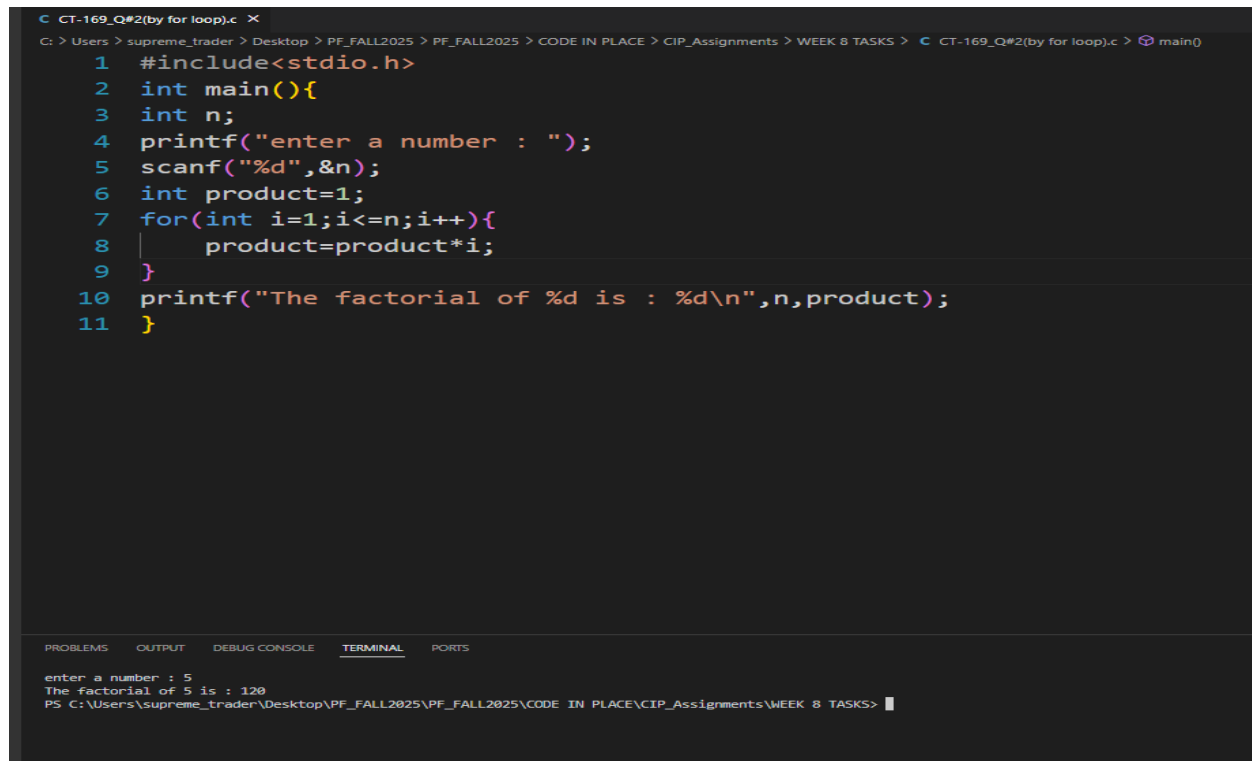


Q#2(for loop)

The image shows a screenshot of a C++ IDE with a dark theme. The main editor window displays a C++ program that calculates the factorial of a number using a for loop. The code is as follows:

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("enter a number : ");
5     scanf("%d",&n);
6     int product=1;
7     for(int i=1;i<=n;i++){
8         product=product*i;
9     }
10    printf("The factorial of %d is : %d\n",n,product);
11 }
```

Below the code editor, there is a terminal window with tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, and PORTS. The TERMINAL tab is active, showing the program's execution output:

```
enter a number : 5
The factorial of 5 is : 120
PS C:\Users\supreme_trader\Desktop\PF_FALL2025\PF_FALL2025\CODE IN PLACE\CIP_Assignments\WEEK 8 TASKS>
```

Q#1(nested for loop) pattern 1

```
CT-169_Q#1(nested for loop) pattern 1.c X
C: > Users > supreme_trader > Desktop > PF_FALL2025 > PF_FALL2025 > CODE IN PLACE > CIP_Assignments > WEEK 8 TASKS > CT-169_Q#1(nested for loop) pattern 1.c > main()
1  #include<stdio.h>
2  int main(){
3      for(int i=1;i<=3;i++){
4          for(int j=1;j<=i;j++){
5              printf("*");
6          }
7          printf("\n");
8      }
9  }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
*
**
***
PS C:\Users\supreme_trader\Desktop\PF_FALL2025\PF_FALL2025\CODE IN PLACE\CIP_Assignments\WEEK 8 TASKS>
```

Q#1(nested for loop) pattern 2

```
CT-169_Q#1(nested for loop)pattern 2.c X
C: > Users > supreme_trader > Desktop > PF_FALL2025 > PF_FALL2025 > CODE IN PLACE > CIP_Assignments > WEEK 8 TASKS > CT-169_Q#1(nested for loop)pattern 2.c > main()
1  #include<stdio.h>
2  int main(){
3      int n=5;
4      for(int i=1;i<=n;i++){
5          for(int j=1;j<=(n-i);j++){
6              printf(" ");
7          }
8          for(int j=1;j<=i;j++){
9              printf("*");
10         }
11         printf("\n");
12     }
13 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
*
**
***
****
*****
PS C:\Users\supreme_trader\Desktop\PF_FALL2025\PF_FALL2025\CODE IN PLACE\CIP_Assignments\WEEK 8 TASKS>
```

Q#4(nested for loop)

```
CT-169_Q#4(nested for loop).c
C: > Users > supreme_trader > Desktop > PF_FALL2025 > PF_FALL2025 > CODE IN PLACE > CIP_Assignments > WEEK 8 TASKS > CT-169_Q#4(nested for loop).c > main()
1  #include<stdio.h>
2  int main(){
3      int n, i, j;
4      printf("Enter n: ");
5      scanf("%d", &n);
6      for(i = 1; i <= n; i++) {
7          for(j = 1; j <= n; j++) {
8              if((i + j) % 2 == 0) {
9                  printf("(%d,%d) ", i,j);
10             }
11         }
12     }
13
14 }
15
16
```

PROBLEMS OUTPUT DEBUG CONSOLE **TERMINAL** PORTS

Enter n: 5
(1,1) (1,3) (1,5) (2,2) (2,4) (3,1) (3,3) (3,5) (4,2) (4,4) (5,1) (5,3) (5,5)
PS C:\Users\supreme_trader\Desktop\PF_FALL2025\PF_FALL2025\CODE IN PLACE\CIP_Assignments\WEEK 8 TASKS>

Q#2(while loop)

```
CT-169_Q#2(while loop).c
C: > Users > supreme_trader > Desktop > PF_FALL2025 > PF_FALL2025 > CODE IN PLACE > CIP_Assignments > WEEK 8 TASKS > CT-169_Q#2(while loop).c > main()
1  #include<stdio.h>
2  int main(){
3      int n;
4      int reverse=0;
5      printf("Enter a number :");
6      scanf("%d",&n);
7      while(n>0){
8          reverse=(n%10)+reverse;
9          reverse=reverse*10;
10         n=n/10;
11     }
12     reverse=reverse/10;
13
14     printf("%d",reverse);
15
16 }
17
18
19
```

PROBLEMS OUTPUT DEBUG CONSOLE **TERMINAL** PORTS

Enter a number :1234
4321
PS C:\Users\supreme_trader\Desktop\PF_FALL2025\PF_FALL2025\CODE IN PLACE\CIP_Assignments\WEEK 8 TASKS>

Q#2(nested while loop)

```
C CT-169_Q#2(nested while loop).c X
C: > Users > supreme_trader > Desktop > PF_FALL2025 > PF_FALL2025 > CODE IN PLACE > CIP_Assignments > WEEK 8 TASKS > C CT-169_Q#2(nested while loop).c > main()

1  #include<stdio.h>
2  int main(){
3      int i=1;
4      int j;
5      while(i<=5){
6          printf("Table of %d:\n",i);
7          j=1;
8          while(j<=10){
9              printf("%d*%d=%d\n",i,j,i*j);
10             j++;
11         }
12         printf("\n");
13         i++;
14     }
15 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Table of 1:
1*1=1
1*2=2
1*3=3
1*4=4
1*5=5
1*6=6
1*7=7
1*8=8
1*9=9
1*10=10

Table of 2:

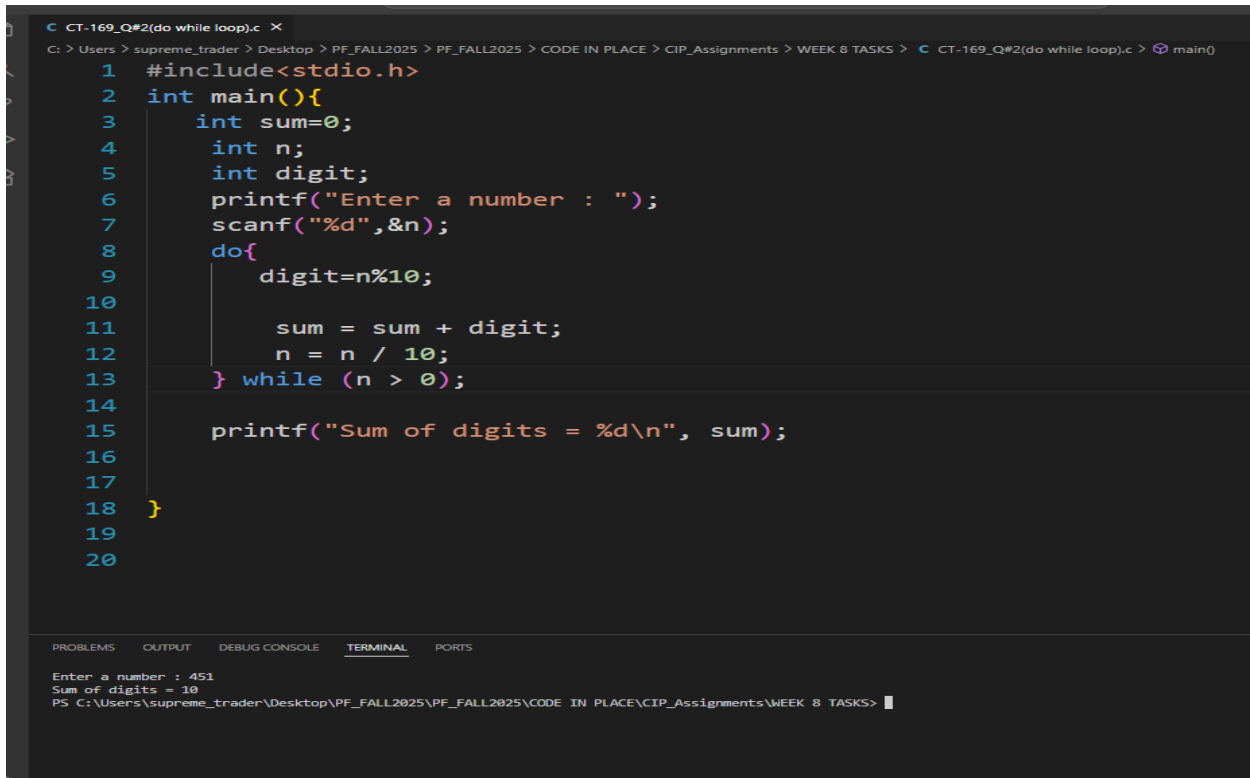
```
C CT-169_Q#2(nested while loop).c X
C: > Users > supreme_trader > Desktop > PF_FALL2025 > PF_FALL2025 > CODE IN PLACE > CIP_Assignments > WEEK 8 TASKS > C CT-169_Q#2(nested while loop).c > main()

1  #include<stdio.h>
2  int main(){
3      int i=1;
4      int j;
5      while(i<=5){
6          printf("Table of %d:\n",i);
7          j=1;
8          while(j<=10){
9              printf("%d*%d=%d\n",i,j,i*j);
10             j++;
11         }
12         printf("\n");
13         i++;
14     }
15 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Table of 1:
1*1=1
1*2=2
1*3=3
1*4=4
1*5=5
1*6=6
1*7=7
1*8=8
1*9=9
1*10=10

Table of 2:

Q#2(do while loop)

```
CT-169_Q#2(do while loop).c X
C: > Users > supreme_trader > Desktop > PF_FALL2025 > PF_FALL2025 > CODE IN PLACE > CIP_Assignments > WEEK 8 TASKS > CT-169_Q#2(do while loop).c > main()
1  #include<stdio.h>
2  int main(){
3      int sum=0;
4      int n;
5      int digit;
6      printf("Enter a number : ");
7      scanf("%d",&n);
8      do{
9          digit=n%10;
10
11         sum = sum + digit;
12         n = n / 10;
13     } while (n > 0);
14
15     printf("Sum of digits = %d\n", sum);
16
17
18 }
19
20
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Enter a number : 451
Sum of digits = 10
PS C:\Users\supreme_trader\Desktop\PF_FALL2025\PF_FALL2025\CODE IN PLACE\CIP_Assignments\WEEK 8 TASKS> █