horizontal line

**Waracle**

For completion by Android candidates

Android exercise

***Cake List* app**

# OVERVIEW

Starting from scratch, develop a simple Android app that loads and displays a list of cakes.

This exercise is an opportunity to demonstrate your Android development capabilities but **we are not expecting perfection**. We’ve planned this exercise to take no more than half a day so focus on the fundamentals, not on addressing all unhappy paths, visual polish etc.

# FUNCTIONALITY

## Required

1. When the app is started, load and display a list of cakes
   1. Remove duplicate entries
   2. Order entries by *name*
   3. Display *image* and *title* for each entry
   4. Display a divider between each entry
2. Display the cake *description* in some kind of popup when a cake entry is clicked
3. Provide some kind of refresh option that reloads the list
4. Display an error message if the list cannot be loaded (e.g. *no network*)

**Extra credit**

1. Handle orientation changes, ideally without reloading the list
2. Provide an option to *retry* when an error is presented
3. Animate in list items (e.g. *fade in* or *fall down* animations)

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# TECHNICAL REQUIREMENTS

1. **Develop in Kotlin or Java as requested by Waracle**
2. Use common 3rd party libraries where appropriate and required
3. Apply a common architectural pattern such as MVP, MVVM and/or employing Android architecture components
4. Use TODOs to document additions you would provide if more time
5. Use Git commits to demonstrate how you tackled the exercise

# DATA SOURCE

The cakes list should be loaded from:

<https://gist.githubusercontent.com/t-reed/739df99e9d96700f17604a3971e701fa/raw/1d4dd9c5a0ec758ff5ae92b7b13fe4d57d34e1dc/waracle_cake-android-client>

# UNIT TESTS

Prove the value of the selected architectural pattern by providing unit tests for at least the following business logic (tests must **not** require a device or emulator to run and should use mocks / fakes for components **not** under test)

1. When app is started and load succeeds, cakes are presented with duplicates removed and sorting applied
2. When app is started and load fails, error is presented

# DELIVERABLES

## Git repository

Please provide your submission in the form of a publicly accessible Git repository.

## Android Gradle project with min SDK 23

The repository should contain a standard Android Gradle project that can be imported into Android Studio and run on any Android M+ device or emulator.

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# ASSESSMENT CRITERIA

Things that are important to us include

* Code style and cleanliness
* Lightweight application of common libraries and techniques
* Application of material design components (minimal visual styling required for this exercise)
* Clear code architecture that lends itself to testability

Things that are **less** important to us for this exercise

* Addressing every scenario / unhappy path / edge case (document with TODOs so we know you are aware of what has **not** been built)
* Demonstrating knowledge of every common Android library / framework (just use what adds genuine value)
* 100% test coverage
* Visual perfection