

Code Challenge

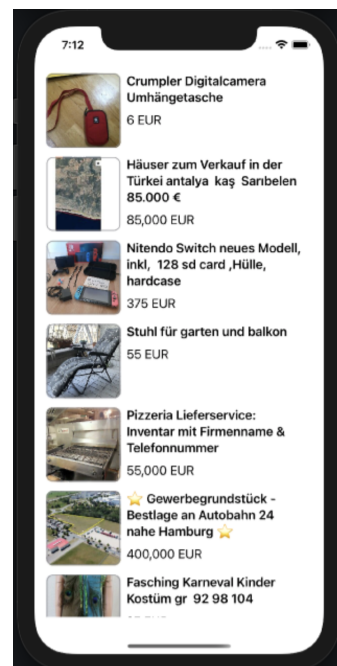
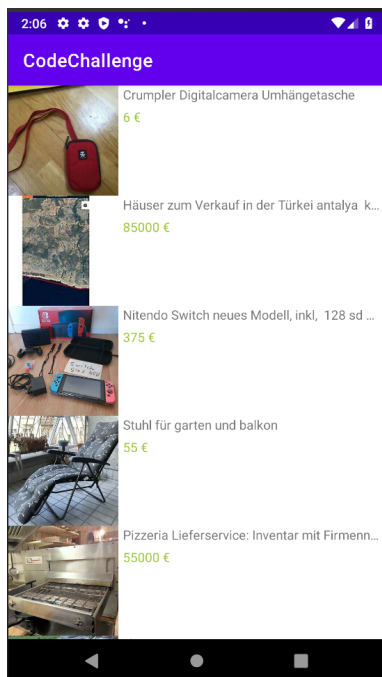
Background

We are hiring mobile engineers (native, iOS / Android) and you'll be working on SDKs and integration support for our markets. You'll have to deal with existing code bases (SWIFT, Java), understand the code and bring it to the next level by adding new functionality and maintaining the code base (e.g convert the project to Kotlin on Android).

You'll have to work closely with the markets / clients and the "other Platform" (iOS <-> Android) to ensure ease of use, feature parity and similar APIs.

The Task

For the challenge we are providing you the source code of a basic Android or iOS application. As you can see on the screenshot below - the app is showing a list of items. The code does not follow any specific architecture - this was done for simplicity reasons.



Your task is to create an advertising SDK and show the ad on the first list position. Please use the following API for this use-case:

<https://gateway.ebay-kleinanzeigen.de/mobile-api/candidate/ads?type=commercial>

For security reasons you'll need to provide a header and the Authorization.

The username is: candidate

And the password is: yx6Xz62y

E.g. like this:

```
curl --user-agent 'ads-sdk'
'https://gateway.ebay-kleinanzeigen.de/mobile-api/candidate/ads?type=commercial'
--header 'Authorization: Basic Y2FuZGlkYXRlOnl4Nlh6NjJ5'
```

The API will return 4 different ads in json format.

```
{
  "items": [{
    "adId": "1691761926",
    "title": "Nintendo Switch",
    "image": "https://i.ebayimg.com/00/s/NTcwWDgyOA==/z/NQkAAOSwXlpgR06p/$_1.JPG",
    "priceAmount": 350
  },
  ...
  {
    "adId": "1682428953",
    "title": "Comodore 64",
    "image": "https://i.ebayimg.com/00/s/NTM3WDgyOA==/z/~h8AAOSwGXNgR06p/$_1.JPG",
    "priceAmount": 120
  }
  ]
}
```

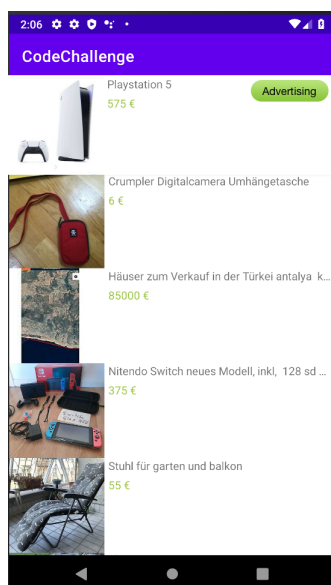
The SDK should return a random ad from these 4 ads. So every time the app is started a different ad may be visible.

The layout for the Ad should look similar to the existing content and include an “Advertising” tag at the top right corner.



The logic for doing the network part, the parsing and randomizing the result should be part of the SDK. The SDK should also provide the ready to use layout. Adjust the existing code to use the SDK and add the Ad on position one.

The final result is expected to look like this.



Additional information

- You can use any library or tool.
- Please include the SDK as a module (Android) / framework (iOS) into the existing project. Usually you'd work on a separate git-repo - but for simplicity use modules / frameworks.
- The SDK may be used by 10+ different markets / apps - each with their own styles and brand identity.
- Please provide a readme / txt file with some words about
 - How did you approach the task?
 - What architecture-layers did you create and why?
 - What would you do if you had more time?
 - Which trade-offs did you take?
 - Which information was missing or would have been helpful?