Inheritance is the ability of a class to inherit properties of another class. Inheritance allows a programmer to use the methods and attributes of a parent class in the subclasses without having to rewrite the code. This provides a number of benefits. It reduces redundancy by allowing the subclasses to use previously created methods, it simplifies maintenance since if a method needs to be adjusted, it can be adjusted in the parent class and all other classes can then use the modified code. It promoted abstraction by grouping common attributes and behaviors in a base class making the code easier to follow and understand. In my code in the mindfulness program I used the principle of inheritance by using a DisplayStartingMessage method in my Activity class across 3 subclasses; BreathingActivity, ListingActivity and ReflectingActivity:

    public void DisplayStartingMessage()

    {

        Console.Clear();

        Console.WriteLine($"Welcome to the {\_name}");

        Console.WriteLine();

        Console.WriteLine($"{\_description}");

        Console.WriteLine();

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

        Console.CursorVisible = true; // show cursor for better user interface

        string input = Console.ReadLine();

        Console.Clear();

        Console.WriteLine("Get ready...");

        ShowSpinner(3);

}

This allowed me to simplify my code as I didn’t have to include this 3 different times. It also simplified my coding process. I had problems with my ShowSpinner method, but once I fixed it in my Activity class, it was able to work seamlessly and consistently through my other classes.