

Anatomy of a Class

- Data(represented by fields)
- Behaviour(represented by methods/functions)

Object

- An instance of a class

*The params keyword

```
public class Calculator
{
    public int Add(params)
    {
        ...
    }
}

var result = calculator.Add(new int[] {1, 2, 3, 4, 5});
var result = calculator.Add(1, 2, 3, 4, 5);
```

*The ref keyword

```
public class Weirdo
{
    public void DoAWeirdThing(ref int a)
    {
        a+=2;
    }
}

var a = 1;
weirdo.DoAWeirdThing(a);
Console.WriteLine(a); → 3
```

*The out modifier

```
public class MyClass
{
    public void MyMethod(out int result)
    {
        result = 1;
    }
}
```

```
int a;
```

```
myClass.MyMethod(out a);
```

```
Console.WriteLine(a); → 1
```

Example: TryParse

```
int number;
```

```
var result = int.TryParse("abc", out number);
```

```
if(result)
```

```
    Console.WriteLine(number);
```

```
else
```

```
    Console.WriteLine("Failed");
```

Access Modifiers

- public → Accessible from anywhere
- private → Accessible only from the class
- protected → Accessible only from the class and its derived classes
- internal → Accessible only from the same assembly
- protected internal → Accessible only from the same class or any derived class