

CMSC203 Assignment 1 Implementation

Class: CMSC203 CRN XXXX

Program: Assignment #1

Instructor: Grinberg

Summary of Description: Wifi diagnosis guide.

Due Date: 09/12/2022

Integrity Pledge: I pledge that I have completed the programming assignment independently.

I have not copied the code from a student or any source.

Michael Bushman

Part1: Pseudo Code: Here is a pseudo code for Assignment 1 program:

Import scanner

Create new scanner sc

Create String response for scanner next line

Display “If you have a problem with internet connectivity, this WiFi Diagnosis might work.” Display “Start”

Display “Reboot the computer and try to connect”

Display “Did that fix the problem (yes or no)?”

Input response

If response equals yes

Display “Done”

Display “Programmer: Michael Bushman” System exit

Else if response equals no

Display “Reboot the router and try to connect” Display “Did that fix the problem (yes or no)?” Input response

If response equals yes

Display “Done”

Display “Programmer: Michael Bushman” System exit

If response equals no

Display “Make sure the cables connecting the router are firmly plugged in and power is getting to the router”

Display “Did that fix the problem (yes or no)?”

Input response

If response equals yes

Display “Done”

Display “Programmer: Michael Bushman” System exit

If response equals no

Display “Move the computer closer to the router and try to connect”

Display “Did that fix the problem (yes or no)?”

Input response

If response equals yes

Display “Done”

Display “Programmer: Michael Bushman” System exit

If response equals no

Display “Contact your ISP”

Display “Done”

Display “Programmer: Michael Bushman” System exit

Else

Display “Invalid answer, try again”

Else

Display “Invalid answer, try again”

Else

Display “Invalid answer, try again”

Else

Display “Invalid answer, try again”

Part2: Comprehensive Test Plan

A good test plan should be comprehensive. This means you should have a few test cases that test when the input is in and out of range, division by 0, incorrect Data type, etc (Provide valid and invalid input)

Cases	Input	Expected Output	Actual Output	Did Test Pass?
Case 1	YES to first yes or no question	Moves on to next	Doesn't accept the response with capital letters	No
Case 2	NO to first yes or no question	Moves on to the next question	Moves on to the next question	Yes
Case 3	YES to first yes or no question	Says, done, the programmers name and ends the program	Says, done, the programmers name and ends program	Yes
Case 4	Help into the first question	Says invalid answer, try again	Says invalid answer, try again	Yes

Part3: Screenshots related to the Test Plan:

Case 1

```
<terminated> WifiDiagnosis [Java Application] /Library/Java/JavaVirtualMachines/jdk-18.0.1.jdk/Contents/Home
If you have a problem with internet connectivity, this WiFi Diagnosis might work

Start
Reboot the computer and try to connect
Did that fix the problem (yes or no)?
YES
Invalid answer, try again
```

Case 2

```
WifiDiagnosis [Java Application] /Library/Java/JavaVirtualMachines/jdk-18.0.1.jdk/Contents/Home/bin/java (Sc

Start
Reboot the computer and try to connect
Did that fix the problem (yes or no)?
NO

Reboot the router and try to connect
Did that fix the problem (yes or no)?
```

Case 3

```
<terminated> WifiDiagnosis [Java Application] /Library/Java/JavaVirtualMachines/jdk-18.0.1.1.jdk/Contents/Home

Start
Reboot the computer and try to connect
Did that fix the problem (yes or no)?
YES
|
Done
Programmer: Michael Bushman
```

Case 4

```
<terminated> WifiDiagnosis [Java Application] /Library/Java/JavaVirtualMachines/jdk-18.0.1.1.jdk/Contents/Home

If you have a problem with internet connectivity, this WiFi Diagnosis might work

Start
Reboot the computer and try to connect
Did that fix the problem (yes or no)?
Help
Invalid answer, try again
```

The screenshot shows the Eclipse IDE with the file `WifiDiagnosis.java` open. The code is as follows:

```
20  System.out.println("Programmer: Michael Bushman");
21  System.exit(0);
57  }
58  }
59  }
60  }
61  {
62      if (response.equalsIgnoreCase("no"))
63      {
64          System.out.println("Move the computer closer to the router and try to connect");
65          System.out.println("Did that fix the problem (yes or no)?");
66          response = sc.nextLine();
67      }
68      if (response.equalsIgnoreCase("yes"))
69      {
70          System.out.println("Done");
71          System.out.println("Programmer: Michael Bushman");
72          System.exit(0);
73      }
74      else if (response.equalsIgnoreCase("no"))
75      {
76          System.out.println("Contact your ISP");
77          System.out.println("Done");
78          System.out.println("Programmer: Michael Bushman");
79          System.exit(0);
80      }
81      else
82      {
83          System.out.println("Invalid answer, try again");
84      }
85  }
86  }
87  }
88  {
89      System.out.println("Invalid answer, try again");
90  }
91  }
92  }
93  }
94  {
95      System.out.println("Invalid answer, try again");
96  }
97  }
98  }
99  }
100 {
101     System.out.println("Invalid answer, try again");
102 }
103 }
104 }
105 }
106 }
```

The Console output shows the program's execution:

```
<terminated> WifiDiagnosis [Java Application] /Library/Java/JavaVirtualMachines/jdk-18.0.1.1.jdk/Contents/Home/bin/java (Sep 12, 2022, 6:53:33 PM)
If you have a problem with internet connectivity, this WiFi Diagnosis might work.

Start
Reboot the computer and try to connect
Did that fix the problem (yes or no)?
yes


Done
Programmer: Michael Bushman
```

```
Desktop — -zsh — 114x29

Last login: Fri Sep  2 19:29:23 on console
daddybushman@Michaels-MBP ~ % ~cd desktop
zsh: no such user or named directory: cd
daddybushman@Michaels-MBP ~ % cd ~ desktop
~/desktop
daddybushman@Michaels-MBP desktop % javac WifiDiagnosis.java
daddybushman@Michaels-MBP desktop % java WifiDiagnosis
If you have a problem with internet connectivity, this WiFi Diagnosis might work.




Start
Reboot the computer and try to connect
Did that fix the problem (yes or no)?
yes


Done
Programmer: Michael Bushman
daddybushman@Michaels-MBP desktop %
```







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
  


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Lessons Learned <Provide answers to the questions listed below>:

Write about your Learning Experience, highlighting your lessons learned and learning experience from working on this project.

What have you learned? I have learned to get comfortable with nested if and else if statements. I have gotten comfortable with understand which code belong to which if and else statements. I also learned the easiest way to ignore capitalized or lowercase letters is to use equalsIgnoreCase.

What did you struggle with? I struggled with some issues on the invalid response. At first, I didn't put enough else statements at the end to account for any incorrect answers down the guide. Once I added all the else statements in, I was success in capturing incorrect responses.

What would you do differently on your next project? Instead of having so many else and else if statements, I would try to figure out a way to break it down more simply. My way works but it's ugly to look at.

What parts of this assignment were you successful with, and what parts (if any) were you not successful with? Successful with all parts.

Provide any additional resources/links/videos you used to while working on this assignment/project.

Check List: <Provide answers to the column Y/N or N/A >:

#		Y/N	Comments
	Assignment files:		
	• FirstInitialLastName_ Assignment#_Moss.zip	Yes or No	Y
	• FirstInitialLastName_ Assignment#.docx/.pdf	Yes or No	Y
	• Source java files	Yes or No	Y
	Program compiles	Yes or No	Y
	Program runs with desired outputs related to a Test Plan	Yes or No	Y
	Documentation file:		Y
	• Comprehensive Test Plan	Yes or No	Y
	• Screenshots related to the Test Plan	Yes or No	Y

	<ul style="list-style-type: none"> • Screenshots of your GitHub account with submitted Assignment# (if required) 	Yes or No or N/A	Y
	<ul style="list-style-type: none"> • UML Diagram (if required) 	Yes or No or N/A	N/A
	<ul style="list-style-type: none"> • Algorithms/Pseudocode (if required) 	Yes or No or N/A	Y
	<ul style="list-style-type: none"> • Flowchart (if required) 	Yes or No or N/A	Y
	<ul style="list-style-type: none"> • Lessons Learned 	Yes or No	Y
	<ul style="list-style-type: none"> • Checklist is completed and included in the Documentation 	Yes or No	Y