

Christopher T. Bahinting

W05 Assignment: Explain Inheritance

Question: What is inheritance and why is it important?

In the previous weeks, we learn about encapsulation and abstraction, that was the best learning activity and for this week of term5, we are learning about Inheritance principle in c#. all the previous learnings have been added with the principle of Inheritance and that give us the ability to code more courageously because we have already learned from the past week, it was example the private and public class and for this week, we now also learn about protected. It was an additional learning. Actually, that code "Protected" was very useful so that the Inheritance principle will work, because if we only use the private, the program will wont work according to the program expectation output.

Now, for the principle of inheritance, that is the ability for one class to obtain the attributes, functions and methods of one class to other class, directly getting it without having typing them. In my experience in this week activity, when I run the program, the main program or program.cs will handle the program but the Activity.cs which is the PARENT or BASE Class for all the program will handle or provide the common methods, functions and output for the program. For example, when I run the program, even when I choose #1 or #2 or #3 in the main MENU, the beginning word as WELCOME are very common among them and that is only coded in the 'Activity.cs' and when the program begin to run the "Get Ready" word will also be common among them and when the program will end the word "Well done" and the "Completed" message will universally appear in the program. All that code was only written or coded in the Activity.cs which is the Parent or Base program of them all. For a logic, in human family the PARENTS have the ability to pass of it attributes to their children and also in vice-versa, the children will inherit some attribute to their parent, but of course each children have different attributes also that was not inherited from their parents. Even the C# Inheritance principles, there are some methods and function that are unique from the BASE class, but at least, it can save our time to code for word and word in each program, because we already have it as a common code in the BASE or Parent class.

Code below are examples of inheritance code, and that code below are common in all classes but only coded and found it the BASE class program.

```
public void Start()
{
    Console.Clear();
    Console.WriteLine($"Welcome to the {_name}.");
    Console.WriteLine();
```

```
Console.WriteLine(_description);  
Console.WriteLine();  
SetDuration();  
Console.Clear();  
Console.WriteLine("Get ready...");  
Console.WriteLine();  
ShowSpinner(3);  
}
```