Coding Challenge

Native Applications

Introduction

Thank you for applying for a Native Mobile Application Engineer position at mobile.de, and congratulations on the previous successful steps. Prior to your in-house interviews, we kindly ask you to complete the assignment described below. This exercise is designed to assess your development skills.

We will evaluate the work you send us against the criteria explained below.

This is not a timed assignment. However, please make sure that you send back the assignment by the deadline agreed upon with your interviewer.

Context

As part of this exercise you are asked to implement a simple application on the platform you are applying for (iOS or Android).

First step

Navigate to this URL:

https://suchen.mobile.de/fahrzeuge/details.html?id=268670031

This is a page belonging to a car sold on the mobile.de platform. In eBay terminology, this page is called a VIP (View Item Page). If the listing for id used in that link does not exist anymore please use an id of a valid listing.

For our mobile applications, we have an API that serves the same data to build this page in JSON format. The API endpoint for the same car can be accessed via this URL:

https://m.mobile.de/svc/a/268670031

Please open this URL and check the JSON structure.

In this JSON, you will see an array named “images” and content like this:

```
"images":[
      {
"uri":"i.ebayimg.com/00/s/MTA2NlgxNjAw/z/TaoAAOSwjkdZ57Jm/$",
       "set":"fe4cfedffdffffffff"
      },
      {
       "uri":"i.ebayimg.com/00/s/MTA2NlgxNjAw/z/XooAAOSwTO9Z57Jr/$",
       "set":"fe4cfedffdffffffff"
      },
      …
     ]
```

Inside this array, you will see some strings that we use to build the URL for that photo in different sizes. For instance, to create a small thumbnail, we take the “url” value, and build the URL as follows:

https://i.ebayimg.com/00/s/MTA2NlgxNjAw/z/TaoAAOSwjkdZ57Jm/$**_2.jpg**

Note that we prepend “https://” and append “_2.jpg” to build the URL. You can navigate now to this URL and make sure that the image loads.

For a larger photo, we would replace “_2” with “_27” and then have the URL for a larger photo:

https://i.ebayimg.com/00/s/MTA2NlgxNjAw/z/TaoAAOSwjkdZ57Jm/$**_27.jpg**

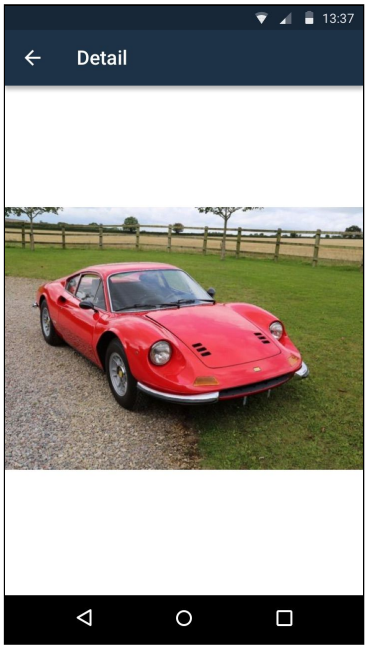
Second step

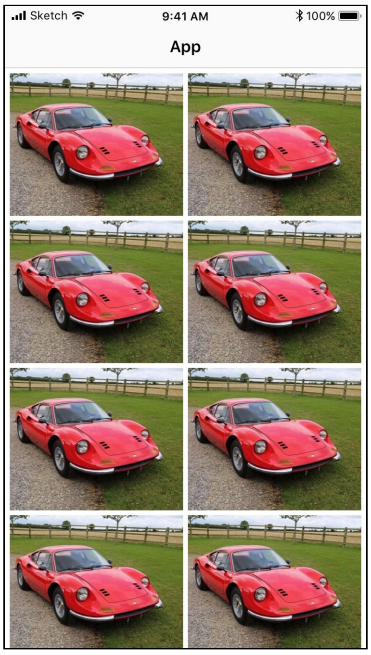
We ask you to create an image gallery app that will access this API endpoint, fetch all available photos and show them to the user.

The application shall have two screens:

- The first screen must have one view with thumbnails of all available photos for the car.
- When the user taps on one of the thumbnails, a second screen must load to show the bigger photo in the middle of the screen.

Below are examples of simple sketches for this app to show how the application might look:





Layout is not important. Choose whatever Layout, Design, Views you like. Keep it simple, deliver what is asked.

If you applied for an **iOS** Application Engineer we encourage you to use your platform's native APIs for trivial tasks and keep external dependencies at minimum for the project. On the other hand, you may use some external dependencies such as test frameworks, modern UI libraries, etc. to show your skills with implementing them.

If you applied for an **Android** Application Engineer we encourage you to use any library and framework as well as implementing patterns you are familiar with. Using external dependencies like test frameworks or modern UI libraries is also up to you. Show us your skills with implementing them.

Be prepared to discuss your rationale for using any external dependencies during your in-person interviews.

Next steps

Please zip your code and any instructions the reviewer might need to run your application. Send the zip file to rdeecke@ebay.com. **Please add your name to the subject line.**

We will review your code and evaluate it against criteria such as functional completeness, code structure and architecture. Complete this assignment like you would complete a task at your workplace. After reviewing your assignment, we will share our feedback with you and communicate our decision on whether or not to proceed with in-person interviews.

When you come in for your interview, please be prepared to discuss your experience and answer questions regarding the work you provided and your approach to complete this project. We look forward to meeting you!