What is namespace?

```csharp
using System;

namespace Project {

    class MyClass

        {

            public MyClass()

            {

            Console.WriteLine("My Class");

            }

        }

}
```

Nesting Namespaces:

```csharp
using System;

namespace Outer

{

    namespace Inner

        {

            class MyClass

            {

                public MyClass()

                {

                    Console.WriteLine("My Class");

                }

            }

        }

}
```

What is class?

```
using System;

namespace Project

{

        public class Users

        {

            public int id = 0;

              public Users(){

              // Constructor Statements

            }

            public void Details(int uid, string uname)

            {

              id = uid;

              uname = name;

              Console.WriteLine("Id: {0}, Name: {1}", id, name);

            }

        }

}
```

Variable & Method Declaration

Variable Declaration

```
public class Car{

    private int speed; ///private variable declaration

    public int wheels; ///public variable declaration
```

```
    public void speedUp() {

        int speedIncrease = 10; ///local variable declaration

        speed += speedIncrease;

    }

}
```

Method Declaration

```
class Max {

    public int FindMax(int n1, int n2) {

        int result;

        if (n1 > n2)

            result = n1;

        else

            result = n2;

        return result;

    }

    static void Main(string[] args) {

        int ans;

        Max n = new Max();

        ans = n.FindMax(100, 200);

        Console.WriteLine("Max value is : {0}", ans);

    }

}
```

Datatype Conversion

```csharp
using System;

namespace TypeConversion {

  class DataTypeConversion{

    static void Main(string[] args) {

      double d = 5673.74;

      int I=10;

      d = I ; // cast int to double.( ImplicitConversion )

       i = (int)d; // cast double to int.( ExplicitConversion )

      Console.WriteLine(i);

      }

    }
}
```

Boxing/Unboxing

Boxing

```csharp
using System;

class Boxing{

    static public void Main() {

        int num = 2020;

        object obj = num;

        num = 100;

        System.Console.WriteLine("Value: {0}", num);

        System.Console.WriteLine("Object: {0}", obj);

      }
```

```
}
```

Unboxing

```
using System;

class Unboxing{

    static public void Main() {

        int num = 23;

        object obj = num;

        int i = (int)obj;

        System.Console.WriteLine("Object : {0}",obj);

        System.Console.WriteLine("Value: {0}",i);

    }

}
```

if else,switch

if else

```
using System;

namespace Program{

  class IfElse{

    static void Main(string[] args) {

        int a = -1;

        if (a < 0)  {

          Console.WriteLine("a is negative.");

        }

        else {

          Console.WriteLine("a is 0 or positive.");  }

    }

  }}
```

Switch

```csharp
using System;

namespace Program{

  class Switch{

    static void Main(string[] args) {

      char grade = 'B';

      switch (grade) {

        case 'A':

          Console.WriteLine("Excellent!");

          break;

        case 'B':

        case 'C':

          Console.WriteLine("Well done");

          break;

        case 'D':

          Console.WriteLine("You passed");

          break;

        case 'F':

          Console.WriteLine("Better try again");

          break;

          default:

        Console.WriteLine("Invalid grade");

          break;

      }

      Console.WriteLine("Your grade is  {0}", grade);

    }

  }

}
```