Objective:

Create an iOS or Android based application exhibiting the MVVM/MVC pattern which can run on either iOS or Android devices.

You can choose either one of following to use depending on your preference:

* Xamarin.Android or Xamarin.iOS or Xamarin forms for cross platform
* Swift or Objective-C for iOS
* Java or Kotlin for Android

Please use no more than 8 hours to complete this task

Tasks:

1. User should be able to spawn an infinite number of squares or circles filled with random colours or images

2. Application consists of one single screen

3. Create squares or circles which randomly fill with random colours or images when the user taps on the main background

4. Created shapes are placed at the user's tapped location

5. Create a shape at a random size within appropriate ranges

6. Fill circle with an colour that is generated by calling the api from http://www.colourlovers.com/api/colors/random?format=json. use either RGB or Hex value

7. Fill square with an image that is generated by calling the api from http://www.colourlovers.com/api/patterns/random?format=json. use imageUrl value

8. If no connection is available from the above url, use code to generate random colours

9. double tapping the shape replaces the colour based on the above mentioned rules

10. You can not use any third party libraries

Extra tasks if time allows:

1. When a user taps the screen, add an animation for the shapes that appear

2. Remove all shapes when shakes device

3. Be able to move a shape around

4. A user can use a pinch action to enlarge or shrink the size of the shape

5. Working app for both iOS and Android

Deliverables:

Source code available through GitHub or other public repository
Release Notes to states what's been completed
The source code must compile with no errors on either Android/iOS environments
iOS application must support iOS 10+
Android APK must support API 16+