Intro to OOP - Using Objects

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DISCLAIMER

There will also be notes for the slides in this presentation to further discuss each section better!

CONTENT

- How to Use Objects
- Creating Objects
- Instantiate Objects
- Call Object Methods

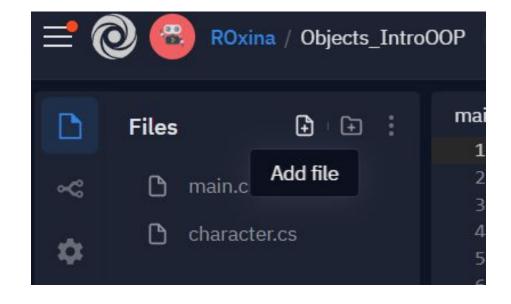
HOW TO USE OBJECTS

How to Use Objects

- We usually follow these steps when using our Objects:
 - Create a class file in the project
 - Instantiate the object in our Main.cs file
 - Call the various methods we need to use in our object.

DETOUR: Creating a .CS File

- To create a new file, go to the top left area of Repl.it and look for the Add File button.
- You can rename the file afterwards. Don't forget to add .cs afterwards!



CREATING OBJECTS

Creating an Object

Creating a new Object in the created .cs file!

```
public class <ObjectName>{
    // Attributes

    // Methods
}
```

Creating an Object

Creating a new Object in the created .cs file!

```
public class Ball{
  double size = 12.04;

  public void Bounce() {
     Console.WriteLine("Boing!");
  }
}
```

INSTANTIATE OBJECTS

Instantiate Objects

Creating a distinct instance of your object in your program!

```
<ObjectName> <InstanceName> = new <ObjectName>();
```

Instantiate Objects

An example using the Format:

```
Ball Basketball = new Ball();
```

Instantiate Objects

Use this Instantiated Object like any variable you have in your Main.cs!

```
Ball Basketball = new Ball();
if (...) { *codes* }
while (...) { *codes* }
```

CALL OBJECT METHODS

Call Object Methods

Using the object's actions in your program!

```
<InstanceName>.<MethodName>();
```

Call Object Methods

An example using the Format:

Basketball.Bounce();

Call Object Methods

Again, you can use these Method calls in your main!

```
Ball Basketball = new Ball();
if (...) {
   Basketball.Bounce();
}
```

Trying this out!

To see how we can implement the 3 step process of using your Objects, check out this Repl and run it for yourself! Try to add more to it!

https://repl.it/@ROxina/MethodsIntroOOP#main.cs

SUMMARY

At the end of this session you should be familiar with:

- How to create Objects; and
- How to use Objects in your program.