CISC 110 Lab 6: Magic 8-Ball

Magic 8-ball is a sphere that's used for fortune-telling or seeking advice. It will tell you whether something that you ask is true now or will be in the future by giving you random answers that are affirmative, negative, or non-committal.

Download Assign6.swf from our web page and run it to see what a solution to assignment 6 could look like. To use it, think of a question to ask the Magic 8-Ball. Then "shake" the 8-ball by dragging it back and forth on the screen. When you release it, you receive an answer. It will give a variety of random answers.

In the lab, you will create a partial solution. First, you will create a simple 8-Ball drawing with a text field that will always display the same answer when it is dragged and then dropped. Then you will make the 8-ball display a variety of random answers, instead of always the same answer, by randomly selecting answers from an array of possible answers.

In the assignment, you will write a function that checks whether an answer has already been used. You will keep selecting random answers from the answer array until it chooses a new one that hasn't yet been used, so it doesn't keep repeating itself. In the assignment, you will also add a second text field to the 8-Ball to display the big 8 at the start and while the ball is being dragged, and you may improve your graphic of the 8-ball and add any text and background that you wish.

NOTE: You will complete your assignment 6 during Lab 7. It is not yet provided because you will be required to define functions with parameters and results, which have not yet been covered in class. Once those have been covered, the assignment will be posted on our web page, so you can look at it prior to Lab 7. Your homework for this week is to create your storyboard for your project. Both your assignment 6 and your storyboard are due at the end of Lab 7 next week.

Here's a summary of what you need to do for the lab:

1. As usual, download the script template for the assignment, Assign6.as, and put it in a folder for assignment 6.

2. Create an 8-Ball Movie Clip: a simple ball shape (which you can improve later) that contains a dynamic text field that has an instance name of `answer`. Drag an instance of the 8-Ball Movie Clip on the stage and give it an instance name of `ball`.

3. Implement drag and drop for your 8-Ball, to allow you to drag it around on the stage and leave it anywhere you want. To do so, follow the `Wk7DragAndDrop` example on our web page.

4. Modify your drag and drop functions so that the message “It is certain” is displayed in the 8-Ball’s text field when the user stops dragging it and so that there is no message displayed while the user is dragging the ball. To make the message blank, set the text field to contain a string of blanks: “ “.

5. Define an array that contains strings as its elements. Each string is one of the random messages the 8-Ball will display. Just make up a few messages now. You can add more later. Your array must be a global variable, so that it can be referred to anywhere in your script. Therefore, place the array declaration right before your constructor function, but still inside the class.

6. Make your 8-Ball randomly display one of the messages in your array. In your stop drag handler function, randomly generate an integer that is a position in the array (so it’s an integer between 0 and one less than the length of the array). Then set the text of your `answer` text field to be the message at that position in the array.

7. Try out your Magic 8-Ball.

Lab 6 Marking Scheme (1% of final mark)

Marked out of 5:

1 mark - A MovieClip, called `ball` that contains a dynamic text field called `answer` is created.

1 mark - Drag and Drop has been implemented for `ball`.

1 mark - When the ball is dragged, the text field is blank; when the ball is dropped, a message appears in the ball.

2 marks - A string from an array of messages is randomly selected and displayed in the text field of the ball when it is dropped.