INTRODUCTION TO PROGRAMMING

USING C#

Lecture 5: Classes and Interfaces

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- What's a class.
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- Class members
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- Defining an interface.
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WHAT'S A NAMESPACE

```
namespace MySchool
{
    namespace MyClass
    {
        namespace MyDisk
        {

        }
    }
}

// or

namespace MySchool.MyClass.MyDisk
{

}
```

WHAT'S A CLASS

A class is a blueprint for objects of the same type.

DEFINING A NEW CLASS

```csharp
namespace MySchool.MyClass.MyDisk
{
    class Cat
    {

    }
}
```

CLASS MEMBERS

A class can contain:

- **Variables (fields).**
- **Functions (Methods)**
- **Prosperities.**

METHODS

A function inside a class is called method.

DEFINING VARIABLES FROM THE CLASS TYPE

```
Cat c = new Cat();
```

CALLING A CLASS FUNCTION/METHOD

```
Cat c = new Cat();

c.Eat();

c.Speak("Hello!");
```

WHAT'S AN INTERFACE IS

Interface is a contract that specify the members that class should have.

DEFINING AN INTERFACE

```csharp
interface IAnamial
{
    void Eat();
    void Speak(string something);
}
```

IMPLEMENTING AN INTERFACE

```csharp
class Cat : IAnamial
{
    public void Eat()
    {

    }

    public void Speak(string what)
    {

    }
}
```

NEXT

- **Inheritance.**