Extracted from:

# Design and Build Great Web APIs

## Robust, Reliable, and Resilient



The Pragmatic Bookshelf

Raleigh, North Carolina

The Pragmatic Programmers

# Design and Build Great Web APIs

## Robust, Reliable, and Resilient

Mike Amundsen
*edited by Katharine Dvorak*

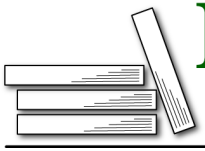
# Design and Build Great Web APIs

## Robust, Reliable, and Resilient

Mike Amundsen

The Pragmatic Bookshelf

Raleigh, North Carolina



Pragmatic Bookshelf



Our Pragmatic books, screencasts, and audio books can help you and your team create better software and have more fun. Visit us at *https://pragprog.com*.

The team that produced this book includes:

Publisher: Andy Hunt
VP of Operations: Janet Furlow
Executive Editor: Dave Rankin
Copy Editor: Molly McBeath
Indexing: Potomac Indexing, LLC
Layout: Gilson Graphics

For sales, volume licensing, and support, please contact *support@pragprog.com*.

For international rights, please contact *rights@pragprog.com*.



ISBN-13: 978-1-68050-680-8
Encoded using the finest acid-free high-entropy binary digits.
Book version: P1.0—October 2020

## The Advantages of Sketching

Sketching APIs offers a handful of advantages. As I mention in the previous section, sketching is a great way to try things out and quickly get feedback from others on your ideas. When it takes so little time to try something out, you can afford to try several ideas before you settle on your preferred implementation approach. Sketching APIs can even help you be more creative when it comes to translating the design documents into working API examples.

Also, because the sketches are just small samples of responses (or even requests, if you are designing those too), you don't need to do lots of work ahead of time. Sketches are simple, stand-alone snippets that convey your ideas without the need to write actual code and deploy it on some server somewhere. Even if you don't plan to go through lots of iterations of your sketching, you can take advantage of the "low-tech" nature of sketches and ignore the corner-cases, exceptions, and other minor details you'd be forced to deal with if you tried to "sketch" your API in working code.

Sketching APIs can make it easy for stakeholders or customers to "see" what the API will look like and to provide quick feedback and suggestions on how to improve the API. Since it takes me no time at all to whip up a sketch, I don't mind if a customer changes his mind and tells me to "go back and do it over" a few times. In fact, I sometimes do the sketching right on the spot with other interested parties in the room (or on the same video call). In most cases, it's quite enjoyable to work directly with the people who plan to use the API you're working on.

Finally, the good news is that your sketches are disposable! I almost always end up creating several sketches before I create one that hits that "good enough" level I talked about earlier in this chapter. And I don't mind that I have lots of extra sketches. They helped me get to the right spot. Who knows, I might go back and reuse some of these rejected sketches in the future.

Since you don't need any special tooling, you can start using sketches right away. But you can take your sketches a bit further with an API design tool that can use your sketches as a guide for creating a sample API interface. I cover that in the next part of this chapter.

## Sketching APIs with Apiary Blueprint

A handy tool for generating API sketches is called the Apiary Blueprint Editor (https://apiary.io). It's easy to use and supports creating a live online version of your sketches so that you can share them with others and even use tools like

curl or coded API client apps to interact with your sketches. This ability to interact with your sketches makes it really easy to quickly test and experiment with your API implementation ideas before committing to writing lots of code.

Let's walk through a sketching session using the Apiary editor to see how it can help you sketch your API ideas. We'll look at the following:

- Loading the editor and logging in
- Creating a new Apiary project
- Adding your first API sketch
- Testing your first sketch with Apiary's Mock Server
- Saving your sketch to your local disk as another asset in your project

By the time we're done, you should have a pretty good idea of how you can use the Apiary Blueprint Editor to create and save your own API sketches in the future.

**A Brief History of Apiary**

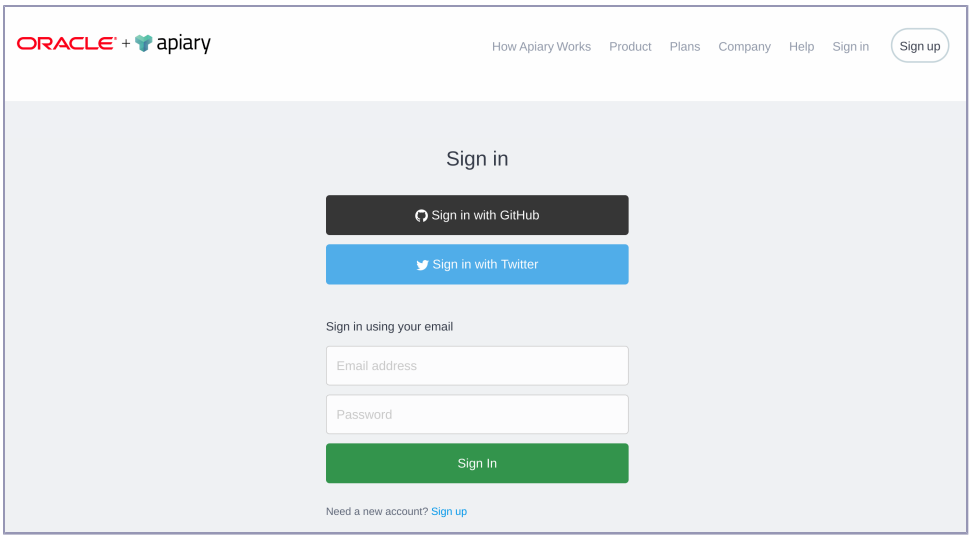
The company known as Apiary was founded in 2013 by Czech entrepreneur Jakub Nesetril. Originally focused on quickly documenting and testing HTTP APIs, Apiary allows users to write markdown language in order to specify HTTP requests and responses. Over time, Apiary has created a series of API-related tools for designing, documenting, mocking, and testing APIs. Apiary was sold to Oracle in 2017, which continues to offer free online versions of all of Apiary's API tools.

## Loading the Apiary Editor and Logging In

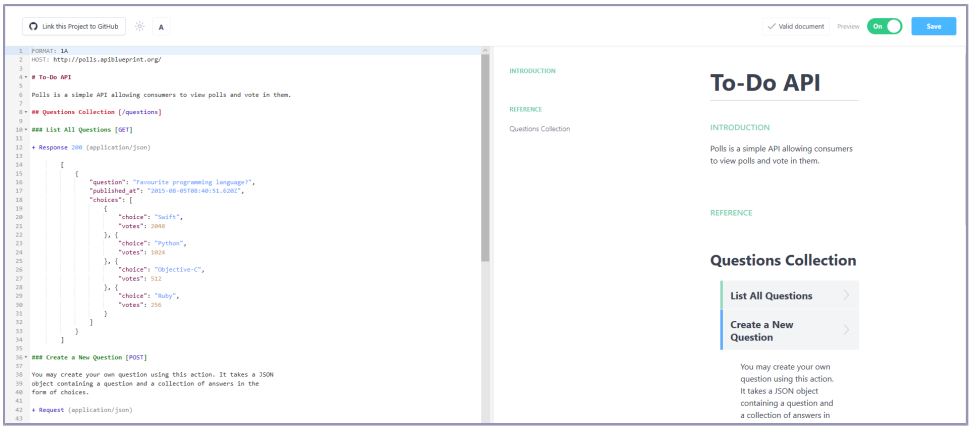
The first step in creating API sketches with the Apiary editor is loading the web app and logging in. While use of the app is free, you'll need to create an account with the Apiary site in order to continue to build and save your sketches.

First, to load the app, open your browser and navigate to https://app.apiary.io. When you do that, you should see a "Sign in" screen that looks like the screenshot on page 7.

Before you can use the Apiary editor, you need to sign in. Since I have a GitHub account, I use that identity to sign in. It's safe and easy and I don't need to create a separate login identity for Apiary's site. However, if you'd prefer to create a stand-alone account, you'll find the "Sign up" link near the bottom of the "Sign in" page, where you can create new account.




After you log in, you'll see the full editor screen, as shown in the following screenshot:




The first time you sign in, you'll be shown a sample Apiary Blueprint document. If you've logged in before, you'll see the document you were working on last time. Whatever you see there, our next step is to create a new Apiary document to start our API sketching.