**CMSC203 Assignment 1 Implementation**

Class: CMSC203 CRN XXXX

 Program: Assignment #1

Instructor: Professor Ping-Wei Tsai

 Summary of Description: This program helps a user troubleshoot if they are having internet problems by displaying a series of tips. If no tips work then they are recommended to contact their ISP

 Due Date: 09/13/2022

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

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

Name: Anthony Amaya

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

Import Scanner class

Declare main classes

Declare Scanner for input

Declare string variable “answer” to hold user input

Declare string variable “keepGoing” to tell the program whether to keep going

Declare constant string variable “QUESTION” that asks a yes or no question

Declare constant string variable “INVALID” with a message if it is invalid

Display message “if you have a problem with internet connectivity, this Wifi diagnosis might work

Display message with newline before it: Reboot the computer and try again

Display message yes or no question using the constant variable QUESTION

Let string variable “answer” the user’s answer

Input validation by using an if statement to check if the user has correctly inputted yes or no

If the user did no input either, then display invalid message from INVALID constant and set “keepGoing” to the word “wrong” to prevent the other tips from executing and instead ending the program

Use if statement to check if the user input “yes’ if so then set “keepGoing” to “stop”

Use if statement to check if the user input “no” if so execute next tip, then use QUESTION to ask yes or no, then store user input in in variable “answer”

Check input validation again as before

If continuing, then check if answer equals “yes”, if so end program

If answer equals “no”, then display next tip, ask QUESTION, and get answer

Check input validation again as before

If continuing, then check if answer equals “yes”, if so end program

If answer equals “no”, then display “Contact your ISP”, then set keepGoing = “stop”

Use if statement and “or” operator to check if keepGoing is equal to “stop” or “wrong”

If keepGoing is equal to “stop” then display “Done” and on a new line display programmer name

If keepGoing is equal to “wrong” then display programmer name

**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 | “889” | “If you have a problem with internet connectivity, this Wifi Diagnostic might work.”  “Reboot the computer and try to connect”  “Did that fix the problem? (Yes or No)”  “889”  “Invalid answer; try again”  “Programmer: Anthony Amaya” | “Invalid answer; try again”  “Programmer: Anthony Amaya” | Yes |
| Case 2 | “yes” | “If you have a problem with internet connectivity, this Wifi Diagnostic might work.”  “Reboot the computer and try to connect”  “Did that fix the problem? (Yes or No)”  “yes”  “Done”  “Programmer: Anthony Amaya” | Done”  “Programmer: Anthony Amaya” | Yes |
| Case 3 | “no”  “Yes” | “If you have a problem with internet connectivity, this Wifi Diagnostic might work.”  “Reboot the computer and try again”  “Did that fix the problem? (Yes or No)”  “no”  “Reboot the router and try to connect”  “Did that fix the problem? (Yes or No)”  “yes”  “Done”  “Programmer: Anthony Amaya” | Done”  “Programmer: Anthony Amaya” | Yes |
| Case 4 | “no”  “no”  “no”  “no” | “If you have a problem with internet connectivity, this Wifi Diagnostic might work.”  “Reboot the computer and try again”  “Did that fix the problem? (Yes or No)”  “no”  “Reboot the router and try to connect”  “Did that fix the problem? (Yes or No)”  “no”  “Make sure the cables connecting the router are firmly plugged in and power is getting to the router”  “Did that fix the problem? (Yes or No)”  “no”  “Move the computer closer to the router and try to connect”  “Did that fix the problem? (Yes or No)”  “no”  “Contact your ISP”  “Done”  “Programer: Anthony Amaya” | “If you have a problem with internet connectivity, this Wifi Diagnostic might work.”  “Reboot the computer and try again”  “Did that fix the problem? (Yes or No)”  “Reboot the router and try to connect”  “Did that fix the problem? (Yes or No)”  “Make sure the cables connecting the router are firmly plugged in and power is getting to the router”  “Did that fix the problem? (Yes or No)”  “Move the computer closer to the router and try to connect”  “Did that fix the problem? (Yes or No)”  “Contact your ISP”  “Done”  “Programer: Anthony Amaya” | Yes |

**Part3: Screenshots related to the Test Plan:**

**Case 1**

**Graphical user interface, text, application, email

Description automatically generated**

**Case 2**

**Graphical user interface, text, application, email

Description automatically generated**

**Case 3**

**A computer screen capture

Description automatically generated with medium confidence**

**Case 4**

**Text

Description automatically generated**

**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 learned that the same code that can run on the command line can also be run in Eclipse without changing a line in the source code.

What did you struggle with?

I struggled with coming up with a way to let the program know when the user had fixed their problem.

What would you do differently on your next project?

I think that I should make my next project design as a flowchart and not pseudocode.

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

I was successful with creating my program. I was able to visualize how it would work and what would go where in the program. I was not successful with creating pseudocode for my program. I tend to add more details than necessary onto sentences which makes my pseudocode longer.

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** | **?** |
|  | * FirstInitialLastName\_Assignment#.docx/.pdf | **Yes or No** | **Yes** |
|  | * Source java files | **Yes or No** | **Yes** |
|  | **Program compiles** | **Yes or No** | **Yes** |
|  | **Program runs with desired outputs related to a Test Plan** | **Yes or No** | **Yes** |
|  | **Documentation file:** |  |  |
|  | * Comprehensive Test Plan | **Yes or No** | **Yes** |
|  | * Screenshots related to the Test Plan | **Yes or No** | **Yes** |
|  | * Screenshots of your GitHub account with submitted Assignment# (if required) | **Yes or No or N/A** | **Yes** |
|  | * UML Diagram (if required) | **Yes or No or N/A** |  |
|  | * Algorithms/Pseudocode (if required) | **Yes or No or N/A** | **Yes** |
|  | * Flowchart (if required) | **Yes or No or N/A** |  |
|  | * Lessons Learned | **Yes or No** | **Yes** |
|  | * Checklist is completed and included in the Documentation | **Yes or No** | Yes |