

Activity 11.4 The Magic 8 Ball



The Magic 8 Ball toy has been around for years and has remained popular. If you're not familiar with it, you ask a question, shake the Magic 8 Ball and the answer appears in a translucent window built in to the ball. It may not prove the world's greatest way to make decisions, but it does let us exercise our Python decision making powers with if/else/elif. When you complete this lab exercise, we sincerely hope that you receive the answers that you're looking for! If not, you can always shake the ball again!

- 1) Load your IDLE Python development environment. Start a new file and save it as 8Ball.py.
- 2) For this particular program you are going to need the random library which enables Python to generate random numbers. At the top of your new file add the following code:

import random

- 3) The next two lines of code will enable the user to enter the question they'd like to ask the 8 Ball and generate a random number between one and twenty. The random number is assigned to a variable called answer and the question asked is assigned to a variable called question.

```
8Ball.py - /Users/marklassoff/Desktop/Python/8Ball.py
import random

question = raw_input("What is your question? ")
answer = random.randint(1,20)
```

- 4) The random number corresponds to one of twenty answers that the 8 ball can give. Here are the list of answers and the corresponding random number that should generate that response:

8 Ball Response	Number
Signs Point To Yes	1

Yes.	2
Reply hazy, try again.	3
Without a doubt.	4
All sources say no.	5
As I see it, yes.	6
You may rely on it.	7
Concentrate and ask again.	8
Outlook not so good.	9
It is decidedly so.	10
Better not tell you now.	11
Very doubtful.	12
Yes - definitely.	13
It is certain.	14
Cannot predict now.	15
Most likely.	16
Ask again later.	17
My reply is no.	18
Outlook good.	19
Don't count on it.	20

5) Using a structure of if, elif and else statements, print out the answer that corresponds to the random number generated. Make sure your output appears similar to the example below:

```
Python — bash — 80x24
Marks-MacBook-Pro:Python marklassoff$ python 8Ball.py
What is your question? Will it snow in October?
Question: Will it snow in October?
Cannot predict now.
Marks-MacBook-Pro:Python marklassoff$ python 8Ball.py
What is your question? Is Captain Crunch really a captain?
Question: Is Captain Crunch really a captain?
As I see it, yes.
Marks-MacBook-Pro:Python marklassoff$ python 8Ball.py
What is your question? Will the Yankees win the world series this year?
Question: Will the Yankees win the world series this year?
Yes.
Marks-MacBook-Pro:Python marklassoff$ █
```