Mr. Bellavia

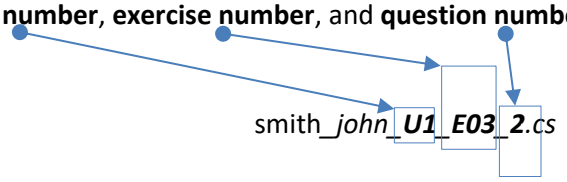
EXERCISE 02 - IF-STATEMENT BRACES & VARIABLE SCOPE

IMPORTANT: Before submission, make a copy of your **'Program.cs'** file for each question and then rename each file to the following:

File Names:

- *last_name_first name*_U2_E02_1.cs
- *last_name_first name*_U2_E02_2.cs

Note: Along with last name and first name, make sure the end of the filename (i.e., before the **.cs**) has the **unit number**, **exercise number**, and **question number.** For example:



Note: Try to keep your code as minimal as possible and make use of braces for your if-statements.

1. A **random number** generator is a fundamental part of computer programming. Games could not function the way they do if there was no randomization. In C#, we can generate a random integer with the following two lines of code:

```
Random rnd = new Random();
int randNum  = rnd.Next(1, 11);
```

The above code will generate a random number from **1** to **10** and store that random number inside an integer variable named **'randNum'.** This code uses the Random() function to generate the random number (don't worry about the 'new' keyword for now, just copy the code above). Notice that to generate a random number from 1 to 10 we had to provide the parameters **1** & **11.** The second parameter is always one more than the max number we want generated.

Write a program that asks the user to guess a number between 1 and 10 and output if they guessed correctly or not. You should have a little bit of error checking (i.e, make sure the user enters a number between 1 and 10 or else exit your program!). You should also tell the user how far off they were if their guess was incorrect (look up the **Math.Abs()** function to do this correctly).

2. Write a program that converts a given temperature to Celsius or to Fahrenheit (look up the formula for conversion on google). Here is the flow of control:

- Ask the user if they wish to convert to Celsius or Fahrenheit ('c' for Celsius, or 'f' for Fahrenheit)
- Ask the user for a temperature value to convert
- Convert the temperature
- Output an appropriate message