WEEK 05 ACTIVITY --- EXPLAIN INHERITANCE

* **Explain the meaning of Inheritance.**

In programming, inheritance means that a class can “copy” and use the methods, logic and attributes from another class. The class that inherits all its characteristics is called “parent” and the class that receives those characteristics is called “child”

* **Highlight a benefit of Inheritance.**

Using inheritance helps us to avoid repeating methods and attributes every time we create a class, we can avoid waste our time and optimize our code.

* **Provide an application of Inheritance.**

For example, here in Mexico there are a lot of different institutions or organizations around the country; but, there is a category that everyone knows. The “government institutions” are easy to recognize by their names, colors and website. Since these are common attributes, we can have a parent class called “Government Institution” and all the other institutions that pass the “Is a..” questions can be the children classes.

* **Use a code example of Inheritance from the program you wrote. (You should copy and paste a few lines of code that demonstrate the use of the principle.)**
* public class BreathingActivity:Activity
* {
* public BreathingActivity()
* {
* \_name = "Breathing";
* \_description = "This activity will help you relax by walking you through breathing in and out slowly. Clear your mind and focus on your breathing.";
* }
* **Thoroughly explain these concepts. (This likely cannot be done in less than 100 words.)**

Here it’s important to highlight how many lines of code we were able to avoid because the BreathingActivity class is receiving all the attributes and the methods from the Activity class. It means that BreathingActivity is now able to use and modify the attributes and methods from the Activity class. In this case, the BreathingActivity class established specific values for the \_name and \_description attributes that belong to the Activity class. That helped us a lot to organize and re-use the code efficiently. Later on, the BreathingActivity class can create more methods and use the attributes in them, even when we never declared those attributes in that class.