# IT 230 Mod 4 Milestone 2 DebugFixIfStmt Coding Activity

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**Class:** IT 230

**Module:** 4

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| **1.** | Insert a copy of your of the ZIP file of all of your Visual Studio project files here so that it can be loaded and run in another Visual Studio:  Attached separately. |
| Insert here a copy of your \*.cs source code text you used here (copy and paste source code here, do **not** simply insert \*.cs files):  using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace DebugFixIFStmt  {  class Program  {  static void Main(string[] args)  {  (new Program()).run();  }  void run()  {  int firstChoice = 0, secondChoice = 0, thirdChoice = 0;  System.Console.WriteLine("Grace Tay's Copy");  firstChoice = 0; secondChoice = 0; thirdChoice = 0;  WriteCurrentChoices(firstChoice, secondChoice, thirdChoice);  firstChoice = 2; secondChoice = 0; thirdChoice = 0;  WriteCurrentChoices(firstChoice, secondChoice, thirdChoice);  firstChoice = 2; secondChoice = 5; thirdChoice = 0;  WriteCurrentChoices(firstChoice, secondChoice, thirdChoice);  firstChoice = 2; secondChoice = 5; thirdChoice = 7;  WriteCurrentChoices(firstChoice, secondChoice, thirdChoice);  }  void WriteCurrentChoices(int firstChoice, int secondChoice, int thirdChoice)  {  if (firstChoice == 0) //Error 5: I changed the if (secondChoice ==0) to (firstChoice ==0)  Console.WriteLine("Choices are: {0}, {1}, {2} => There are no choices yet", firstChoice, secondChoice, thirdChoice);  else if (secondChoice == 0) //Error 2: added '=' since we need an equality operator  Console.WriteLine("Choices are: {0}, {1}, {2} => Currently choices are {0}", firstChoice, secondChoice, thirdChoice); //Error 4: Removed the improperly placed first choice  else if (thirdChoice == 0) //Error 1: Deleted the extra equal sign  Console.WriteLine("Choices are: {0}, {1}, {2} => Currently choices are {0}, {1}", firstChoice, secondChoice, thirdChoice, firstChoice, secondChoice);  else if (thirdChoice == 7) //Error 3: changed 0 to 7 to match the fourth block of code above, where third choice equals 7  Console.WriteLine("Choices are: {0}, {1}, {2} => Currently choices are {0}, {1}, {2}",  firstChoice, secondChoice, thirdChoice, firstChoice, secondChoice, thirdChoice);  }  }  } |
| **2.** | Insert a screenshot here of the output that resulted from running your program, showing your last name as the first printed text to the screen: |
| **3.** | Explain the design of your program, the steps you took to complete it, and how you coded it:   1. As usual, I started up a C# console program, named it TayDebugFixIfStmt, and duplicated the code from this week’s milestone. 2. I built the program, and this time I am going to start from the error list not just from the red lines I see. Here are the errors: 3. The first error “CS1525” was caused by a third equal sign, only two are needed. 4. The second error is CS0029, caused by not having enough equal signs, so I added an extra one. (One equals sign means it is an assignment operator, two allows for what we need, which is an equality operator). 5. After that, the program does compile without code errors. 6. I ran without debugger to check the logic. My program is missing the fourth line seen in the instructions. This could mean there is something wrong with the last ‘else if’ line, so I started there. Sure enough, I found the issue. I changed (thirdChoice == 0) to (thirdChoice == 7), this now matches what the thirdChoice is declared as in the run function in the last group of choices. 7. I ran it again and the fourth line appeared correctly, I realized I missed something the first time. In the instructions, the second statement says currently choices are 2, while mine said there are no choices yet. I checked the first ‘else if’ statement. First, I noticed that it said firstChoice at the end when it shouldn’t have, so I removed that. 8. I then realized that both the if and the first else if are stating the same condition, secondChoice == 0. Something unique to the first statement is that the firstChoice has a value of 0, so I changed the if (secondChoice ==0) to (firstChoice ==0) in the if statement. After that, my code was exactly right. |
| **4.** | Reflect on this experience and the lessons you learned from it:  The step 7 was difficult for me. It required me to really think about what an if else statement is. For example, the fourth statement has the following data: firstChoice = 2; secondChoice = 5; thirdChoice = 7;. I had to talk myself through the if else statement. So, it runs through the statement and first talks to the if statement, which wants the firstChoice value to be the equivalent of 0, this is not true so we move to the next block: else if (secondChoice == 0), that is not true, so we keep moving forward to else if (thirdChoice == 0). Again, this is not true for our data. Finally, we reach else if (thirdChoice == 7), which is true, so we tell the program to execute the statement within that else if block. I really liked this assignment because it was less focused on ‘code’ errors, but more about the logic. This really made me think about the if else statement, allowing for better comprehension. |