

# The Magic 8 Ball Challenge

## Step 1 - Set up the project

Go to <https://github.com/londonappbrewery/magic-8-ball-flutter> and clone the starting project to your local computer. Open it using Android Studio and take a look around the project.

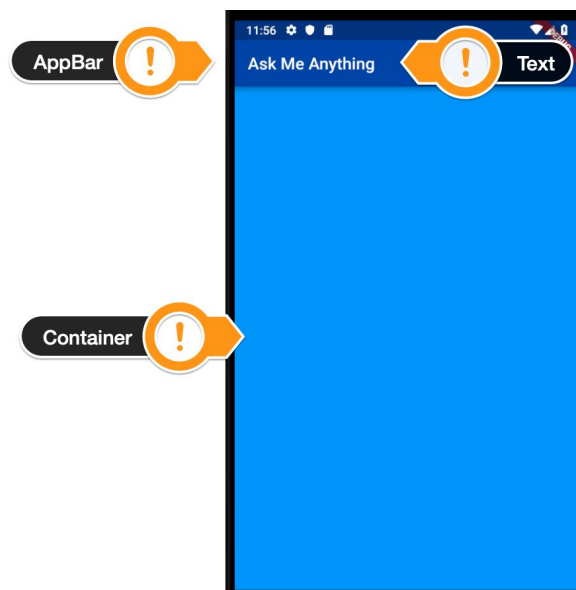
- There is an **images** folder with all the ball images you will need.
- There are a total of **5** images.

## Step 2 - Create a Stateless Widget

- Create a new **Stateless widget** called BallPage in your **main.dart** file.
- Replace the word **null** with the new **Stateless Widget** you created.

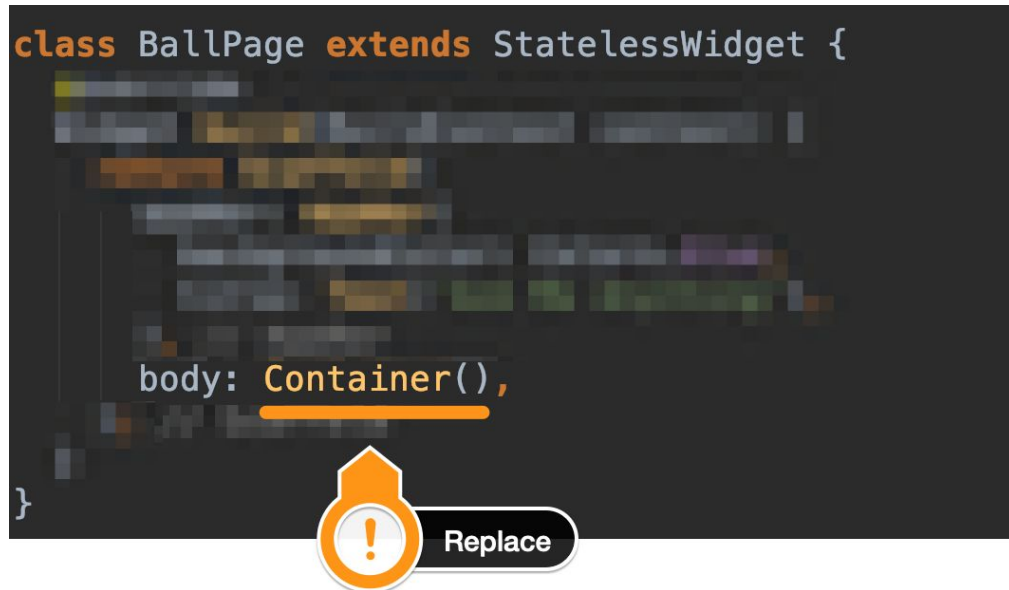


- Your BallPage should have a **Scaffold** with an **AppBar** and an empty **Container** as the body.
- The **AppBar** should have a **dark blue** backgroundColor and a title that says 'Ask Me Anything'.
- The background your Scaffold should have a **blue** color.
- Once you run the app this is what you're aiming for:

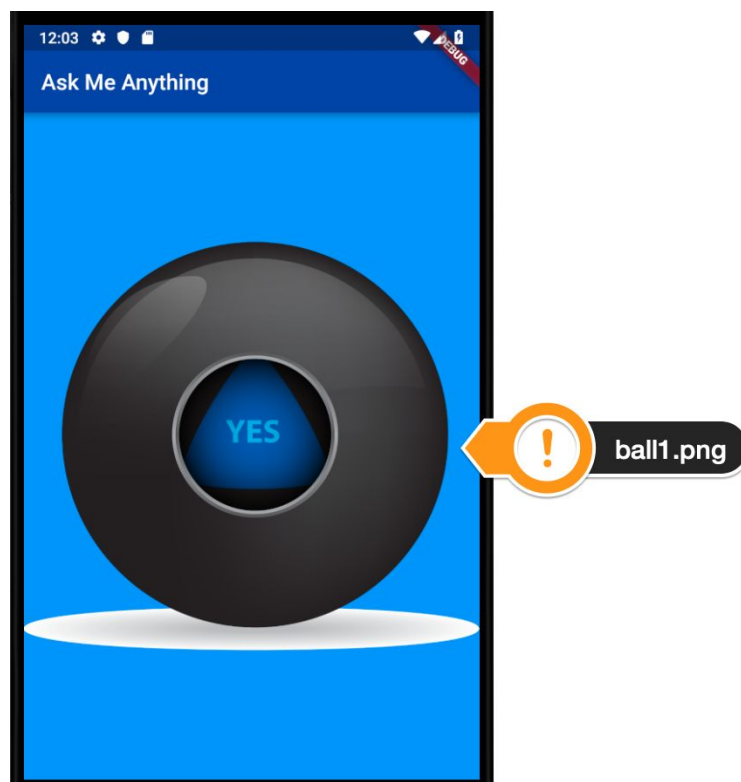


## Step 3 - Create a Stateful Widget

- Create a new [Stateful Widget](#) called Ball in your **main.dart** file.
- Instead of BallPage having a body of Container() replace it with your new **Stateful Widget**.

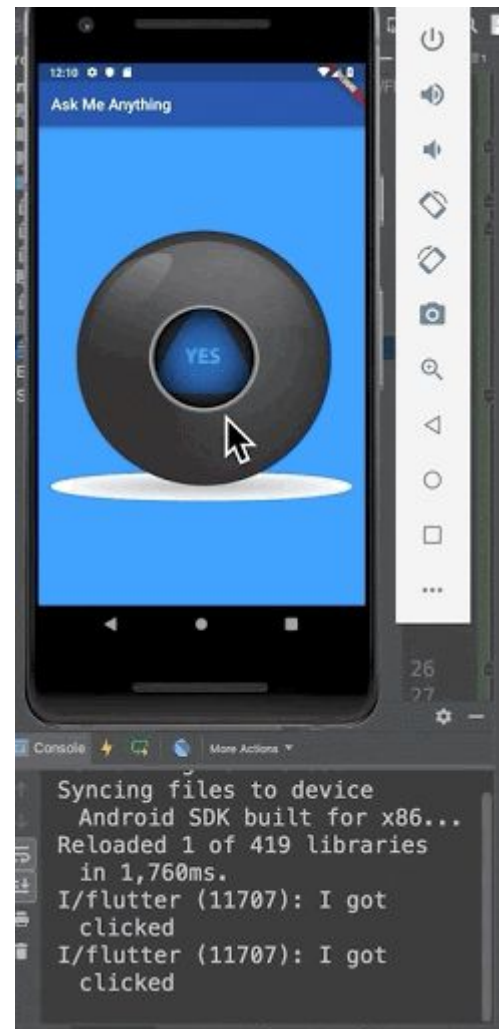


- Your Ball Stateful Widget should display a the **ball1.png** image. (You don't have to touch the pubspec.yaml file)
- Make sure the image is **centred**.
- When you run the app this is what you're aiming for:



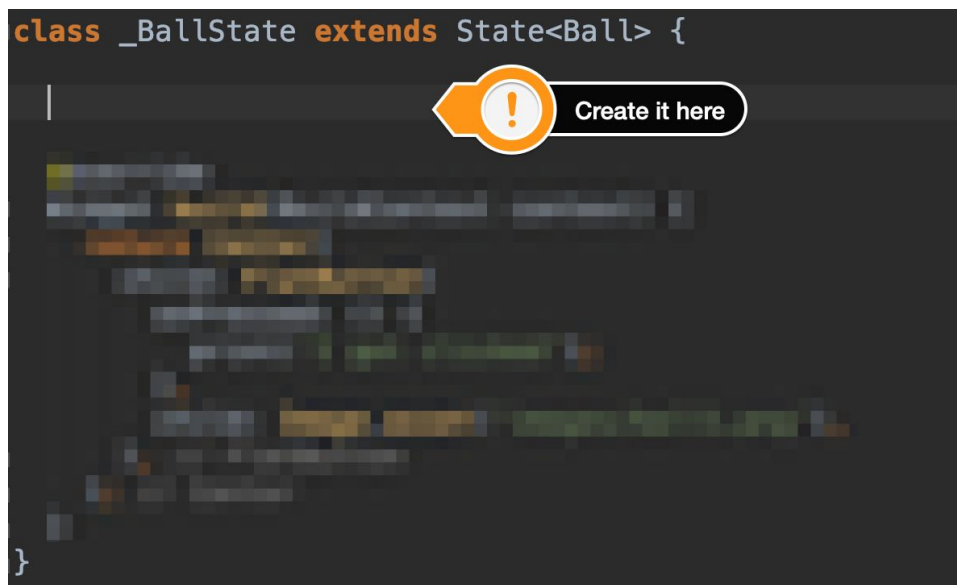
## Step 4 - Make it Interactive

- Use a [FlatButton](#) Widget to make the Image **clickable**.
- Add a print statement that gets triggered when the button is **pressed**. It should print 'I got clicked'.
- When you **run** the app and click on the ball image you should see the words "I got clicked" into the console like this:



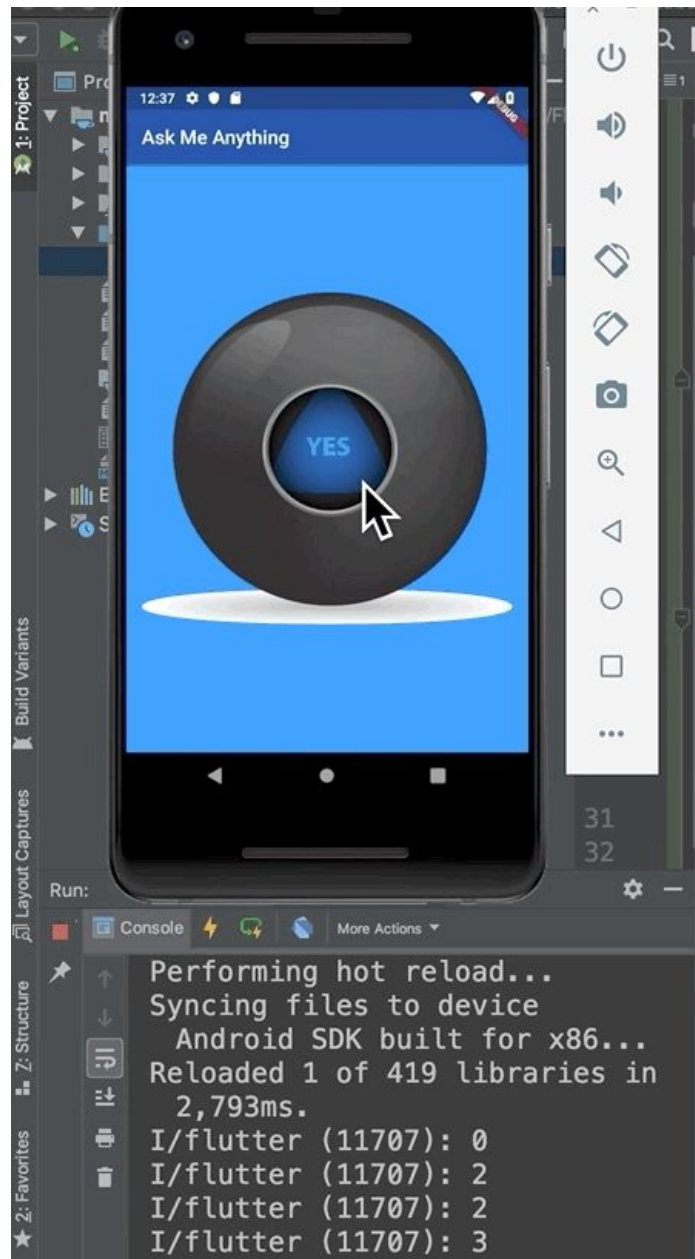
## Step 5 - Randomise it

- Inside the curly braces of `_BallState` create a [variable](#) called `ballNumber` that can only hold **integers** (`int`), set it to equal **0**.



- Instead of hard coding the ball image name that's being displayed on screen, use the `ballNumber` **variable** you just created instead.
- Add the [dart:math](#) library to your `main.dart` file.

- When the button gets **pressed**, use the `Random()` generator and the `nextInt()` method from the `dart:math` library to generate a new `ballNumber` between **0 - 4**.
- print the `ballNumber` to the console when the button gets pressed.
- When you run the app and click on the ball image you should see random number between 0 - 4 printed in the console like this:



## Step 6 - Update the State

- Change the random numbers that are generated for `ballNumber` from **0 - 4** to **1 - 5** to match our ball image names.
- Instead of using a **hard coded** image name to display the ball image that's shown on screen, use [String interpolation](#) and the `ballNumber` **variable** instead to make it show a **random image**.

- Use `setState()` to update the **state of the image** when the `ballNumber` variable **updates**.
- All going well, you should now have the full functionality of the Magic 8 Ball app, it should look like this:



I hope you enjoyed that challenge and you're now familiar with the basics of building Flutter apps that have state and functionality.

I really encourage you to take the opportunity and fully customize the design of your app. Once you're done and proud of it, post an image or gif of it on Twitter with the hashtag `#FlutterBrew` so I can personally congratulate you on your work!

I'm looking forward to judging the best designs!

Your instructor, Angela