

# Project #2: Quiz Game

CS0004

Due: ~~March 16th~~ March 23rd, at the beginning of class

## Instructions

You are to implement a quiz game in Visual Basic. It is to ask the user one of five questions. The user should then be able to input an answer to the question. Next, the program should inform the user if she is correct or incorrect. Finally, it should move onto the next question, and the process repeats. Once the user has answered all five questions, the first question should be asked and the cycle repeats. The user should be able to push a button (or something else if you decide to be creative) to go to the next question. The five questions and correct answers are as follows:

1. Question: Who was the first President of The United States of America?
  - Answer: George Washington
2. Question: Who founded the University of Pittsburgh?
  - Answer: Hugh Henry Brackenridge
3. Question: Who won the Super Bowl in 1975?
  - Answer: Pittsburgh Steelers
4. Question: What is a number greater than 50?
  - Answer: Any number greater than 50 (for example 51)
5. Question: What is  $(9 - 5) * (2 * (4 - 3))$ ?
  - Answer: 8

The users answers should NOT be case sensitive. For example, “HuGh HenRY bRACKeNRidge” is just as acceptable as “Hugh Henry Brackenridge”. Also, I would suggest using the “Trim” function for strings to trim the whitespace off of user’s input. In addition, the program should not crash if the user answers a non-numeric answer for question 4. The following things should be used CORRECTLY and APPROPRIATELY (in addition to other things).

- Functions and/or subprocedures
- Decision statements (If, If/Else, If/ElseIf/Else, and/or Select Case)
- Dialog boxes (Message boxes and/or input boxes)
- Variables

Modular programming will be enforced from this point on in the course. That means sub-problems in the project should have their own functions or subprocedures. Two that I used in this project (assuming no extra credit) had the following headings:

- Function `IsAnswerCorrect(ByVal inAnswer As String) As Boolean`
- Sub `GetQuestionInfoByNumber(ByVal questionNumber As Integer, ByRef question As String, ByRef answer As String)`

The first takes an answer and returns `True` if it correct for the current question, `false` otherwise. The second, gets the question and answer by setting the reference parameters based on the value parameter `questionNumber`. You will be graded on the following criteria:

- The use of the above required elements.
- The ability to successfully get user's answers to the questions
- The ability to successfully pose the above questions to the user including giving them the ability to move to the next question
- The ability to respond to the user if she is correct or not based on their answers
- The use of good coding practices, including but not limited to clear documentation, and modular design
- The ability to create an intuitive, easy to use interface

Up to two (2) points will be given if instead of simply cycling the questions, the order of questions is randomized. This means that if the user goes to the next question, any of the five questions have an equal chance of being asked. Up to three (3) points will be given if arrays are used to hold the questions and answers so the use of a function like `GetQuestionInfoByNumber` is unnecessary.

This is meant to be AN INDIVIDUAL ASSIGNMENT. You may talk to your classmates about the project, but you are not to share code with each other. Also, taking large segments of code from other sources without citing is plagiarism. The majority of this assignment should be YOUR OWN ORIGINAL WORK. I recommend getting a small storage device such as a flash drive to save your work on. You can get these for under \$20 at any Radio Shack, and many other stores. When you are done submit your project by zipping up the project folder and FTPing it to the drop box for this course as described in class and here: <http://www.cs.pitt.edu/~eth13/cs0004/submissionGuidelines.html>. On the course webpage there is a grading rubric which I will be grading from. Keep this in mind while doing the project. Also on the course webpage there are examples of both regular and extra credit executable files for this project.