**LEARN JAVASCRIPT**

**Magic Eight Ball**

You’ve learned a powerful tool in JavaScript: control flow! It’s so powerful, in fact, that it can be used to tell someone’s fortune.

In this project we will build a [Magic Eight Ball](https://en.wikipedia.org/wiki/Magic_8-Ball) using control flow in JavaScript.

The user will be able to input a question, then our program will output a random fortune.

If you get stuck during this project or would like to see an experienced developer work through it, click “**Get Unstuck**“ to see a **project walkthrough video**.

**Tasks**

8/9 complete

Mark the tasks as complete by checking them off

**1.**

In the first line of the program, define a variable called userName that is set to an empty string.

If the user wants, they can enter their name in between the quotation marks.

Hint

An empty string is '' in JavaScript.

**2.**

Below this variable, create a ternary expression that decides what to do if the user enters a name or not. If the user enters a name — like 'Jane' — use string interpolation to log Hello, Jane! to the console. Otherwise, simply log Hello!.

Hint

If the user doesn’t enter a name, the condition userName ? will evaluate to falsy because it will be an empty string.

For example:

userName ? console.log(`Hello, ${userName}!`) : console.log('Hello!');

**3.**

Create a variable named userQuestion. The value of the variable should be a string that is the question the user wants to ask the Magic Eight Ball.

Hint

We can use the const keyword to declare a variable, then assign a question to that variable that we want to ask the Magic Eight Ball.

**4.**

Write a console.log() for the userQuestion, stating what was asked. You can include the user’s name in the console.log() statement, if you wish!

Hint

Use the console.log() method to print the user’s question.

**5.**

We need to generate a random number between 0 and 7.

Create another variable, and name it randomNumber. Set it equal to this expression, which uses two methods ([Math.floor()](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math/floor" \t "_blank) and [Math.random()](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math/random" \t "_blank)) from the Math library.

Math.floor(Math.random() \* 8);

Check the hint to learn how it works!

Hint

Math.random() returns a value between 0 (inclusive) and 1 (exclusive).

In order to make this set of numbers range from 0 (inclusive) to 8 (exclusive) we can multiply the returned value by 8.

Finally, to ensure we only have whole numbers from 0 to 7 we can round down using Math.floor().

**6.**

Create one more variable named eightBall, and set it equal to an empty string. We will save a value to this variable in the next steps, depending on the value of randomNumber.

Stuck? Get a hint

**7.**

We need to create a control flow that takes in the randomNumber we made in step 5, and then assigns eightBall to a reply that a Magic Eight Ball would return. Think about utilizing if/else or switch statements. Here are 8 Magic Eight Ball phrases that we’d like to save to the variable eightBall:

* 'It is certain'
* 'It is decidedly so'
* 'Reply hazy try again'
* 'Cannot predict now'
* 'Do not count on it'
* 'My sources say no'
* 'Outlook not so good'
* 'Signs point to yes'

If the randomNumber is 0, then save an answer to the eightBall variable; if randomNumber is 1, then save the next answer, and so on. If you’re feeling creative, make your own responses!

Stuck? Get a hint

**8.**

Write a console.log() to print the Magic Eight Ball’s answer, the value of the eightBall variable.

Hint

Use the console.log() method to print the Magic Eight Ball’s response.

**9.**

Run your program a few times to see random results appear in the console!

If you want extra practice:

* If you started with a switch statement, convert it to if/else if/else statements.
* If you started with if/else if/else statements, convert them to a switch statement.

Main.js:

let title = 'Magic Eight Ball Project';

console.log(title);

console.log("-------------------------------------------");

// Project starts here!

let userName = 'Dhruv';

// You can switch anything in the string to whatever you want!

userName ? console.log(`Hello, ${userName}!` || console.log('Hello ' + userName + '!')) : console.log('Hello!');

// || means thy are the same.

let userQuestion = 'What should I eat today?';

// You can switch anything in the string to what ever you want!

console.log(userName + ' Asked The Magic Eight Ball (Question): ' + userQuestion)

let randomNumber = Math.floor(Math.random() \* 8);

console.log("-------------------------------------------");

console.log(randomNumber + ' Ignore this number!');

// Ignore as said

console.log("-------------------------------------------");

let eightBall = '';

switch(randomNumber) {

  case 0:

   eightBall = 'Pizza';

   break;

  case 1:

   eightBall = 'Burger';

   break;

  case 2:

   eightBall = 'Apple Sauce';

   break;

  case 3:

   eightBall = 'Taco';

   break;

  case 4:

   eightBall = 'Noodles';

   break;

  case 5:

   eightBall = 'Pasta';

   break;

  case 6:

   eightBall = 'Chicken Sandwitch';

   break;

  case 7:

   eightBall = 'Coockies';

   break;

  case 8:

   eightBall = 'Nothing';

   break;

}

// You can switch anything in the string to what ever you want!

console.log(`Answer: The Magic Eight Ball says, ${eightBall}.`);

Console:

Magic Eight Ball Project

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Hello, Dhruv!

Dhruv Asked The Magic Eight Ball (Question): What should I eat today?

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5 Ignore this number!

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Answer: The Magic Eight Ball says, Pasta.