Inheritance Articulate

Inheritance is the principle of coding that has to do with what section of code is allowed to do what with parts of other sections. To put it in easy-to-understand terms, it would be like how a child can inherit different characteristics from their parents. We use this principle to simplify our coding process. A section of coding that inherits from another section is allowed to use the different methods and attributes of that other class without having to retype it all out. Using inheritance can help reduce the amount of typing needed to be done for a program. For example:

using System;

public class ListingActivity : Activity

{

    private string \_prompt;

    public void Run()

    {

        int \_duration = 0;

        do

        {

            DisplayStartingMessage();

            Console.WriteLine("Welcome to your Listing activity!  This activity is here to help you look back on the good things in your life by having you list as many of these things from a certain category.  Please enter how long you wish for this activity to last: ");

            \_duration = int.Parse(Console.ReadLine());

            Console.WriteLine("An excellent choice!  Now, here's how the program goes:  a prompt will be displayed that will ask you a question.  For you to answer this question, you must list as many answers to the prompt as you can.");

            ShowSpinner();

            Console.WriteLine("Are you ready?");

            ShowSpinner();

            Countdown();

            Console.WriteLine();

            GetRandomPrompt();

            Console.ReadLine();

        }

        while (\_duration != 0);

        DisplayEndingMessage();

    }

    public string GetRandomPrompt()

    {

        return \_prompt;

    }

    public ListingActivity() : base("Listing Activity")

    {

        Random random = new Random();

        List<string> prompt = new List<string>() {

            "Who are people that you appreciate?", "What are personal strengths of yours?", "Who are people that you have helped this week?", "When have you felt the Holy Ghost this month?", "Who are some of your personal heroes?"

        };

        int index = random.Next(prompt.Count);

        \_prompt = prompt[index];

    }

}

In this section of my coding, the current class “ListingActivity” is set up as the inheritor from the base class of “Activity”, allowing it to access its various methods and attributes such as “DisplayStartingMessage” and “ShowSpinner”.