

institute of Computer Technology
B. Tech. Computer Science and Engineering

Sub: ESFP – I
Course Code: 2CSE102
Practical – 9

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Branch: BDA
Class: B
Batch: 14

Q.1.Problem Definition:

Find out if there are any errors in the given program. Give proper justification if there is error or else write output.

1.
`#include<stdio.h>`
`int main()`
`{`
`int i=1;`
`while (i<=10);`
`{`
`printf (“\n%d”,i);`
`}`
`}`

Solution:

Code:-

```
//sub-topic:- No.1

#include<stdio.h>
int main()
{
    int i=1;
```

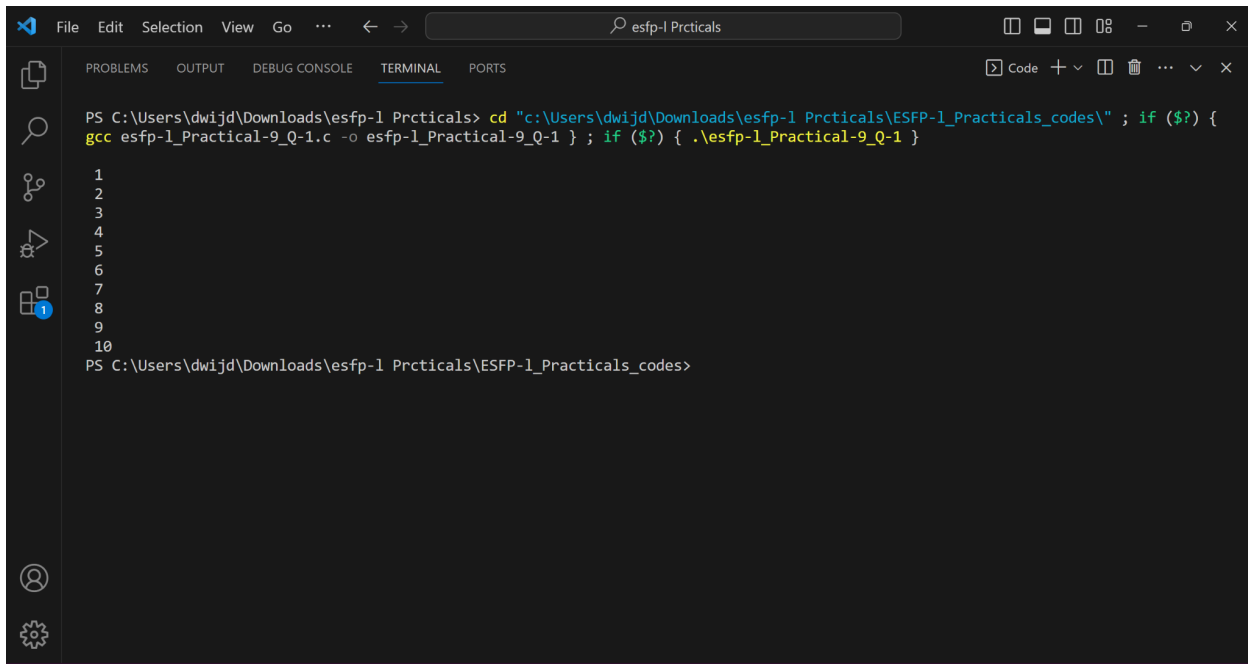
```

while (i<=10) //We don't need to terminate while loop.
{
    printf ("\n %d",i);

    i=++i; //and we need to give an increment.
}
//here return 0; is not mentioned.
return 0;
}

```

Output:-



```

PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes\" ; if ($?) { gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }
1
2
3
4
5
6
7
8
9
10
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes>

```

2.

```

#include<stdio.h>
int main()
{
int x=4;
while (x==1)
{
x=x-1;
printf ("\n %d", x);
}
}

```

```
-- X;  
}  
}
```

Solution:

Code:-

```
//sub-topic:- No.2  
  
#include<stdio.h>  
int main()  
{  
    int x=4;  
  
    while (x<=4 && x>=-10) //the condition was not right here.  
    {  
        x=x-1;  
        printf ("\n %d", x);  
        --x;  
    }  
    //here return 0; is not mentioned.  
    return 0;  
}
```

Output:-

```
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes\" ; if ($?) {  
gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }  
  
3  
1  
-1  
-3  
-5  
-7  
-9  
-11  
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes>
```

3.

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
int x=4, y, z;
```

```
y=-x;
```

```
z=x- -;
```

```
printf ("\n%d%d%d", x,y,z);
```

```
return 0;
```

```
}
```

Solution:

Code:-

```
//sub-topic:- No.3
```

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
int x=4, y, z;
```

```
y=-x;
```

```

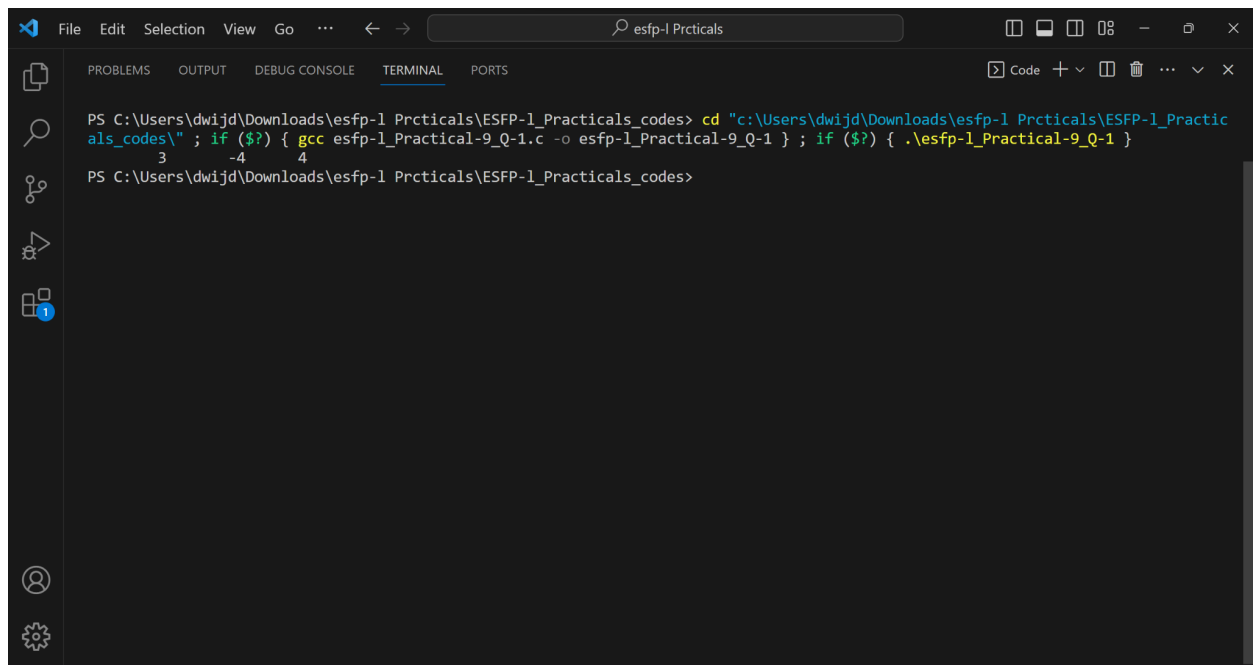
z=x--; //space is not needed between '-' in decrement.

printf ("\t%d\t%d\t%d", x,y,z);

return 0;
}

```

Output:-



```

PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes\" ; if ($?) { gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes>

```

4.

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
int x=4,y=3,z;
```

```
z=x - - - y
```

```
printf ("\n %d%d%d", x,y,z);
```

```
return 0;
```

```
}
```

Solution:

Code:-

```
//sub-topic:- No.4

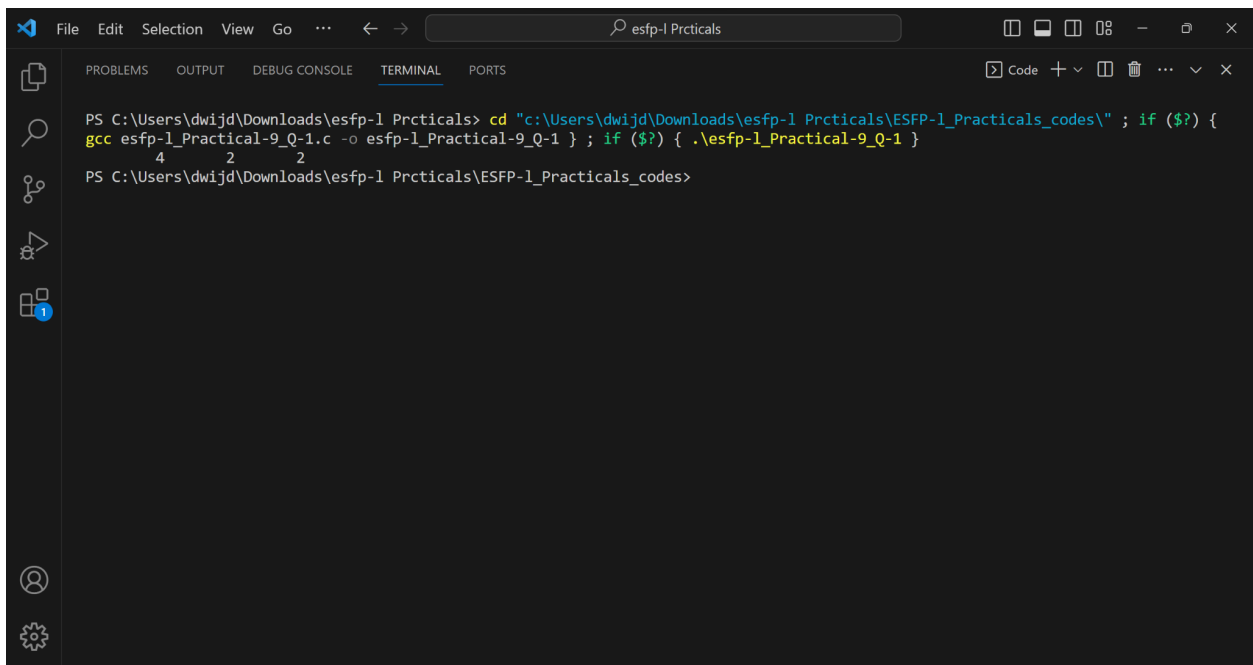
#include<stdio.h>
int main()
{
    int x=4,y=3,z;

    z=x--y;//if we need subtraction after decrement of y, then use brackets.

    printf ("\t%d\t%d\t%d", x,y,z);

    return 0;
}
```

Output:-



```
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes\" ; if ($?) { gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes>
```

5.

```
#include<stdio.h>
```

```
int main()
```

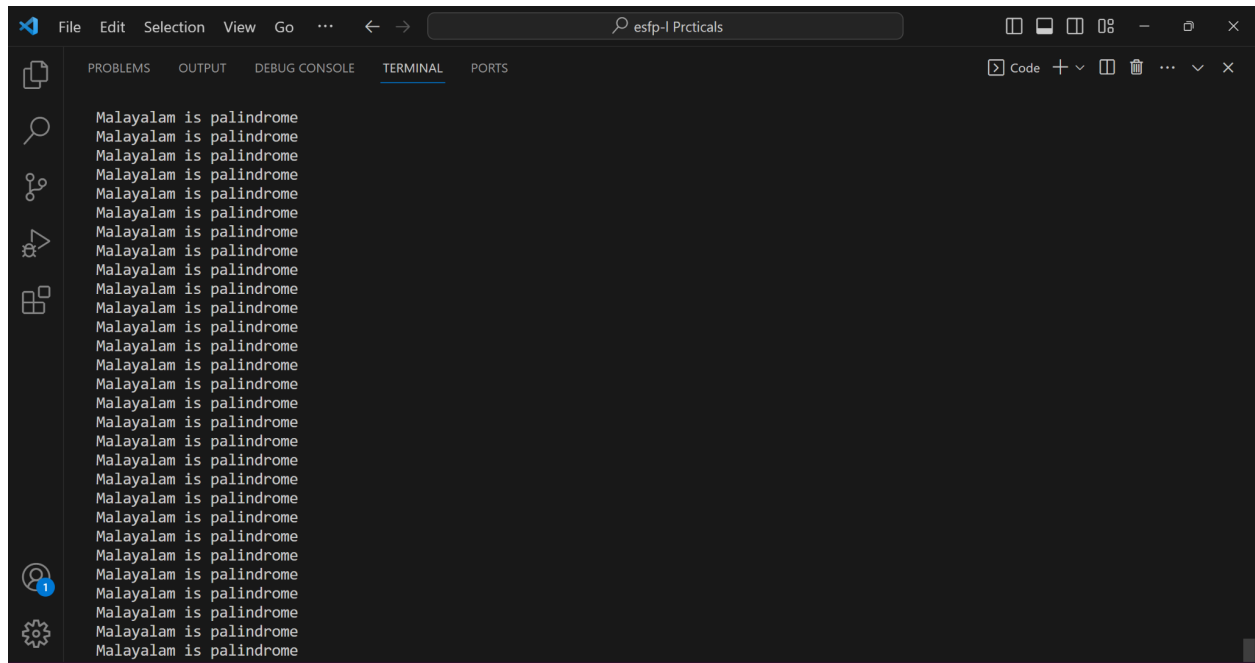
```
{  
  
while ('a'<'b')  
  
printf ("  
\n Malayalam is palindrome");  
  
return 0;  
  
}
```

Solution:

Code:-

```
//sub-topic:- No.5  
  
#include<stdio.h>  
  
int main()  
{  
  
    char a; char b;  
  
    while ( "a" < "b")  
    {  
        printf("\n Malayalam is palindrome");  
    }  
  
    return 0;  
}
```

Output:-



6.

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
int i;
```

```
while (i=10)
```

```
{
```

```
printf("\n %d", i);
```

```
i=i+1;
```



```
}
```

```
return 0;
```

```
}
```

Solution:

Code:-

```
//sub-topic:- No.6

#include<stdio.h>

int main()
{
    int i=0;

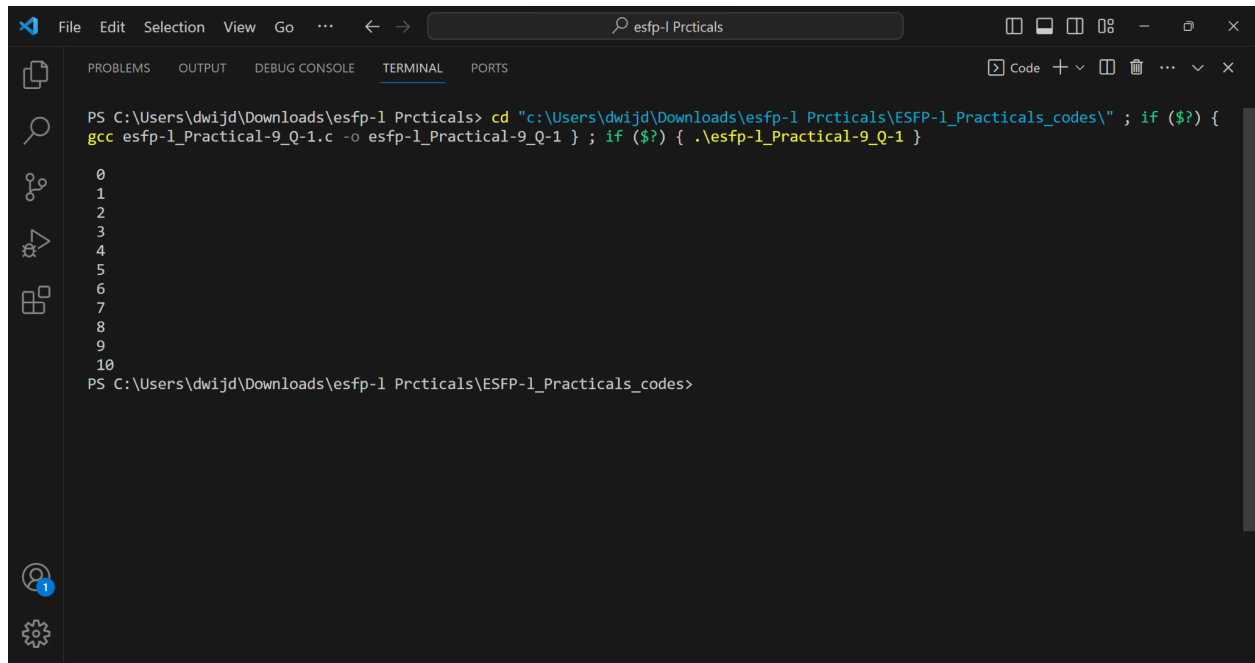
    while (i<=10)
    {

        printf("\n %d", i);

        i=i+1;
    }

    return 0;
}
```

Output:-



The screenshot shows a Visual Studio Code window with a terminal open. The terminal title is "esfp-l Prcticals". The command prompt is "PS C:\Users\dwijd\Downloads\esfp-l Prcticals>". The command entered is `cd "c:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-l Practicals_codes\" ; if ($?) { gcc esfp-l_Practical-9_Q-1.c -o esfp-l_Practical-9_Q-1 } ; if ($?) { .\esfp-l_Practical-9_Q-1 }`. The output shows a list of numbers from 0 to 10, each on a new line. The terminal prompt is now `PS C:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-l Practicals_codes>`.

```
PS C:\Users\dwijd\Downloads\esfp-l Prcticals> cd "c:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-l Practicals_codes\" ; if ($?) {  
gcc esfp-l_Practical-9_Q-1.c -o esfp-l_Practical-9_Q-1 } ; if ($?) { .\esfp-l_Practical-9_Q-1 }  
  
0  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
PS C:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-l Practicals_codes>
```

7.

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
float a=1.1;
```

```
while (a==1.1)
```

```
{
```

```
printf ("\n %f", a);
```

```
a=a-0.1;
```

```
}
```

```
return 0;
```

```
}
```

Solution:

Code:-

```
//sub-topic:- No.7

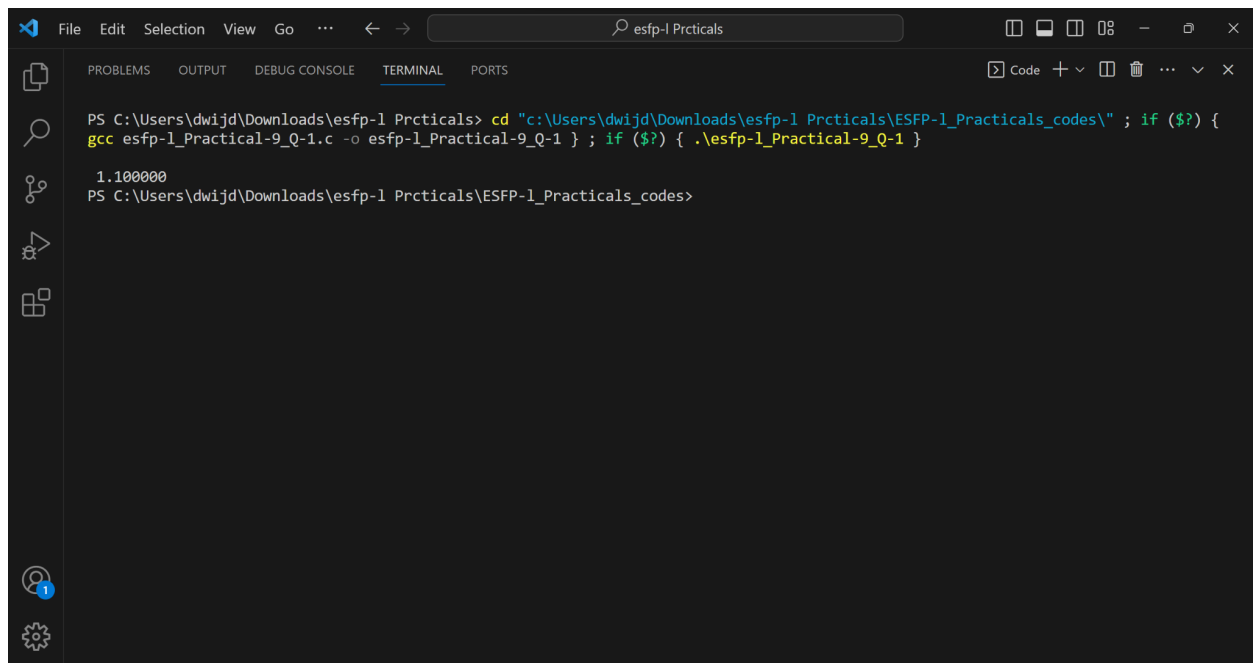
#include<stdio.h>
int main()
{
    float a=1.1;

    while (a>=1.1)
    {
        printf ("\n %f", a);

        a=a-0.1;
    }

    return 0;
}
```

Output:-



```
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes\" ; if ($?) {
gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }

1.100000
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes>
```

8.

```
#include<stdio.h>
int main()
{
int x=4,y=0,z;
while (x>=0)
{
x - -;
y++;
if (x== y)
continue;
else
printf ("\n %d%d", x, y);
}
return 0;
}
```

Solution:

Code:-

```
#include<stdio.h>
int main()
{
    int x=4,y=0;

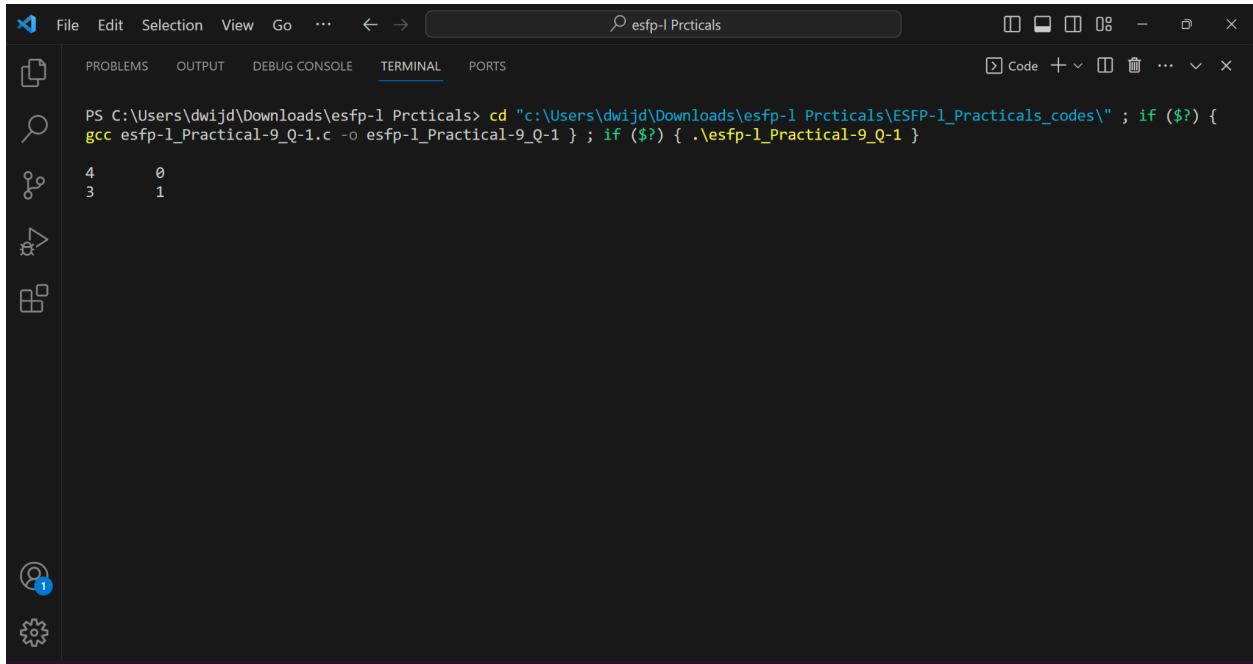
    while (x>=0)
    {

        if (x==y)
        {
            continue;
        }
        else
        {
            printf ("\n%d\t%d",x,y);
        }

        x--;
        y++;
    }

    return 0;
}
```

Output:-



```
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes\" ; if ($?) {  
gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }  
  
4      0  
3      1
```

9.

```
#include<stdio.h>  
int main()  
{  
int x=4,y=0,z;  
while (x>=0)  
{  
if (x= = y)  
break;  
else  
printf ("\n %d%d", x, y);  
x - -;  
y + +;  
}  
return 0;  
}
```

Solution:

Code:-

```
//sub-topic:- No.9

#include<stdio.h>

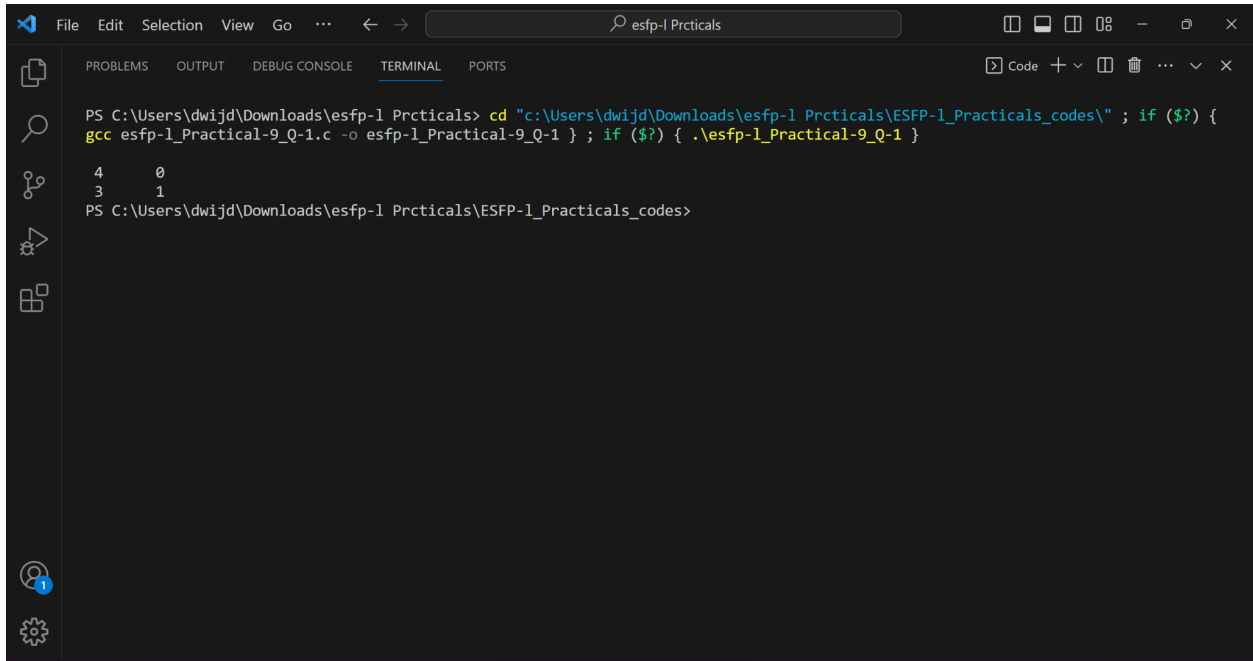
int main()
{
    int x=4,y=0,z;
    while (x>=0)
    {
        if (x==y)
        {
            break;
        }

        else
        {
            printf ("\n %d\t%d",x,y);
        }

        x--;
        y++;
    }

    return 0;
}
```

Output:-



```
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes\" ; if ($?) {  
gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }  
  
4      0  
3      1  
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes>
```

10.

```
#include<stdio.h>  
int main()  
{  
int i=0;  
for ( ; i ; )  
{  
printf ("Hello");  
}  
return 0;  
}
```

Solution:

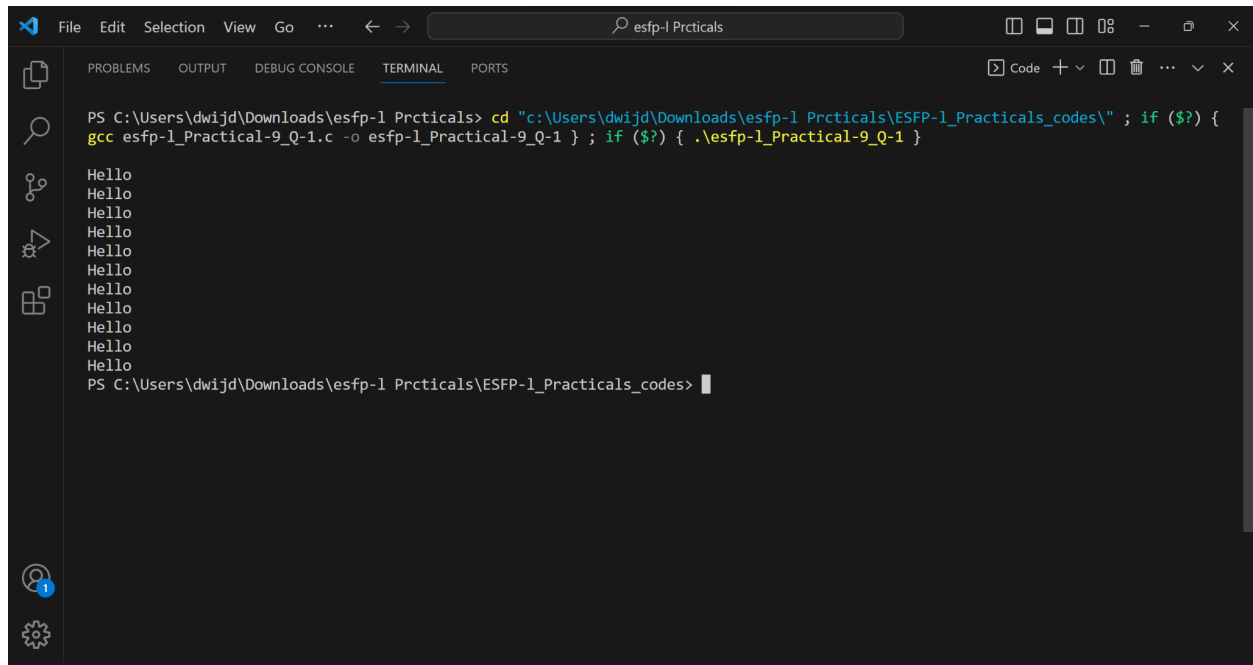
Code:-



```
//sub-topic:- No.10  
  
#include<stdio.h>  
int main()  
{  
    int i;  
    for (i=0;i<=10;i++)
```

```
{  
    printf ("\nHello");  
}  
return 0;  
}
```

Output:-



```
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes\" ; if ($?) {  
gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }  
  
Hello  
Hello  
Hello  
Hello  
Hello  
Hello  
Hello  
Hello  
Hello  
Hello  
Hello  
Hello  
Hello  
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes>
```

11.

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
int i;
```

```
for ( i=1; i<=5; printf ("\n %d", i);
```

```
i++;
```

```
return 0;
```

```
}
```


Solution:

Code:-

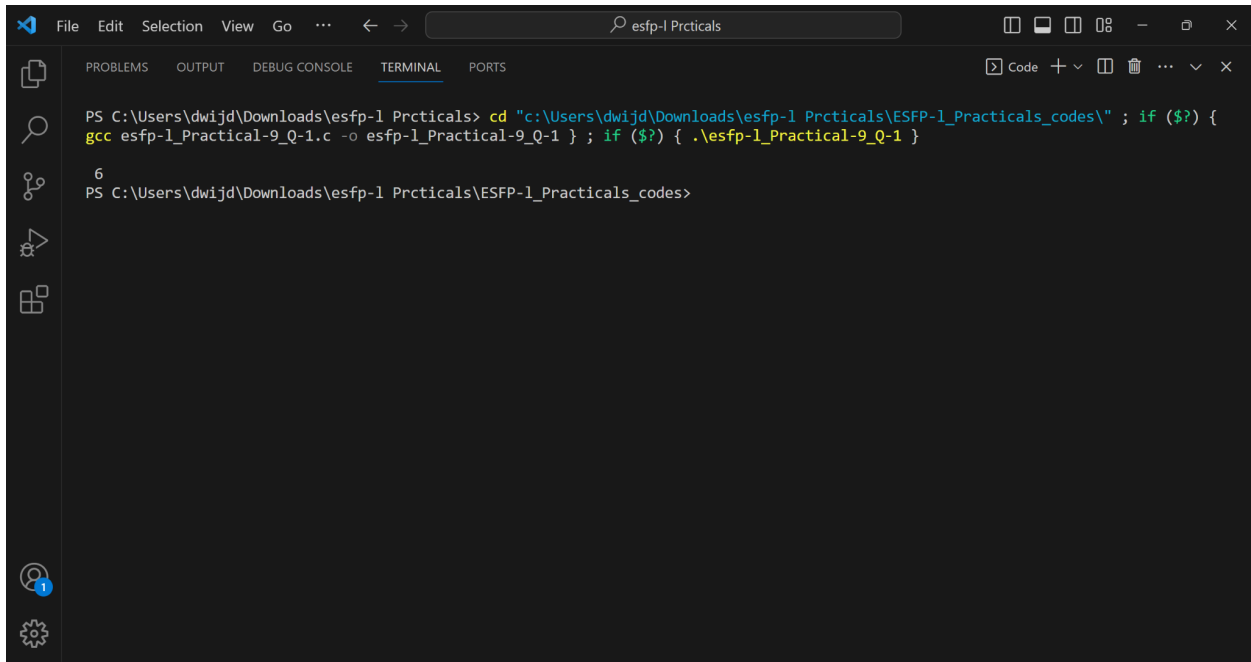
```
#include<stdio.h>
int main()
{
    int i;

    for (i=1;i<=5;i++);

    printf ("\n %d",i);

    return 0;
}
```

Output:-



```
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes\" ; if ($?) { gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }
6
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes>
```

12 .

```
#include<stdio.h>
int main()
{
    int i=1,j=1;
    for ( ; ; )
```

```
{
if (i>5)
break;
else
j+=1;
printf ("\n %d", j);
i+=j;
}
}
```

Solution:

Code:-

```
//sub-topic:- No.12

#include<stdio.h>
int main()
{
    int i=1,j=1;
    for (;;)
    {
        if (i>5)
        {
            break;
        }

        else
        {
            j+=1;
            printf ("\n %d", j);
        }
        i+=j;
    }
    return 0;
}
```

Output:-

```
PS C:\Users\dwijd\Downloads\esfp-l Prcticals> cd "c:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-1_Practicals_codes\" ; if ($?) {  
gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }  
  
2  
3  
PS C:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-1_Practicals_codes>
```

13.

```
int main()  
{  
int true=0, false;  
while ( true )  
{  
false=1;  
}  
}
```

Solution:

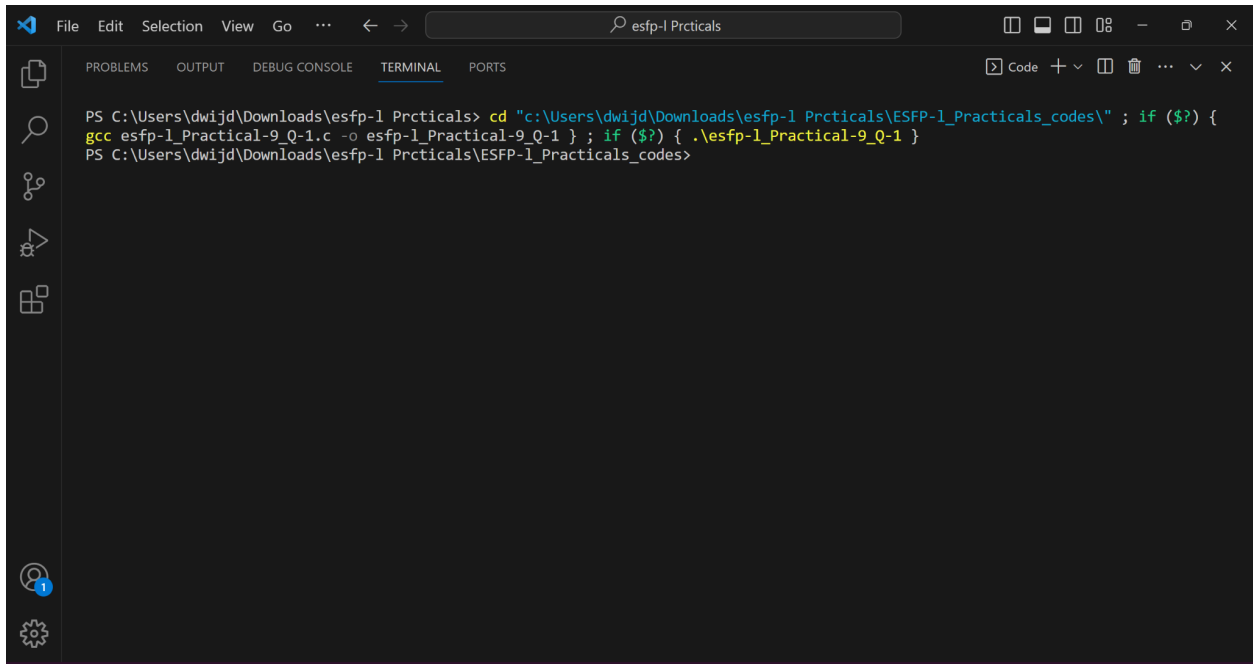
Code:-

```
//sub-topic:- No.13
```

```
#include <stdio.h>  
int main()  
{  
    int true=0,false;  
  
    while (true)  
    {  
        false=1;
```

```
    printf("\n%d", false);  
}  
return 0;  
}
```

Output:-



```
PS C:\Users\dwijd\Downloads\esfp-l Prcticals> cd "c:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-1_Practicals_codes\" ; if ($?) {  
gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }  
PS C:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-1_Practicals_codes>
```

```
14.  
int main()  
{  
int a=32;  
do  
{  
printf("%d ", a);  
a++;  
}while(a <= 30);  
return 0;  
}
```

Solution:

Code:-

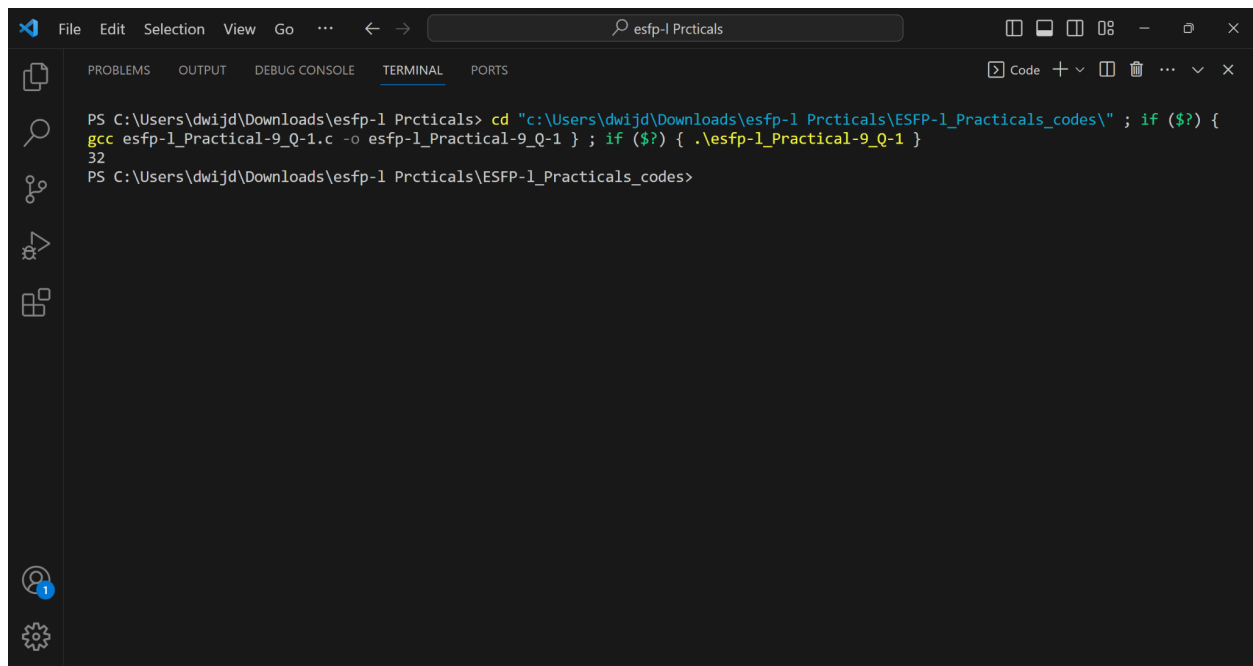
```
//sub-topic:- No.14
#include <stdio.h>
int main()
{
    int a=32;

    do
    {
        printf("%d",a);
        a++;

    }while(a<=30);

    return 0;
}
```

Output:-



```
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes\" ; if ($?) { gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }
32
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1 Practicals_codes>
```

15.

```
int main()
{
```

```
int a=10;
do
{
printf("%d ", a);
a++;
if(a > 15)
break;
}while(1);
return 0;
}
```

Solution:

Code:-

```
//sub-topic:- No.15

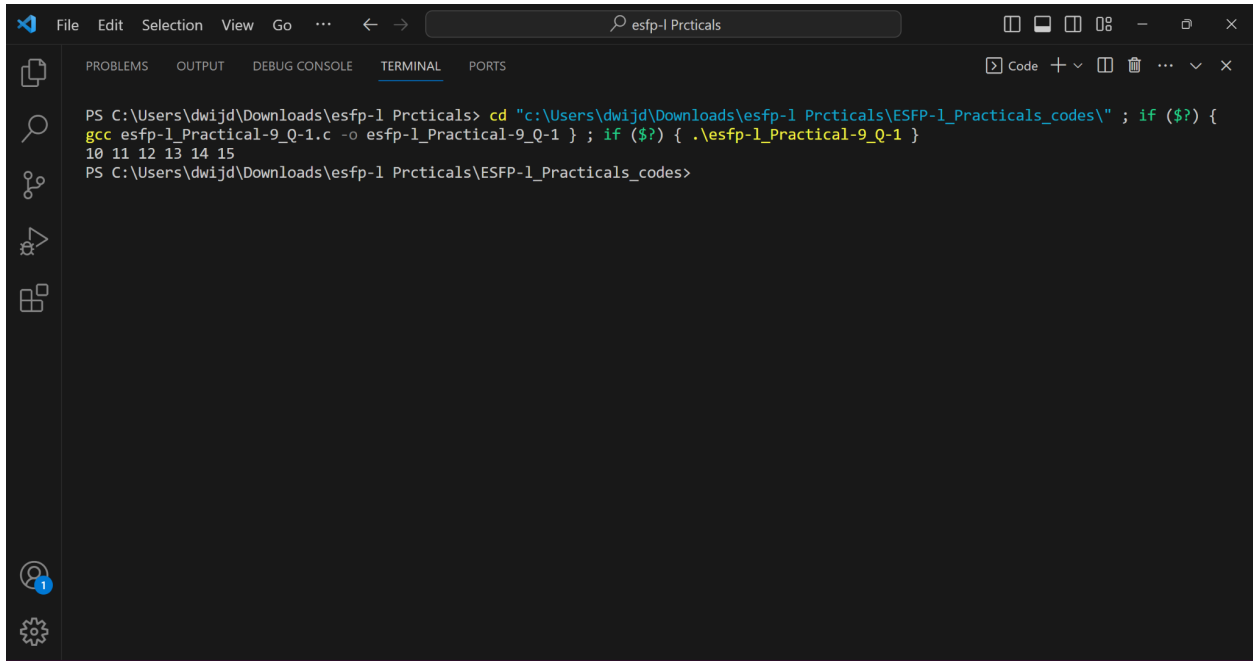
#include <stdio.h>
int main()
{
    int a=10;

    do
    {
        printf("%d ", a);
        a++;

        if(a > 15)
        {
            break;
        }

    }while(1);
    return 0;
}
```

Output:-



The screenshot shows a Visual Studio Code window with the 'TERMINAL' tab active. The terminal displays the following commands and output:

```
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes\" ; if ($?) {  
gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }  
10 11 12 13 14 15  
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes>
```

16.

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
int i = 0;
```

```
for (i)
```

```
printf("hi");
```

```
return 0;
```

```
}
```

Solution:

Code:-

```
//sub-topic:- No.16
```

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
int i=0;
```

```
for (;i<10;i++)
```

```
{
```

```
printf("\thi");
```

```

    }

    return 0;
}

```

Output:-

```

PS C:\Users\dwijd\Downloads\esfp-1 Prcticals> cd "c:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes\" ; if ($?) {
gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }
hi hi hi hi hi hi hi hi hi hi
PS C:\Users\dwijd\Downloads\esfp-1 Prcticals\ESFP-1_Practicals_codes>

```

17.

```

#include <stdio.h>
void main()
{
int k = 0;
for (k < 3; k++)
printf("Hello");
}

```

Solution:

Code:-


```
# include <stdio.h>
void main()
{
    int k=0;
    for (;k<3; k++)
    {
        printf("\tHello");
    }
}
```

Output:-

```
PS C:\Users\dwijd\Downloads\esfp-l Prcticals> cd "c:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-l Practicals_codes\"
gcc esfp-l_Practical-9_Q-1.c -o esfp-l_Practical-9_Q-1 ; if ($?) { .\esfp-l_Practical-9_Q-1 }
Hello Hello Hello
PS C:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-l Practicals_codes>
```

18.

```
#include<stdio.h>
int main() {
int i,j;
for(i=1;i<=5;i++) {
for(j=1;j<=i;j++) {
printf("$");
}
```

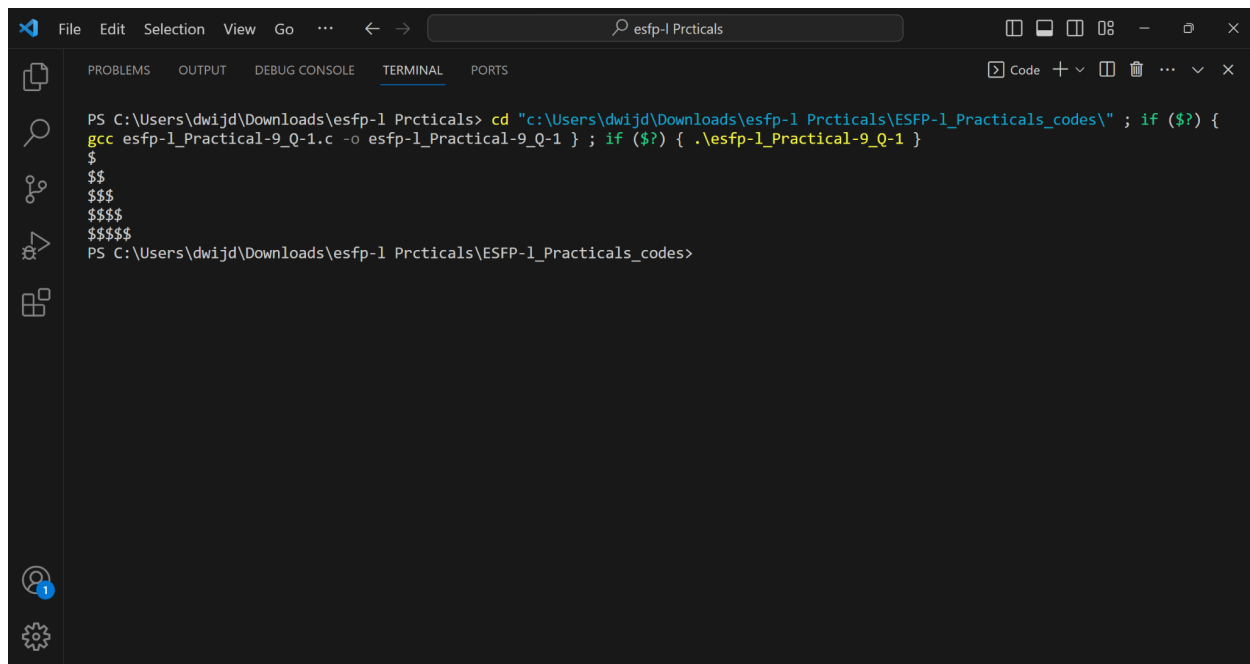
```
printf("\n");  
}}
```

Solution:

Code:-

```
//sub-topic:- No.18  
  
#include<stdio.h>  
int main()  
{  
    int i,j;  
  
    for(i=1;i<=5;i++)  
    {  
  
        for(j=1;j<=i;j++)  
        {  
            printf("$");  
        }  
  
        printf("\n");  
    }  
    return 0;  
}
```

Output:-



```
PS C:\Users\dwijd\Downloads\esfp-l Prcticals> cd "c:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-1_Practicals_codes\" ; if ($?) {  
gcc esfp-1_Practical-9_Q-1.c -o esfp-1_Practical-9_Q-1 } ; if ($?) { .\esfp-1_Practical-9_Q-1 }  
$  
$$  
$$$  
$$$$  
$$$$$  
$$$$$$  
PS C:\Users\dwijd\Downloads\esfp-l Prcticals\ESFP-1_Practicals_codes>
```

FULL CODE:- (JUST FOR SHOW)

```
//Topic:-question-1

//sub-topic:- No.1

#include<stdio.h>
int main()
{
    int i=1;
    while (i<=10) //We don't need to terminate while loop.
    {
        printf ("\n %d",i);

        i=++i; //and we need to give an increment.
    }
    //here return 0; is not mentioned.
    return 0;
}

////////////////////////////////////

//sub-topic:- No.2

#include<stdio.h>
int main()
{
    int x=4;

    while (x<=4 && x>=-10) //the condition was not right here.
    {
        x=x-1;
        printf ("\n %d", x);
        --x;
    }
    //here return 0; is not mentioned.
    return 0;
}

////////////////////////////////////

//sub-topic:- No.3

#include<stdio.h>
```

```

int main()
{
    int x=4, y, z;

    y=-x;
    z=x--; //space is not needed between '-' in decrement.

    printf ("\t%d\t%d\t%d", x,y,z);

    return 0;
}

```

//sub-topic:- No.4

```

#include<stdio.h>
int main()
{
    int x=4,y=3,z;

    z=x- (--y); //if we need subtraction after decrement of y, then use brackets.

    printf ("\t%d\t%d\t%d", x,y,z);

    return 0;
}

```

//sub-topic:- No.5

```

#include<stdio.h>

int main()
{

    char a; char b;

    while ('a'<'b')
    {
        printf("\n Malayalam is palindrome");
    }

    return 0;
}

```

```
//sub-topic:- No.6
```

```
#include<stdio.h>
```

```
int main()
{
    int i=0;

    while (i<=10)
    {

        printf("\n %d", i);

        i=i+1;
    }

    return 0;
}
```

```
//sub-topic:- No.7
```

```
#include<stdio.h>
```

```
int main()
{
    float a=1.1;

    while (a>=1.1)
    {
        printf ("\n %f", a);

        a=a-0.1;
    }

    return 0;
}
```

```
//sub-topic:- No.8
```

```
#include<stdio.h>
```

```
int main()
{
    int x=4,y=0;

    while (x>=0)
    {

        if (x==y)
```

```

        {
            continue;
        }
        else
        {
            printf ("\n%d\t%d",x,y);
        }

        x--;
        y++;
    }

    return 0;
}

```

//sub-topic:- No.9

```
#include<stdio.h>
```

```

int main()
{
    int x=4,y=0,z;
    while (x>=0)
    {
        if (x==y)
        {
            break;
        }

        else
        {
            printf ("\n %d\t%d",x,y);
        }

        x--;
        y++;
    }

    return 0;
}

```

//sub-topic:- No.10

```
#include<stdio.h>
```

```

int main()
{

```

```
int i;
for (i=0;i<=10;i++)
{
    printf ("\nHello");
}
return 0;
}
```

//sub-topic:- No.11

```
#include<stdio.h>
int main()
{
    int i;

    for (i=1;i<=5;i++);

    printf ("\n %d",i);

    return 0;
}
```

////////////////////////////////////

//sub-topic:- No.12

```
#include<stdio.h>
int main()
{
    int i=1,j=1;
    for (;;)
    {
        if (i>5)
        {
            break;
        }

        else
        {
            j+=1;
            printf ("\n %d", j);
        }
        i+=j;
    }
    return 0;
}
```

////////////////////////////////////

```
////////////////////////////////////
```

```
//sub-topic:- No.13
```

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int true=0,false;
```

```
    while (true)
```

```
    {
```

```
        false=1;
```

```
        printf("\n%d",false);
```

```
    }
```

```
    return 0;
```

```
}
```

```
////////////////////////////////////
```

```
////////////////////////////////////
```

```
//sub-topic:- No.14
```

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int a=32;
```

```
    do
```

```
    {
```

```
        printf("%d",a);
```

```
        a++;
```

```
    }while(a<=30);
```

```
    return 0;
```

```
}
```

```
////////////////////////////////////
```

```
//sub-topic:- No.15
```

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int a=10;
```

```
    do
```



```

{
    printf("%d ", a);
    a++;

    if(a > 15)
    {
        break;
    }

}while(1);
return 0;
}

```

//sub-topic:- No.16

```

#include <stdio.h>
int main()
{
    int i=0;

    for (;i<10;i++);
    printf("\tHi");

    return 0;

}

```

//sub-topic:- No.17

```

# include <stdio.h>
void main()
{
    int k=0;
    for (;k<3; k++)
    {
        printf("\tHello");
    }

}

```

//sub-topic:- No.18

```

#include<stdio.h>
int main()
{

```

```
int i,j;

for(i=1;i<=5;i++)
{

    for(j=1;j<=i;j++)
    {
        printf("$");
    }

    printf("\n");
}
return 0;
}
```