IDE Lab 2/09/20

```
using System;
using System.Collections.Generic;
using System.Linq;

namespace myApp
{
    class Program
    {
        static void Main()
        {
            Console.WriteLine("Hello World!");
        }
    }
}
```

2.

```
using System;
using System.Collections.Generic;
using System.Linq;

namespace myApp
{
    class Program
    {
        static void Main()
        {
            Console.WriteLine("Hello User!");
        }
    }
}
```

3.

```
using System;
using System.Collections.Generic;
using System.Linq;

namespace myApp
{
    class Program
    {
        static void Main()
        {
            Console.WriteLine("Hello User!");
```

```
        }
    }
}
```

4.

```
using System;
using System.Collections.Generic;
using System.Linq;

namespace myApp
{
    class Program
    {
        static void Main()
        {
            var name = "User";
            Console.WriteLine("Hello " + name + "!");
        }
    }
}
```

5.

```
using System;
using System.Collections.Generic;
using System.Linq;

namespace myApp
{
    class Program
    {
        static void Main()
        {
            var name = "User";
            Console.WriteLine($"Hello {name}!");
        }
    }
}
```

6.

```
using System;
using System.Collections.Generic;
using System.Linq;
```

```
namespace myApp
{
    class Program
    {
        static void Main()
        {
            var name = "User";
            Console.WriteLine($"Hello {name.ToUpper()}!");
        }
    }
}
```

7.Arithemetic Operations:

```
int a=10,b=20;
Console.WriteLine(a+b);
Console.WriteLine(a-b);
Console.WriteLine(a*b);
Console.WriteLine(a/b);
```

O/P:

```
30
-10
200
0
```

8. `//Explore order of operations`

```
int a=10,b=20,c=3;
Console.WriteLine(a+b*c);
Console.WriteLine(a-b+c);
Console.WriteLine(a/b*c);
Console.WriteLine(a+b/c);
```

```
O/P:
70
-7
0
16
```

9. `//Explore integer precision and limits`

```
int a=10,b=20,c=3;
d=(a+b)/c;
e=(a+b)%c;
Console.WriteLine($"quotient:{d}");
Console.WriteLine($"quotient:{e}");
```

```
O/P: quotient:10
quotient:0
```

10. //Work with the double type

```
double a=10,b=20,c=3,d;
d=(a+b)/c;
Console.WriteLine(d);
```

O/P:
10

11. //Work with decimal types

```
double a = 1.0;
double b = 3.0;
Console.WriteLine(a / b);

decimal c = 1.0M;
decimal d = 3.0M;
Console.WriteLine(c / d);
```

O/P:
0.333333333333333
0.3333333333333333333333333333

12. //Complete challenge

```
double r=2.50;
double area=Math.PI*r*r;
Console.WriteLine(area);
```

O/P:
19.6349540849362

LOOPS

13. //Make decisions using the if statement

```
int a=10,b=9,c;
c=a+b;
if(c>10)
    Console.WriteLine($"{c} Greater than 10");
else
{
    Console.WriteLine($"{c} is less than 10");
}
```

O/P: 19 Greater than 10

14. //Make if and else work together

```
int a=0,b=9,c;
c=a+b;
if(c>10)
```

```
    Console.WriteLine($"{c} Greater than 10");
else
{
    Console.WriteLine($"{c} is less than 10");
}
O/P: 9 is less than 10
```

15. //Use loops to repeat operations

```
int a=1;
while(a<=10)
{
Console.WriteLine($" {a}");
a++;
}
O/P:

1
 2
 3
 4
 5
 6
 7
 8
 9
 10
```

16. //Work with the for loop

```
int a;
for(a=1;a<=5;a++)
{
Console.WriteLine(a);
}


O/P: 1
2
3
4
5
```

17. //Created nested loops

```
int a,b;
```

```
for(a=1;a<=5;a++)
{
    for(b=5;b>=1;b--)
    {
        Console.WriteLine($"{a},{b}");
        break;
    }
}
```

O/P:

```
1,5
2,5
3,5
4,5
5,5
```

18. //Combine branches and loops

```
int a;
for(a=1;a<=5;a++)
{
    if(a%2==0)
    {
        Console.WriteLine($"{a} is even");
    }
    else{
       Console.WriteLine($"{a} is odd");
    }
}
```

O/P:

```
1 is odd
2 is even
3 is odd
4 is even
5 is odd
```

19. //Complete challenge

```
int sum = 0;
for (int number = 1; number < 21; number++)
{
  if (number % 3 == 0)
  {
    sum = sum + number;
  }
}
Console.WriteLine($"The sum is {sum}");
```

O/P: The sum is 63