

SPHTech Mobile Applications Assignment

* Required

Introduction

You are to create a native Android/iOS application to display the amount the of data sent over Singapore's mobile networks from 2008 to 2018.

<https://data.gov.sg/dataset/mobile-data-usage>

Example:

https://data.gov.sg/api/action/datastore_search?resource_id=a807b7ab-6cad-4aa6-87d0-e283a7353a0f&limit=5

You are encouraged to display any knowledge of architecture design in the development of your application.

Task ONE: Display a list of data

Data displayed can be just numbers. Each entry in the list could be a card or composite view, or whichever view you think will demonstrate your capabilities. Each entry shall display total data consumption for ONE year - not quarter.

Task TWO: Display a clickable image

Display a clickable image in the entry if any quarter in a year demonstrates a decrease in volume data.

Task THREE (Optional): Data Caching

Cache the data for offline usage.

Guidelines

Please try to demonstrate the following:
Any object-oriented design patterns used to solve the above problem
Design interfaces or protocols
Your code must include unit test to cover at least 70% code coverage (eg. handle network failure, internal server error)
Non-emulator test
Emulator test
Include code coverage report if you know how to.

You are free to use any of these languages:
- Android - Java or Kotlin but Kotlin is preferred.
- iOS - Swift 4/5

Create and submit your code via Github and share it with us. We will be pulling the code from your Github and reviewing it on our side.

Try to make your commits small to demonstrate your thought process while doing the assignment. There is no need to make one big final commit to your repository. You can mark the readme as WIP or some other name. Once your code is ready to be reviewed, drop us an email for review.

There may be an online interview after your code submission.

Scoring

Your code submission will be graded according to these criteria:

1. Coding / Development: 50%
2. Unit Testing: 40%
3. UI Testing: 10%

Please ensure you have added proper test cases for the unit testing. Do not submit your repo if you have not cover any unit testing.

Submission

Email *

Your answer

Name *

Your answer

Type of application code *

☐ iOS

☐ Android

Your Challenge Project's Public Git repository details *

Your answer

Any comments or feedback

Your answer



SUBMIT

Never submit passwords through Google Forms.