Meaning of Inheritance,

Inheritance in C# is a method that you can put some same properties and behaviors under a parent class. Then those child classes can inherit those properties and behaviors from their parent class and can use them if it is necessary.

Benefit of Inheritance,

Inheritance is a good way to organize program. It is because it can centralize duplicate code, the code can be more readable and neater.

Methods and behaviors group into the parent class that is helpful. It is because the methods and behaviors can be reuse.

It is easier to modify properties and code from the parent class.

Application of Inheritance,

For example, if the program involves different type of shoes, we can create a “MainShoes” class with attributes like “color”, “size” and “brand” and then child class types can be “RunningShoes”, “HikingShoes” or “WaterproofShoes”. The child classes can inherit their parent class attributes “color”, “size” and “brand”.

Code example from my program,

In my program example, the parent class is “Activity”, the child class is ”BreathingActivity”. The method created in the class Activity is TheWelcome(); , then the child class inherit it by putting a colon and the parent class name after itself like “public class BreathingActivity : Activity” then the child class can access the method “TheWelcome();” from the parent class.

public class Activity

{

protected void TheWelcome()

{

Console.Clear();

Console.WriteLine(\_activityName);

Console.WriteLine();

Thread.Sleep(1500);

Console.WriteLine(\_description);

Console.WriteLine();

Thread.Sleep(1500);

}

}

public class BreathingActivity : Activity

{

public BreathingActivity() : base("Breathing Activity", "This activity will help you relax by walking your through breathing in and out slowly. Clear your mind and focus on your breathing.", 0) { }

public void RunTheActivity()

{

TheWelcome();

//The above method “TheWelcome();” is an simple example of inheritance.

Console.Write("How long, in second, would you like for your session? ");

int duration = int.Parse(Console.ReadLine());

\_duration = duration;

//Skip the code below.

}

In summary, inheritance can help we more reuse our code. It is useful to make the program structure become more organize.