

Sketching

Mike Amundsen
@mamund

**Designing and Building
Great APIs**



Sketching Great APIs

- Three-Phase Implementation
- Frank Gehry
- Sketching APIs



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Three-Phase Implementation



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Three-Phase API Implementation

- To reduce cost and risk, take a three-phase approach
- **Sketching** - disposable experiments
- **Prototyping** - testable examples
- **Building** - production implementation



Reduce Cost and Risk in API Implementation

- Implementation can be costly
- Mistakes may be uncovered along the way
- Uncover mistakes early when they are inexpensive to fix
- Put off writing code for as long as possible.



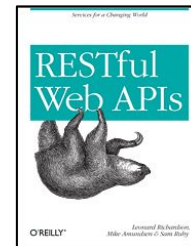
Frank Gehry



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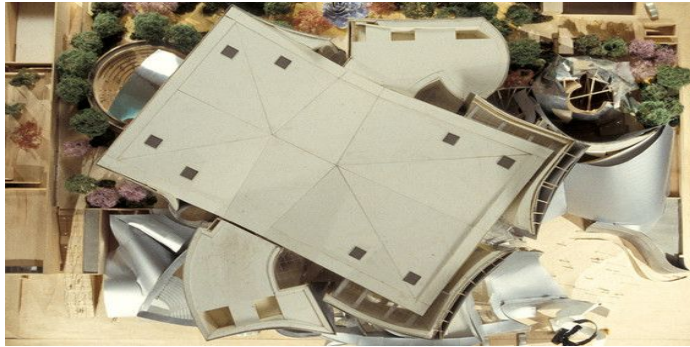
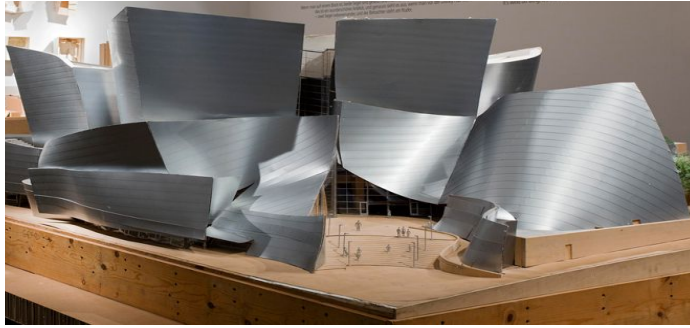


Frank Gehry

An architect is given a program, budget, place, and schedule. Sometimes the end product rises to art



Frank Gehry



sketch

/skeCH/ 🔊

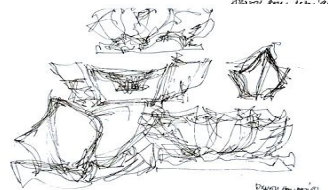
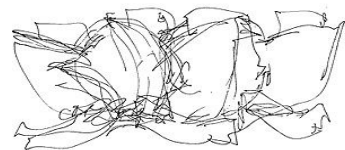
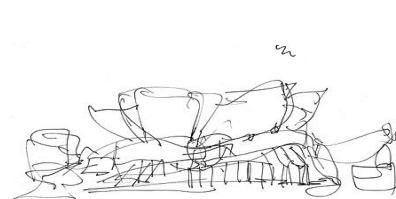
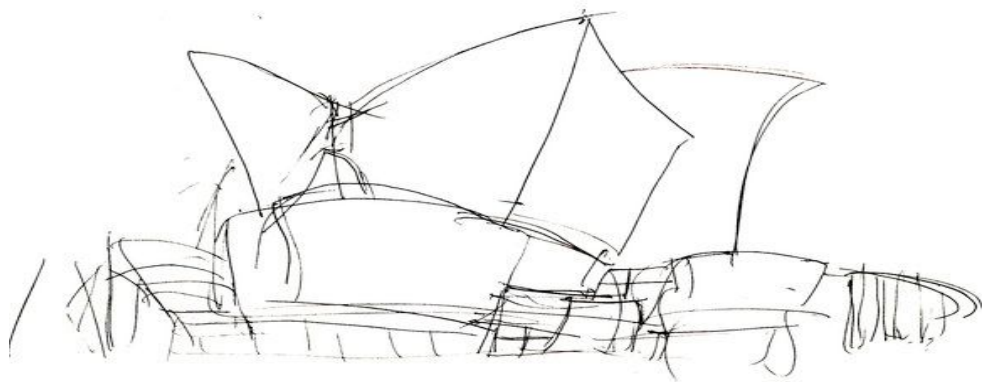
noun

1. a rough or unfinished drawing or painting, often made to assist in making a more finished picture.

"a charcoal sketch"

synonyms: (preliminary) drawing, **outline**; [More](#)





Sketchy drawing of a building with a curved roof and a series of vertical supports.

Sketchy drawing of a building with a curved roof and a series of vertical supports.

Sketchy drawing of a building with a curved roof and a series of vertical supports.

Sketching APIs

Sketching APIs

- Sketches are terse, rough drawings
- They give the general idea of a thing but lack important details.
- Usually, one can glean the basics from a sketch but
- Sketches usually are just explorations of ideas, not fully-formed items.



Sketching APIs

- Start with an ALPS description
- Convert `type="semantic"` blocks into resources/responses
- Convert `type="safe/idempotent"` blocks into links/forms



Apiary Blueprint

The screenshot shows the Apiary Blueprint Editor web application. The browser's address bar displays the URL `https://app.apiary.io/hypermediabankingapi/editor`. The page header includes the Apiary logo, the title "Hypermedia Banking API Yours", and navigation links for "Documentation", "Traffic Inspector", and "Editor". A user profile for "Ronnie" is visible in the top right corner. Below the header, there is a toolbar with a settings icon, a link to the "API Blueprint Syntax Tutorial", a "Valid API Blueprint" status indicator, and buttons for "Preview" and "Save API Blueprint". The main area contains a code editor with a blueprint for the "Hypermedia Banking API". The blueprint includes a host, a description, a group of notes, and a collection of notes with a GET endpoint.

```
1 |FORMAT: 1A
2 |HOST: http://www.google.com
3 |
4 |# Hypermedia Banking API
5 |Notes API is a *short texts saving* service similar to its physical paper presence on your table.
6 |
7 |# Group Notes
8 |Notes related resources of the **Notes API**
9 |
10 |## Notes Collection [/notes]
11 |### List all Notes [GET]
12 |+ Response 200 (application/json)
13 |
14 |    [{
15 |      "id": 1, "title": "Jogging in park"
16 |    }]
```

Sketching APIs

- Use tools like Apiary Editor to create a sketch.
- Show it to others (devs, stakeholders) and get their feedback.
- If possible use simple API consumer tools (curl, NodeJS, etc.) to test.
- Continue to modify the simple sketches as needed



Sketches are made to be thrown away.



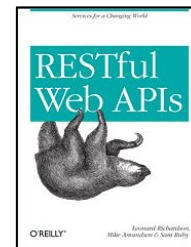
So...



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Sketching Great APIs

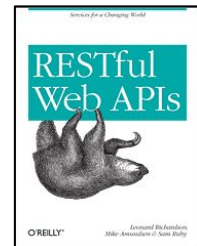
- Reducing Risk
- Gehry's Approach
- Sketching with API Blueprint



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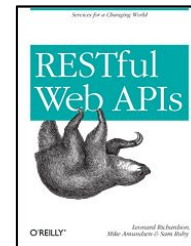
Exercise



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To-Do API

Mike Amundsen • mamund

Documentation

Inspector

Editor

Tests



Branch: ▾



A

✓ Valid document

Preview

On

Save

Push

```
1 HOST: http://amundsen.com/
2
3 --- To-Do API ---
4 ---
5 Welcome to the our API. Comments support [Markdown](http://daringfire
6 ---
7
8 -- Get a list of todo items --
9 GET /todo/
10 > Accept: application/json
11 > Authorization: Basic xxxxxxxxxxxxxxxxxxxxxx
12 < 200
13 < Content-Type: application/json
14 [
15   {id:0,text:'this is some item'};
16   {id:1,text:'this is another item'};
17   {id:2,text:'this is one more item'};
18   {id:3,text:'this is possibly an item'};
19 ]
20
21
22 -- Filter the list of todo items --
23 GET /todo/?text={id}
```



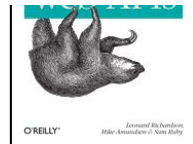
Reference > Get a list of todo items

To-Do API

INTRODUCTION

Welcome to the our API. Comments support Markdown syntax

REFERENCE



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