

## IT 330

### Assignment 3

Spring 2019

Due 5/7/2019 by 5:45pm

Point Totals: 100 Points

### Summary

Create two Magic8 Ball applications and a WPF application. All the three applications will share the same Magic8Ball class. I created the Solution structure which links the 3 projects to the same file (we will see a better way to do this in a few weeks).

What is the Magic8Ball? [https://en.wikipedia.org/wiki/Magic\\_8-Ball](https://en.wikipedia.org/wiki/Magic_8-Ball)

### Magic8Ball Class:

- 1) A class template has been provided for you.
- 2) The default Magic8Ball must supply the default 20 answers listed in the Wikipedia article.
- 3) The Magic8Ball can take a list of alternate answers to change the feel of the game via a constructor .
- 4) The Shake method randomly selects a new answer. You will use the Random class to pick a new answer.
- 5) The GetAnswer() method returns the current answer string. The answer never changes unless Shake() is called.
- 6) AnswerCount returns a count of how many answers are available.
- 7) ToString() returns all the answers in one string, each separated by a new line character (\n).

### Console App Specs

The console app must follow the screenshots. Remember, you must use the Magic8Ball() class to drive the game. I used switch/case to decide what to do based on the option the user selected.

### Console App Alternate Specs

- 1) Once you finish the first console app, you can copy and paste the code into this project and just pass in an alternate set of questions via a constructor. 99.9% of the code will be reused!

### WPF App Detailed Specs:

1. Use an Ellipse to draw the ball.
2. I recommend using a TextBlock for the answer area.
3. A single button that shakes the ball and triggers the answer to appear. The operation must call the methods on the Magic8Ball class.
4. MessageBox.Show() will show the dialog box.

## **Deliverable**

Submit a zip file on D2L using this naming convention: Proj3-Smith.zip, where Smith is your last name. The zip file should include:

1. A console application that tests the Magic8Ball class.
2. A console application that tests the Magic8Ball class with alternate answers.
3. A WPF application that uses Magic8Ball class.

## **Bonus**

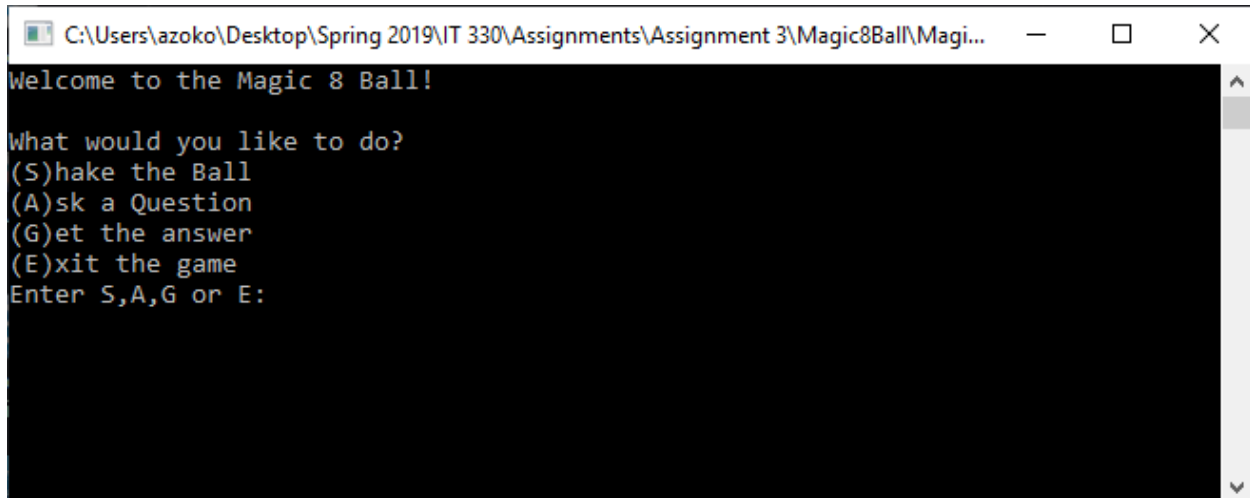
Only for bragging rights! Try to add animations to the WPF application.

## **Grading Breakdown**

- Projects that don't compile will receive an automatic 0!
- Functionality of Magic8Ball Class: 25%
- Functionality of WPF Application: 25%
- User Interface Design matching spec: 15%
- Functionality of Console Application: 10%
- Functionality of the Alternate Console Application: 10%
- Comments: 5%
- Indentation: 5%
- Submitted Correctly: 5%

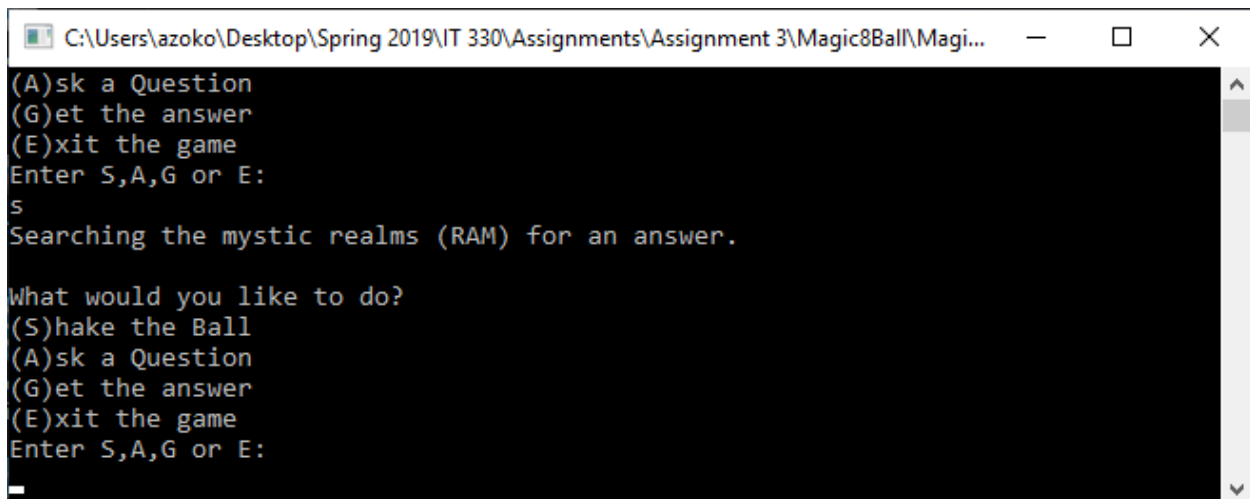
## Screenshots:

### Console Application (Default Answers)



```
C:\Users\azoko\Desktop\Spring 2019\IT 330\Assignments\Assignment 3\Magic8Ball\Magi...
Welcome to the Magic 8 Ball!

What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
```



```
C:\Users\azoko\Desktop\Spring 2019\IT 330\Assignments\Assignment 3\Magic8Ball\Magi...
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
S
Searching the mystic realms (RAM) for an answer.

What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
_
```

```
C:\Users\azoko\Desktop\Spring 2019\IT 330\Assignments\Assignment 3\Magic8Ball\Magi...
What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
A
What is your question?
Will the students do well on the midterm?

What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
```

```
C:\Users\azoko\Desktop\Spring 2019\IT 330\Assignments\Assignment 3\Magic8Ball\Magi...
Searching the mystic realms (RAM) for an answer.

What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
G
The answer to your question 'Will the students do well on the midterm?' is 'As
I see it, yes'

What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
```

## Console Application (Alternate Answers) – I made all the answers negative

```
C:\Users\azoko\Desktop\Spring 2019\IT 330\Assignments\Assignment 3\Magic8Ball\Magic8Ball-Alternate\bin\Debug\Magic8Ball-Alternate.exe
Welcome to the Negative Magic 8 Ball!

What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
```

```
C:\Users\azoko\Desktop\Spring 2019\IT 330\Assignments\Assignment 3\Magic8Ball\Magic8Ball-Alternate\bin\Debug\Magic8Ball-Alternate.exe
Welcome to the Negative Magic 8 Ball!

What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
S
Searching the mystic realms (RAM) for an answer.

What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
a
What is your question?
Will I win the lottery?

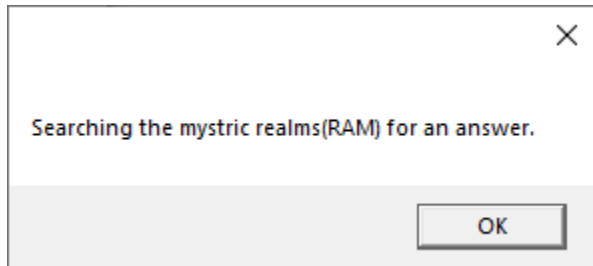
What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
G
The answer to your question 'Will I win the lottery?' is 'did you say something?'

What would you like to do?
(S)hake the Ball
(A)sk a Question
(G)et the answer
(E)xit the game
Enter S,A,G or E:
-
```

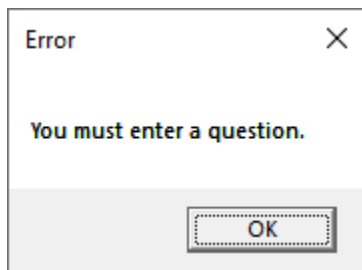
## WPF Application

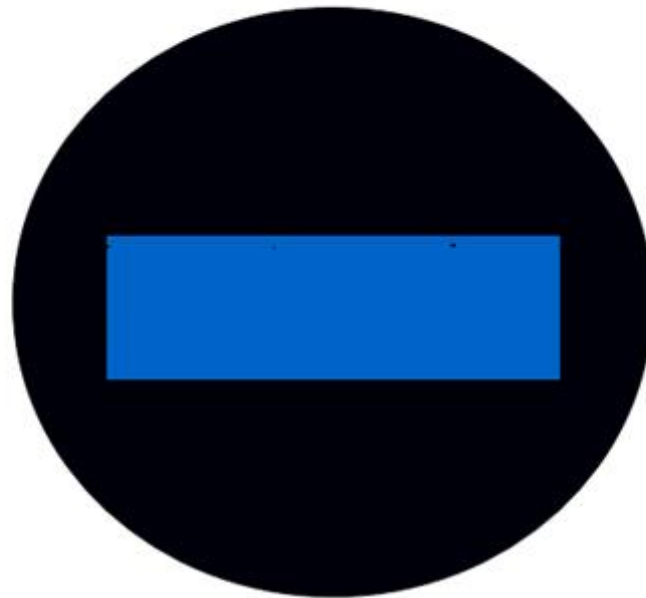
Unlike the Console Application, you will combine the “Shake” and “Ask Question” operations into one button.

When you press ‘Shake”, the following MessageBox comes up:



If you click the button without a question, the following pop-up comes up.



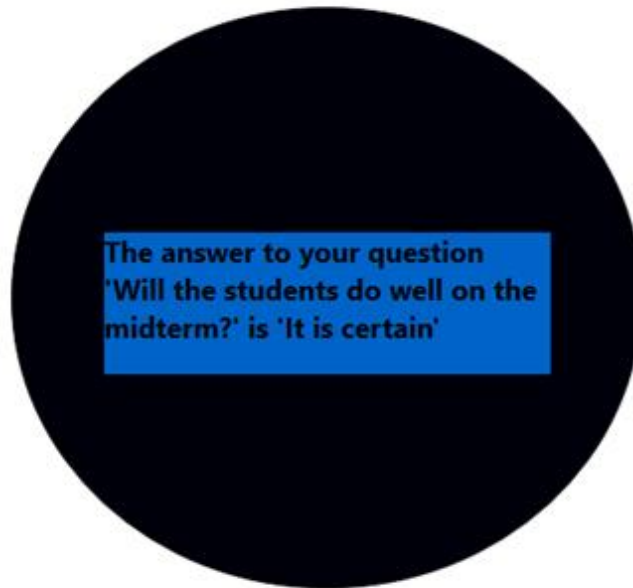


**Question:**

Will the students do well on the  
midterm?

**Show answer**

When you enter a question, and click “Show Answer” the answer and question appear in the blue region.



**Question:**

Will the students do well on the  
midterm?

**Show answer**