

Create and using object

Create object from .NET Class

```
1  using System;
2  using System.Text;
3
4  namespace test
5  {
6      class Program
7      {
8          static void Main(string[] args)
9          {
10             StringBuilder s1 = new StringBuilder();
11             s1.Append("ab");    // ab
12             Console.WriteLine(s1);
13             var s2 = s1;
14             s2.Append("cd");
15             Console.WriteLine(s1);    // abcd
16             Console.WriteLine(s2);    // abcd
17         }
18     }
19 }
```

Create object from user define class

Define class Person

```
public class Person
{
    public string Name { get; set; }
    public int Age { get; set; }
    public Person(string name, int age)
    {
        Name = name;
        Age = age;
    }
    //Other properties, methods, events...
}
```

Create object from Person

```
static void Main(string[] args)
{
    Person person1 = new Person("Leopold", 6);
    Console.WriteLine("person1 Name = {0} Age = {1}", person1.Name, person1.Age);

    // Declare new person, assign person1 to it.
    Person person2 = person1;

    //Change the name of person2, and person1 also changes.
    person2.Name = "Molly";
    person2.Age = 16;

    Console.WriteLine("person2 Name = {0} Age = {1}", person2.Name, person2.Age);
    Console.WriteLine("person1 Name = {0} Age = {1}", person1.Name, person1.Age);

    // Keep the console open in debug mode.
    Console.WriteLine("Press any key to exit.");
    Console.ReadKey();
}
```

```
person1 Name = Leopold Age = 6
person2 Name = Molly Age = 16
person1 Name = Molly Age = 16
Press any key to exit.
```

Array of object

```
1 namespace _0120__object
2 {
3     class Foo
4     {
5         public int a;
6     }
7     class Program
8     {
9         static void Main(string[] args)
10        {
11            Foo[] myFooArray = new Foo[3];
12            for(int i = 0; i < myFooArray.Length; i++)
13            {
14                myFooArray[i] = new Foo();
15                myFooArray[i].a = i;
16            }
17        }
18    }
19 }
```

Killing object and GC

```
static void Main(string[] args)
{
    Foo[] myFooArray = new Foo[3];
    for (int i = 0; i < myFooArray.Length; i++)
    {
        myFooArray[i] = new Foo();
        myFooArray[i].a = i;
    }
    for (int i = 0; i < myFooArray.Length; i++)
    {
        myFooArray[i] = null;
    }
}
```

Exercise