

INHERITANCE

Inheritance in coding means for a class to inherit all the attributes and methods of another class. This is a key concept in Object Oriented Programming as it promotes code reuse. It is usually recommended to specify common attributes and methods in the base class and the these inherited to child classes as the case may require.

For example, consider the code I wrote this week. I have written one class for the base class (Assignment) and in it, I have put all the common attributes and methods that my program needs. I have also specified getters for these attributes since I have set them to locally accessed only.

```
public class Assignment
{
    private string _studentName = "";
    private string _topic = "";
    public Assignment(string studentName, string topic)
    {
        _studentName = studentName;
        _topic = topic;
    }
    public string GetStudentName()
    {
        return _studentName;
    }
    public string GetTopic()
    {
        return _topic;
    }
    public string GetSummary()
    {
        return $"{_studentName} - {_topic}";
    }
}
```

When I created other classes that need for default these attributes and methods, instead of writing the class with these attributes and methods, I simply make the class inherit them from the previously created class, in this case the Assignment class. The syntax is to use a ‘:’ notation follow by the name of the class you want to inherit from. This is done before the curly braces.

This become very handy in handling big program with multiple classes with little variation because it may help you handle them in such a way that much time will be saved.