**WEEK 1   
  
 DESIGN PATTERNS AND PRINCIPLES  
  
 EXERCISE 1 - IMPLEMENTING THE SINGLETON PATTERN**  
  
  
**STEP 1 - Logger.cs :**

using System;

public class Logger

{

        private static Logger instance;

    private Logger()

    {

        Console.WriteLine("Logger instance created.");

    }

    public static Logger GetInstance()

    {

        if (instance == null)

        {

            instance = new Logger();

        }

        return instance;

    }

    public void Log(string message)

    {

        Console.WriteLine("Log message: " + message);

    }

}

**STEP 2 - Program.cs :**

using System;

class Program

{

    static void Main(string[] args)

    {

        Logger logger1 = Logger.GetInstance();

        Logger logger2 = Logger.GetInstance();

        logger1.Log("First log entry.");

        logger2.Log("Second log entry.");

        if (logger1 == logger2)

        {

            Console.WriteLine("Singleton confirmed: Only one instance exists.");

        }

        else

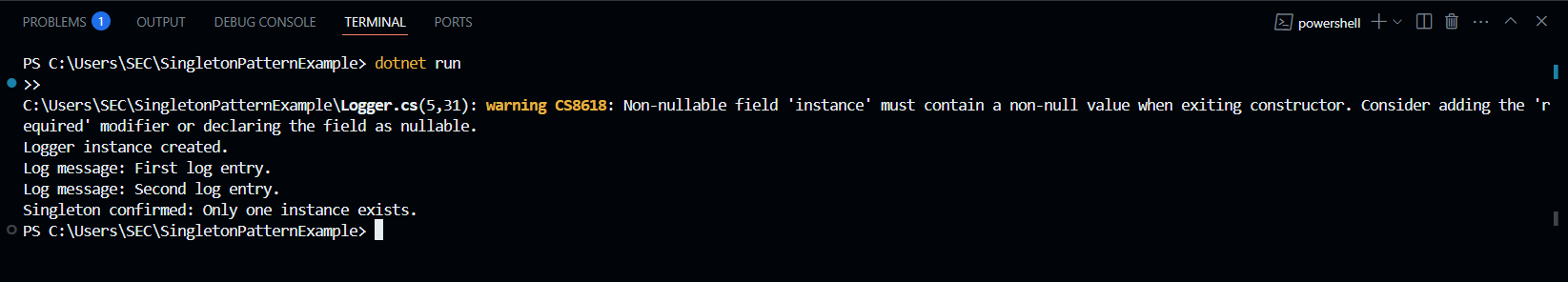
        {

            Console.WriteLine("Singleton failed: Different instances exist.");

        }

    }

}

**OUTPUT :   
  
**