iOS development workshop #2

iOS 13 - Swift 5

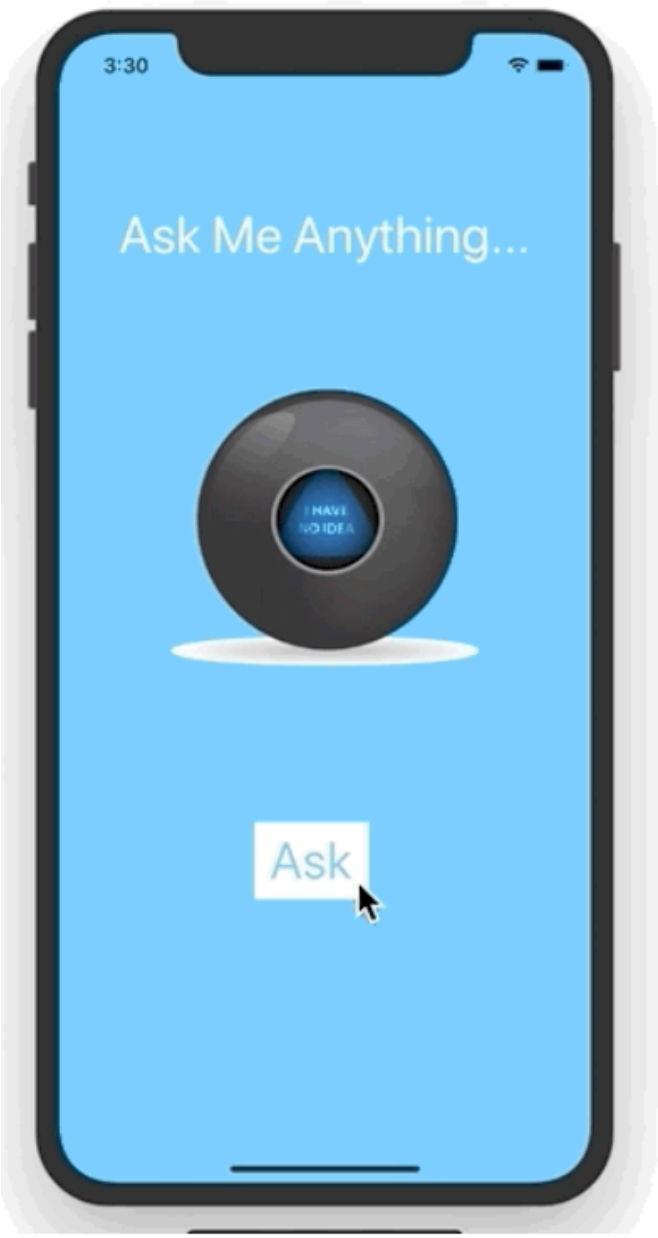
by hyokil.kim@epitech.eu, maxime.gernath@epitech.eu clement.dubois@epitech.eu

What You Will Create

An usefull application . . .

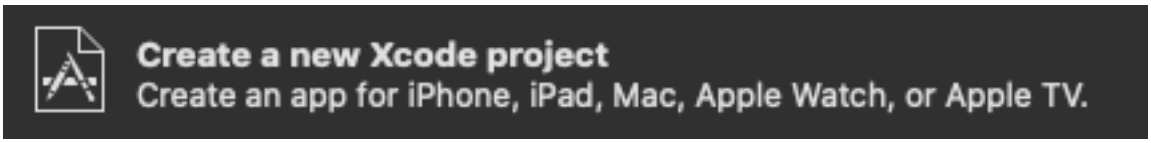
We're going to make a Magic 8 Ball app. You can ask the app to make all your difficult decisions.
Should I order a Beef burrito or a Pepperoni Pizza with extra cheese?
Should I watch Stranger Things or Game of Thrones?

With this app in your pocket, you'll always have an answer to life's many conundrums!

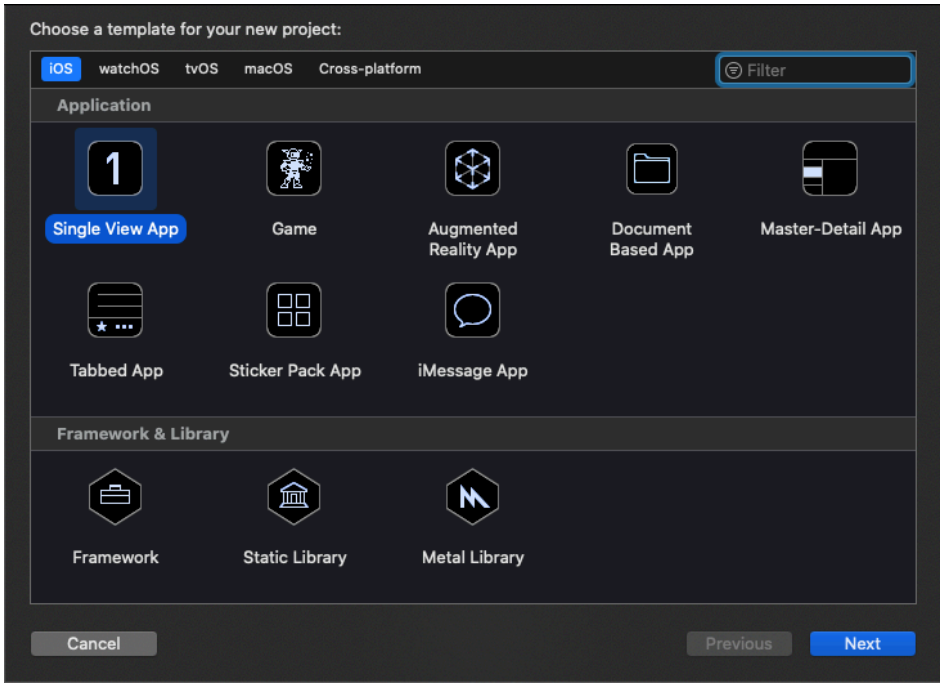


Create a storyboard-based app

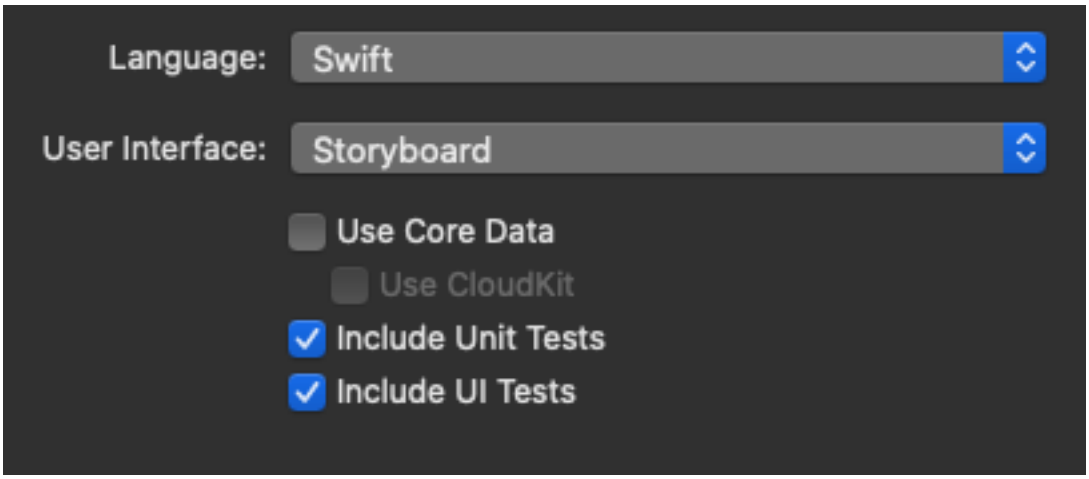
- Launch Xcode and click on



- Create an iOS Single View App



- Select Storyboard as user interface



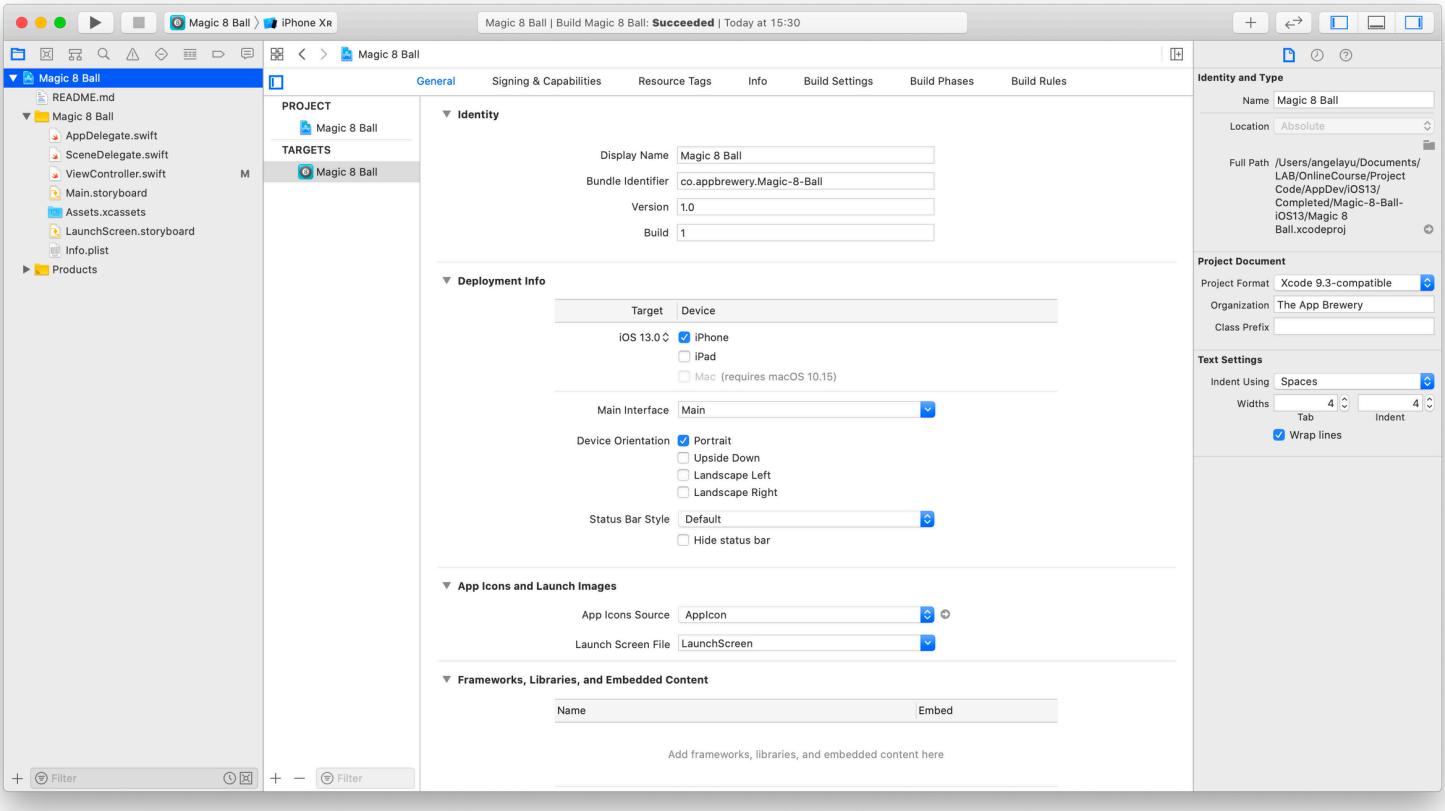
Task 1 – Clone the starting project

Let's create!

Head over to the URL below (or use the course links page) and use it to clone the starting project in Xcode.

https://github.com/appbrewery/Magic-8-Ball-iOS13

This is what you should end up with.



Task 2 – Design the user interface

Some UI 😊

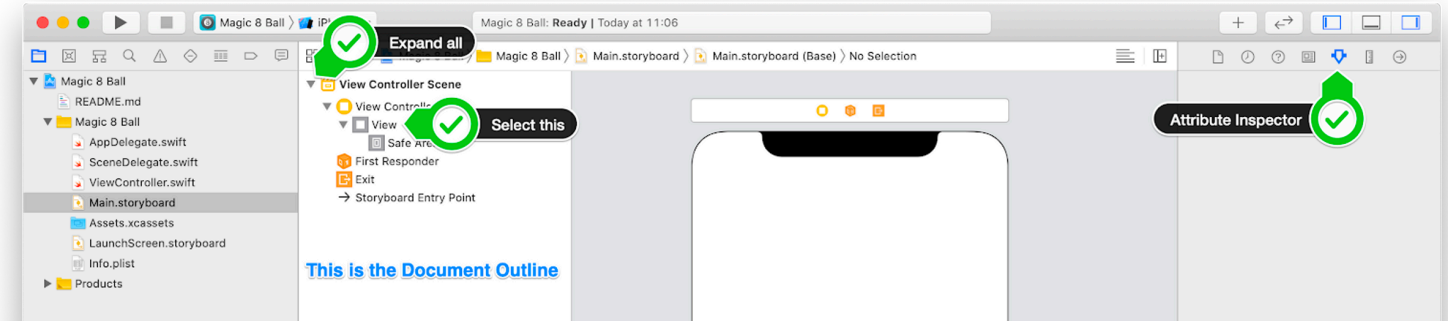
First, take a look around the project. Familiarise yourself with what's been included in the starting project.
We've already added the required image assets and the app icons.
Everything else has been left for you to complete.

- Open the **Main.storyboard** in the File Navigator.

- Change the **background colour** of the app.

Try messing with properties in the Attribute inspector with the **View** selected in the Document Outline.

See the screenshot below if you're confused about where these things are.



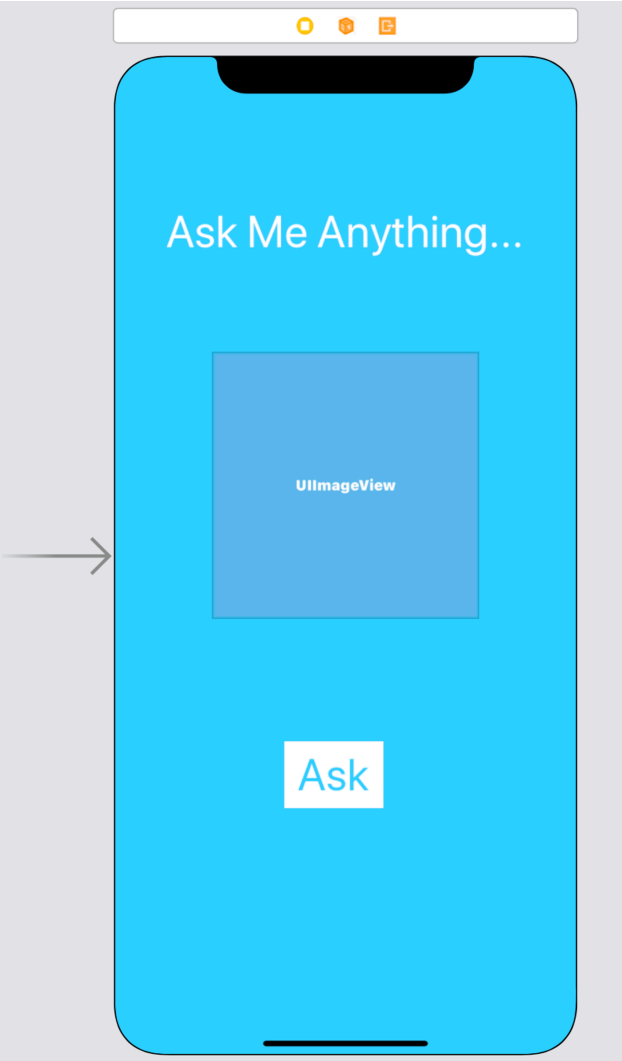
Next, let's add all the UI elements on to our canvas.

- Add a **Label** that says "Ask Me Anything" or something you think will work well with the Magic 8 Ball theme.

- Add a new **Image View** from the Object Library on to the canvas and place it at the centre.

- Add a new **Button** that says "Ask" or something similar and place it at the bottom of the screen.

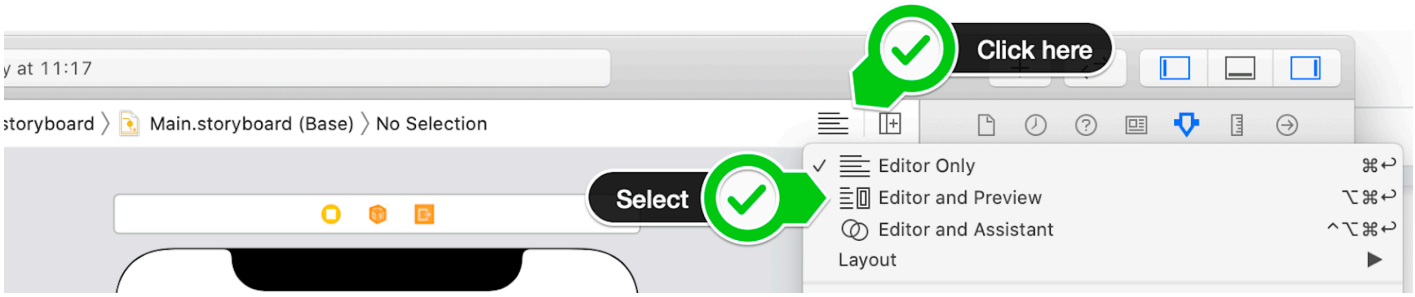
Feel free to tweak the **Font Style** and **Font Sizes** to your liking. You should end up with something like this:



You can ignore any yellow warnings at this stage.

Task 3 – Link up the design with code

Open up the **Assistant Editor** so that the screen is split in two showing the design file and the code file side-by-side.



- Link up the **Image View** with an **IBOutlet**. You should name the IBOutlet **imageView** when prompted.

Remember to hold down the **control** key

- Link up the Ask **Button** with an **IBAction**. Name the IBAction **askButtonPressed**.

This is what you should end up with.

```
import UIKit

class ViewController: UIViewController {

    @IBOutlet weak var imageView: UIImageView!

    @IBAction func askButtonPressed(_ sender: UIButton) {

    }
}
```

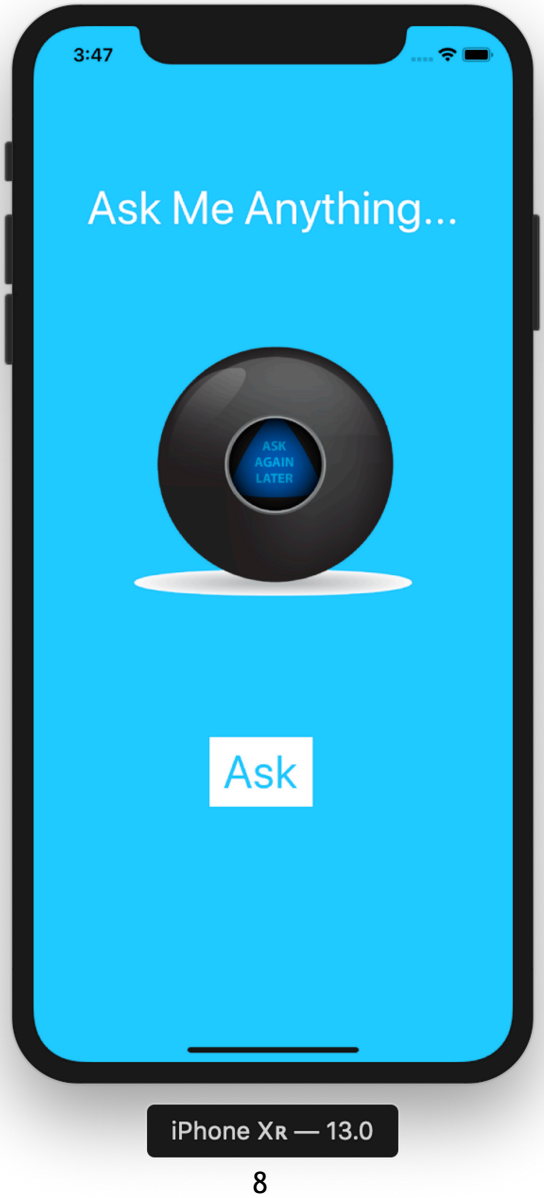
Task 4 – Use code to change the 8 ball image

- Open **ViewController.swift** from the File Inspector.

- Without touching the Main.storyboard file, figure out a way to change the **Image View** using code to display the **ball3** image when the Ask **Button** is pressed.

There are a total of **5 ball images**. You can find them in the Assets.xcassets folder.

GOAL

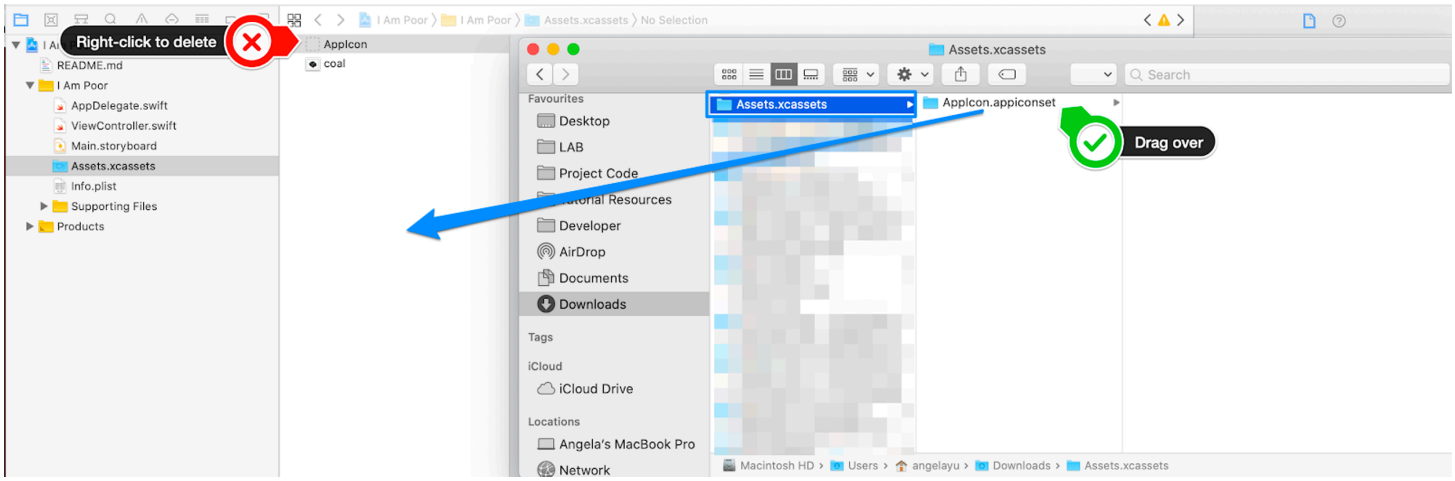


Task 5 – Add an App Icon

Some UI again 😊

• use your own images and generate all the required sizes using appicon.co.

Once you've downloaded and extracted the images from appicon, you can match up the sizes or you can simply replace the App Icon folder.



GOAL

When you run the app in the simulator, you should be able to see an app icon on the Home screen.

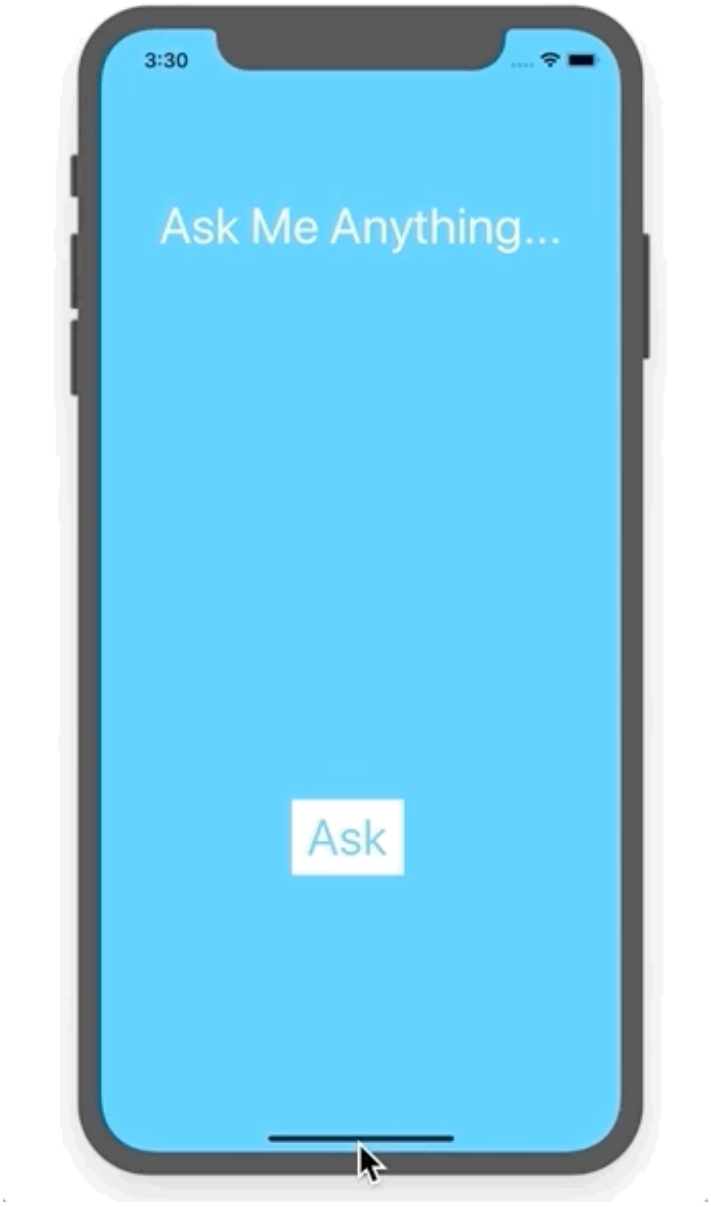
Task 6 – Make the ball image random

- Use the Swift **random** generator to make the Image View show a different, random ball image each time you press the Ask button.

You can generate a random integer (whole number) between x and y with the code:

Int.random(in: x...y)

GOAL



Task 7 – Show off your work !

We hope you enjoyed that challenge and you're now familiar with all of Xcode's tiny buttons in Interface Builder.

We really encourage you to take the opportunity and fully customise the design of your app.