

Coding Exercise

Problem: Develop a single page mobile app using Flutter (page layout as shown in the image below) and compile as well as run it on both Android & iOS emulators, or devices. Submit all the artifacts to complete your first round of interview that are mentioned at the end of this document.

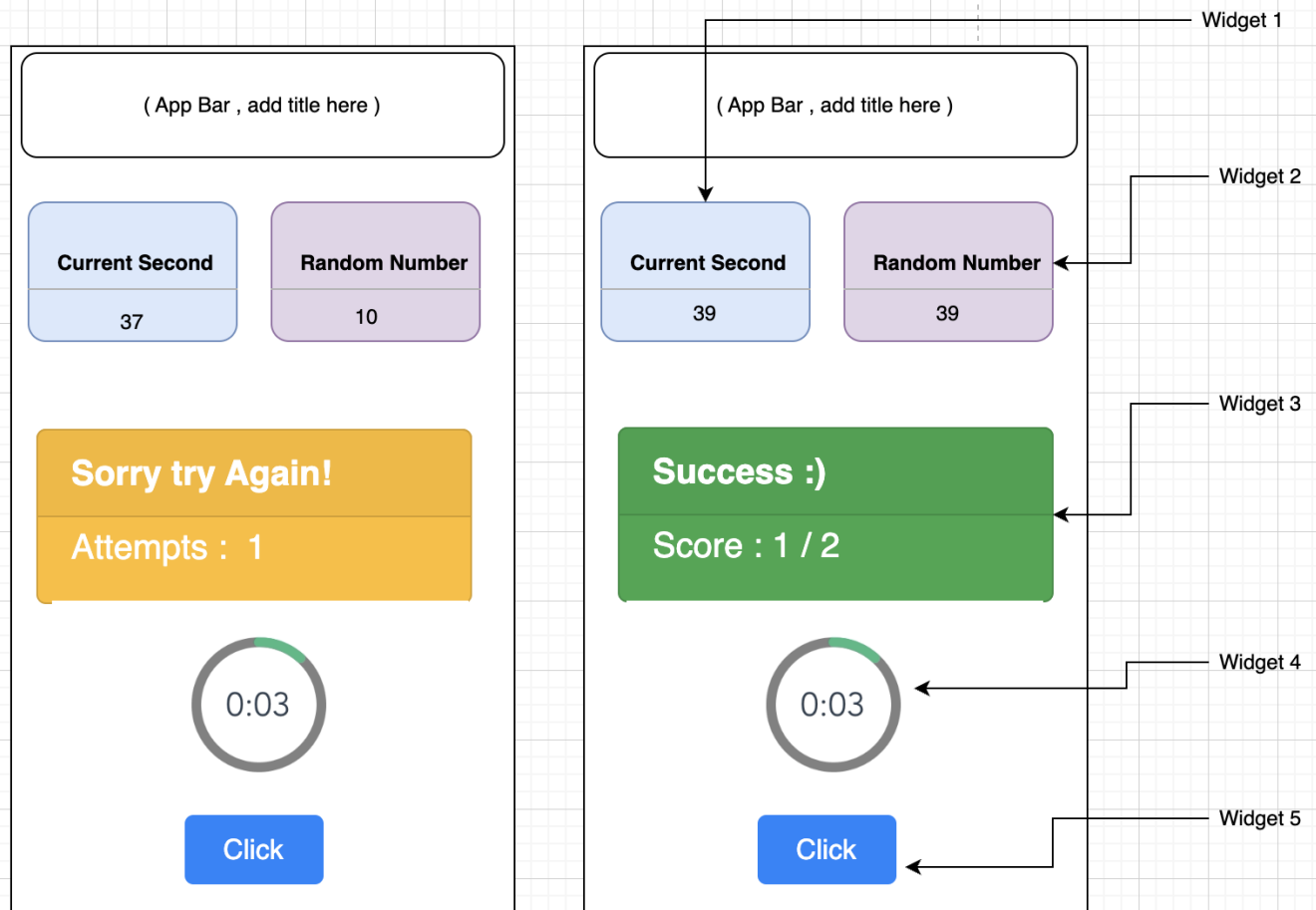


Image 1.0

Requirement Description (refer Image 1.0):

- Widget 5 should be tappable / button
- Widget 4 should be a circular timer which resets automatically after 5 seconds
- Widget 3 Shows success or failure message with score & attempts
- Widget 1 Shows seconds from current time
- Widget 2 Shows random number between 0 - 59

Domain Logic :

- There must be a splash page that show for 3 seconds while opening the app, and then it loads the above mentioned page
- On each tapping of Widget 5,
 - Widget 2 should display a random no between 0 - 59
 - Widget 1 should display seconds from the tapped time
- If the random no displayed on Widget 2, **equals** to the 'seconds' shown by Widget 1, then widget 3 should display a success message with **success score out of total no of attempts**
- If the random no displayed on Widget 2, **not equals** to the 'seconds' shown by Widget 1, then widget 3 should display a failure message with **failure score out of total no of attempts**
- On each tapping of Widget 5,
 - Widget 4 counter must reset to 5 and should start counting down from 5 to 0 (seconds)
 - If the user does not tap Widget 5 until Widget 4 counts down to 0, then a new failure attempt is considered automatically and Widget 3 should display a failure message **"Sorry! timeout and one attempt is considered for failure as penalty"**, with failure score out of total no of attempts
- All the values must be retained upon closing and reopening the app.

Following are the conditions.

- The exercise must be completed within 49 hours from the time it was received from the HR/Recruiter
- The app must use clear state management (more perks for this)
- The app must use Repository patterns for storing and retrieving data
- The app must use clear code structure
- There must be clear logical commits of the code

The look and feel of the app is up to the developer, however a good user experience will be given extra perks.

The developer must use the latest stable version of Flutter, and develop the app from **scratch**.

To ensure that the candidate must create a new git repo, and commit the initial blank app created from flutter create, and check in the code on each logical completion of the feature.

Coding standards followed will also be given extra perks.

The candidate is expected to give a creative and suitable name to the app, and that is up to the candidate's creativity, and the candidate should be able to reason out why that name was chosen.

Artifacts to be submitted are as below:

1. Github repository link of the source code
 - a. The github repo should contain the Readme.md file with all the details & documentation
 - b. The readme.md should also contain the details of the developer/candidate
2. Two screen capture videos (Android & iOS) that shows the recording of the app running and the functionalities used (on an emulator or real device)

Please email us at support@kjbnlabs.in