IST400/600 Scripting for Games, Spring 2010
Lab 2.
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Description:

In this lab, you will create the quiz game that was discussed in the previous class. All the information you will need was explained is in the previous class. The following instructions will help you to create the game, but will not tell you all the small steps, e.g. each character you need to type in or which button to click. The lab is designed to encourage your learning and enhance your understanding. You may want to look up the previous lecture slides, textbook, or online resources. If you have a question, feel free to ask the instructor.

Note: this lab assignment is designed as an individual work. To maximize your learning experience, you are encouraged to work on it independently. You may ask questions to instructors and/or friends (but keep it quiet) and look up resources, but <u>you are not allowed to copy-and-paste any resources other than you created.</u>

Peer Evaluation:

For each lab session, you will be paired up with one of your classmates. Each one of the pair will complete the lab individually and evaluate each other's work. This is done by the peer review function of the Discussion Tool on the Blackboard Learning System. This is a necessary step for all the students, for each lab. You must submit your lab work to ILMS (iSchool Learning Management System), and evaluate your peer's work on ILMS. (More instructions on the evaluation will follow after the lab instructions.)

Lab Instructions:

1. **Setup**

   Launch your favorite text editor (Notepad++ is recommended.) and FireFox. As always, they should sit side by side (above and below) on your display during this lab.

2. **Testing a global variable**

   On the text editor, create a new file with a name "TestGlobal.html". Save the file in your IST400/600 directory. (You should have created a directory for this class by now!)

   Insert a <script> element in the file, and declare global variable gFarewell. Initialize it with some string, e.g. "Good bye!" Now define two functions 1) farewellGlobally() that displays a the gFarewell, and farewellLocally(), which displays a different string (e.g. "Live long and prosper"), using a local variable.
   Now, insert a <body> element right below the <script> element. Insert two buttons with different values (e.g. "Do it globally" and "Do it locally", etc), each of which execute the different function.

   Open the file on FireFox, the page should look like the picture above. (Oops I'm using Safari.)

Good work! Now you know how to work with global variables. Let's start work on the quiz game...
(If your file is not working properly, this is a good time to raise your hand or ask for help…)

Make sure to submit this file (TestGlobal.html) as well as the main lab assignment (Lab2.html) to the ILMS Discussion Board.

3. Moving onto Quiz Game

On the text editor, create a new file called "Lab2.html" (or whatever you want.). In the very top of the file, insert HTML comment lines, for describing the file name, purpose of the file, and your name. It should be look like something like the following, but you can arrange it as you want. (For example, you can include copy right notice, date, etc:

```
<! --
   -- Lab2.html
   --
   -- For a part of Lab. 2 assignment for IST400/600 Spring 2010.
   -- A multiple-question quiz game with a score maintained by a
   -- global variable.
   --
   -- Keisuke Inoue
   -->
```

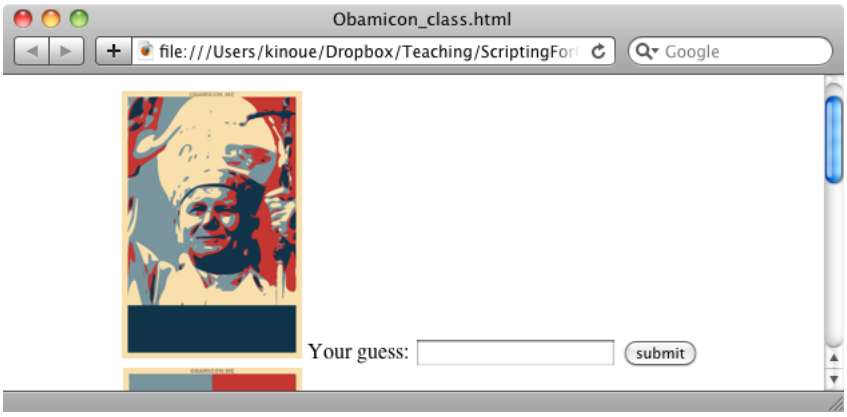
It is a good convention to do this every time you write a program. (Most programmers / organizations have their own conventions of this commenting, and some programming languages have industrywide standards.)

4. Define checkAnswer() function

While your memory is still fresh, let's define a function that evaluates an answer to a question and update and maintain scores, using a global variable. Insert a <script> element in the Lab.html file, and declare a global variable gScore, initializing it with some value (e.g. 0).

Now define a function called checkAnswer(), which takes two parameters, answer and guess. Define a function, so that if the answer and guess are the same, you increase the score, and display it with some message, e.g. "You are awesome! What are you doing in this weekend?", otherwise, you decrease or keep the score, and still say something e.g. "Well, it was pleasure meeting you…"

5. Display questions



Now, let's display questions. By now, you should know how to display questions using texts, images, radio buttons, text fields, etc. This time, remember to use a text field to take input from the player and a button

for each question, to execute a function to handle the input. Each question should look like some thing like the picture above.

IMPORTANT: The submit button for each question should execute the same checkAnswer() function, with two parameters: the first one accesses the user input in the text field (Remember the complicated grammar for this?), and the second one is for the right answer, e.g. 'pope', for the case above.

Once you finished one question, test if it is working properly. Once you get the first one right, the rest should be a piece of cake. (This is also a good time to ask for help, you can't figure out how to make it work.)

Work on the second and the third questions.

6. Bonus assignment:

Sometimes it is nice to have a letter grade, like A, B, C, etc., rather than numerical scores. Why don't you modify your checkAnswer program, so that it will display the grade of the player, based on the score as well? For example:

when the score is 0, the grade is F (obviously!)
when the score is 10, the grade is C,
when the score is 20, the grade is B, and
when the score is 30, the grade is A.

This assignment is for those who finish the assignment too quickly. ☺ You will gain the bragging right, but no extra points at this time.

Congratulations! You finished the Lab 2 assignments!

Peer Evaluation Instructions:

1. Evaluation Peer

Make sure you know your evaluation partner.

2. Submission

Once you complete your lab, submit your work, **both TestGlobal.html and Lab2.html** as attachments to the **Lab2** Discussion topic on ILMS. **Make sure to create a new thread in the topic by sending a new message, not by relying to someone else's message.**

For those using images on your local computer (using relative paths), unfortunately, at this point, there is no good way to display the image. Don't attach image files to the message, as it won't be displayed anyway.

If you are not able to finish your lab by the end of the class, make sure to communicate with your evaluation partner, as to when you will be submit your work. **The dead line for the evaluation is midnight on Tuesday, next week.**

3. Evaluation

Once you and your partner submitted your own work, post submit your review for your partner, by using the "Review this post" button, on the Discussion Tool. Your review will not be displayed to the public, but will be visible to the peer and the instructor. Below are the criteria for the reviews:

Exercise: TestGlobal.html	TestGlobal.html is created correctly.
Game: Presentation (2pts)	The game shows the following elements properly: - At least 3 questions. - Text fields - Submit buttons.
Code: HTML Syntax (2pts)	HTML is grammatically correct.
Code: JavaScript: Global variable (2pts)	The global variable is defined correctly.
Code: JavaScript: Function Definition (2pts)	The function definition of checkAnswer() is done correctly. - Using the two parameters: answer and guess - Updating the global variable properly. - Displaying messages properly.

To keep the process simple, you are not encouraged to post reviews of people other than your partner at this moment. (You are welcomed to post comments on other's games, as described below.)

4. Comments

Once you finish your lab and review, you are welcomed to post comments on other classmates' games through the discussion tool on ILMS.