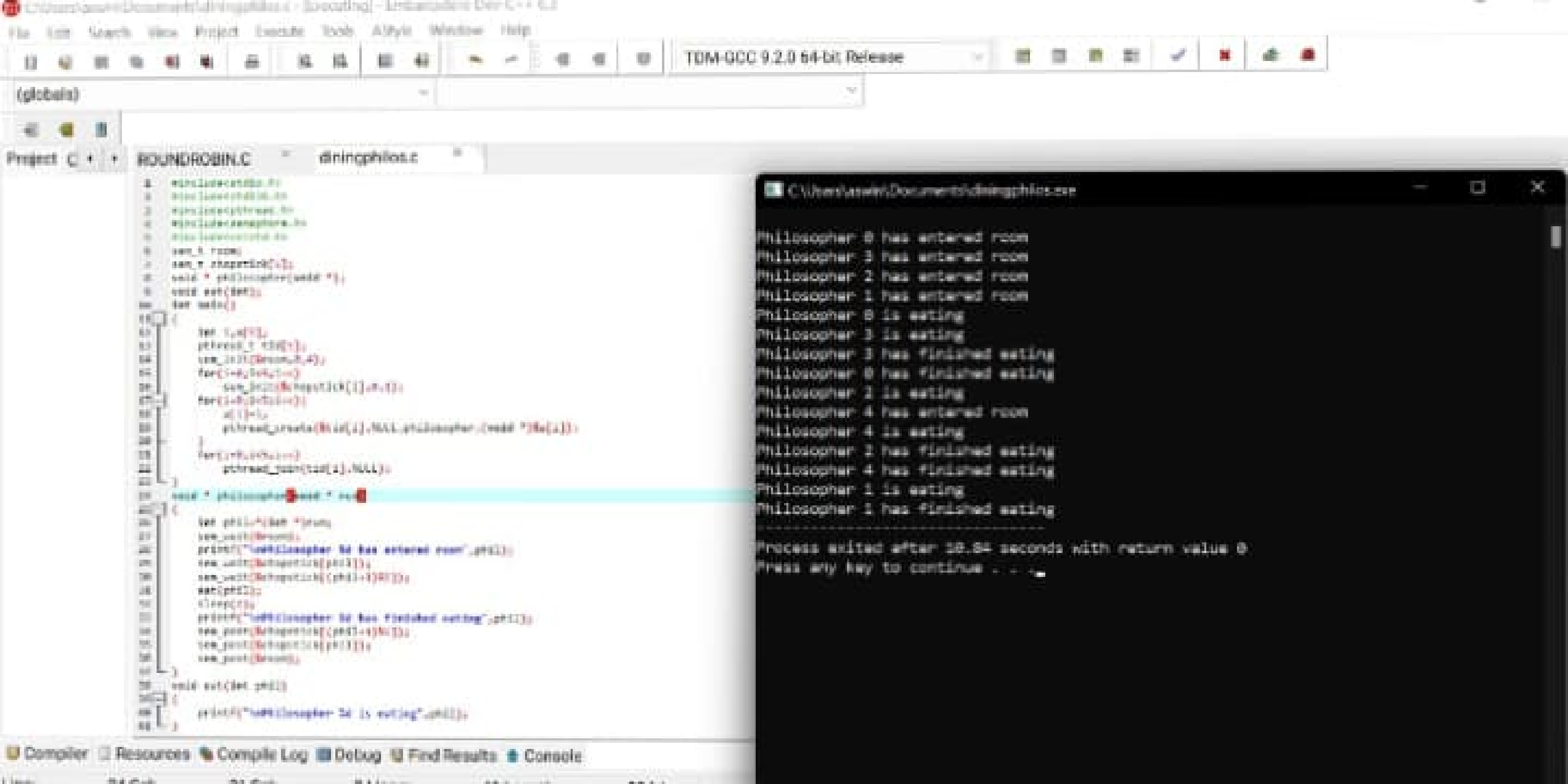
guest-VU6MzW@cn28-HP-ProDesk-400-G1-SFF: ~/Desktop

```
guest-VU6MzW@cn28-HP-ProDesk-400-G1-SFF:~$ cd Desktop
guest-VU6MzW@cn28-HP-ProDesk-400-G1-SFF:~/Desktop$ cc ipc.c
guest-VU6MzW@cn28-HP-ProDesk-400-G1-SFF:~/Desktop$ ./a.out
Key of shared memory is 2883597
Process attached at 0x7f53e0796000
Enter some data to write to shared memory
THIS IS PRASANNA
You wrote : THIS IS PRASANNA

guest-VU6MzW@cn28-HP-ProDesk-400-G1-SFF:~/Desktop$
```



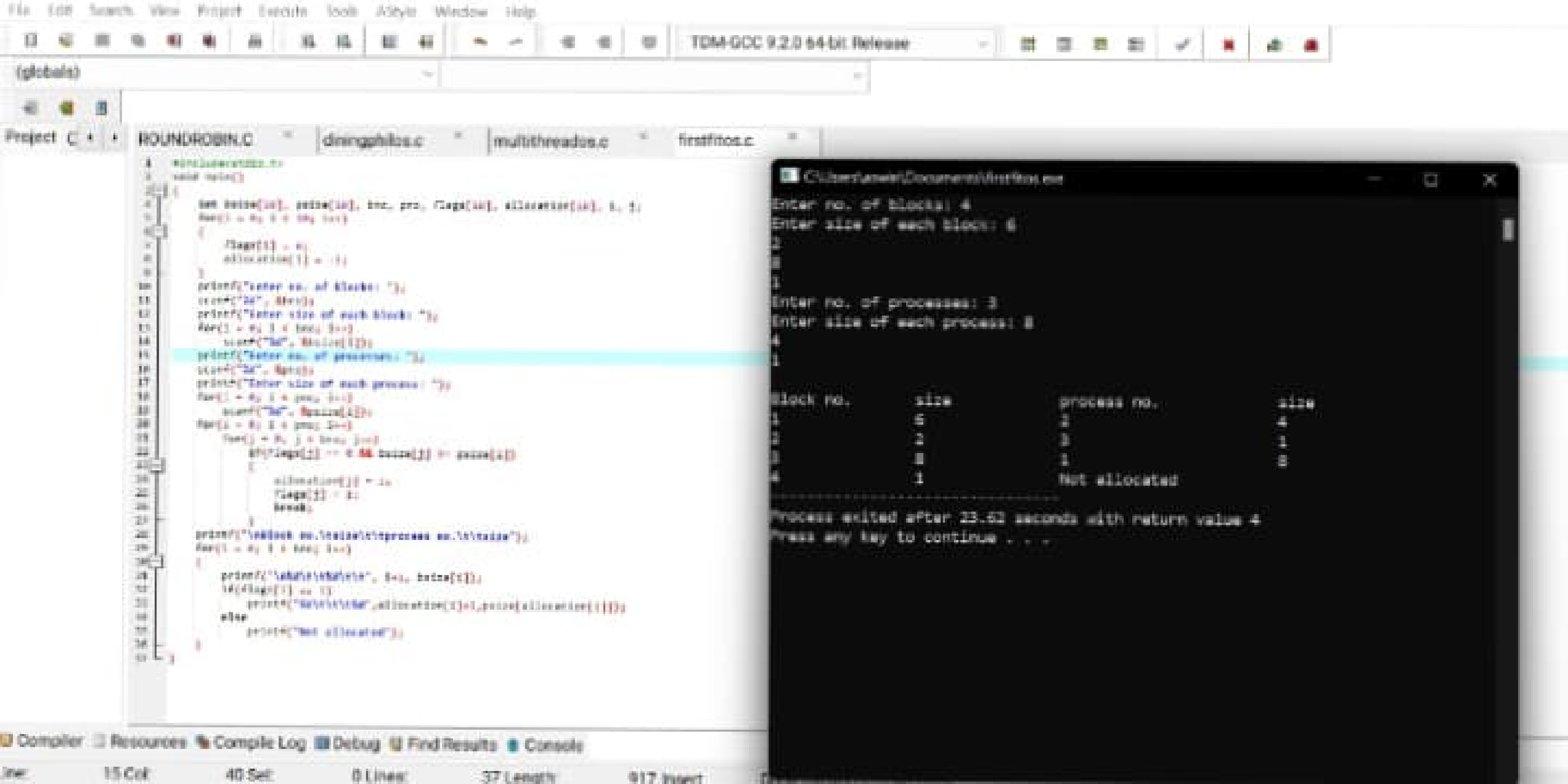
```c
#include <stdio.h>
#include <string.h>
#include <pthread.h>
int i = 2;

void* foo(void* p){
  printf("Value recevied as argument in starting routine: ");
  printf("%i\n", * (int*)p);
  pthread_exit(&i);
}

int main(void){
  pthread_t id;
  int j = 1;
  pthread_create(&id, NULL, foo, &j);
  int* ptr;
  pthread_join(id, (void**)&ptr);
  printf("Value recevied by parent from child: ");
   printf("%i\n", *ptr);
}
```

```
Value received as argument in starting routine: 1
Value received by parent from child: 2

--------------------------------
Process exited after 0.06445 seconds with return value 0
Press any key to continue . . .
```


File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2.0 64-bit Release
(globals)
Project C
ROUNDROBIN.C
diningphilos.c
C:\Users\aswin\Documents\diningphilos.exe
Compiler
Resources
Compile Log
Debug
Find Results
Console

```c
#include<stdio.h>
#include<stdlib.h>
#include<pthread.h>
#include<semaphore.h>
#include<unistd.h>
sem_t room;
sem_t chopstick[5];
void * philosopher(void *);
void eat(int);
int main()
{
	int i,a[5];
	pthread_t tid[5];
	sem_init(&room,0,4);
	for(i=0;i<5;i++)
		sem_init(&chopstick[i],0,1);
	for(i=0;i<5;i++){
		a[i]=i;
		pthread_create(&tid[i],NULL,philosopher,(void *)&a[i]);
	}
	for(i=0;i<5;i++)
		pthread_join(tid[i],NULL);
}
void * philosopher(void * num)
{
	int phil=*(int *)num;
	sem_wait(&room);
	printf("\nPhilosopher %d has entered room",phil);
	sem_wait(&chopstick[phil]);
	sem_wait(&chopstick[(phil+1)%5]);
	eat(phil);
	sleep(2);
	printf("\nPhilosopher %d has finished eating",phil);
	sem_post(&chopstick[(phil+1)%5]);
	sem_post(&chopstick[phil]);
	sem_post(&room);
}
void eat(int phil)
{
	printf("\nPhilosopher %d is eating",phil);
}
```

```

Philosopher 0 has entered room
Philosopher 3 has entered room
Philosopher 2 has entered room
Philosopher 1 has entered room
Philosopher 0 is eating
Philosopher 3 is eating
Philosopher 3 has finished eating
Philosopher 0 has finished eating
Philosopher 2 is eating
Philosopher 4 has entered room
Philosopher 4 is eating
Philosopher 2 has finished eating
Philosopher 4 has finished eating
Philosopher 1 is eating
Philosopher 1 has finished eating
--------------------------------
Process exited after 10.84 seconds with return value 0
Press any key to continue . . .
```


File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2.0 64-bit Release
(globals)
Project C
ROUNDROBIN.C
diningphilos.c
multithreados.c
firstfitos.c
C:\Users\[illegible]\Documents\firstfitos.exe
Compiler
Resources
Compile Log
Debug
Find Results
Console
Line: 15 Col: 40 Sel: 0 Lines: 37 Length: 917 Insert

```c
#include<stdio.h>
void main()
{
    int bsize[10], psize[10], bno, pno, flags[10], allocation[10], i, j;
    for(i = 0; i < 10; i++)
    {
        flags[i] = 0;
        allocation[i] = -1;
    }
    printf("Enter no. of blocks: ");
    scanf("%d", &bno);
    printf("Enter size of each block: ");
    for(i = 0; i < bno; i++)
        scanf("%d", &bsize[i]);
    printf("Enter no. of processes: ");
    scanf("%d", &pno);
    printf("Enter size of each process: ");
    for(i = 0; i < pno; i++)
        scanf("%d", &psize[i]);
    for(i = 0; i < pno; i++)
        for(j = 0; j < bno; j++)
            if(flags[j] == 0 && bsize[j] >= psize[i])
            {
                allocation[j] = i;
                flags[j] = 1;
                break;
            }
    printf("\nBlock no.\tsize\t\tprocess no.\t\tsize");
    for(i = 0; i < bno; i++)
    {
        printf("\n%d\t\t%d\t\t", i+1, bsize[i]);
        if(flags[i] == 1)
            printf("%d\t\t\t%d",allocation[i]+1,psize[allocation[i]]);
        else
            printf("Not allocated");
    }
}
```

```
Enter no. of blocks: 4
Enter size of each block: 6
2
8
1
Enter no. of processes: 3
Enter size of each process: 8
4
1

Block no.       size            process no.             size
1               6               2                       4
2               2               3                       1
3               8               1                       8
4               1               Not allocated
--------------------------------
Process exited after 23.62 seconds with return value 4
Press any key to continue . . .
```