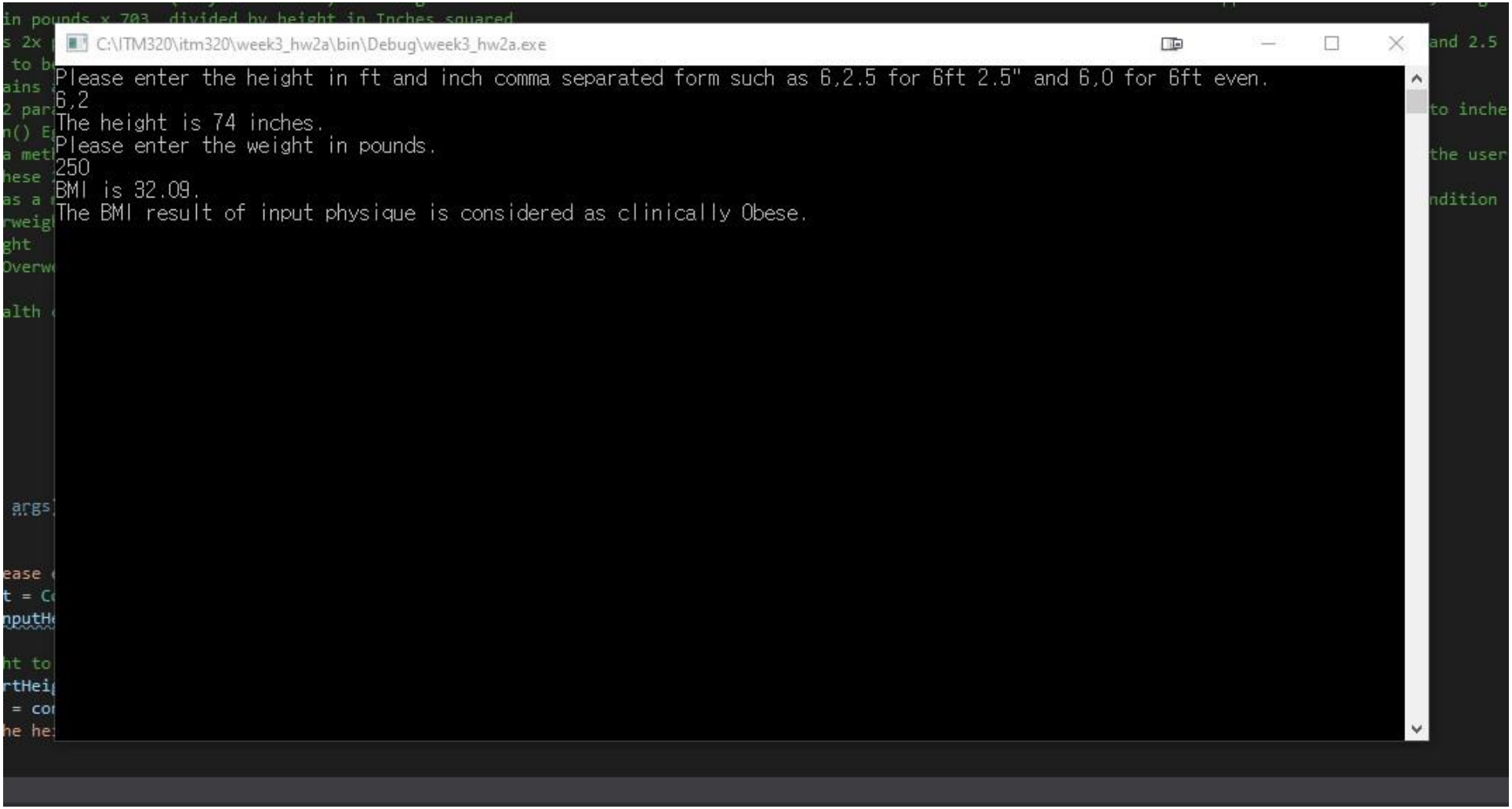
Program console



```
/*
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    Date: 2/2/2020
    ITM320 HW2a

    1) Design an app that measures the user's BMI (Body Mass Index) and diagnose the user' s current health condition based on their BMI Result. The entire app contains 3 classes; HeightConverter , BMICalculator
    The formula for BMI = weight in pounds x 703  divided by height in Inches squared
    a) Class HeightConverter takes 2x parameters that user enters on Main(). The user's height in Foot , user's height in inches. Example, someone that is 6 ft 2.5" will enter 6 and 2.5 into the app on Main().
    The height in Foot would need to be converted into inches by the HeightConverter class.
    b) Class HeightConverter contains a method called HeightConversion()
    HeightConversion() takes the 2 parameters from the user's input in Main() ; height in foot and height in inches. This method must perform the conversion for height in feet into inches (12 inches in 1 foot) an
    Height Value in Inches to Main() Eg, 6 foot 2.5 inches should result in (6x12) + 2.5 =  74.5 inches.
    BMICalculator class contains a method call CalculateBMI() that will calculate the user's BMI value (refer to the formula on top of this assignment). this method will require the users total height in Inches a
    CalculateBMI() will take in these 2 values as parameters from Main(). After the calculation, the user's BMI result will need to be returned back to Main().
    d) BMIRangeDiagnostic class has a method DetermineBMIDiagnosis() that takes the BMI result from Main() as its parameter. This method will let the user know of their health condition based on their BMI result.
    BMI < 18.50 = Clinically Underweight
    BMI 18.5 - 24.99 = Normal Weight
    BMI 25 - 29.99  = Clinically Overweight
    BMI > 30 = Clinically Obese
    Display the user's current health condition into the screen.                    < 5 pts >
 */

namespace week3_hw2a
{
    0 references
    class Program
    {
        0 references
        static void Main(string[] args)
        {
            // Get input height
            Console.WriteLine("Please enter the height in ft and inch comma separated form such as 6,2.5 for 6ft 2.5\" and 6,0 for 6ft even.");
            string userInputHeight = Console.ReadLine();
            var inputList = userInputHeight.Split( params separator: ',').ToList();

            // Convert input height to inches
            HeightConverter convertHeight = new HeightConverter();
            double userHeightInch = convertHeight.HeightConversion( foot: Convert.ToInt16(inputList[0]),  inch: Convert.ToDouble(inputList[1]));
            Console.WriteLine($"The height is {userHeightInch} inches.");

            // Get input weight
            Console.WriteLine("Please enter the weight in pounds.");
            double userWeightPound = Convert.ToDouble(Console.ReadLine());

            // Calculate BMI
            BMICalculator myBmiCalculator = new BMICalculator();
            double userBMI = Math.Round(myBmiCalculator.CalculateBMI(userHeightInch, userWeightPound), 2);
            Console.WriteLine($"BMI is {userBMI}.");

            // Compare BMI result and display diagnostics
            BMIRangeDiagnostic myBmiRangeDiagnostic = new BMIRangeDiagnostic();
            Console.WriteLine($"The BMI result of input physique is considered as {myBmiRangeDiagnostic.DetermineBMIDiagnosis(userBMI)}");

            Console.ReadLine();
        }
    }
}
```
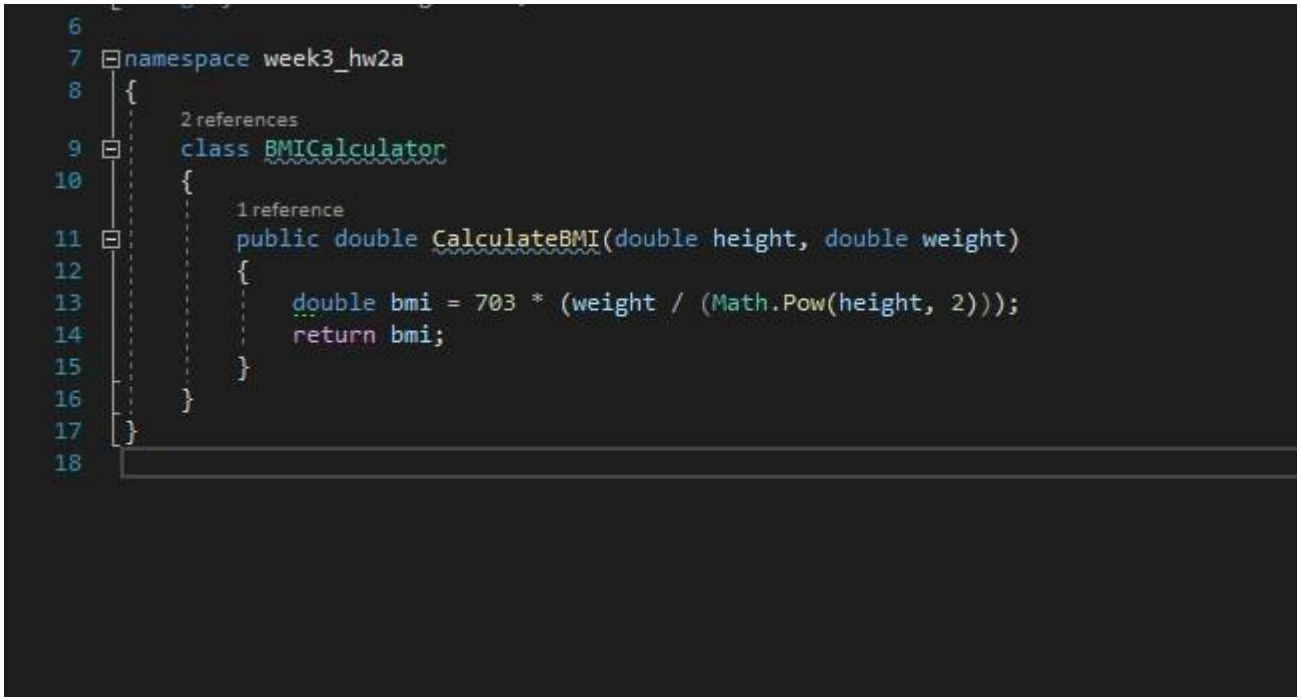
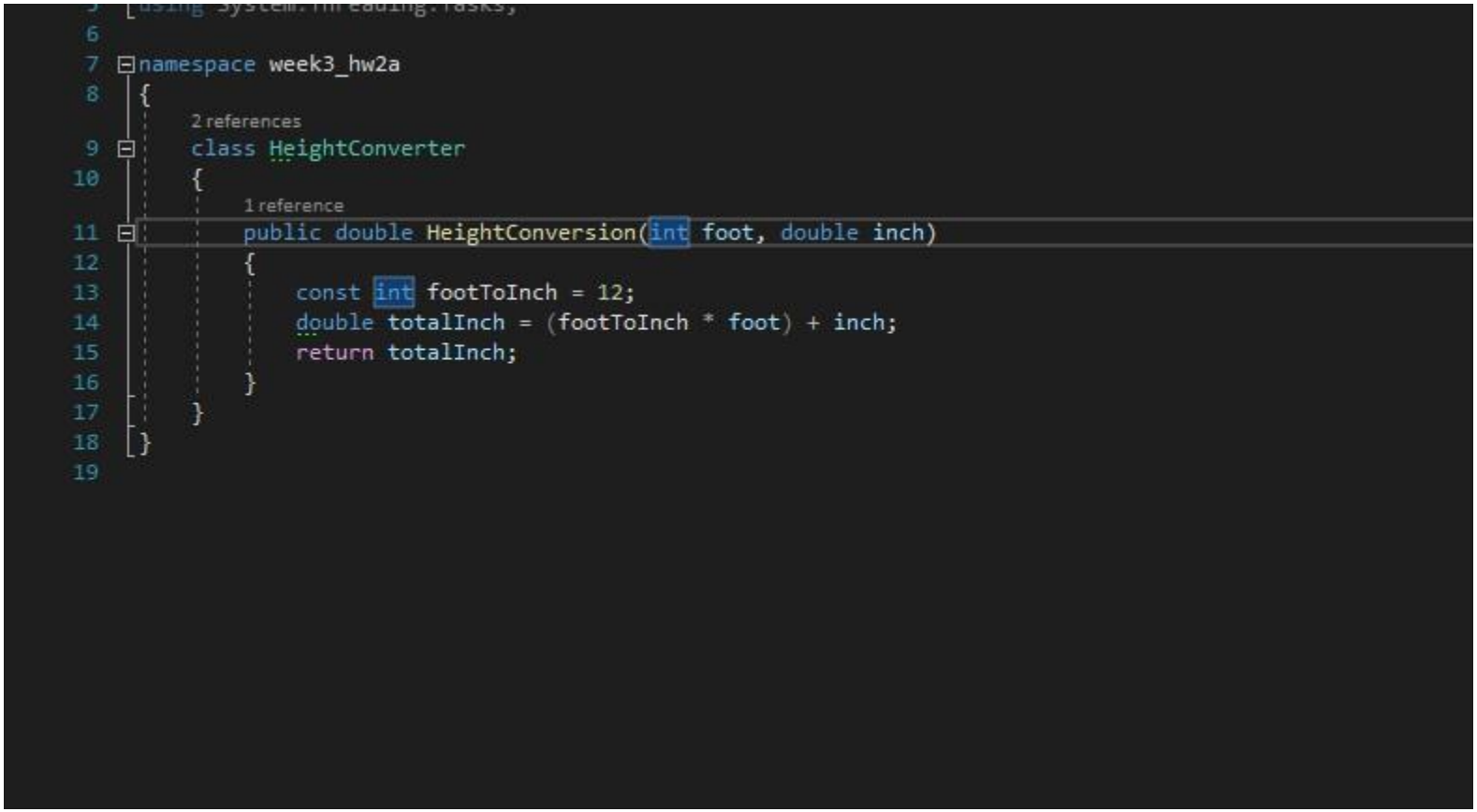

```
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace week3_hw2a
{
    2 references
    class BMIRangeDiagnostic
    {
        1 reference
        public string DetermineBMIDiagnosis(double bmi)
        {
            string result;
            if (bmi < 18.5)
            {
                result = "clinically Underweight.";
            }
            else if (bmi >= 18.50 && bmi <=24.99)
            {
                result = "normal Weight.";
            }
            else if (bmi >= 25 && bmi <= 29.99)
            {
                result = "clinically overweight.";
            }
            else
            {
                result = "clinically Obese.";
            }
            return result;
        }
    }
}

```



```
6
7   namespace week3_hw2a
8   {
        2 references
9       class BMICalculator
10      {
            1 reference
11          public double CalculateBMI(double height, double weight)
12          {
13              double bmi = 703 * (weight / (Math.Pow(height, 2)));
14              return bmi;
15          }
16      }
17  }
18
```



```
6
7   namespace week3_hw2a
8   {
        2 references
9       class HeightConverter
10      {
            1 reference
11          public double HeightConversion(int foot, double inch)
12          {
13              const int footToInch = 12;
14              double totalInch = (footToInch * foot) + inch;
15              return totalInch;
16          }
17      }
18  }
19
```