CAIS 117: Intro to Programming with Python

Fall 2023

# Homework 05: Magic 8 Ball

Homework is DUE before class on the day indicated on the course schedule.

**This is a pair assignment**. You should complete it and submit it with a partner.

**Learning Objectives:**

* **Implement loops**
* **Utilize RNG**

## Part 1 - coding

Your submission will be auto graded for correctness and graded by hand for appropriate commenting, structure, etc. (see rubric below). **For the auto grader, it’s important that your input goes in the prescribed order, and your output is formatted exactly like the examples below.** Remember to check the results of the auto grader tests to help debug your program.

In this assignment, you will write a python program that simulates a Magic 8 Ball. Your program should:

* Take in a question from the user with the prompt: “Type a question: ”
* Print a randomly selected response from the options in the table below
* Determine if the user wants to ask another question with the prompt: “Type another question (EXIT to quit): ”
* If the user types **any** variation of exit, at **any** time, the program should quit with the message: “Thanks for playing!”
* Otherwise, keep playing

Examples:

A screenshot of a computer

Description automatically generatedA screenshot of a computer screen

Description automatically generated

Magic 8 ball answers:

|  |  |  |
| --- | --- | --- |
| Affirmative Answers | Non – Committal Answers | Negative Answers |
| It is certain | Reply hazy, try again | Don’t count on it |
| It is decidedly so | Ask again later | My reply is no |
| Without a doubt | Better not tell you now | My sources say no |
| Yes definitely | Cannot predict now | Outlook not so good |
| You may rely on it | Concentrate and ask again | Very doubtful |
| As I see it, yes |  |  |
| Most likely |  |  |
| Outlook good |  |  |
| Yes |  |  |
| Signs point to yes |  |  |

## Reflection

In a word document please answer the following questions with your partner:

1. What part of this assignment was trickiest for you and your partner?
2. How did you tackle that tricky part?
3. What did each partner contribute to the final product?

## Submission

Submit your assignment on repl.it (as a group). In addition, save your reflection as a PDF and submit it on PLATO (as a group).

## Rubric

|  |  |  |
| --- | --- | --- |
| **Function** |  |  |
|  | Passes auto grader tests | 0 - 10 |
| **Commenting** |  |  |
|  | Appropriate header with names, date, program description | 0 - 2 |
|  | Code is well documented, but not over documented | 0 - 2 |
| **Structure** |  |  |
|  | Problem is broken into reasonable chunks | 0 - 2 |
|  | Variable names are descriptive | 0 - 2 |
|  | Functions are used appropriately | 0 - 2 |
| **Reflection** |  |  |
|  | All questions answered thoughtfully | 0 - 5 |