

# Mobile Engineer Candidate Code Exercise

## Purpose

In order to best assess your fit with Xfinity Mobile, we'd like to get an idea of how you approach application development. The purpose of this challenge is for you to demonstrate your best work, knowledge of application architecture and development best practices. There is no time limit for this challenge, and the time in which you complete it does not affect our consideration. Your goal with the challenge is not simply to finish it -- we consider it a given that you can meet the requirements -- rather, the goal is to complete the challenge with the highest possible quality so that we understand what you will bring to our team.

## Document what you did

Please include a separate **NOTES** document (pdf, .doc, etc) outlining the major decisions you made while building the app and the motivations behind them, and, for any libraries you chose to use, explanations of what they do and why you chose them. (We're interested in the decision making process you use while developing)

## App Requirements

Write a sample app that fetches and displays data from a RESTful Web API.

- The app should be able to display the data as a text only, scrollable list of titles, and on phones, should be toggle-able from the list to a scrollable grid of item images.
- The title and description for each item should each be parsed out of the data in the "Text" field. Images should be loaded from the URLs in the "Icon" field. For items with blank or missing image URLs, use a placeholder image of your choice.
- Clicking on an item should load a Detail view, including the item's image, title, and description. You choose the layout of the Detail view.
- On tablets, the app should show the list and detail views on the same screen. For phones, the list and detail should each be full screen.
- The app should have an tool-bar that displays:
  - For Phone  
The name of the app on the item list screen, and the title of the item on the detail screen
  - For Tablets  
The name of the app

In addition, two versions of the app should be created. Each version has a different Name, package-name, and url that it pulls data from. (We're interested in your methodology for creating multiple apps from a shared codebase)

### Version One

Name: Simpsons Character Viewer

Data API: <http://api.duckduckgo.com/?q=simpsons+characters&format=json>

Package name: com.sample.simpsonsviwer

### Version Two

Name: The Wire Character Viewer

Data API: <http://api.duckduckgo.com/?q=the+wire+characters&format=json>

Package name: com.sample.wireviewer

## Using Libraries To Complete The Task

Feel free to use open source libraries as you see fit, but **we must be able to build and run your project in the IDE**. Before sending, consider building and running your project from a clean environment.

## Additional Tasks

As a bonus, implement one of the following (not required):

1. Local search functionality that filters the item list according to items whose titles or descriptions contain the query text
2. Functionality to favorite characters, and a drawer layout for navigating between a view of all characters, and a view of only favorited items
3. Animated transitions between the item list and detail screen (for phones), or animated detail-pane loading on tablets. You choose the complexity and character of the animations.

## Reaching Out For More Information

Please feel free to reach out with any questions you have, or if any part of the above is unclear or ambiguous.