

# Coding Challenge

## Challenge

Your task is to create an **iOS mobile app** that uses the Flickr image search API and shows the results in a scrollable view.

This exercise has several functional and non-functional requirements that are listed below.

If you have questions about this task, feel free to send us an email and we will get back to you as soon as possible.

## Flickr API

The Flickr API allows you to find all images for a specific search term. Replace **{search term}** in the following URL to get images for the corresponding search term.

```
https://api.flickr.com/services/rest/?method=flickr.photos.search&api\_key=37ad288835e4c64fc0cb8af3f3a1a65d&format=json&nojsoncallback=1&safe\_search=1&text={search term}
```

For example, if you want to get all images related to "*Heidelberg*" you would use the following URL:

```
https://api.flickr.com/services/rest/?method=flickr.photos.search&api\_key=37ad288835e4c64fc0cb8af3f3a1a65d&format=json&nojsoncallback=1&safe\_search=1&text=Heidelberg
```

Once the request is sent out successfully, you will get a JSON response. Within that JSON response you will find JSON objects that look like this:

```
{
  id: "50746844348",
  owner: "191500176@N02",
  secret: "f6b146228b",
  server: "65535",
  farm: 66,
  title: "Heidelberg Bismarkplatz",
  ispublic: 1,
  isfriend: 0,
  isfamily: 0
}
```

To get the actual image data, you must use the farm, server, and id values from the JSON object above and put them into the following URL:

[https://farm\]\(https://farm/\){farm}.static.flickr.com/{server}/{id} {secret}.jpg](https://farm](https://farm/){farm}.static.flickr.com/{server}/{id} {secret}.jpg)

For the given example, the image URL looks like this:

[https://farm66.static.flickr.com/65535/50746844348\\_f6b146228b.jpg](https://farm66.static.flickr.com/65535/50746844348_f6b146228b.jpg)

If you need more information about the Flickr API, please visit the Flickr API documentation at <https://www.flickr.com/services/api/>

**If the API key is invalid for some reason, please feel free to get one by yourself by visiting [https://www.flickr.com/services/api/misc.api\\_keys.html](https://www.flickr.com/services/api/misc.api_keys.html).**

## Acceptance Criteria

### Deliverables

We do not expect a perfect solution. Our goal here is to assess how you approach technical assignments such as this one.

Implement your solution as an Xcode Project using the iOS SDK. Please use UIKit only (no SwiftUI). Please send the following items via email:

- The source code of the project (as a ZIP file or a GitHub link)

### Functional Requirements

- The searched results should be shown in a scrollable view.
- The scrollable view should be endless. How this is implemented in detail is up to you. Bonus: Consider multiple different ways to implement it and pick one.
- The user can see the search history.
- You are allowed to use any 3<sup>rd</sup> party libraries.
- Use UIKit only, no SwiftUI.

#### Nice to have:

- Consider how to improve the general user experience with your expertise.

### Non-Functional Requirements

- The implemented features are unit tested.
- Errors and edge-cases are considered.
- Best practices regarding architecture and code style are considered.