

Decoding: The Connection
Between CS Education & Industry

James Whelton

Overview

- Introduction
- CoderDojo & My Journey
- Coding: Improving, Processes & Mental Models
- Q&A, Discussion

Who Am I

- From Cork, Ireland
- Technology background, grew into strategy, operations, growth:
"full-stack entrepreneur"
- Built & scaled several tech start ups, worked in private equity:
Europe, US, Asia & Middle East
- Many hats: partner/shareholder, advisor & (small) investor
- Autodidact
- Ashoka Fellow, Forbes 30u30, Social Entrepreneurs Ireland Impact Award Winner, ILA 30u30, IIA Person of the Year, Eircom Spiders Internet Hero
- Enjoy hiking, D&D, playing music, adventuring



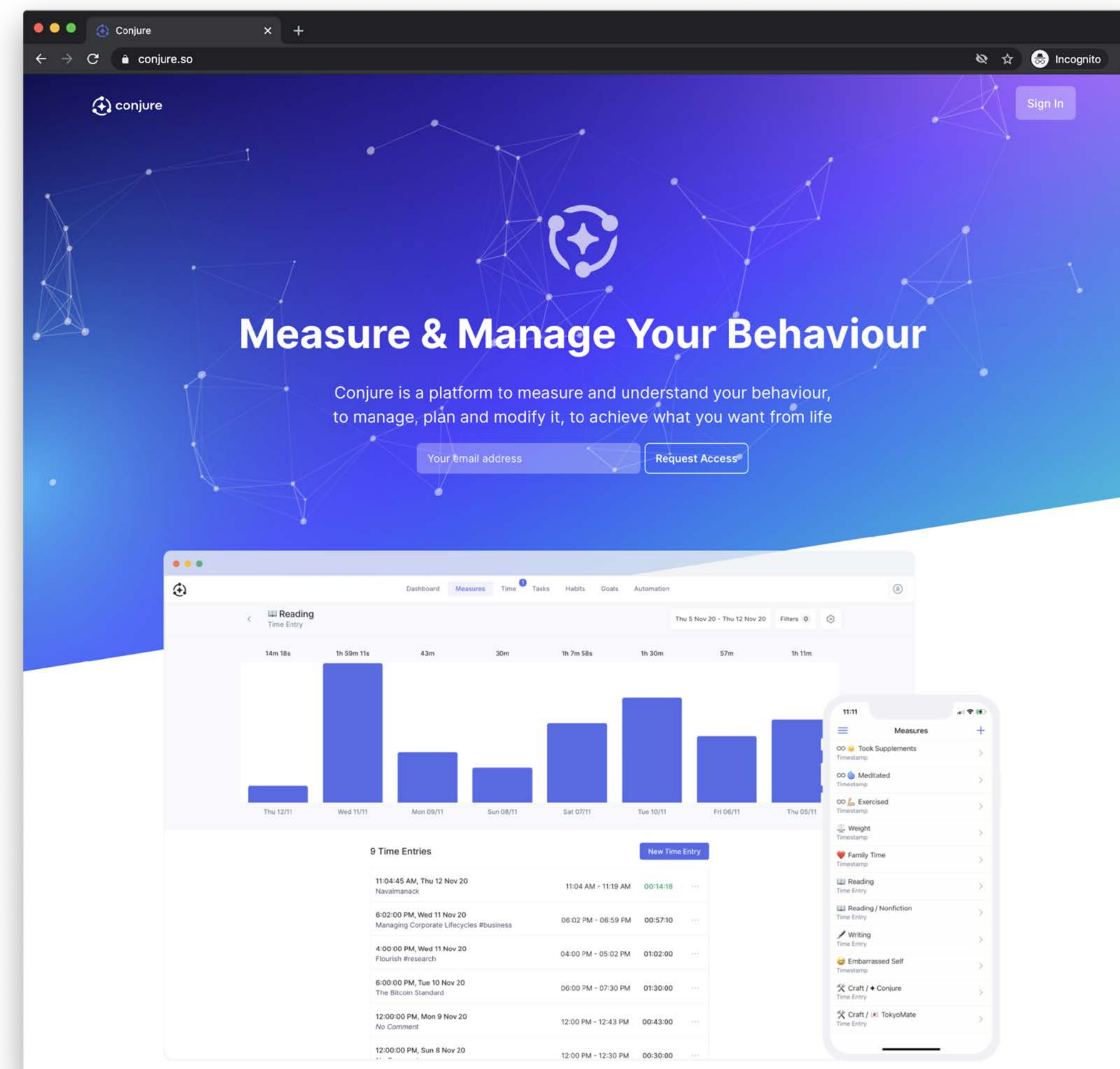
Technical Credentials

- Numerous languages, frameworks & technologies
- Fullstack: Frontend, Backend, Mobile
- E-commerce, Software As A Service
- AppStore: Top 10 Apps, Featured App
- 1 Million+ Registered Users, 1 Million Unique Visitors P/A
- > \$1,000,000 revenue per month
- 10,000 concurrent requests
- Audited services that handling 2 million data points per second
- Protected against hackers (been one myself)
- Large scale system migrations
- High availability & fault tolerant systems: 99.9% SLA (8 Hours P/A)
- Screwed up many times 🙄





- Platform to measure, build and maintain behaviors conducive to well-being and life satisfaction
- Researching, experimenting, exploring & (re)building for ~2 years
- Patterns I saw in e-commerce & social media, along with performance management
- Use data, automation, guidance and systems to drive positive behavior
- Allow subject matter experts build on top of
- Early, current invite only



 conjure.so

 @ConjureSo

What is CoderDojo?



CoderDojo

A global, volunteer-led movement of free, not-for-profit coding clubs (Dojos) for young people aged 7 to 17. The movement places a strong emphasis on openness and on showing how coding can be a force for positive change in the world.

Dojos are:

- Set up and run by volunteers
- Clubs, not classes
- Free for young people to join and attend
- Focused on project-based learning
- Environments for peer mentoring
- Fun, friendly, and informal
- Inclusive and social

>2300 active clubs in >110 counties

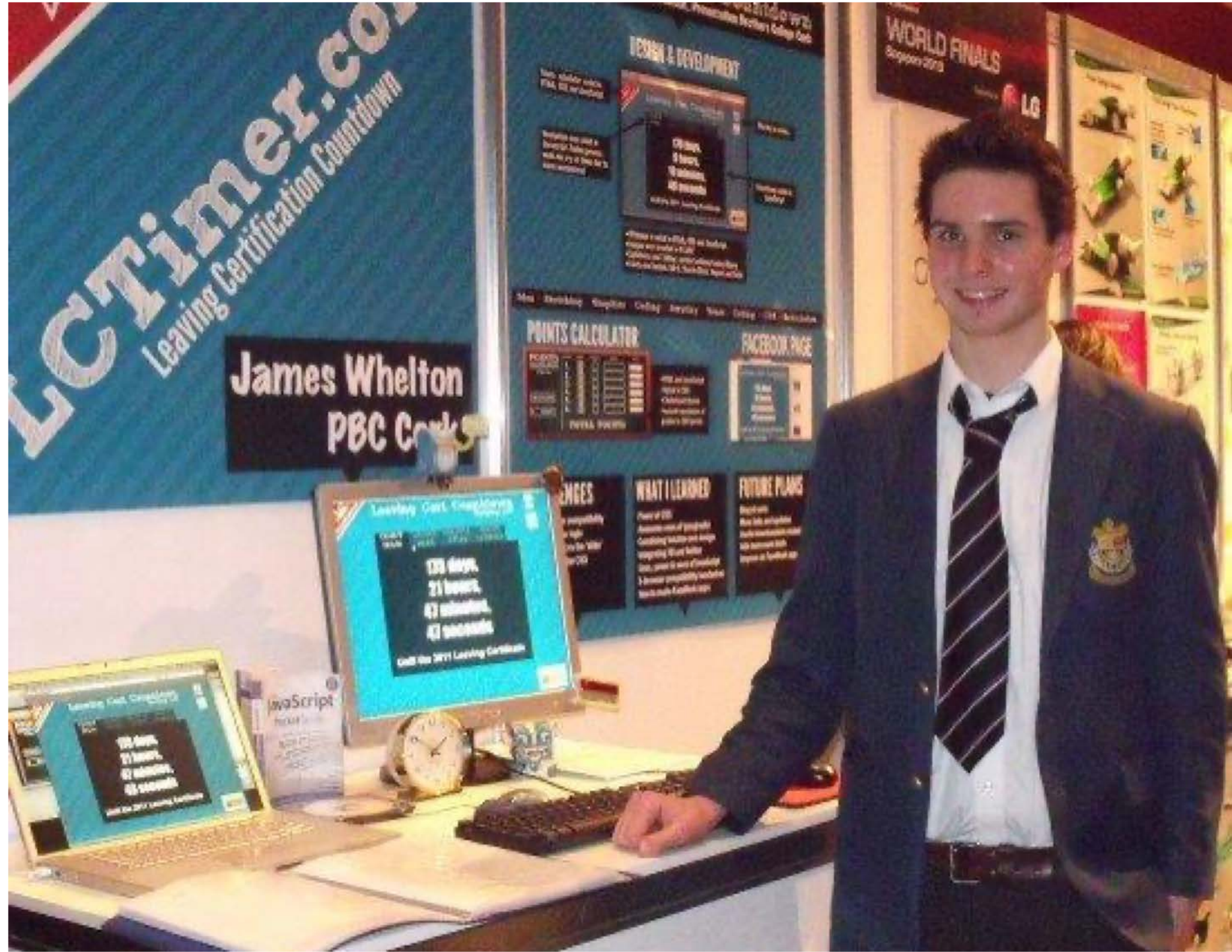
58,000 young people & 12,000 volunteers

Growing Up

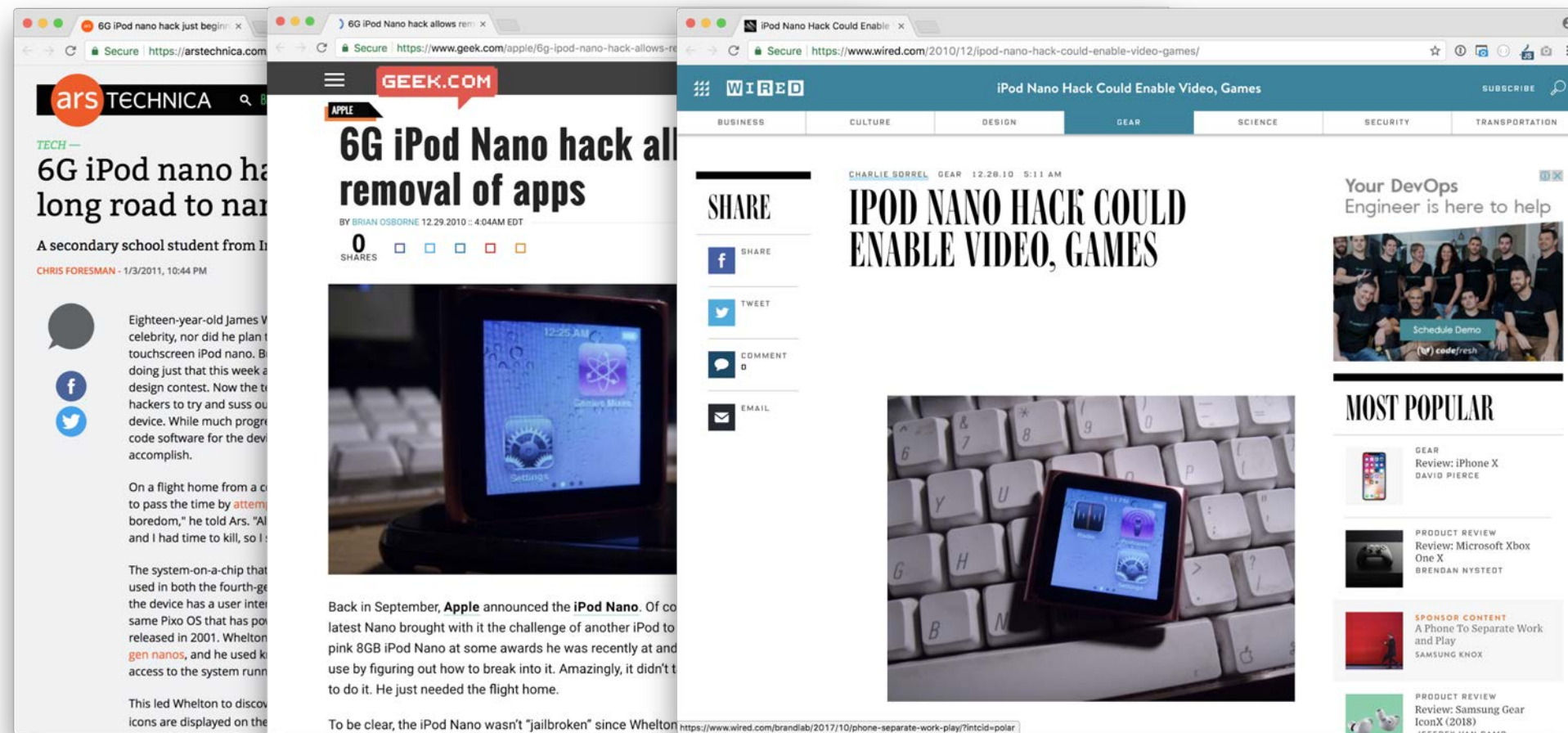


- Made first web site age 9 to show animations & fell in love
- Self taught from books, largely self directed
- Academically poor, learning difficulties
- Was sad
 - ▶ Nowhere to learn
 - ▶ Show what I created, no recognition in school or home (dad opposed broadband until was 16)
 - ▶ Make friends with same passion
- Continued to self teach. Explored various areas:
C/Objective-C, design, security, blogs, forum boards, IRC,

Club 0



- Won design category in Eircom junior spiders
- Won a iPod Nano at that event & first find exploit
- Fanboys went wild, had my 15 mins of internet fame
- People in my school heard, asked how to learn
- Started a computer club, twice a week after school teaching 40 students



- Different environment from classroom
- Soon students from other schools wanted to attend

Meeting Bill

XX2 - V1

Irish Examiner
Tuesday 08.03.2011

Teen who was first to hack iPod to address web summit

by Kerrie Kennedy

A CORK teenager who was the first person in the world to hack the latest iPod nano is among the speakers at the Dublin Web Summit today.

James Whelton, 18, from Bishopstown, will be skipping his pre-Leaving Certificate Maths exam to outline to an audience of more than 500 how he became the first person to hack the Apple music device the day after winning it from a radio station.

"I always had an interest in hacking and programming, and was playing around with the nano to get a sense of what you could do with it. After I managed to hack it, I posted the details online and a lot of hackers got in contact

with me," said James.

"Unfortunately, as I'm in school, the Christmas holidays ended and I couldn't give as much time, so I started a community of shared guidelines."

James said he is working on phone apps for Leaving Certificate students to use.

"There are two apps that I am working on. One, a Leaving Cert exam paper app to allow students look at past papers is in development, and the other is a CAO points calculator, which should be out in the next week or so."

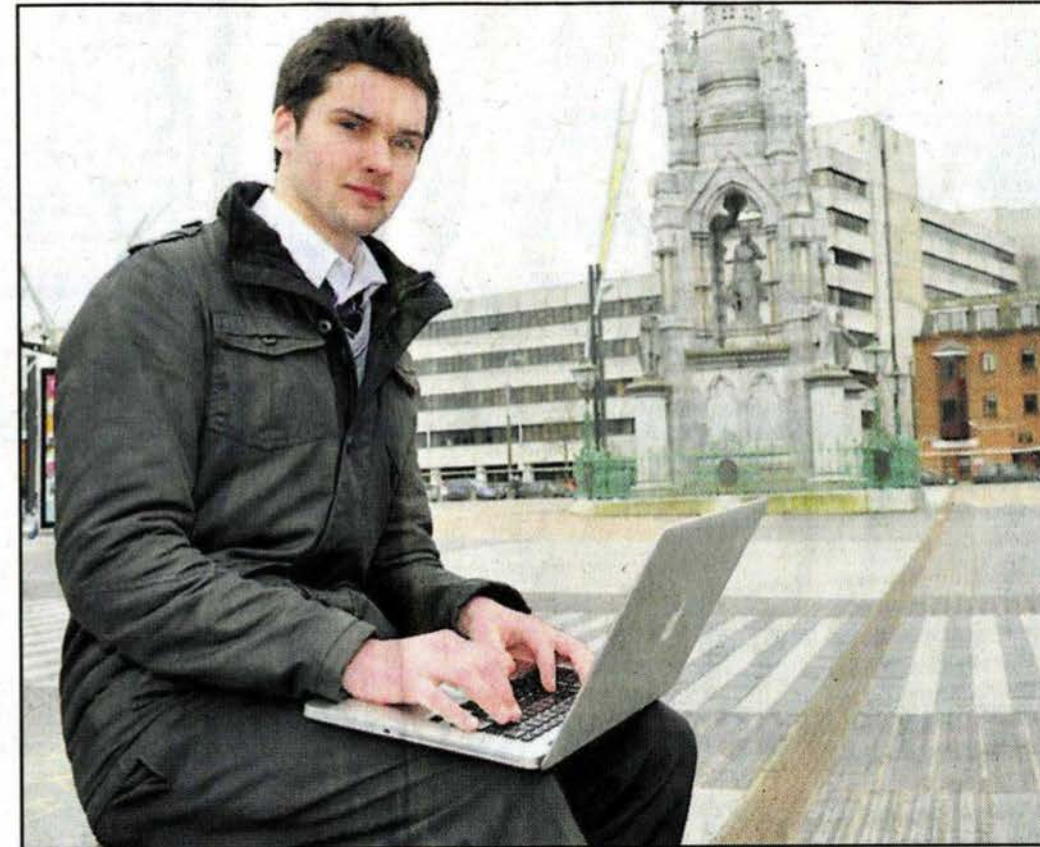
The Dublin Web Summit, in the Chartered Accountants House, will also feature Google's European marketing director, Dan Coble, who will speak about innovation, and Stefan Glaenger,

the former Last.fm chairman and investor will speak about where he sees the future of technology.

The summit will feature successful Irish entrepreneurs, including Ray Nolan, who made Hostelworld into a \$500m (€357m) company; Jerry Kennelly, who has just started Tweak.com and John Hearn from the incredibly successful Curam Software.

Event organiser Paddy Cosgrave said the Dublin Web Summit has gone from strength to strength.

"Over 150 people have signed up to the start-up section of the event alone. They're either in startups already or thinking of starting a business — that's a huge opportunity for the country," he said.



James Whelton, a sixth-year pupil at Presentation Brothers College, Cork, who is speaking on hacking and online social media at the Dublin Web Summit. Picture: Dan Linehan

- Invited to speak at The Web Summit in Dublin
- Spoke about hacking the iPod Nano and my story, including the computer club I started in my School
- Was convinced I'd stay in Cork, someone introduced me to an entrepreneur based there
- I met Bill briefly for 5 minutes and we agreed to meet up again in Cork

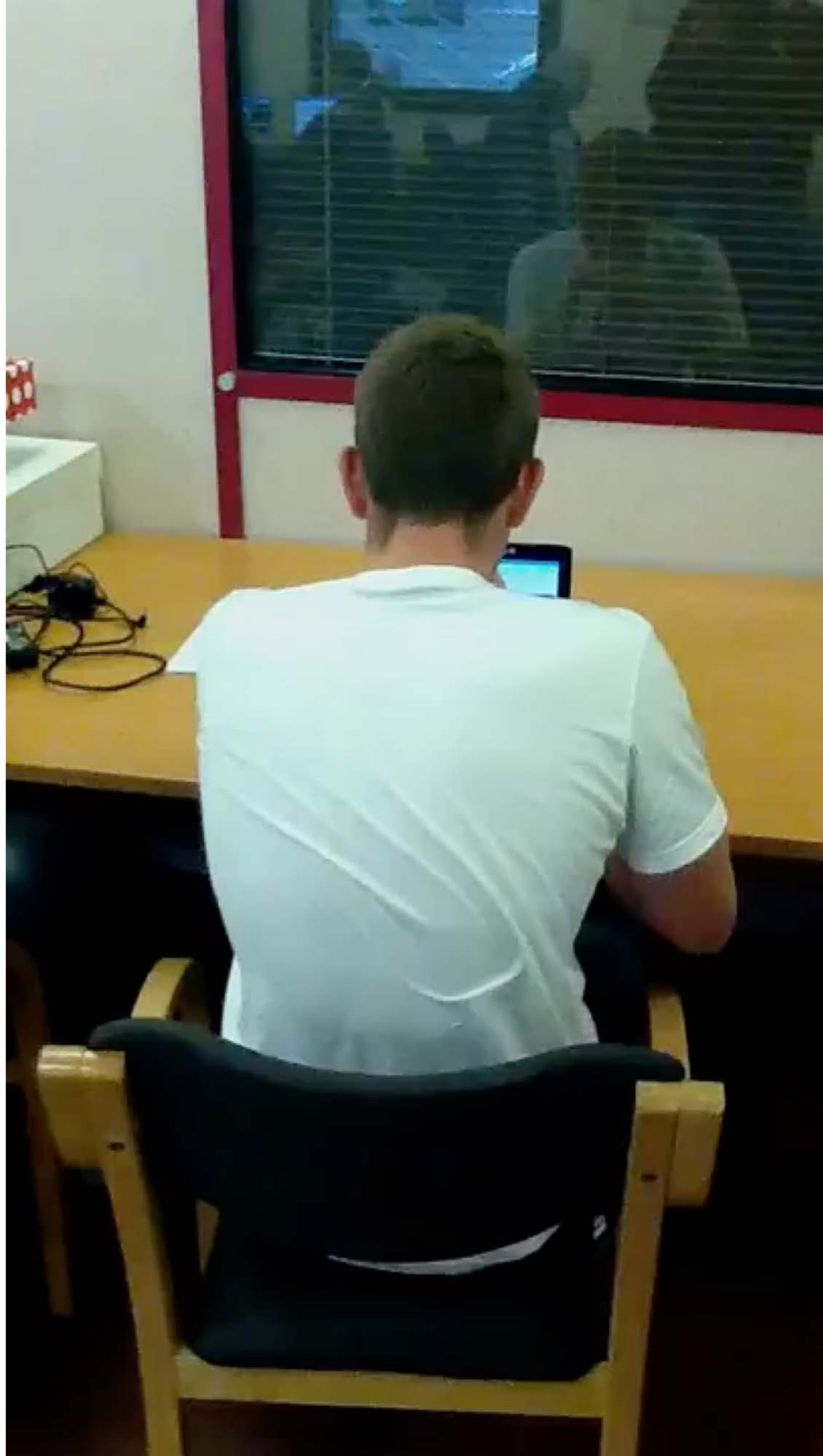


Asthma Attacks & Coffee



- Met Bill at a cafe in a train station
- Spoke mostly about the joy of coding
- I was very passionate about the art of coding, Bill saw the economic need and opportunity for coders
- My school club was full. Lots of students from other schools still asking to attend. Students were worried as I'd leave soon
- Bill and I agreed to start something

Dojo 0



- “Lets just do it and see what happens”
- Got an empty office space
- Contacted anyone who ever contacted me
- Set the date
- First session actually began with an artist doing a painting demo to kill time, we didn’t know if people showed up
- People showed up
- In 2 hours, made first web pages and first games with a tool like Scratch
- Attendees said “See you next weekend”



Dojo 0 Still Runs Every Week

The Vision



- Learn not just coding:
 - Team work
 - Presenting
 - Social skills
- Self led learning & Peer learning
- Build things that attendees cared about
- Inclusive & accessible
- Open Source approach
- Find out if they hated coding
- Make not just coders, but change makers

Beyond Cork

First Coder Dojo Dublin

24 August 2011 · by Whelton

The first Dublin Coder Dojo session will kick

First Limerick Coder Dojo!

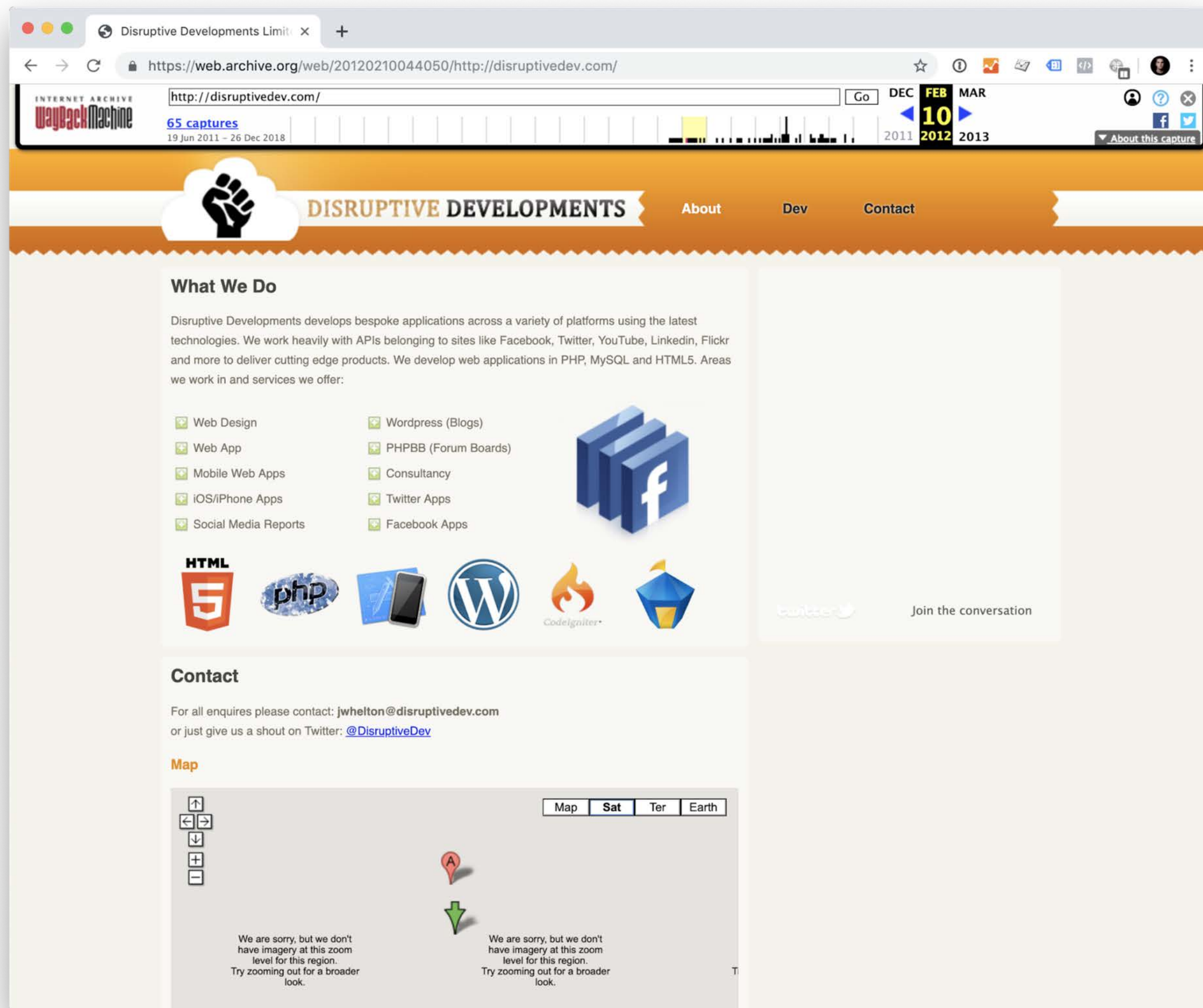
1 September 2011 · by Whelton

After the success in Cork and Dublin, Coder Do



- Soon people started traveling from Dublin to attend (3 hours away)
- We created guides, resources, videos and more on running a Dojo
- I had moved out of home week after Secondary School, started going around country to open Dojos
- Soon moved to Dublin, lived on couches and floors for several months
- Decided not to go to college and continue working on CoderDojo

Picking paths



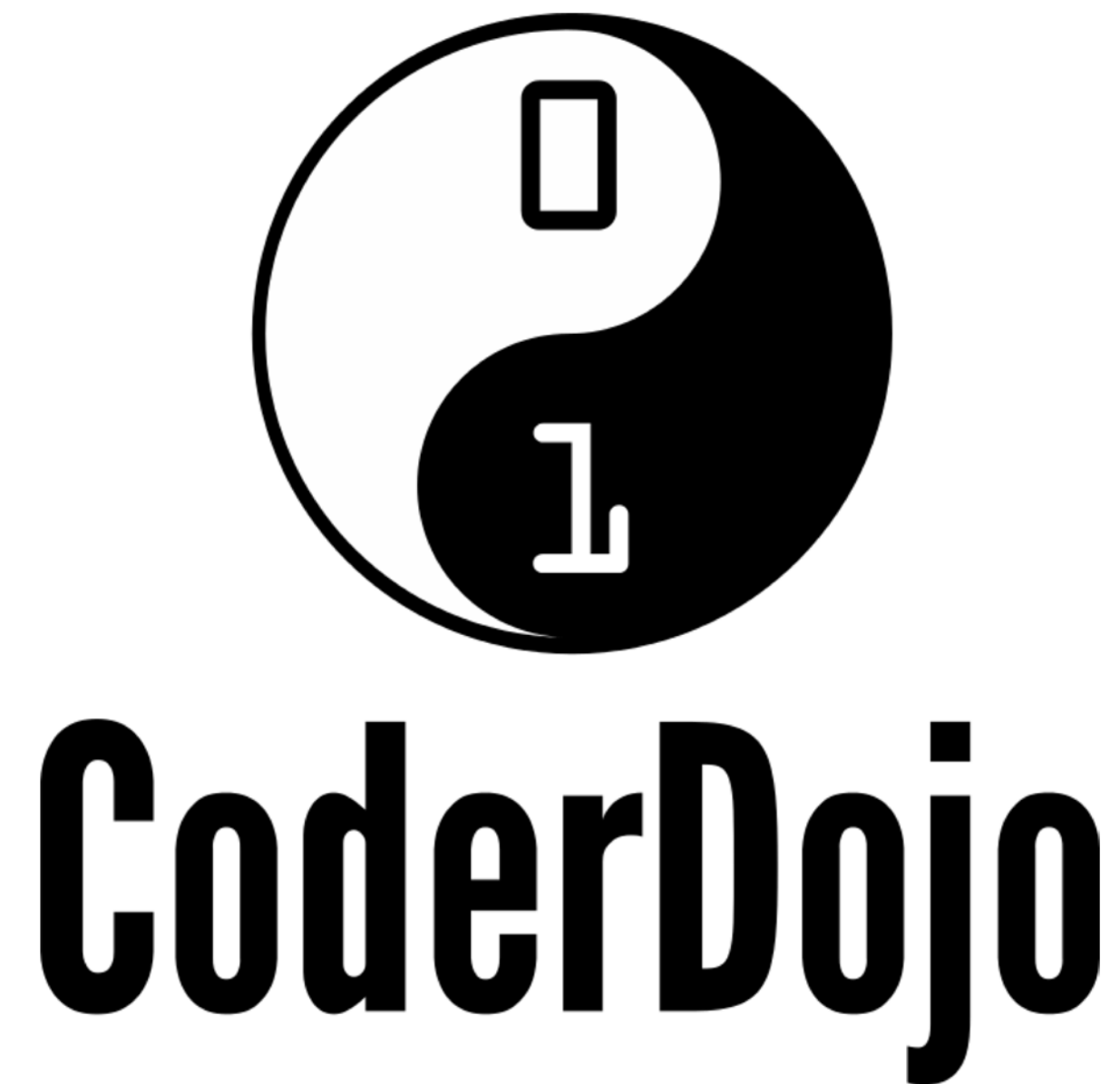
- Also had a start up
- Built a social media monitoring platform
- Received €10k pre-seed, alongside with €10k EI feasibility study grant
- Two employees
- Got offered €100k seed
- Turned down to focus on CoderDojo

Growth



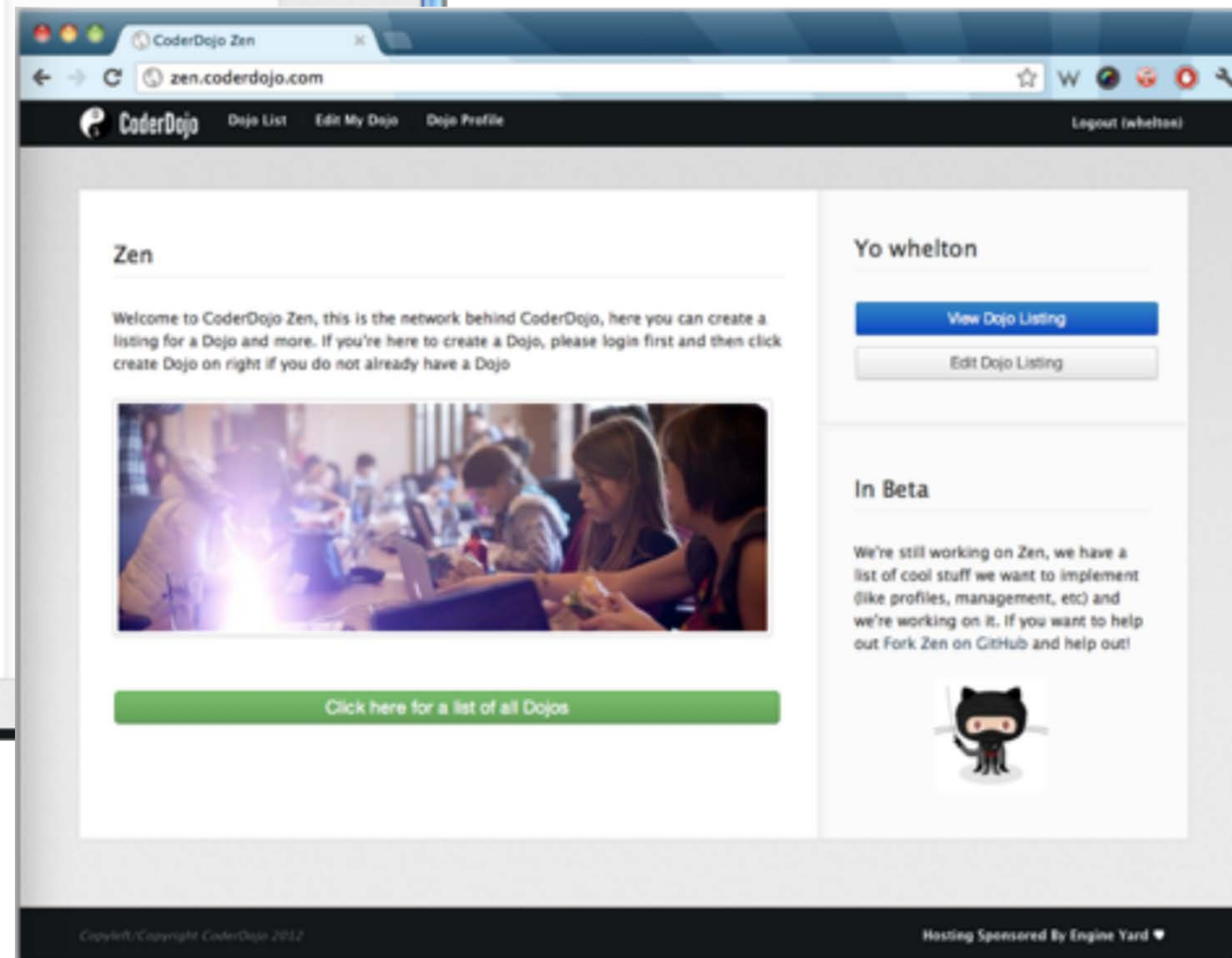
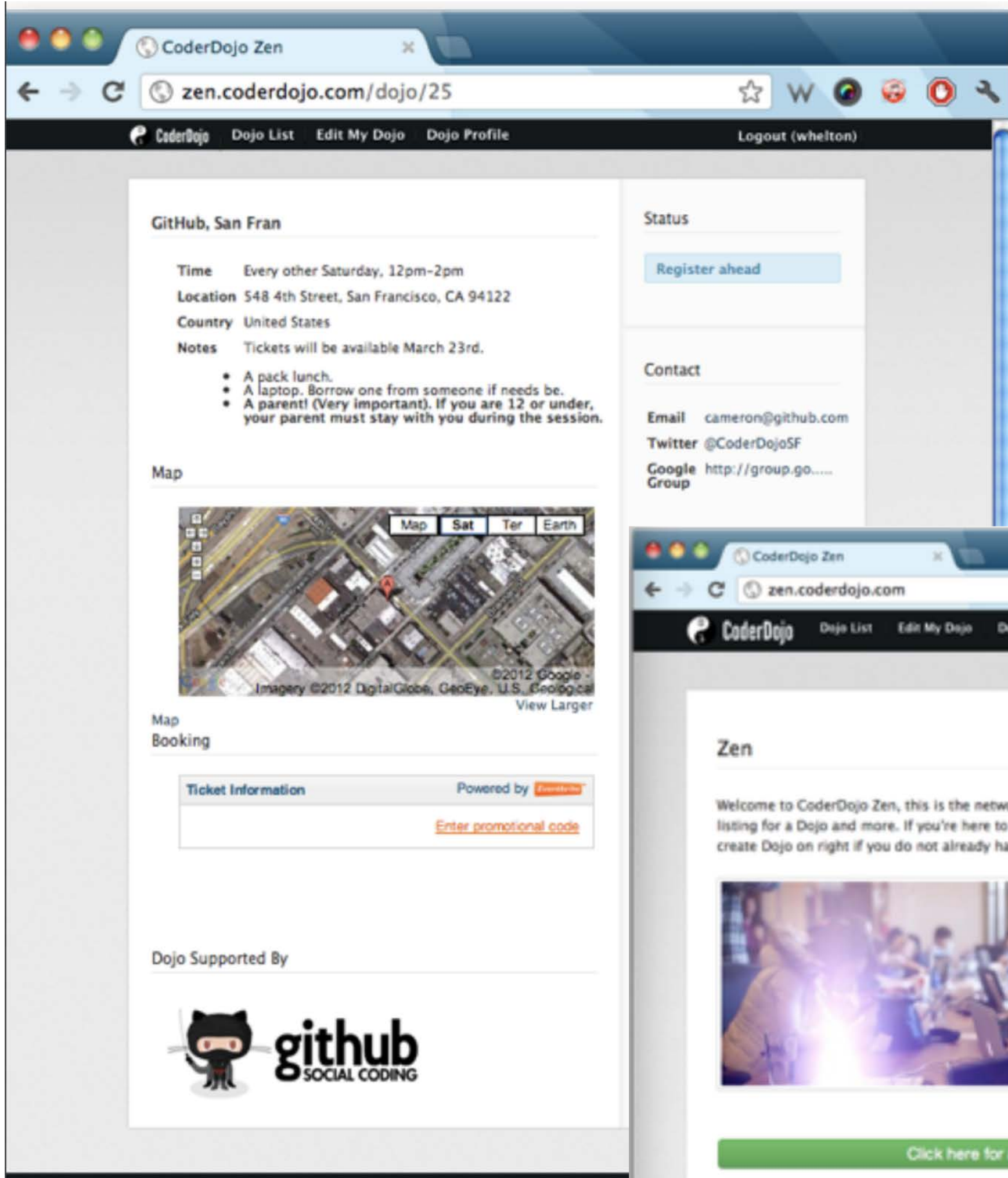
- Articulated the vision and value set as much as possible. People could identify with it and buy in.
- Lots of content illustrating the club, how to get started, where to find help. Made ‘onboarding’ as easy as possible
- Made it low commitment and barrier to entry, just run one session
- Reduced the overhead as much as possible, regards space, mentors and resources
- Aligned with industry leaders as best possible

The Name



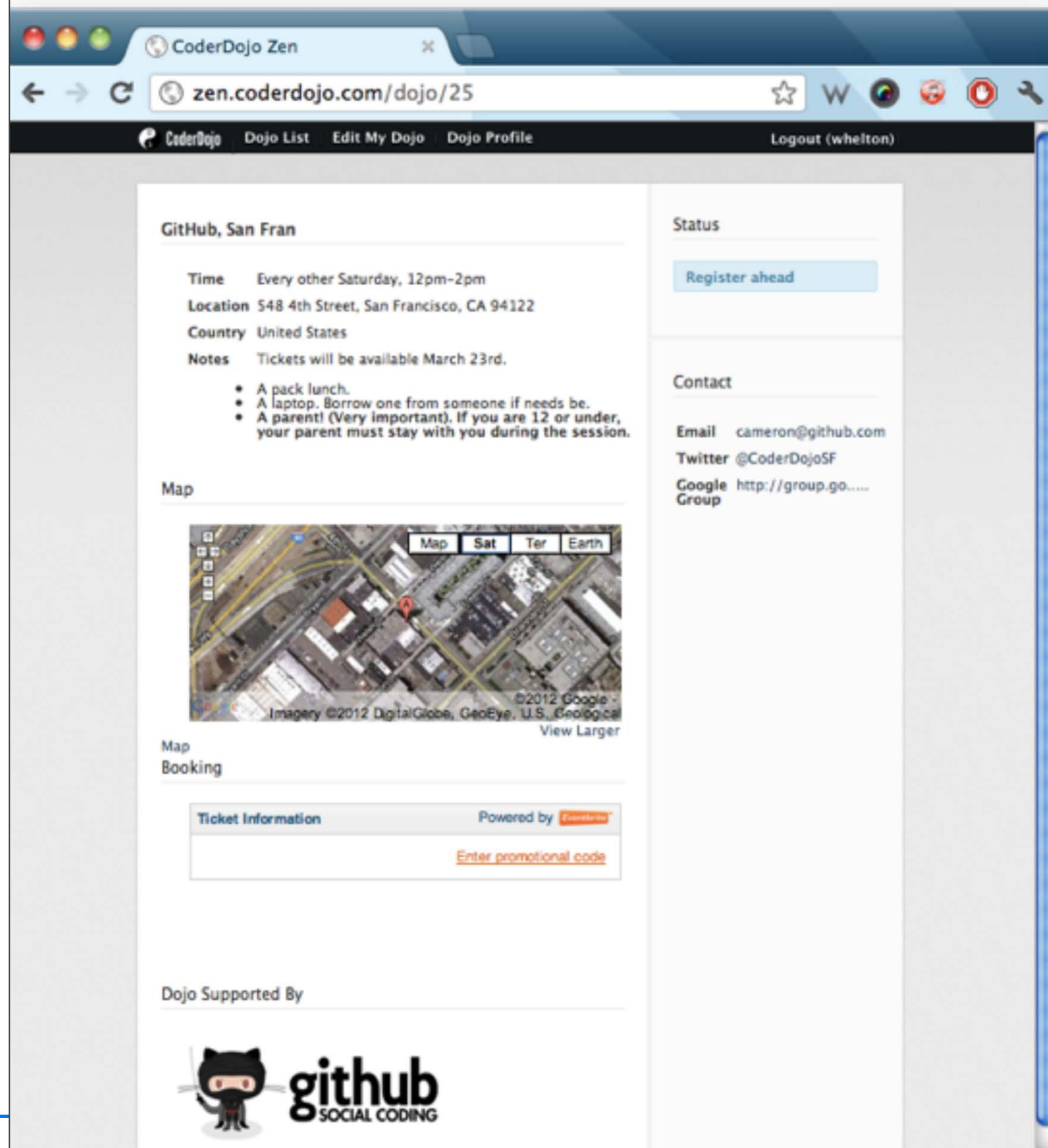
- Bill & I studied martial arts
- A Dojo, to us, was a place to:
 - Learn & Train
 - Show off skills
 - Be recognized
 - Teach Others
 - Socialize
- Dojos were the environment we wanted to create
- The domain name and twitter handle were available

Zen



- Tool for managing Dojos
- Launched & Open Sourced 9th March 2012
- I wrote on flight to open first American CoderDojo
- Previously was manually managing Dojo listings through Wordpress
- Enabler for scaling, verification, etc

Zen



CoderDojo Zen

zen.coderdojo.com/dojo/25


CoderDojo Dojo List Edit My Dojo Dojo Profile Logout (whelton)

GitHub, San Fran

Time Every other Saturday, 12pm-2pm
Location 548 4th Street, San Francisco, CA 94122
Country United States
Notes Tickets will be available March 23rd.

- A pack lunch.
- A laptop. Borrow one from someone if needs be.
- A parent! (Very important). If you are 12 or under, your parent must stay with you during the session.

Map



Map Sat Ter Earth

©2012 Google - Imagery ©2012 DigitalGlobe, GeoEye, U.S. Geological Survey, AeroGRID, IGN, SIA, Airphoto, IGN, etc.


View Larger

Map Booking

Ticket Information Powered by Eventbrite

Enter promotional code

Dojo Supported By



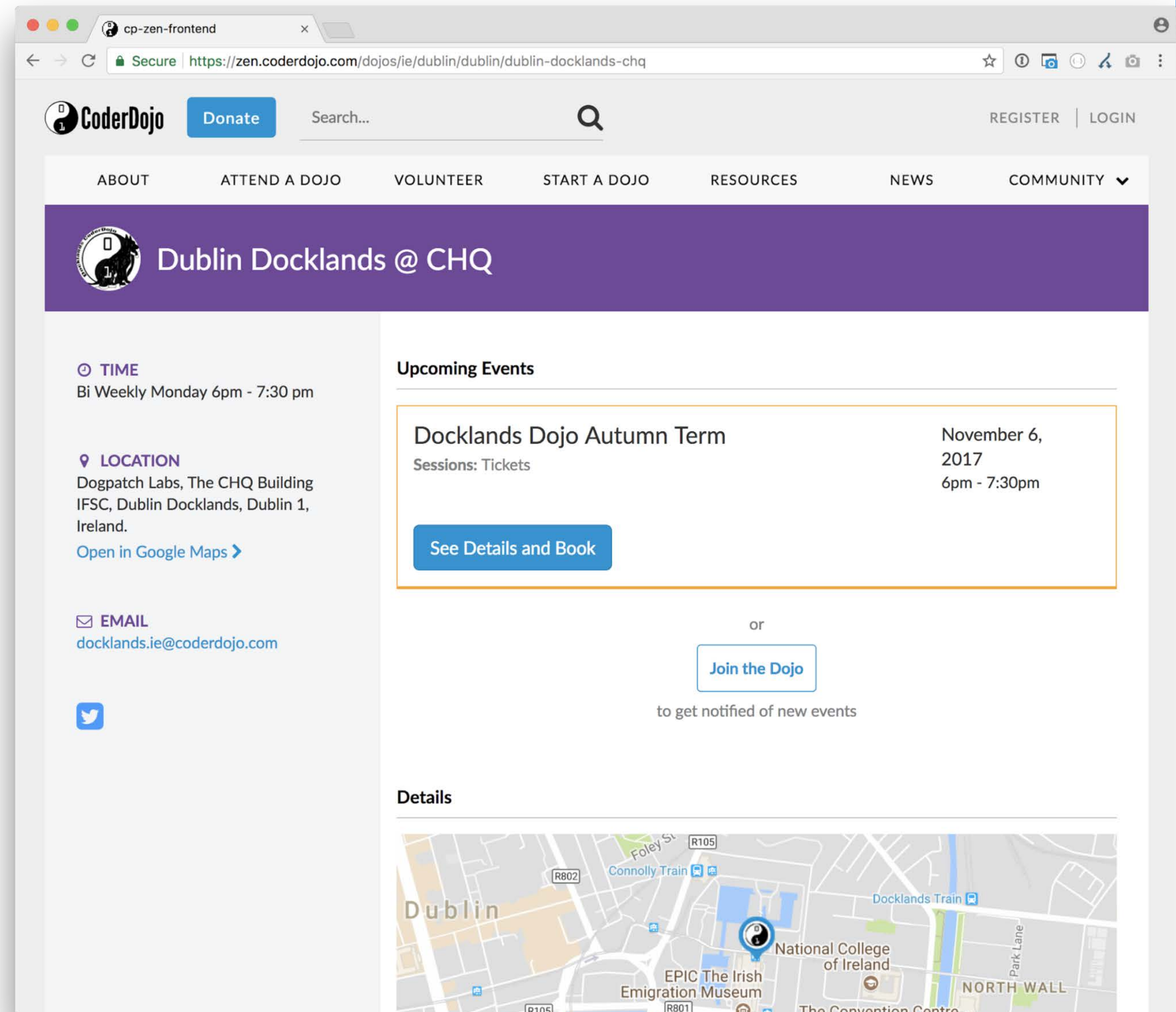
github SOCIAL CODING

Status

Register ahead

Contact

Email cameron@github.com
Twitter @CoderDojoSF
Google Group http://group.go....



cp-zen-frontend

Secure | https://zen.coderdojo.com/dojos/ie/dublin/dublin/dublin-docklands-chq

CoderDojo Donate Search... REGISTER | LOGIN

ABOUT ATTEND A DOJO VOLUNTEER START A DOJO RESOURCES NEWS COMMUNITY

Dublin Docklands @ CHQ

TIME

Bi Weekly Monday 6pm - 7:30 pm


LOCATION

Dogpatch Labs, The CHQ Building
IFSC, Dublin Docklands, Dublin 1,
Ireland.

[Open in Google Maps](#)

EMAIL

docklands.ie@coderdojo.com



Upcoming Events

Docklands Dojo Autumn Term Sessions: Tickets	November 6, 2017 6pm - 7:30pm
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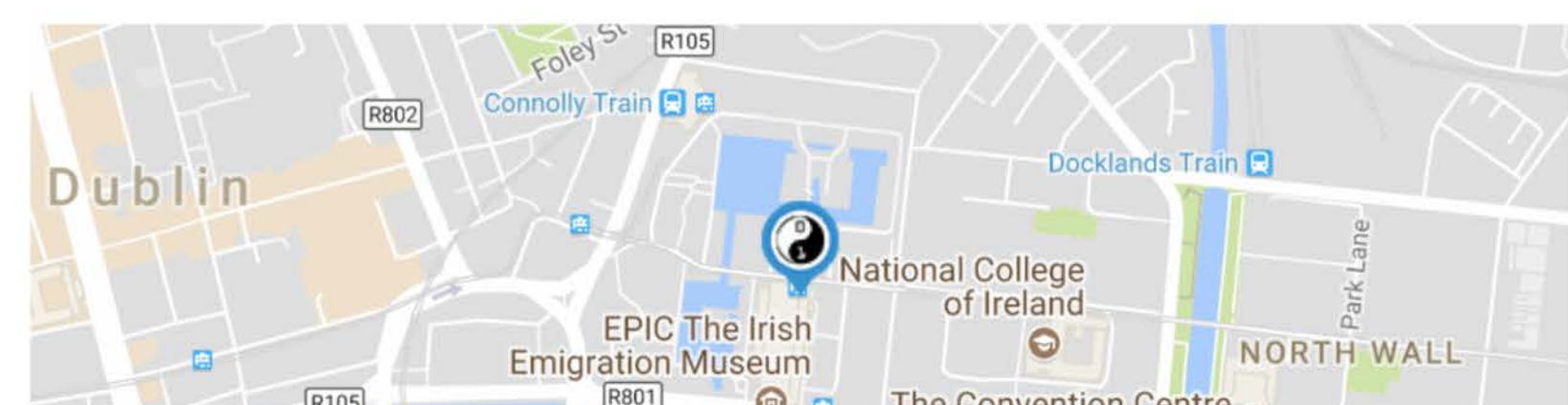
[See Details and Book](#)

or

[Join the Dojo](#)

to get notified of new events

Details



Dublin

Foley St R105
Connolly Train R802
Docklands Train
National College of Ireland
EPIC The Irish Emigration Museum R801
The Convention Centre
NORTH WALL
Park Lane

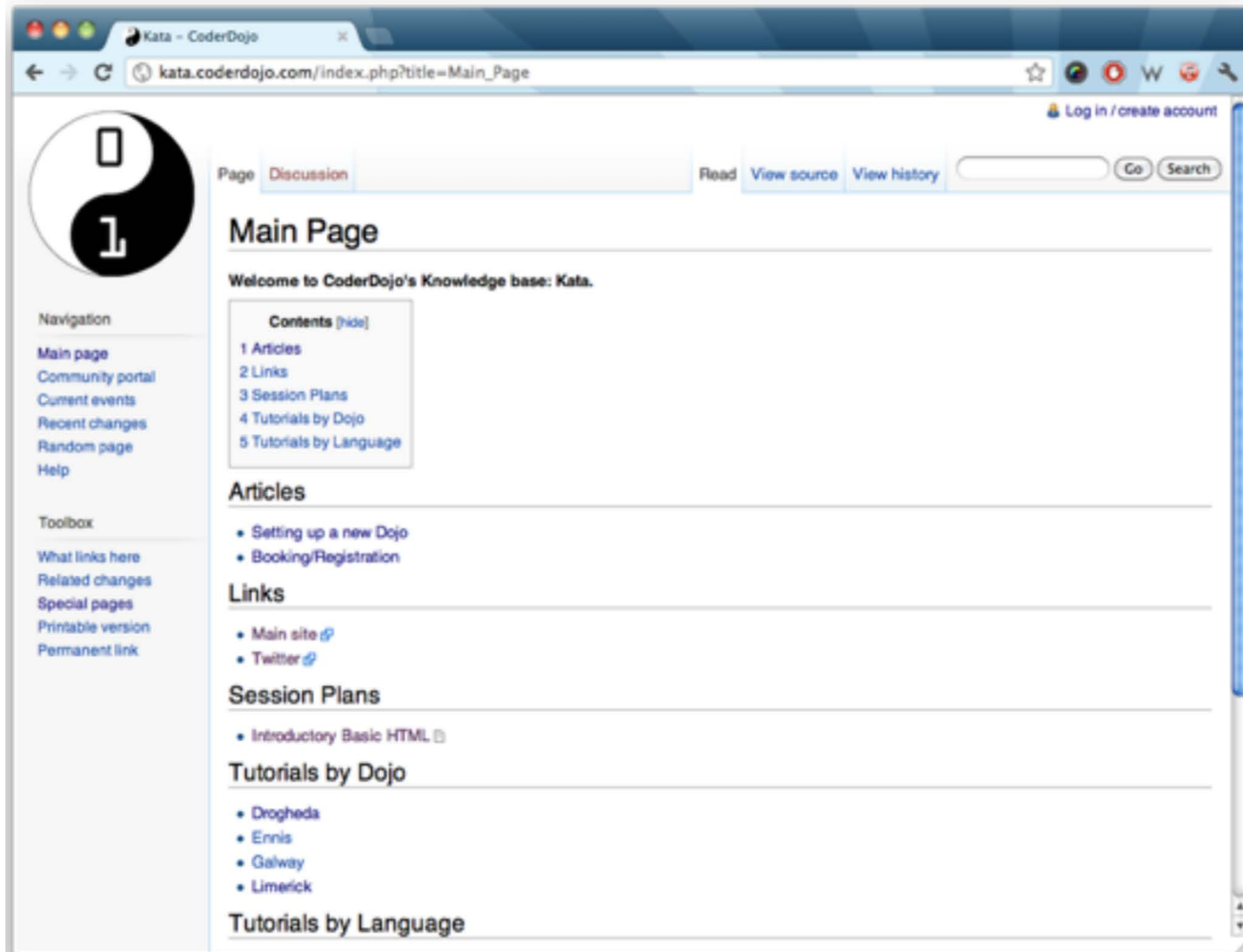
Zen

The screenshot shows the CoderDojo Zen website. The browser address bar displays `zen.coderdojo.com`. The navigation bar includes links for `Dojo List`, `Edit My Dojo`, `Dojo Profile`, and `Logout (whelton)`. The main content area features a heading `Zen` with a welcome message: "Welcome to CoderDojo Zen, this is the network behind CoderDojo, here you can create a listing for a Dojo and more. If you're here to create a Dojo, please login first and then click create Dojo on right if you do not already have a Dojo". Below this is a photograph of a coding workshop. A green button below the photo says "Click here for a list of all Dojos". To the right, a sidebar for user `Yo whelton` contains buttons for `View Dojo Listing` and `Edit Dojo Listing`. Further down, an `In Beta` section explains that the site is still under development and offers a link to a GitHub fork. The footer includes copyright information for 2012 and a sponsorship by Engine Yard.

The screenshot shows the CoderDojo website with a search for dojos. The browser address bar shows `https://zen.coderdojo.com/?currentLocation=true&p=1`. The navigation bar includes `Donate`, a search bar, and links for `REGISTER` and `LOGIN`. The main navigation menu includes `ABOUT`, `ATTEND A DOJO`, `VOLUNTEER`, `START A DOJO`, `RESOURCES`, `NEWS`, and `COMMUNITY`. The main content area has a green background with the heading `Find a Dojo to attend` and the subtext "Learn technology in an informal, creative and social environment. Find a dojo near you." Below this is a search input field with the placeholder "Enter your city or locality" and a `Search for Dojos` button. A `Detect my location` link is also present. An illustration of a person at a laptop is on the right. Below the search area, a map of Osaka is shown with several dojos marked. The list of dojos includes:

- Hommachi, Osaka (Public)**
Hommachi
Every month, 13 pm - 17 pm
- Umeda, Osaka, @ Cybozu (Public)**
Umedahankyuu Bld.ofuisutawa-, 8-1, Kakudacho, Kita-ku
Sunday once a month 14:00-16:30 "check it: <http://coderdojo-nishinomiya.doorkeeper.jp>"
- Namba, Osaka (Private)**
大阪府大阪市浪速区難波中2丁目6-1 7
毎月1回 土曜日 or 日曜日
- Uehonmachi, Osaka@Pygmalion school. (Public)**
生玉前町1-11 マックスビル5F

Kata



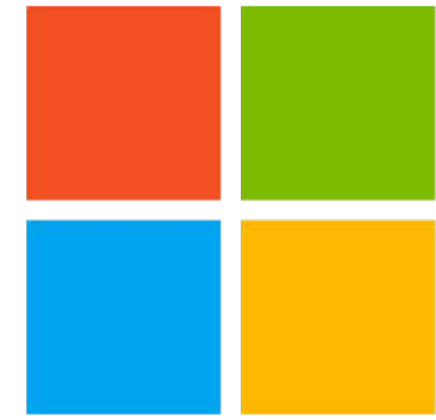
- Wiki for sharing resources
- Launched in 2012
- Dojos actively started sharing session plans, guides, etc
- Since then there has been translation of content and new concepts created such as Sushi Cards

Kata

The screenshot shows the CoderDojo Kata website. The header includes the CoderDojo logo, navigation links like 'How to Share your Content!', 'Create account', and 'Log in', and a search bar. A sidebar on the left lists 'About', 'Organiser Resources', 'Learning Resources', and 'Ninja Zone'. The main content area features a 'Home Page' section with a welcome message, a 'Kata in other languages' section with flags for various countries, and a 'Learning resources' section with a description of curated materials. Below this are four learning paths: 'App Inventor Path' (with an Android icon), 'Arduino Path' (with the Arduino logo), 'HTML Path' (with the HTML logo), and 'JavaScript Path' (with a yellow bar).

The screenshot shows a GitBook page titled 'Advanced JavaScript' by CoderDojo. The page has an orange header with the title and a CoderDojo logo. Below the header, there's a section titled 'Getting Setup' with the subtitle 'I'm learning: JavaScript'. A numbered list item '1' explains that the user will build an app to get information from an 'Application Programming Interface (API)' and display it to their user. Below the text is a screenshot of a 'My Pokédex' application. The application has a red background and a search bar. It displays a grid of 12 Pokémon cards, each with a number and the name of the Pokémon: #1: Bulbasaur, #2: Ivysaur, #3: Venusaur, #4: Charmander, #5: Charmeleon, #6: Charizard, #7: Squirtle, #8: Wartortle, #9: Blastoise, #10: Caterpie, #11: Metapod, and #12: Butterfree. A second numbered list item '2' is partially visible at the bottom, stating 'Since these are the Advanced JavaScript cards, you'll find the explanations are a bit'.

Industry Engagement



Microsoft

Google

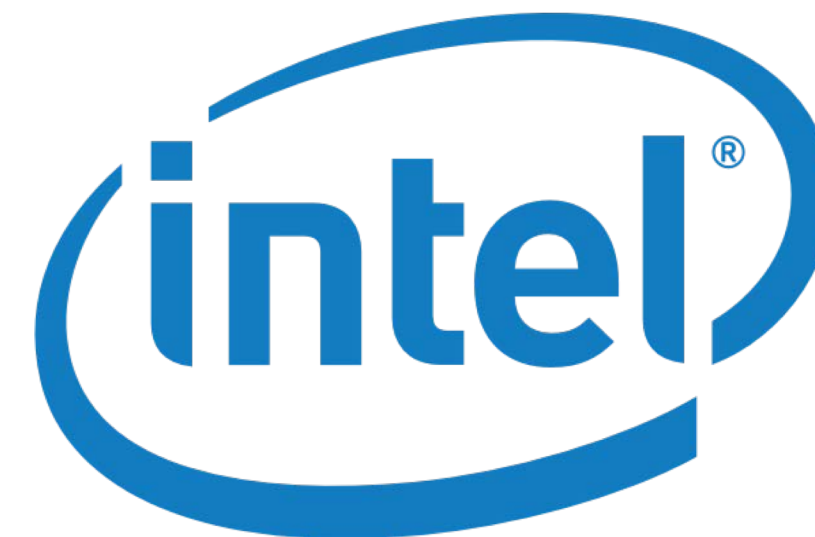
facebook®



accenture



GitHub



mozilla

amazon

DojoCon



- First DojoCon in 2012
- Created by community
- Now around the world



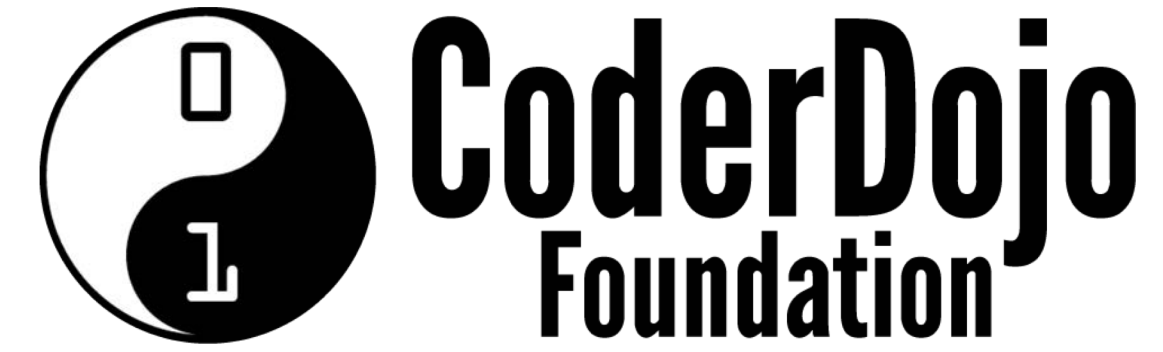
Coollest Projects Awards



- First in 2013, runs every year
- Created by community
- Grown from 20 projects entered to 1000+
- Now spreading around the world



Foundation



Giustina Mizzi
Executive Director



Pete O'Shea
Community Lead



Ross O'Neill
Community Lead



Rosa Langhammer
Reporting Lead



Philip Harney
Content Lead



Guillaume Feliciano
Senior Software Engineer



Daniel Brierton
Senior Software Engineer



Nuala McHale
Engagement



Rachel Schoene
Enablement



Graham Bartley
Software Engineering Intern



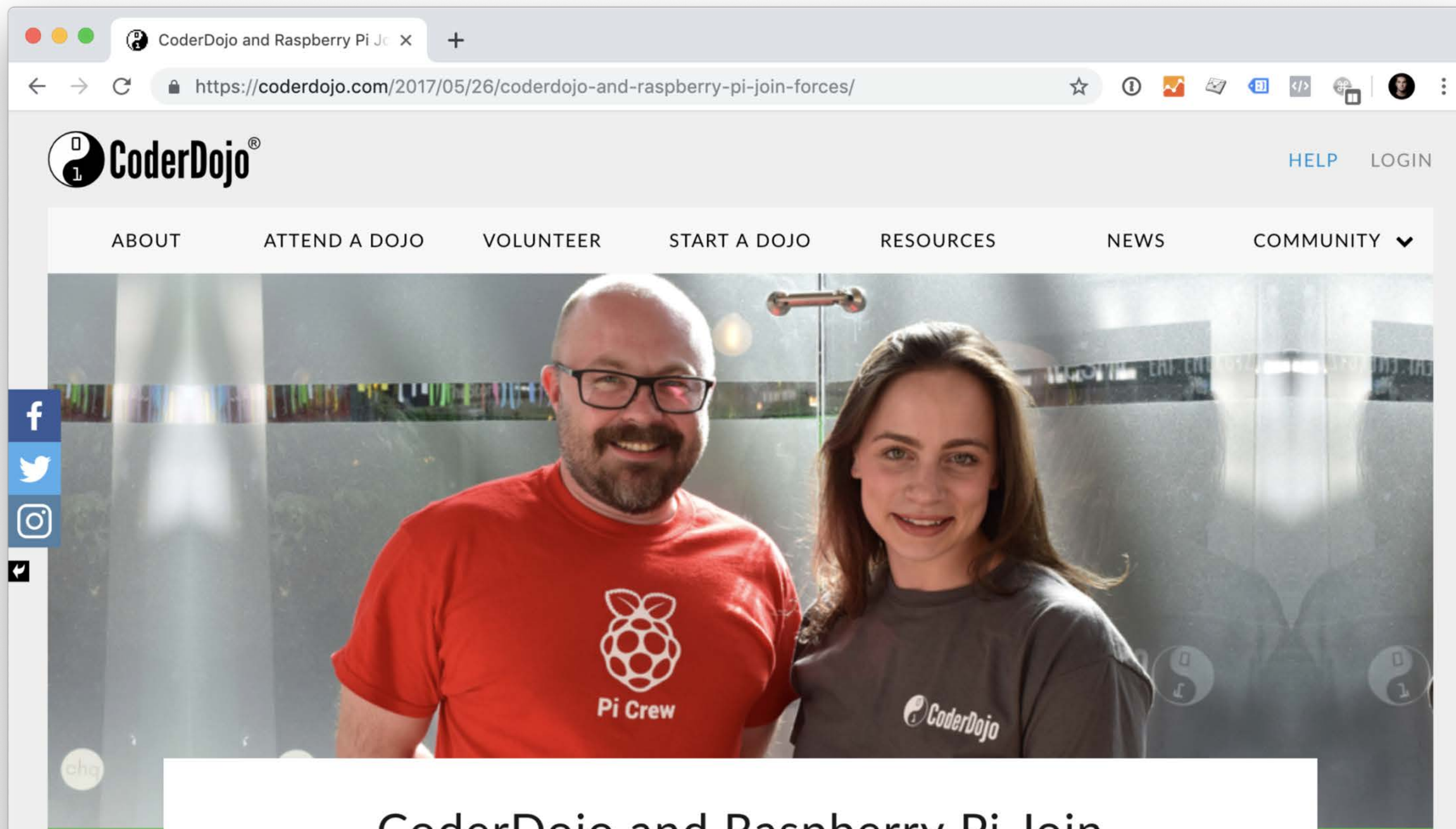
Suzanne Campbell
Software Engineering Intern



Ciara McHugh
Educational Content Intern

- I created the foundation in 2013 to deal with the increased demand
- Since 2013 the team has grown and provides more services around
 - Resources
 - Scaling
 - Awareness
 - & more

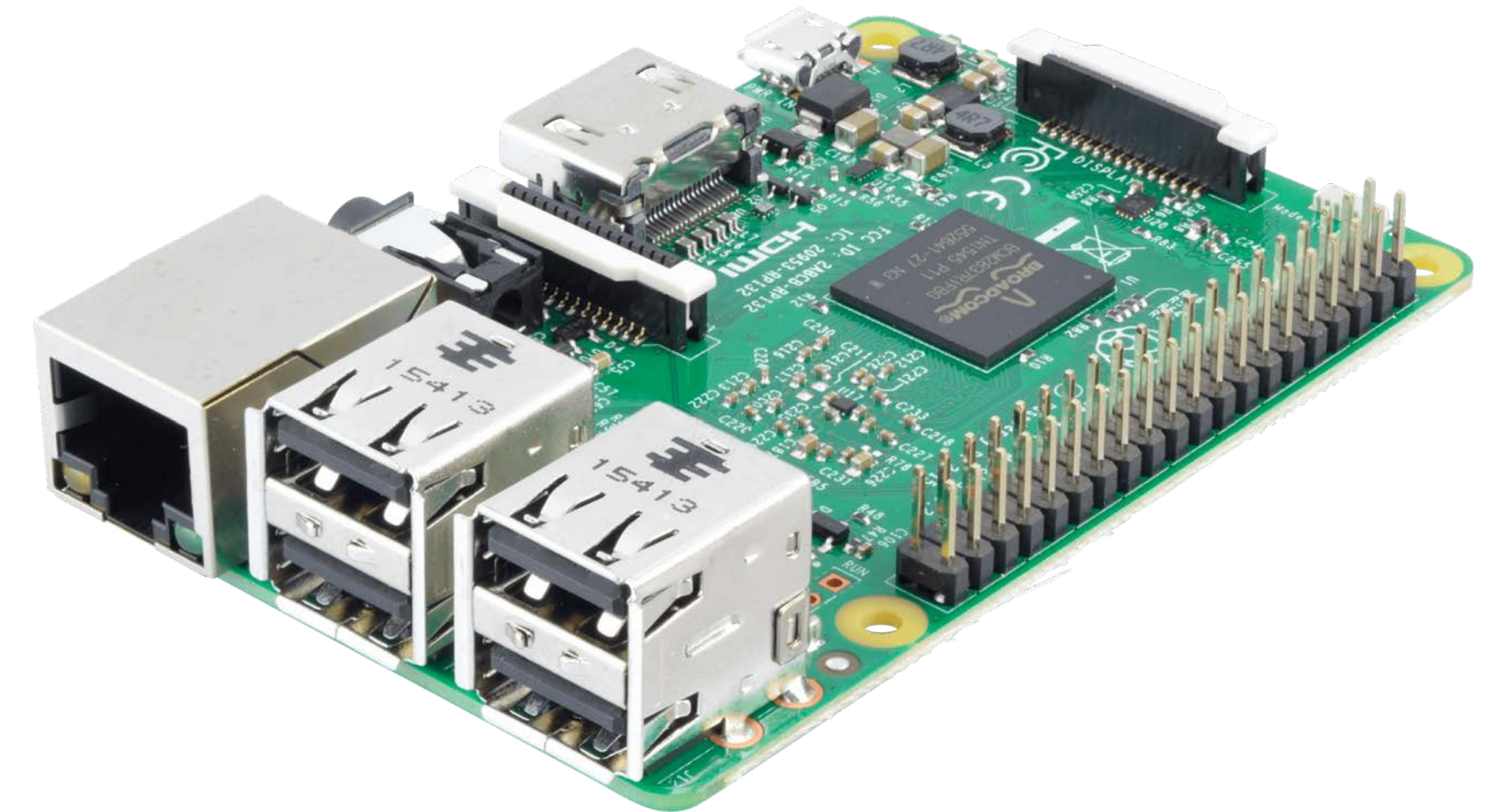
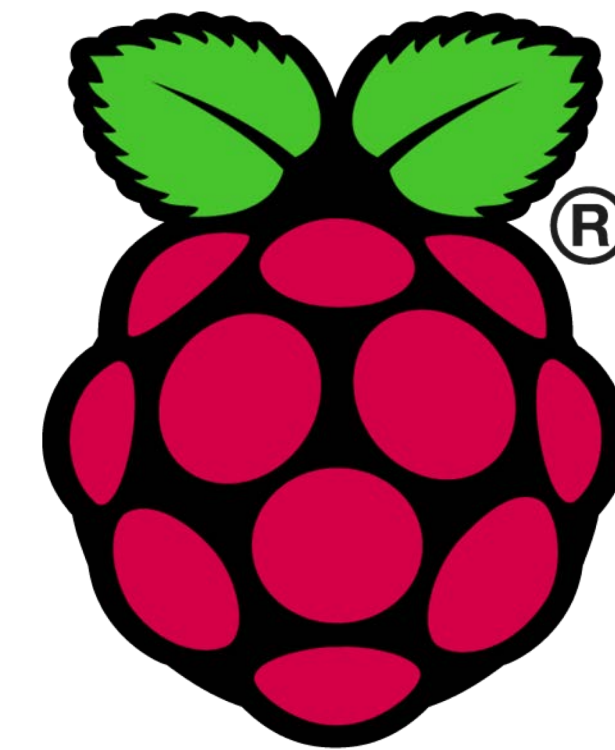
CoderDojo & Raspberry Pi Merger

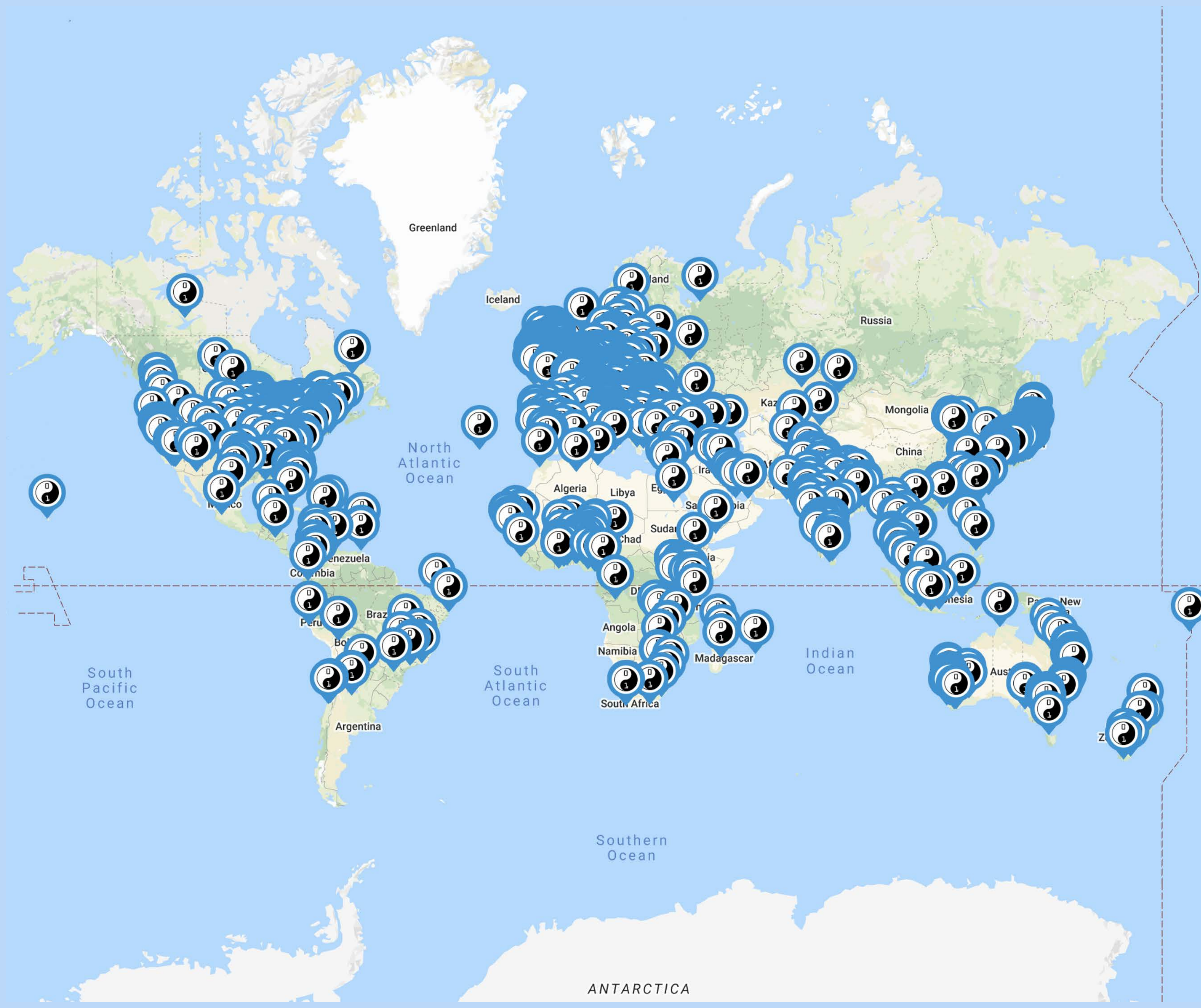


CoderDojo and Raspberry Pi Join Forces

26 May 2017 · by Giustina Mizzoni

Today I am excited to share the news that the CoderDojo Foundation will be joining forces with the Raspberry Pi Foundation team in a merger that will give many more young people the opportunity to learn how to code and create. This merger will support the Foundation in becoming a stronger, more sustainable and resilient organisation advancing our mission.

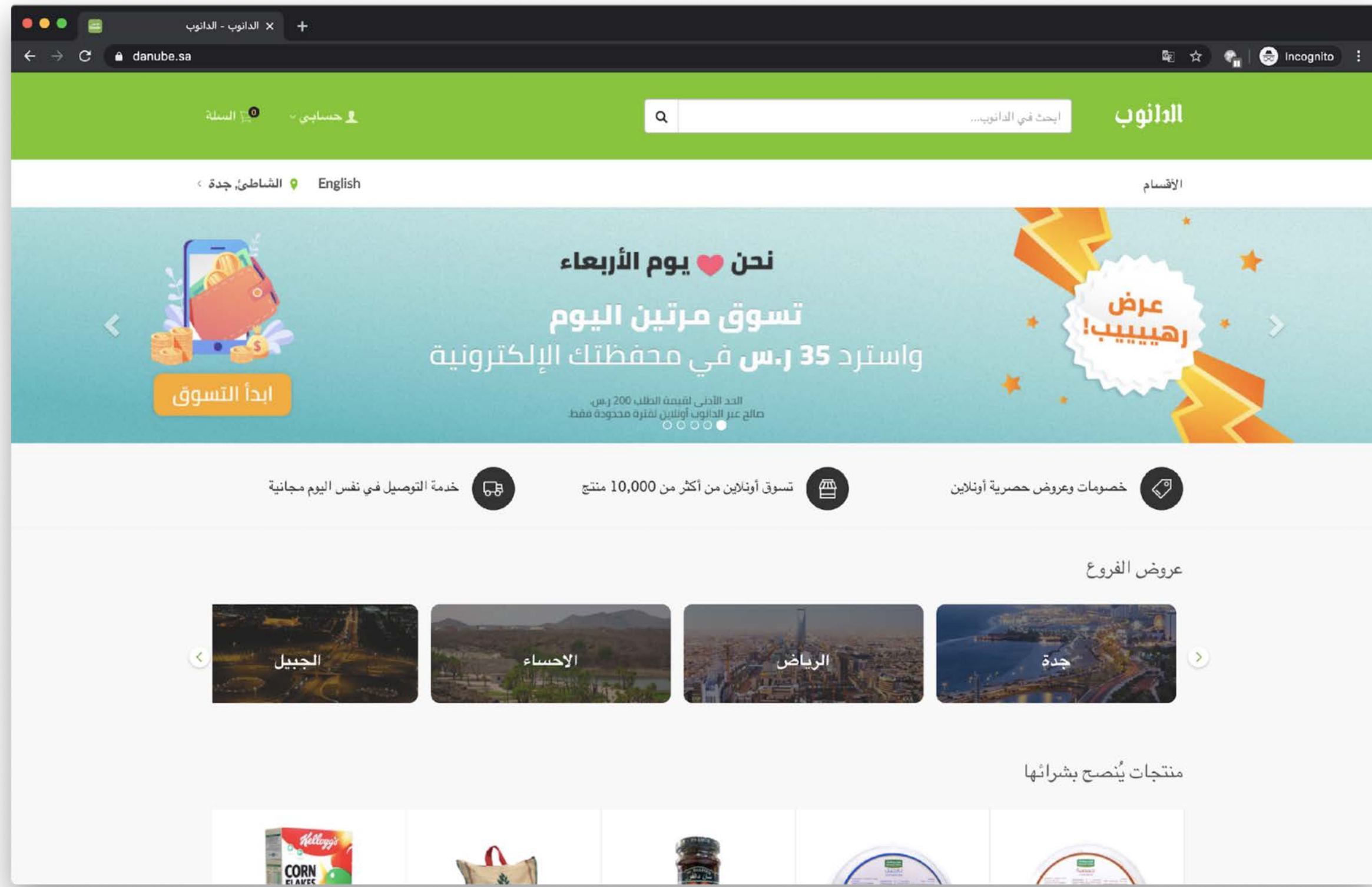




Afterwards

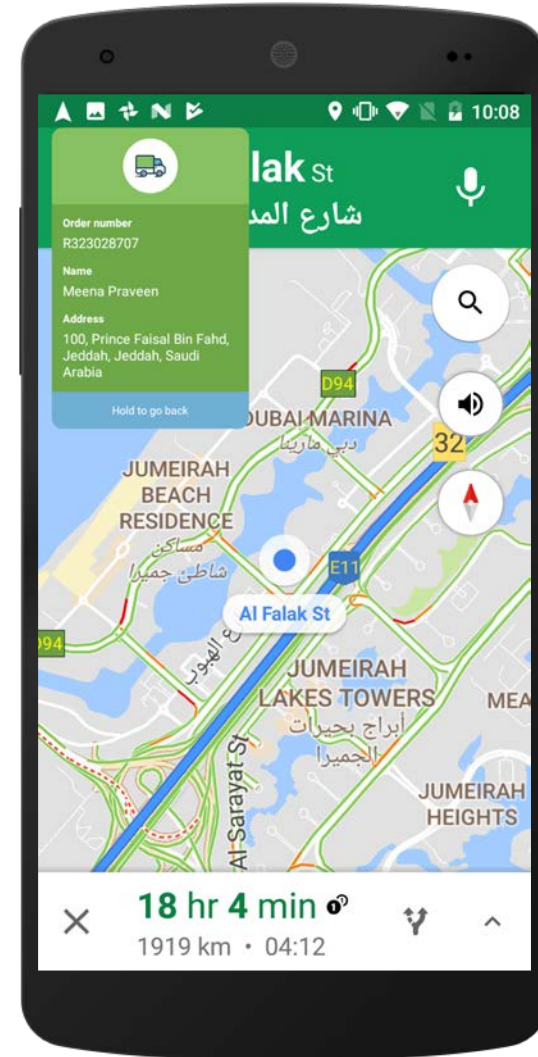
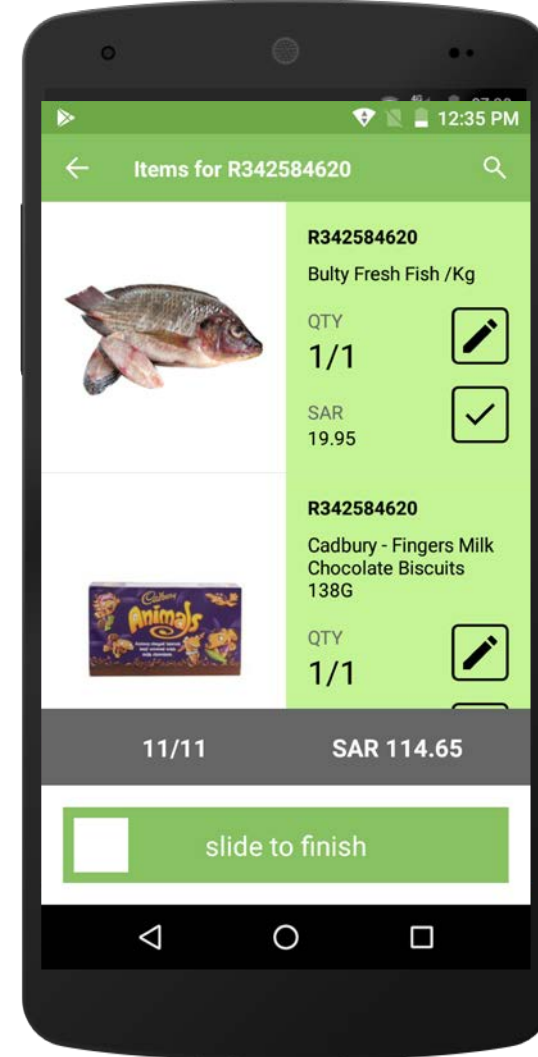
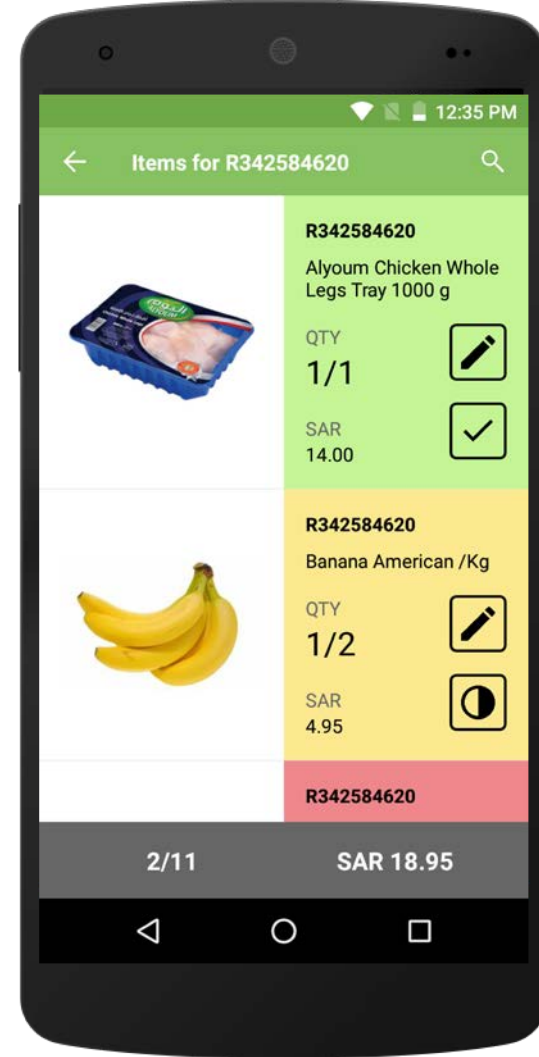
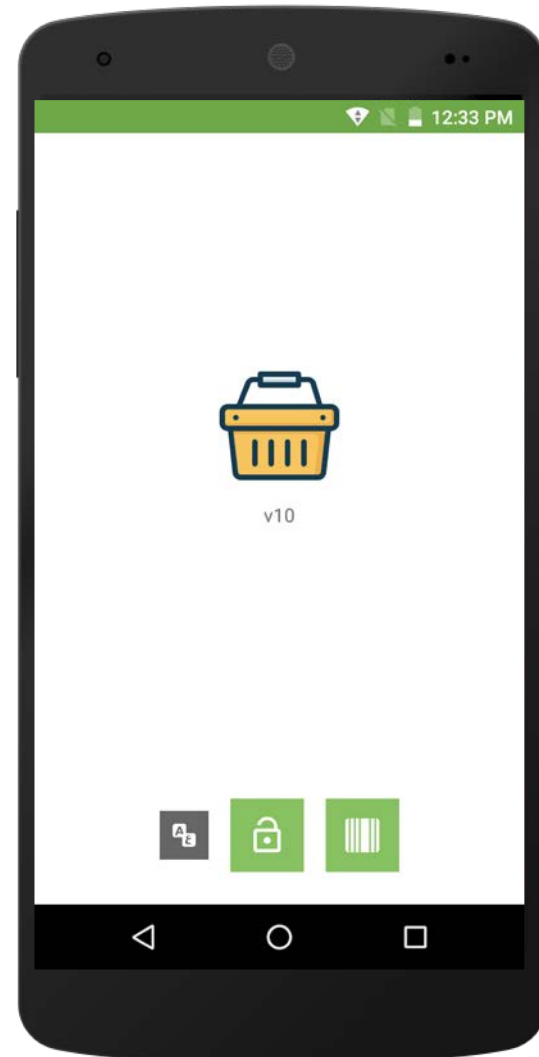
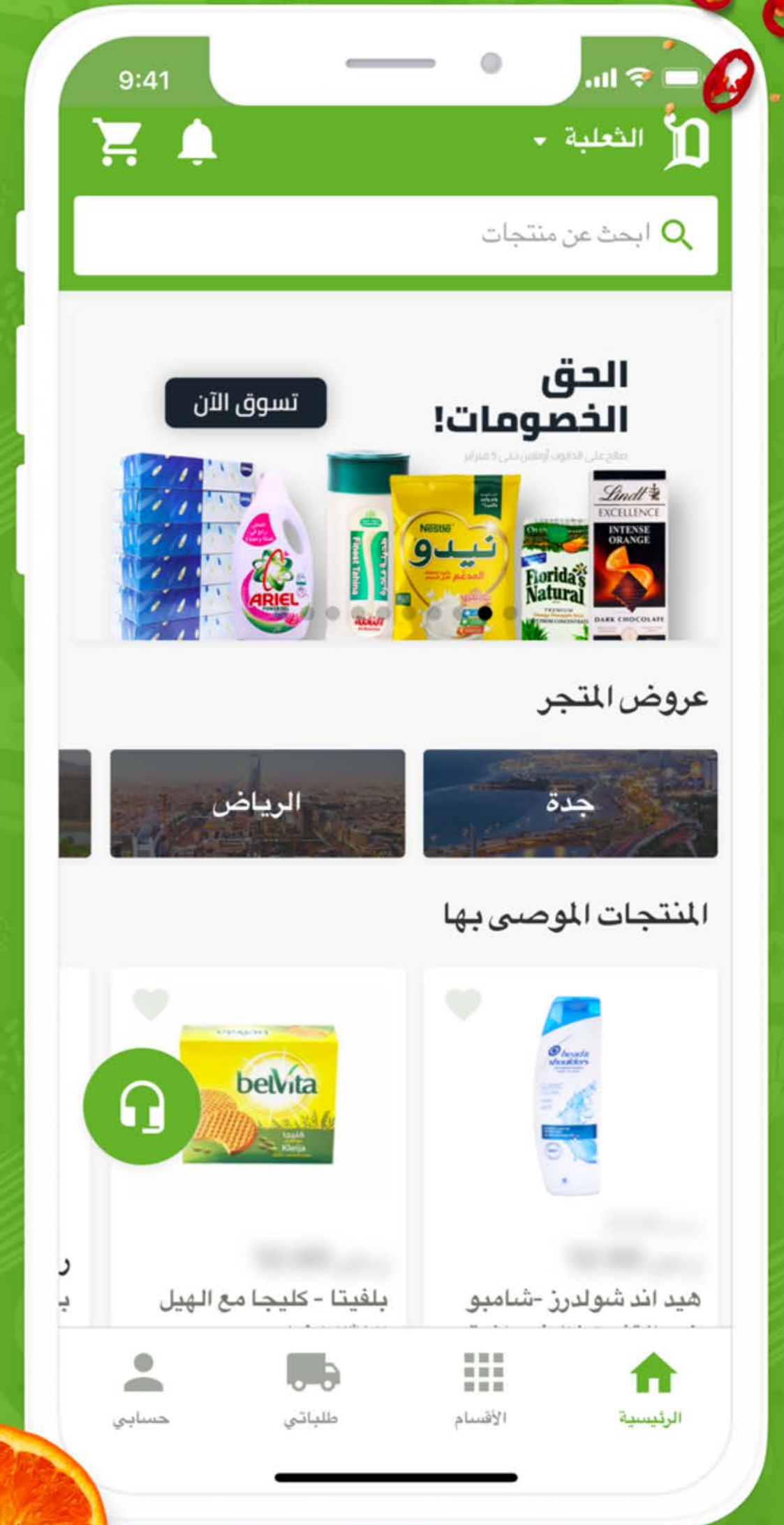
- Boston: EiR with Polaris Partners
- Dubai: CTO Cobone
 - Largest daily deals site in MENA
- Dubai: Explore opportunities (pillows, flowers,
- Dubai & Jeddah: CTO Danube Online
 - Largest online supermarket in MENA
 - Arabic, RTL, 16,000 SKUs
 - 1000 deliveries p/d, own operations
- Cork & Abroad: Gap Year
- Tokyo & SF: Private Equity
- Cork & Dublin: Covid





إستلام من الفرع أو توصيل للمنزل

تسوق من مجموعة كبيرة من المنتجات





Xenon Partners

- Private Equity focused on SaaS
- M&A, Technology
- More data points
 - Acquisitions
 - Technology
 - Legals
 - Marketing
 - Strategy

Current

 DreamFactory

 Iron

 MetricFire

 MightySignal

 OAuth.io

 RingCaptcha

 Scout APM

 Scripted

 Xplenty

Historical

 Airbrake.io
Acquired by Rackspace

 circleci

 cloudkick
Acquired by Rackspace

 Qualaroo
Acquired by Scaleworks

 RightSignature
Acquired by Citrix

 sourcery
Acquired by Lavu


 CloudApp

 CLOUDABILITY
Acquired by Apptio

 copper
Acquired by Cogneto

 ZENCODER
Acquired by BrightCove

 Dropbox
Nasdaq: DBX

 Earth Class Mail
Acquired by Scaleworks

 filestack

Includes investments made prior to Xenon Partners.

 INTERCOM

 PandaDoc

 pipedrive

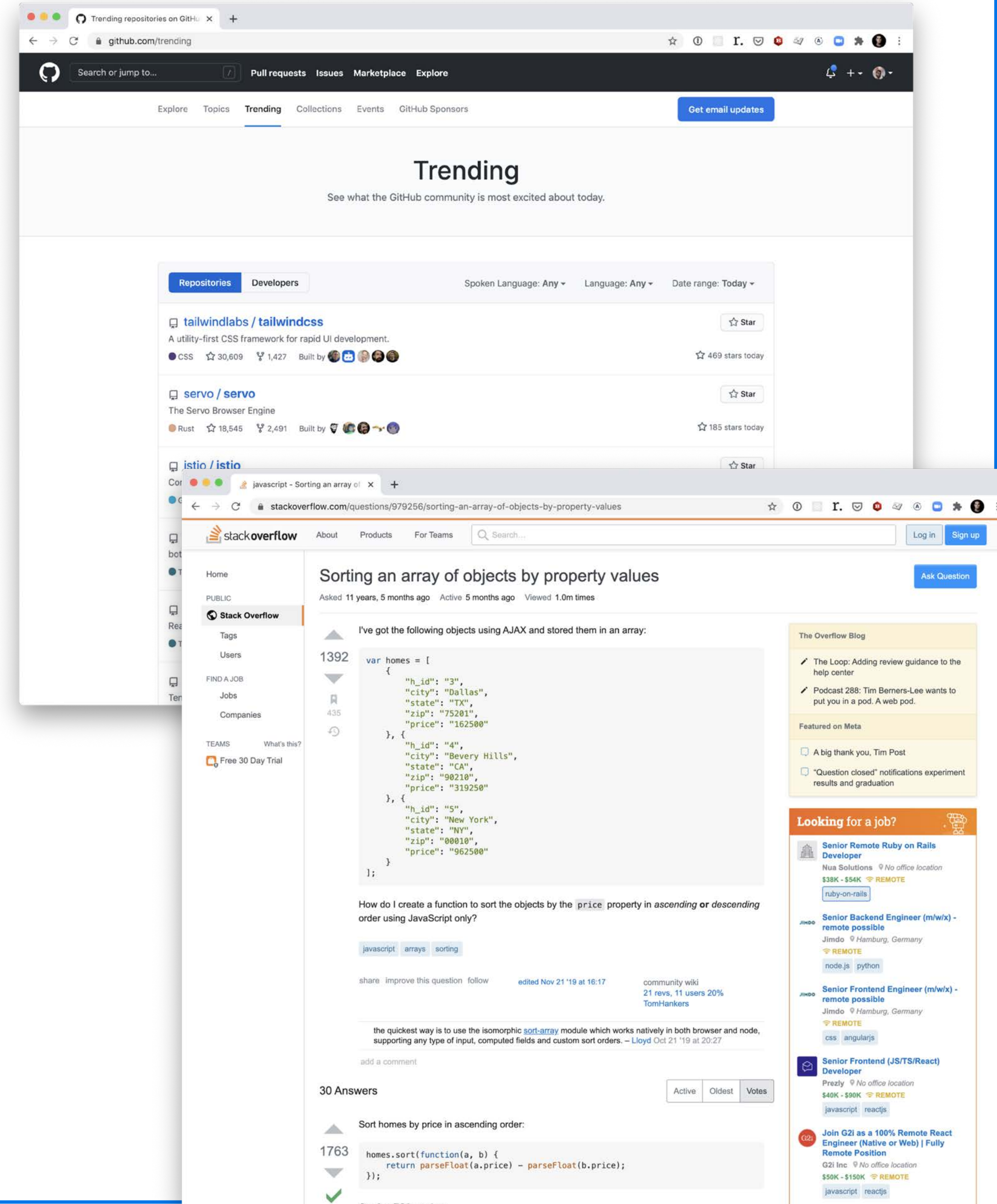
Coding: Improving, Processes & Mental Models

Disclaimers

- My experience is that of self taught individual, with no formal education and a lot of luck
- Experiences perhaps colored by selection bias in CoderDojo attendees

How do most people get good/learn?

- **Courses:** 3rd Level, Bootcamps & Online
- **Self Taught**
 - Be project orientated “means to an end”
 - Follow tutorials, see patterns & commonality
 - Look at code on GitHub
 - Googling, lots and lots of googling
 - Can have gaps, solve/learn as encounter
 - Curiosity driven, enjoy flow state, can stagnate
- **Workplace Experience**
 - Work with others, mentors
 - Code reviews



Can't know everything

- Know fundamentals
 - Which thing is which
 - Certain depth, beyond which is diminishing point of returns
 - So many ways to skin a cat
- Know how to Google the rest
 - Modern software development is based off this
 - RTFM or “Ask 3 then me”
- So many different approaches, libraries, tools, etc
 - Students will jump ahead, find new ways
 - Coding is closer art, given variance and creativity
- Be a facilitator, create conditions for success



daisyowl
@daisyowl

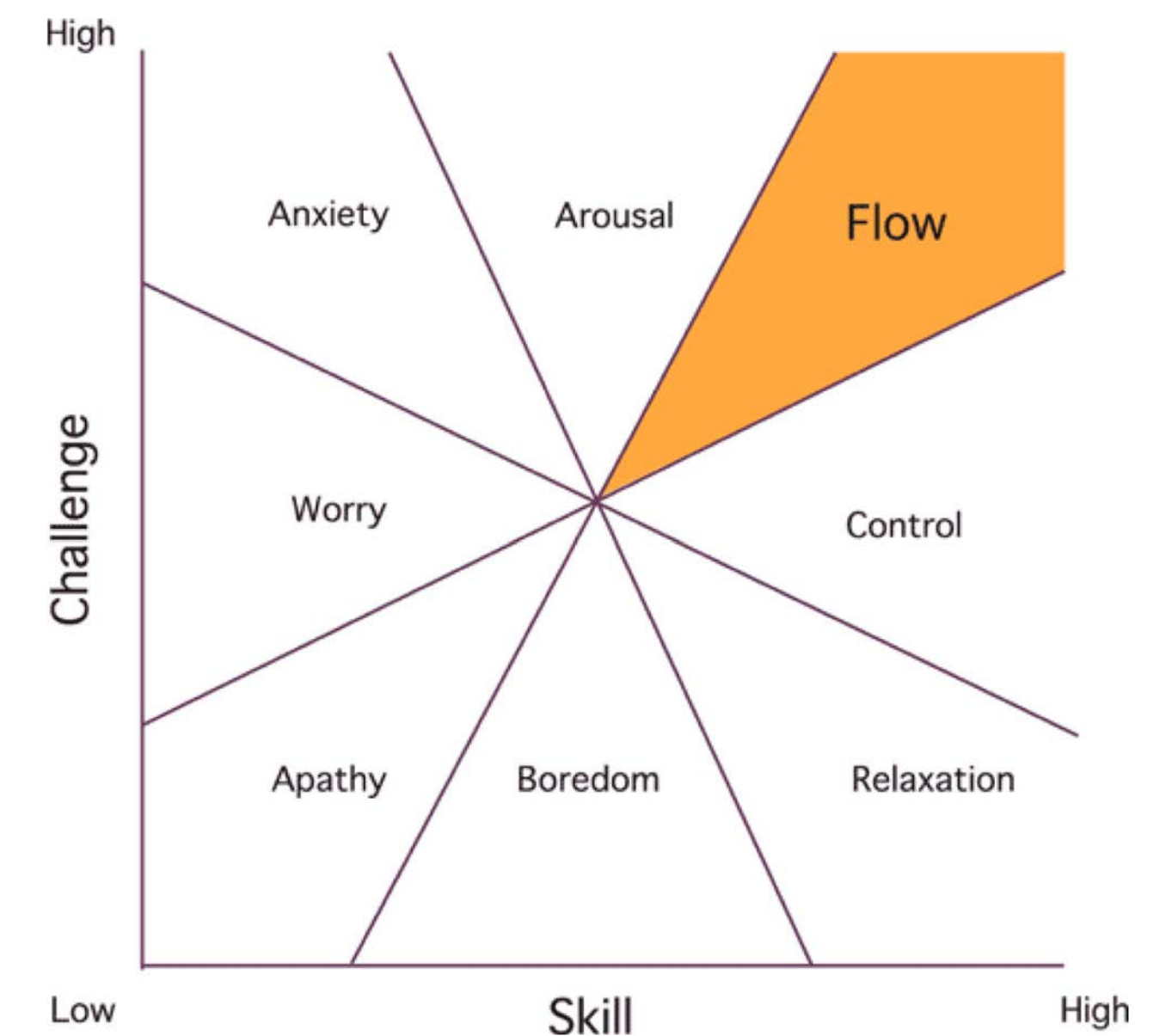
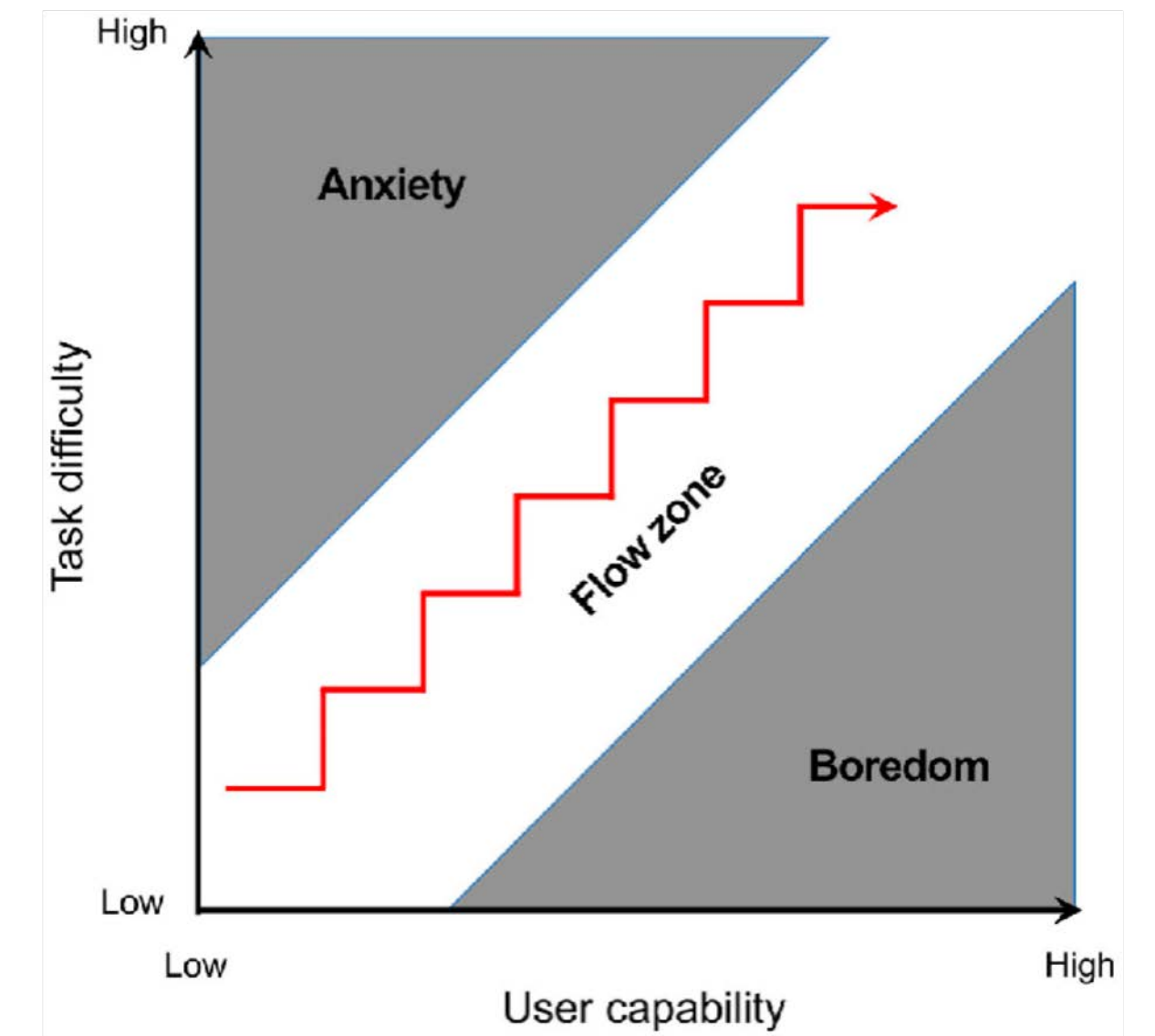
if you ever code something that "feels like a hack but it works," just remember that a CPU is literally a rock that we tricked into thinking

9:03 AM · Mar 15, 2017 · [Twitter Web Client](#)

15K Retweets **25.6K** Likes

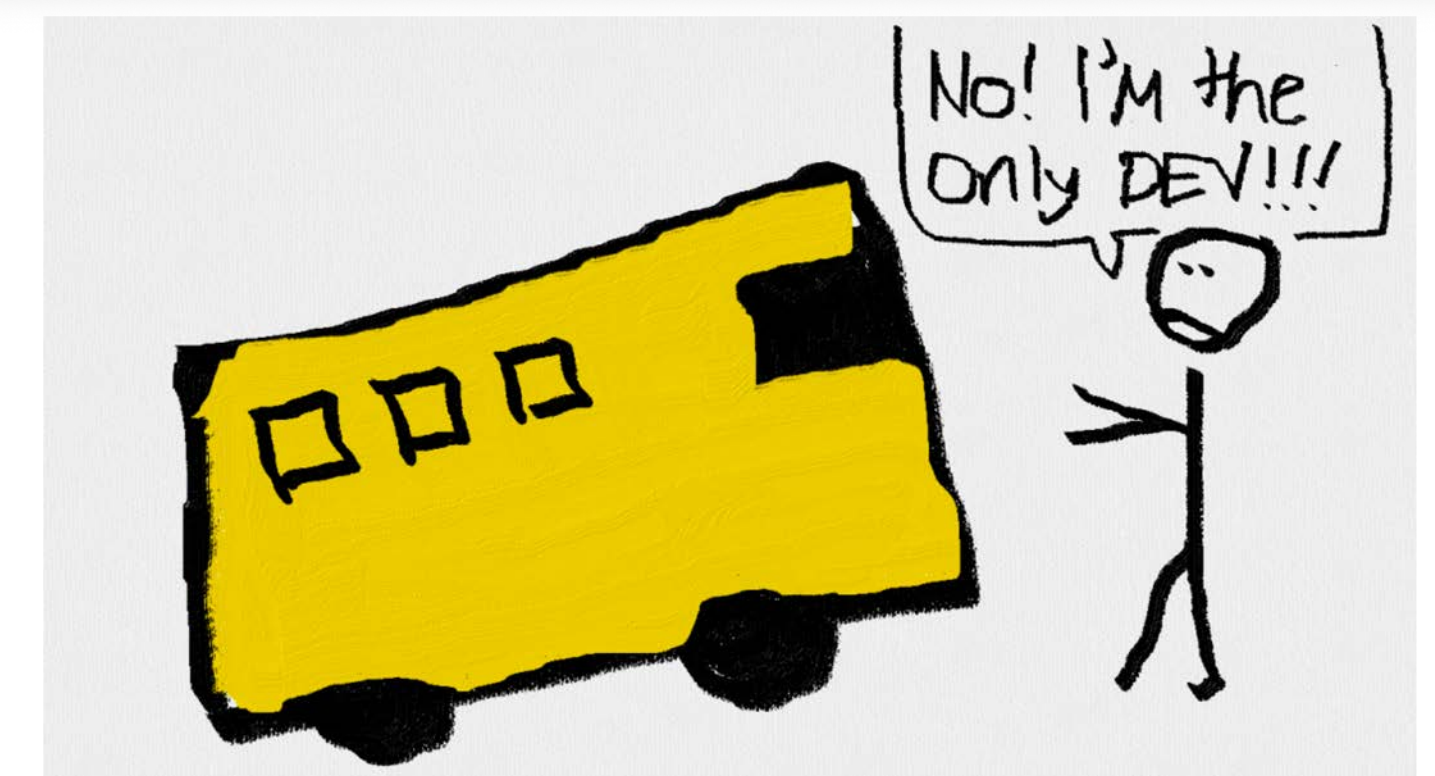
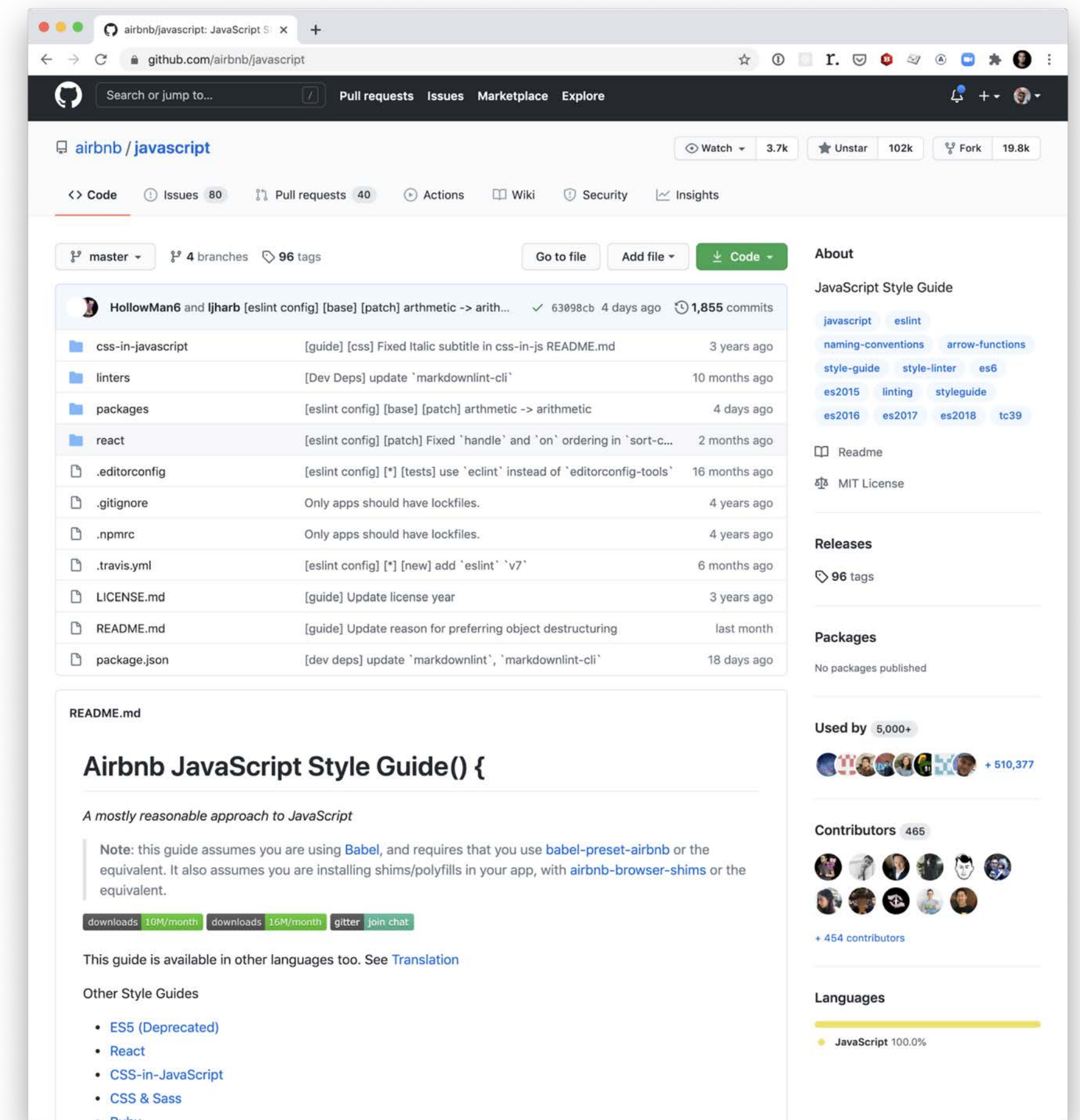
Mental Model: Debugging Confusion

- Confusion can be crippling
 - Creates mental barrier
 - Like maths, can't do large sums in head, write it down and break it apart
 - Many people just shut down, instead of breaking it down
 - Don't be overwhelmed, cross that bridge when you come to it
 - Step through code, use breakpoints or logging
 - Save versions of work so can spot differences
- Time to digest
 - 95 percent of brain activity is subconscious
 - Take several passes at it, explore the landscape of an idea
- Flow State



Code Quality != Value

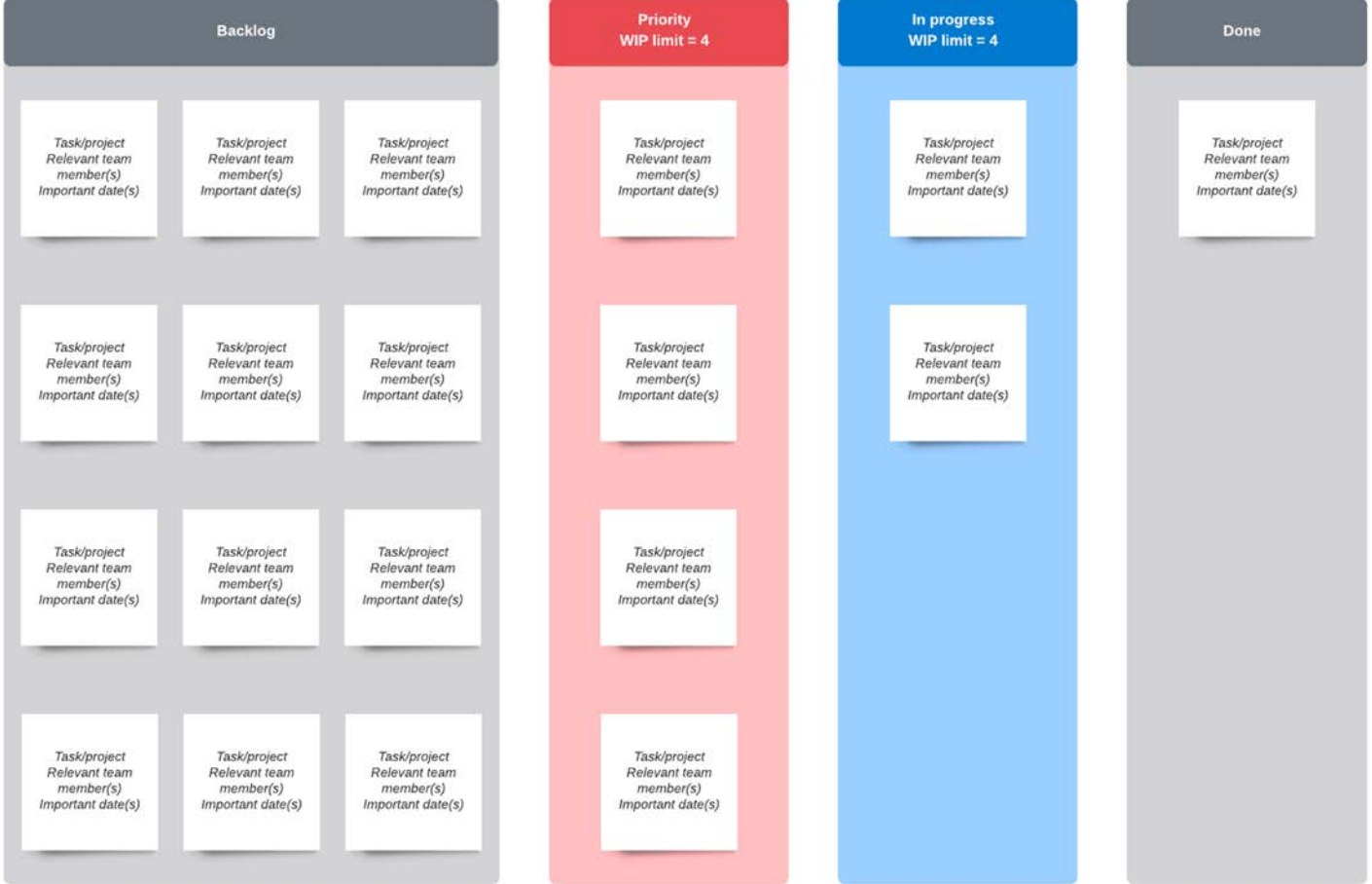
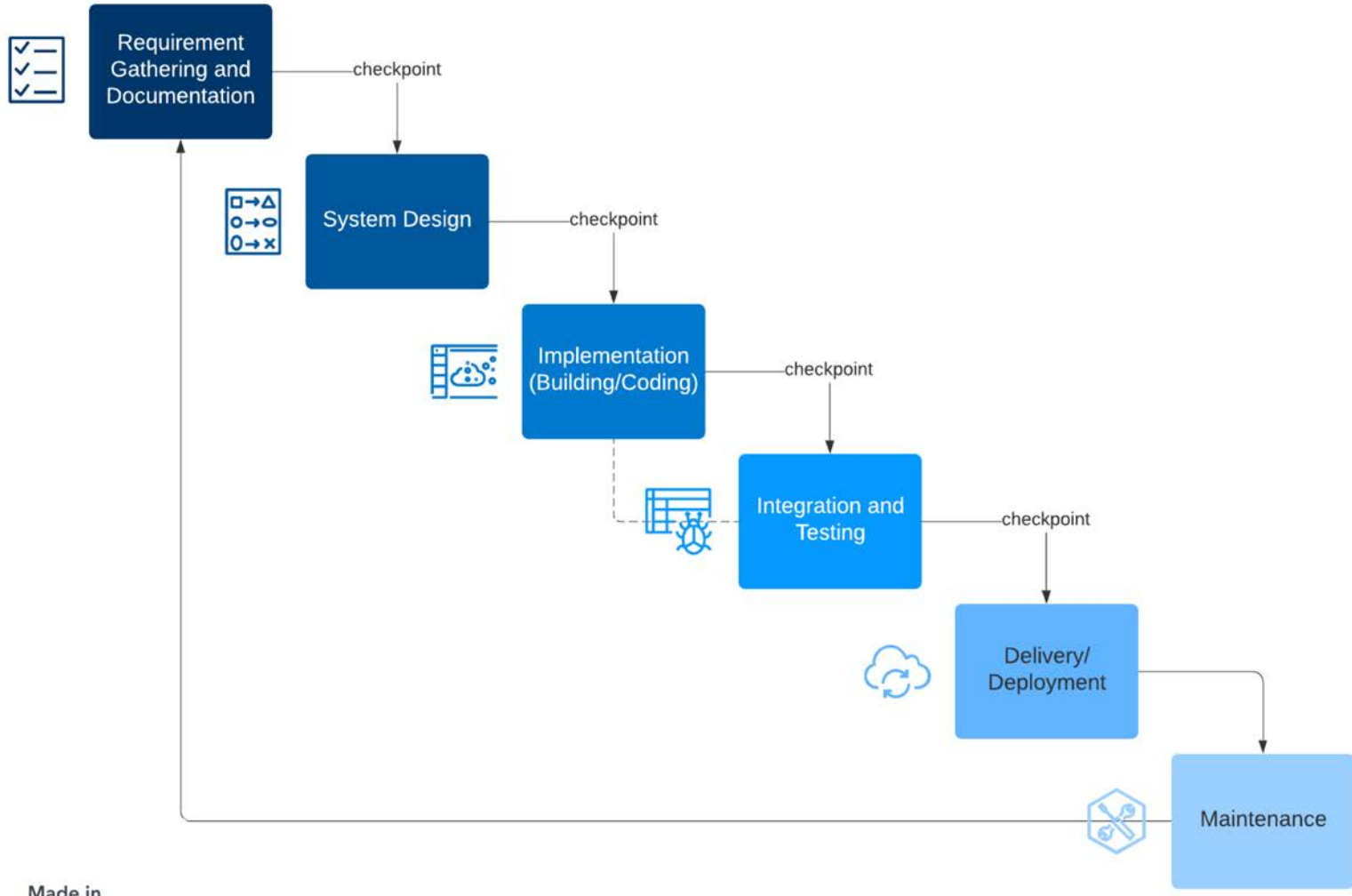
- Best code is most understandable
 - Naming conventions & comments
 - Be modular, units of logic
 - Leave mind reading to the psychics
 - Avoid future confusion, will forget
- Teams strive for all code to look like written by one person
- Whats more satisfying than writing code is deleting code
- Messy code = fast to deliver & slow to change/debug
- Considered code = slow to deliver & fast to change/debug
- End of day, quality code doesn't matter if doesn't deliver value within timeframe
- Building confident > quality code



Other Mental Models

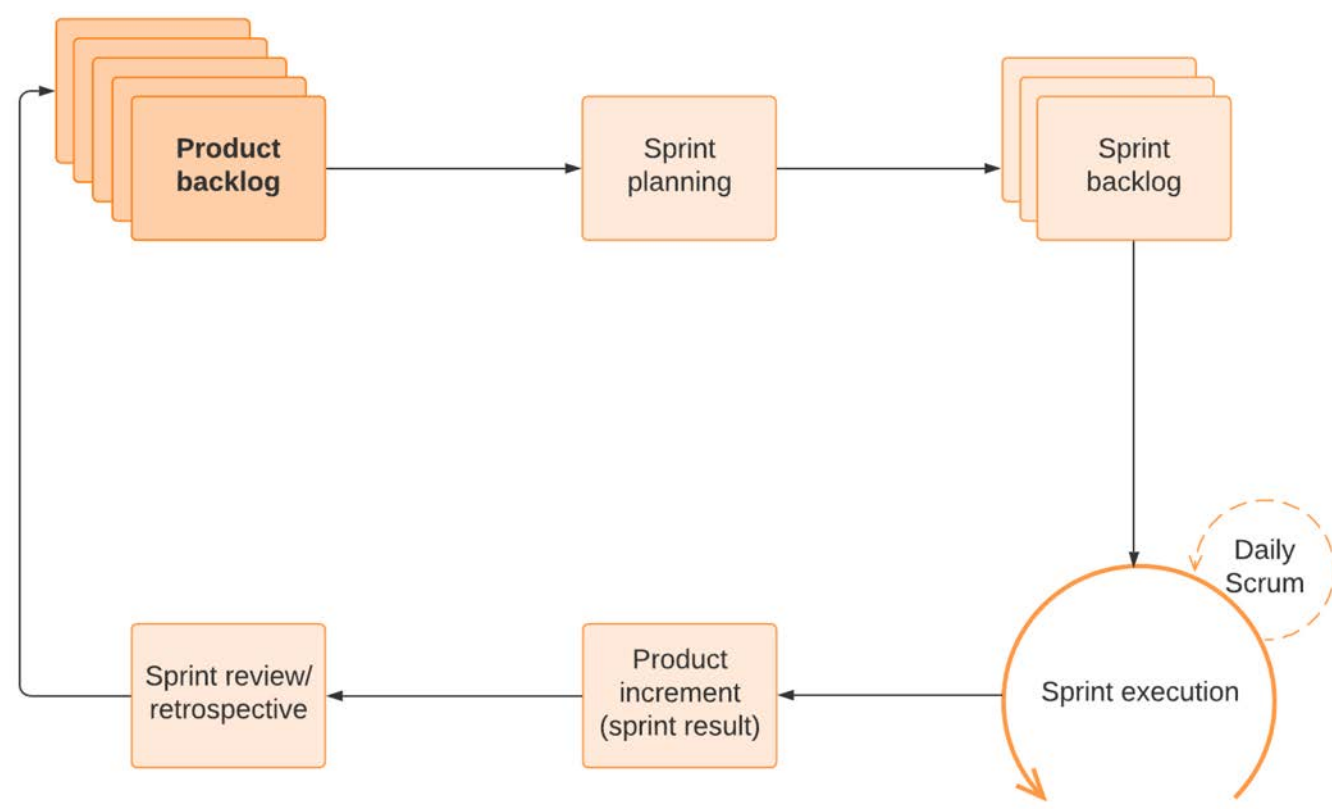
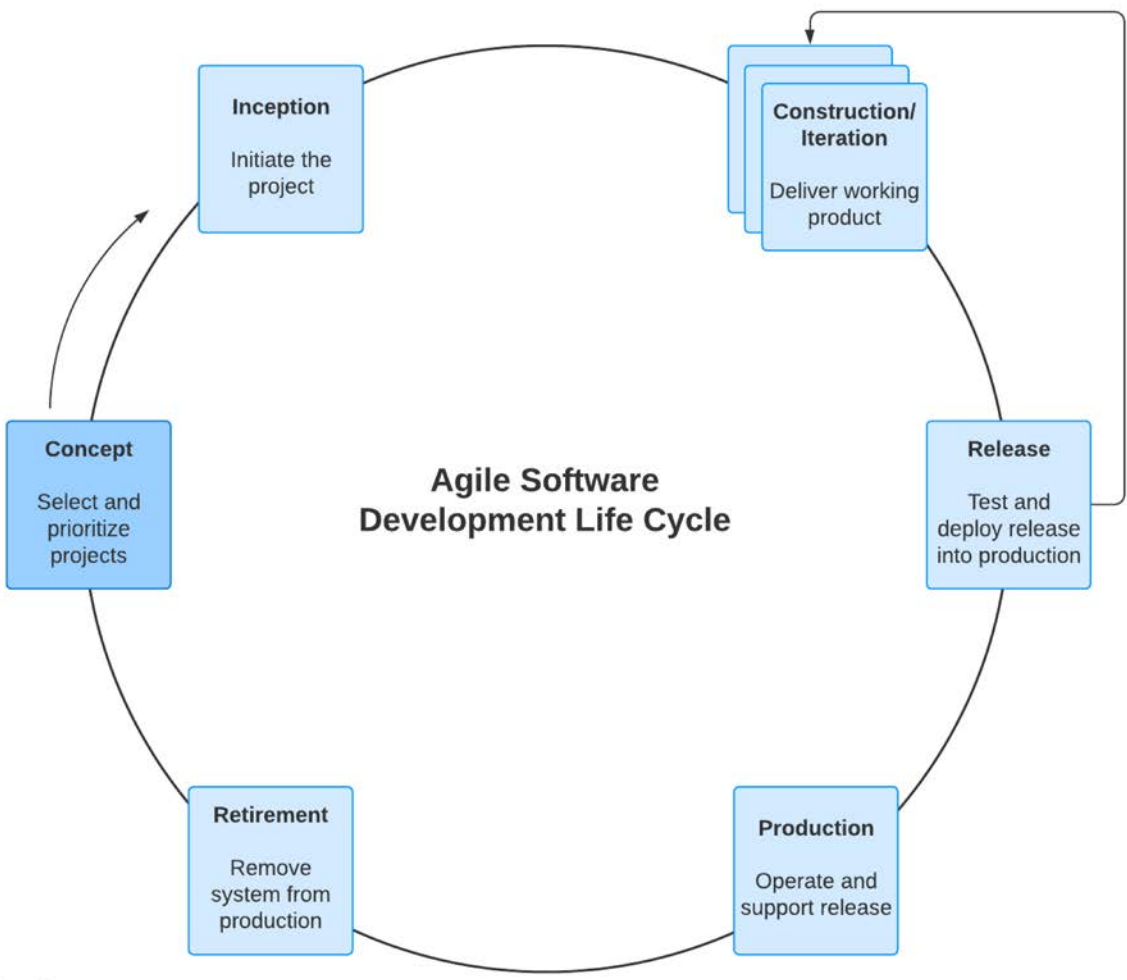
- DRY: Don't Repeat Yourself
 - Avoid Copy-Paste coding
- Modularity
 - Implement the code, break it into chunks/modules either when
 - Clear it will be reused
 - Make logical grouping for reading/finding
- Death by Abstraction
 - Solve problem first, optimize when working
- Premature optimization is root of all evil
 - Do the simplest thing first, address when (looks to start) breaking
- Heuristic, it should feel natural or obvious, its cheaper to revisit than get stuck for ages
 - Hardcode variables, get other bits working before revisiting
 - Deterministic testing

Methodology: Kanban vs SCRUM vs Agile vs Waterfall



- Case by case basis:
 - Stakeholders, change management
 - Validation: Feedback/learning loops
 - Rebuilding

Made in Lucidchart



- Blended approach:
 - Sprints within Waterfall
 - Start with Waterfall move to Kanban
 - SCRUM with 20% of time Kanban

Made in Lucidchart

Made in Lucidchart

Code Reviews

Implemented "Mail:" namespace #27
MatthewRuddy merged 2 commits into mailbox from namespace_inbox on Aug 6

Whelton reviewed on Aug 5

Whelton left a comment

Looks great! I think the aims of namespacing and separating out mail settings user are here.

My general points are, which are at your discretion to choose and are purely of technical value (but not end product value, however it might make it easier to port over Assistant stuff with clear delineation of code/modules) are:

- Use `mail_` table prefix for models, so don't have to explicitly set table name in model (this is the rails convention)
- Move all existing models bar (`User`, `AdminUser`, `ConsultationRequest`) under the `Mail` namespace (sub directory and table name)
- Namespace all mail related controllers (including settings one [there will be code duplication eventually with Assistant stuff, but thats desired]) and the associated routes
- Use `Mail::Account` instead of `Mail::Inbox`, the rationale for this being you can have a similar `Assistant::Account` later and establish a convention, also saving the term `inbox` for if multiple account inboxes are introduced in future.

The above does introduce likelihood for breaks, so I can help QA or take a portion, or indeed do in stages. But its your decision to which degree (if any).

```
app/models/mail/inbox.rb
22 - class Mailbox < ApplicationRecord
23 -   belongs_to :user, dependent: :destroy
21 + class Mail::Inbox < ApplicationRecord
22 +   self.table_name = "inboxes"
```

Whelton on Aug 5

Typically the rails convention is the table name of namespaced models uses the module's name as the prefix, eg `mail_inboxes`, which rails then picks up. It also helps avoid potential namespace conflicts later if the small model/table name is used else where

MatthewRuddy on Aug 6 Author

Good point! As I mentioned on Zoom I wanted to be deliberately abstract here due to uncertainty. When all is said and done and we're in a better position to say "we've made the right architectural decisions", I'll lock down the namespacing of model tables, creating those migrations to prefix them all.

Might even just "reset" the migrations and go back to just the basic `create_` migrations only. Call if v2 if you will! We will see 😊

Resolve conversation

Mail Forwarding by Whelton · Pull Request #41

Merged Mail Forwarding #41
Changes from all commits File filter... Jump to... Review changes

0 / 33 files viewed

```
app/javascript/components/mail_inbox_item/mail_inbox_item.tsx
... @@ -1,11 +1,17 @@
1 // Dependencies
2 - import * as React from 'react'
3 - import { ApolloProvider, gql } from '@apollo/client'
4 + import React from 'react'
5 + import { gql } from '@apollo/client'
6 import { client } from '../../src/apollo'
7 import Loader from '../loader'
8 import MailItems from '../mail_items'
9 import MailNotes from '../mail_notes'
10 import PayBillButton from '../pay_bill_button'
11 + import { DateTime } from 'luxon'
12 + import MailForwardRequestModal from './components/mail_forward_request_modal'
13 + import { Fragments } from '../../src/graphql/fragments'
14 + import { IPostalMail } from '../../src/graphql/types'
15 + import IconForward from '!react-svg-loader!./assets/icon-forward.svg'
16 + import { Tooltip } from 'react-tippy'
17
18 // Props
19 interface MailInboxItemProps {
20   // State
21   item: object,
22   isLoading: boolean,
23   forwardModalIsOpen: boolean
24 }
25
26 const POSTAL_MAIL = gql`
27
28   `
29
30   }
31   changeCardUrl
32 }
33
34 forwardRequest {
35   ...MailForwardRequestFields
36 }
37 }
```


Code Reviews

aluminumio / mailmate-web Private Watch 2 Star 0 Fork 0

Code Issues **Pull requests** Actions Projects Wiki Security Insights Settings

Mail Forwarding #41

Edit Open with

Merged Whelton merged 7 commits into `master` from `mail_forwarding` 15 days ago

Conversation 2 **Commits 7** Checks 0 Files changed 33 +1,071 -29

Commits on Nov 2, 2020

Mail Forwarding Request Model and client side 675fc44 <>
Whelton committed 18 days ago

Commits on Nov 3, 2020

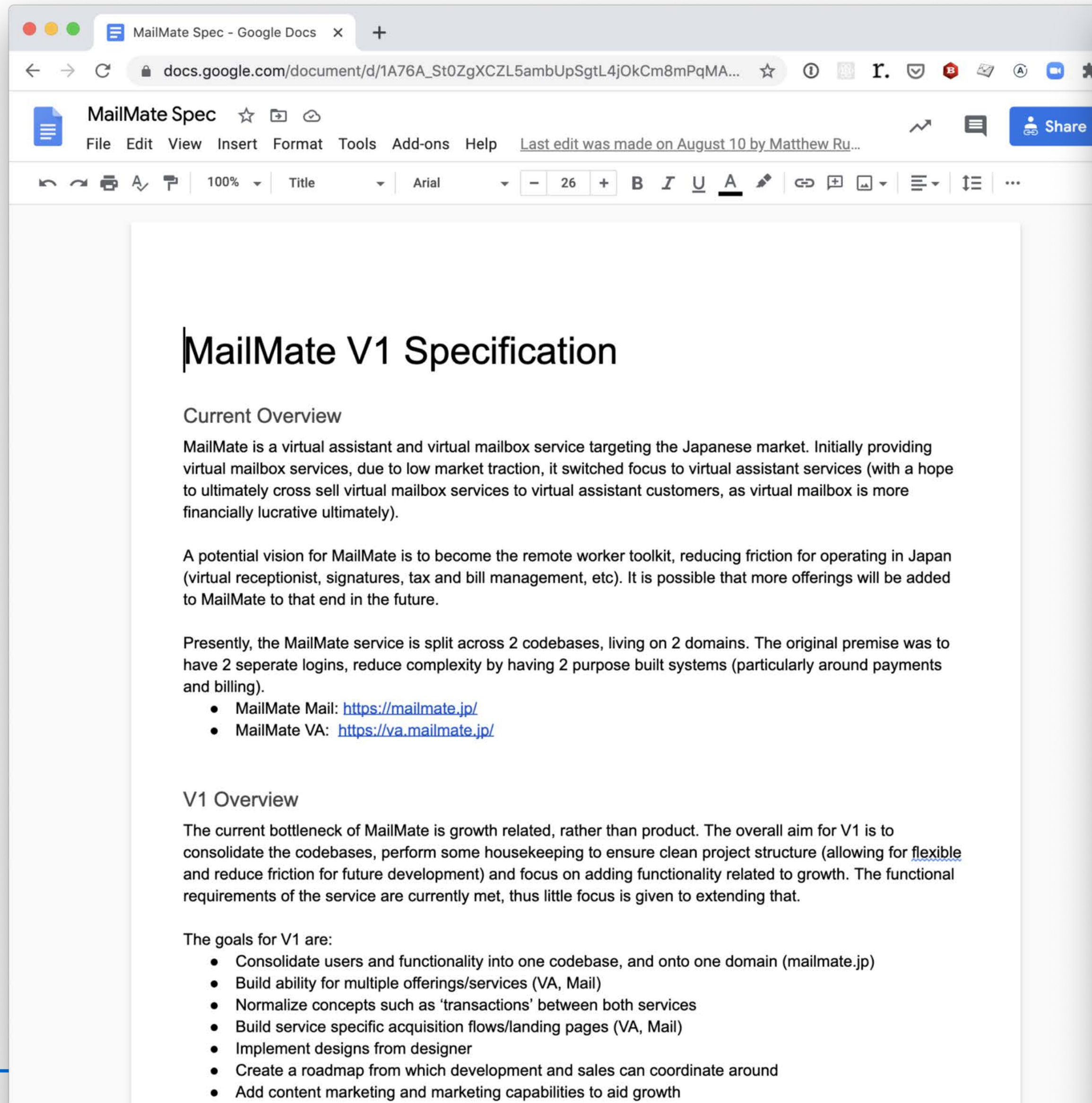
Forward Request Modal Functional d874663 <>
Whelton committed 17 days ago

...

Product Management

- **Discovery**
(understand personas, targets, goals, etc)
 - **Requirement Gathering**
(from all stakeholders)
 - **Specification**
 - **Wireframes**
 - **Mock Ups**
 - **Implementation**
- Sign off at each stage
 - User stories
“As a user I want to do X when I see Y”
 - Minimize thinking and interpretation
 - Estimate, spot issues ahead of time
 - Alignment

Product Management: Specification



MailMate V1 Specification

Current Overview

MailMate is a virtual assistant and virtual mailbox service targeting the Japanese market. Initially providing virtual mailbox services, due to low market traction, it switched focus to virtual assistant services (with a hope to ultimately cross sell virtual mailbox services to virtual assistant customers, as virtual mailbox is more financially lucrative ultimately).

A potential vision for MailMate is to become the remote worker toolkit, reducing friction for operating in Japan (virtual receptionist, signatures, tax and bill management, etc). It is possible that more offerings will be added to MailMate to that end in the future.

Presently, the MailMate service is split across 2 codebases, living on 2 domains. The original premise was to have 2 separate logins, reduce complexity by having 2 purpose built systems (particularly around payments and billing).

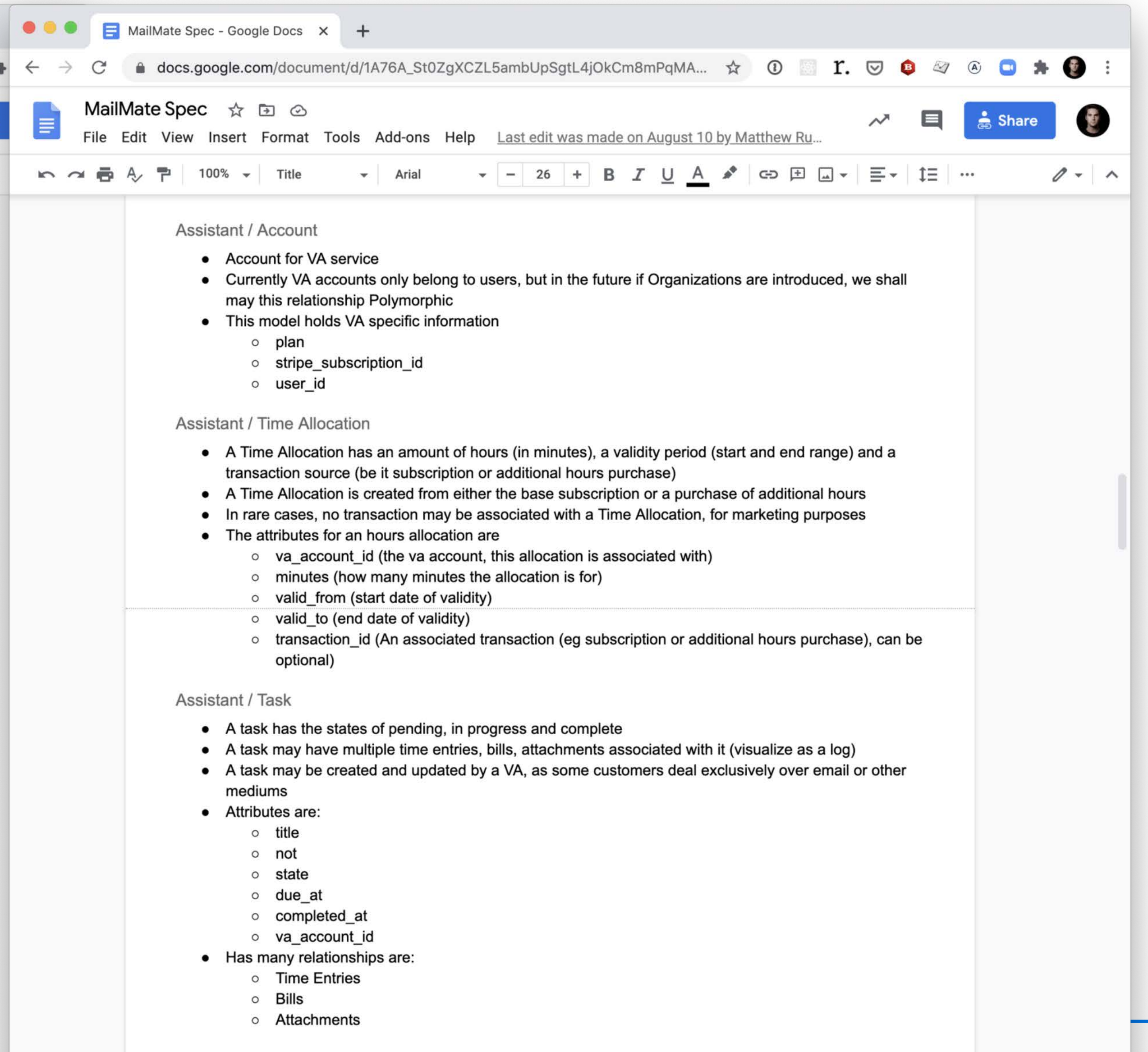
- MailMate Mail: <https://mailmate.jp/>
- MailMate VA: <https://va.mailmate.jp/>

V1 Overview

The current bottleneck of MailMate is growth related, rather than product. The overall aim for V1 is to consolidate the codebases, perform some housekeeping to ensure clean project structure (allowing for flexible and reduce friction for future development) and focus on adding functionality related to growth. The functional requirements of the service are currently met, thus little focus is given to extending that.

The goals for V1 are:

- Consolidate users and functionality into one codebase, and onto one domain (mailmate.jp)
- Build ability for multiple offerings/services (VA, Mail)
- Normalize concepts such as 'transactions' between both services
- Build service specific acquisition flows/landing pages (VA, Mail)
- Implement designs from designer
- Create a roadmap from which development and sales can coordinate around
- Add content marketing and marketing capabilities to aid growth



- Assistant / Account
 - Account for VA service
 - Currently VA accounts only belong to users, but in the future if Organizations are introduced, we shall may this relationship Polymorphic
 - This model holds VA specific information
 - plan
 - stripe_subscription_id
 - user_id
- Assistant / Time Allocation
 - A Time Allocation has an amount of hours (in minutes), a validity period (start and end range) and a transaction source (be it subscription or additional hours purchase)
 - A Time Allocation is created from either the base subscription or a purchase of additional hours
 - In rare cases, no transaction may be associated with a Time Allocation, for marketing purposes
 - The attributes for an hours allocation are
 - va_account_id (the va account, this allocation is associated with)
 - minutes (how many minutes the allocation is for)
 - valid_from (start date of validity)
 - valid_to (end date of validity)
 - transaction_id (An associated transaction (eg subscription or additional hours purchase), can be optional)
- Assistant / Task
 - A task has the states of pending, in progress and complete
 - A task may have multiple time entries, bills, attachments associated with it (visualize as a log)
 - A task may be created and updated by a VA, as some customers deal exclusively over email or other mediums
 - Attributes are:
 - title
 - not
 - state
 - due_at
 - completed_at
 - va_account_id
 - Has many relationships are:
 - Time Entries
 - Bills
 - Attachments

Product Management: Specification

MailMate Spec - Google Docs

docs.google.com/document/d/1A76A_St0ZgXCZL5ambUpSgtL4jOkCm8mPqMA...

MailMate Spec

File Edit View Insert Format Tools Add-ons Help Last edit was made on August 10 by Matthew Ru...

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Sign Up & Onboarding Flows

Presently most users either use Mailbox or VA exclusive, with few using both (in future we will up cross selling efforts).

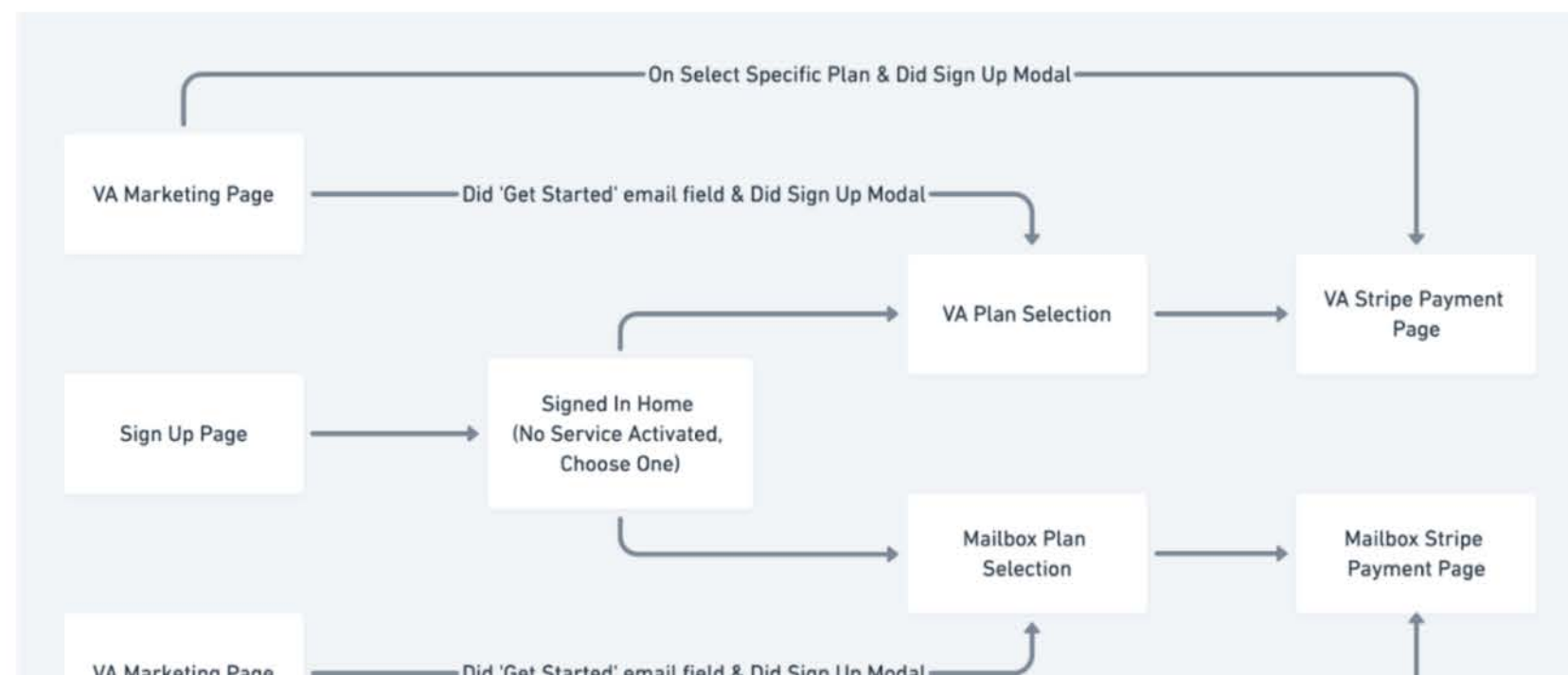
When we acquire a user, they are interested initially in just one of the services, thus we need slightly specific flows, for the situations where a user signs up via a marketing page or does just a general sign up, in addition handle if a user later wishes to activate the other service.

If a user only has one service activated, when they sign in they will be directed to that service's dashboard/home. If a user has both services activated, they will shown whatever service last viewed (based on cookie).

In the future, we may have additional steps in each services onboarding (eg KYC for Mailbox), so those can be slotted in accordingly.

For the sake of reducing friction of acquisition, each marketing page should have:

- 'Get Started' section with an email field, on submitting does 2 things
 - Adds the email address to a mailchimp mailing group (potential drip campaigns in the future)
 - Shows a modal with all sign up fields with the address prefilled in
- Each pricing plan display should have a 'Get Started' button which shows the sign up modal mentioned above



MailMate Spec - Google Docs

docs.google.com/document/d/1A76A_St0ZgXCZL5ambUpSgtL4jOkCm8mPqMA...

MailMate Spec

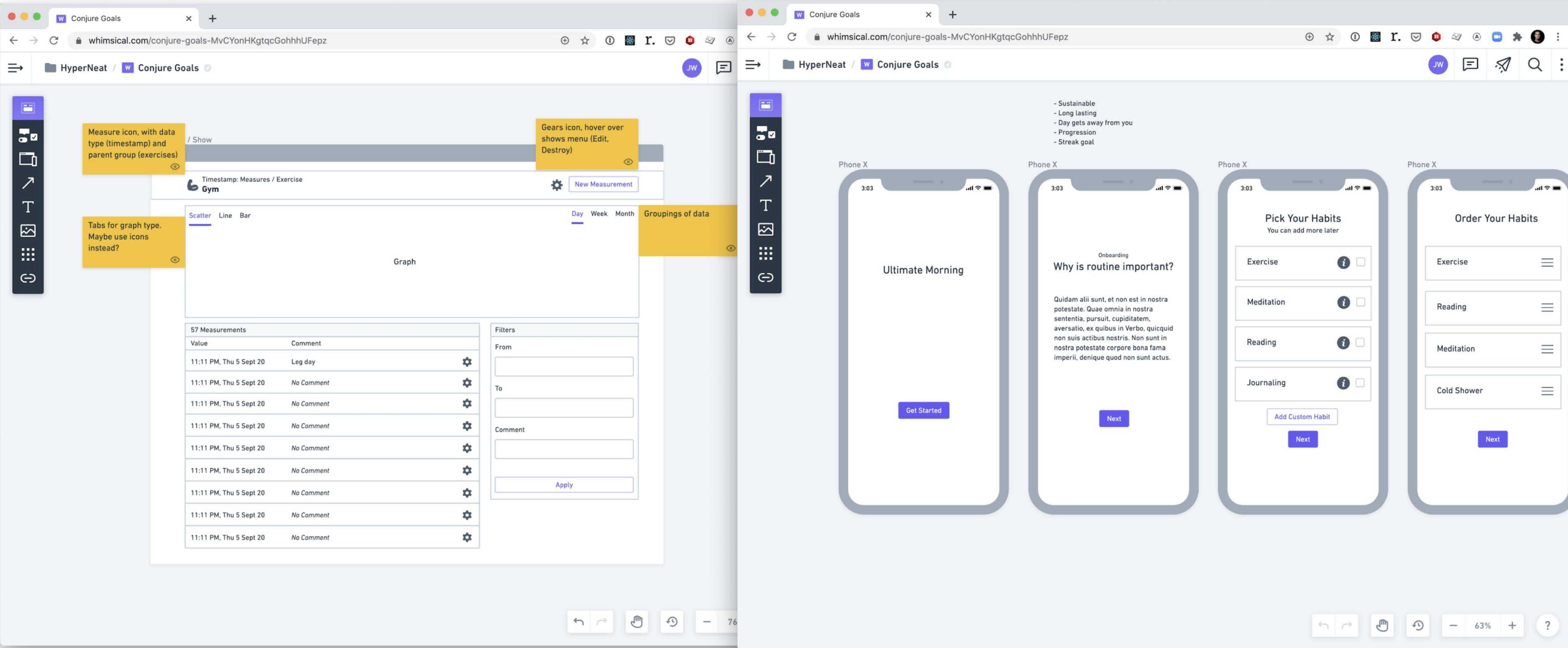
File Edit View Insert Format Tools Add-ons Help Last edit was made on August 10 by Matthew Ru...

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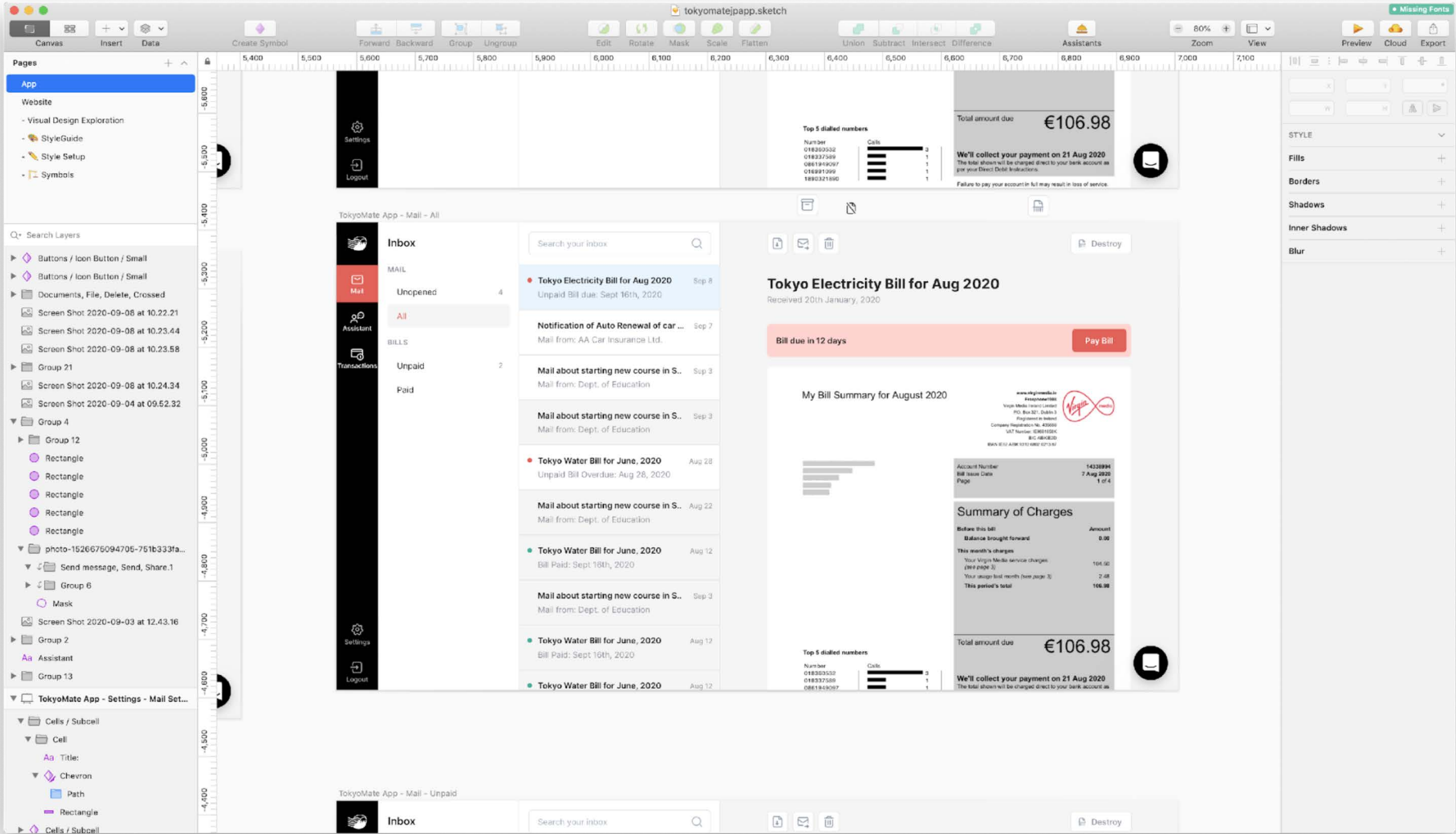
Screens

- Static Page / Home Page
- Static Page / Mailbox Marketing Page
 - Contains explainer, use cases, pricing and embedded sign up
- Static Page / Mailbox FAQ
- Static Page / VA Marketing Page
 - Contains explainer, use cases, pricing and embedded sign up
- Static Page / VA FAQ
- Static Page / About Us
- Static Page / Terms of Service
- Static Page / Privacy Policy
- Blog / Index
 - Paginated blog posts (from contentful)
- Blog / Show
 - Show a blog post (from contentful)
- Authentication / Sign Up
- Authentication / Sign In
- Authentication / Forgot Password
- Authentication / Reset Password
- No Service Activated
 - Shown when the user is authenticated (probably just have direct sign up), but has no service activated on their account
- User / Account Overview
 - See basic account details
 - See current payment method
- User / Edit Account
- User / Edit Payment Method
- User / Transactions
 - See all transactions (subscriptions, bills and product purchases)
- VA / Initial Plan Selection
 - If the user has no
- VA / Dashboard
 - See hours remaining
 - See option to buy more hours
 - See tasks (active and past)
 - Basic filtering for tasks
- VA / Task Detail
 - See associated bills and attachments
- VA / Bill Pay

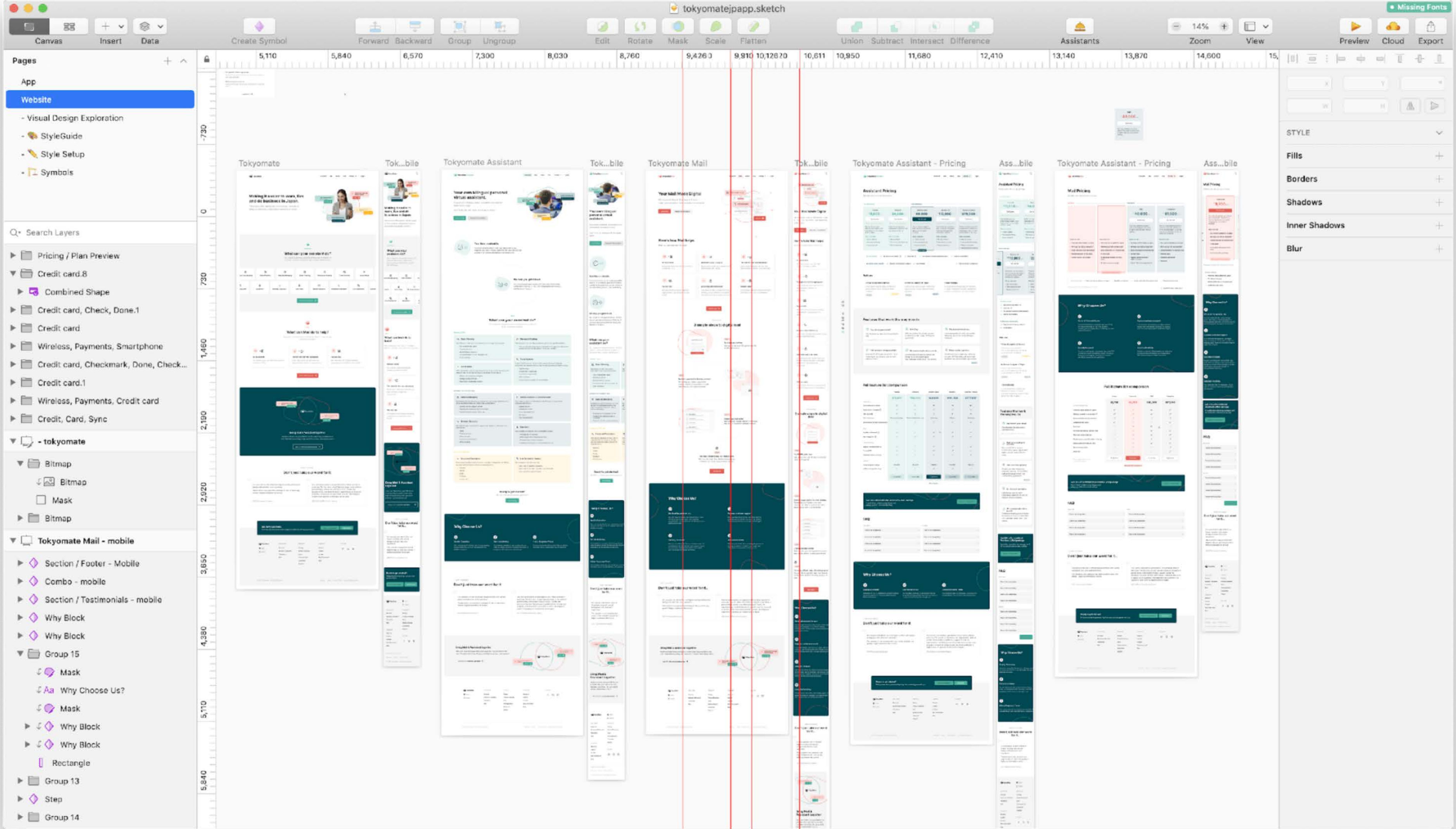
Product Management: Wireframes



Product Management: Mock Ups



Product Management: Mock Ups



Product Management: Implementation

The image displays a workflow for product management implementation, split into two main components: task management and issue tracking.

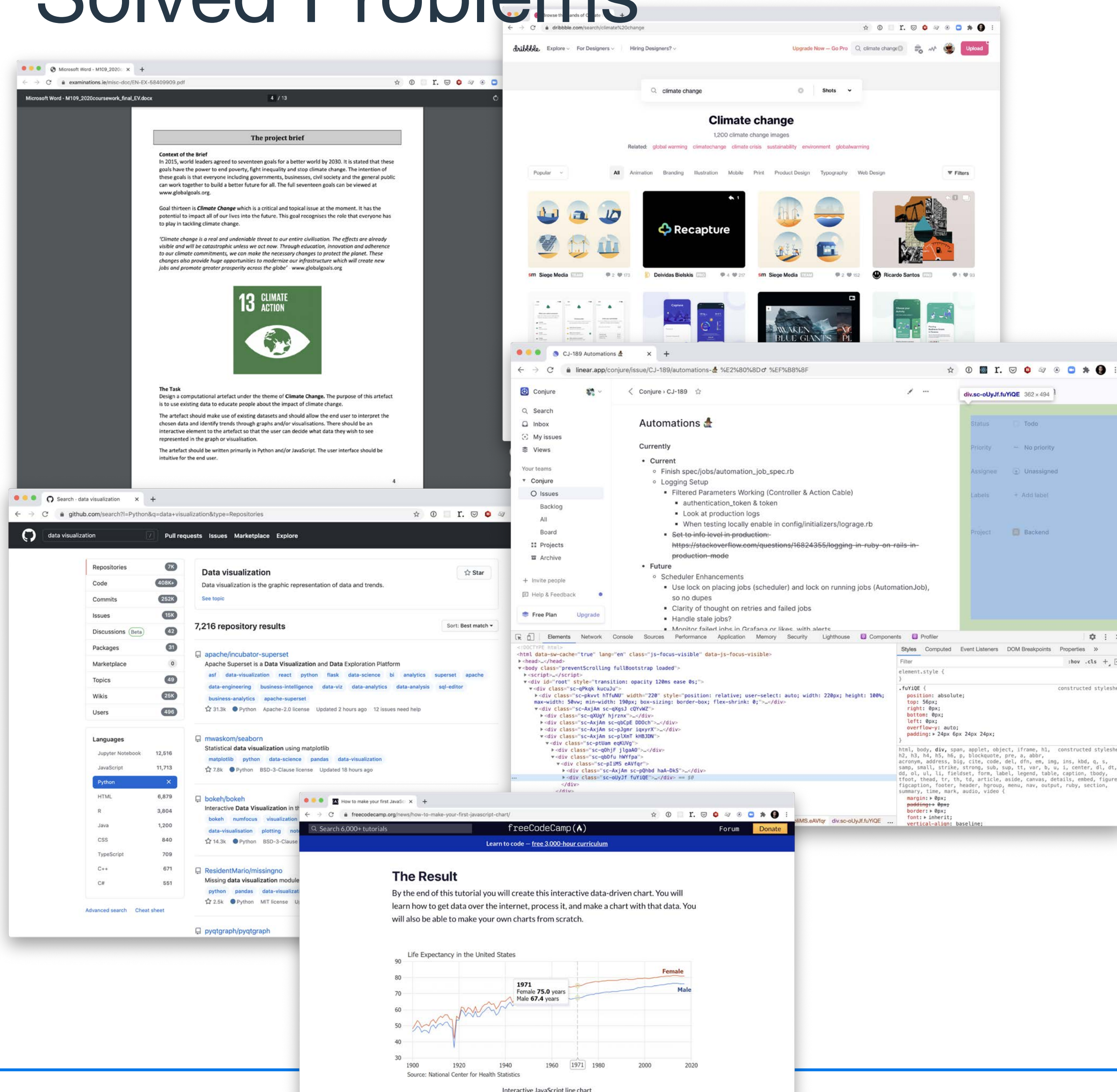
Trello Board (TokyoMate V1): The board is organized into columns representing the project lifecycle stages: Backlog, Grooming Needed, In Progress, Blocked, and Shipped. The 'In Progress' column is currently active, showing tasks such as 'Refine 'VA Usage' in Dashboard: Budget' and 'Growth strategy and landing pages (starting with Covid tests as an example)'. A 'Conjure' sidebar is open, providing navigation options like Search, Inbox, My issues, and Views, along with a team selection menu.

Jira Issue (CJ-172): This issue is titled 'Add confirmation to delete (anywhere with menu)'. It is categorized as 'And mobile' and includes a list of requirements: 'make dialog' and 'Replace everywhere with "Delete" button (did initial on on time recent)'. The issue description contains a code snippet for a confirmation dialog:

```
confirmDestroyTimeEntry(measurement: MeasurementTimeEntry) {
  showAlertDialog({
    title: "Destroy Time Entry",
    body: "Are you sure you want to destroy this Time Entry?",
    buttons: [
      {
        title: "Destroy",
        variant: "dangerSolid",
        autoFocus: true,
        onClick: () => this.destroyTimeEntry(measurement),
      },
      { title: 'Cancel' }
    ]
  })
}
```

The issue's metadata includes: Status: Done, Priority: No priority, Assignee: Unassigned, Labels: + Add label, and Project: Frontend. An activity log shows the issue's history, including its creation, status changes to 'In Progress', and title updates.

“Solved Problems”



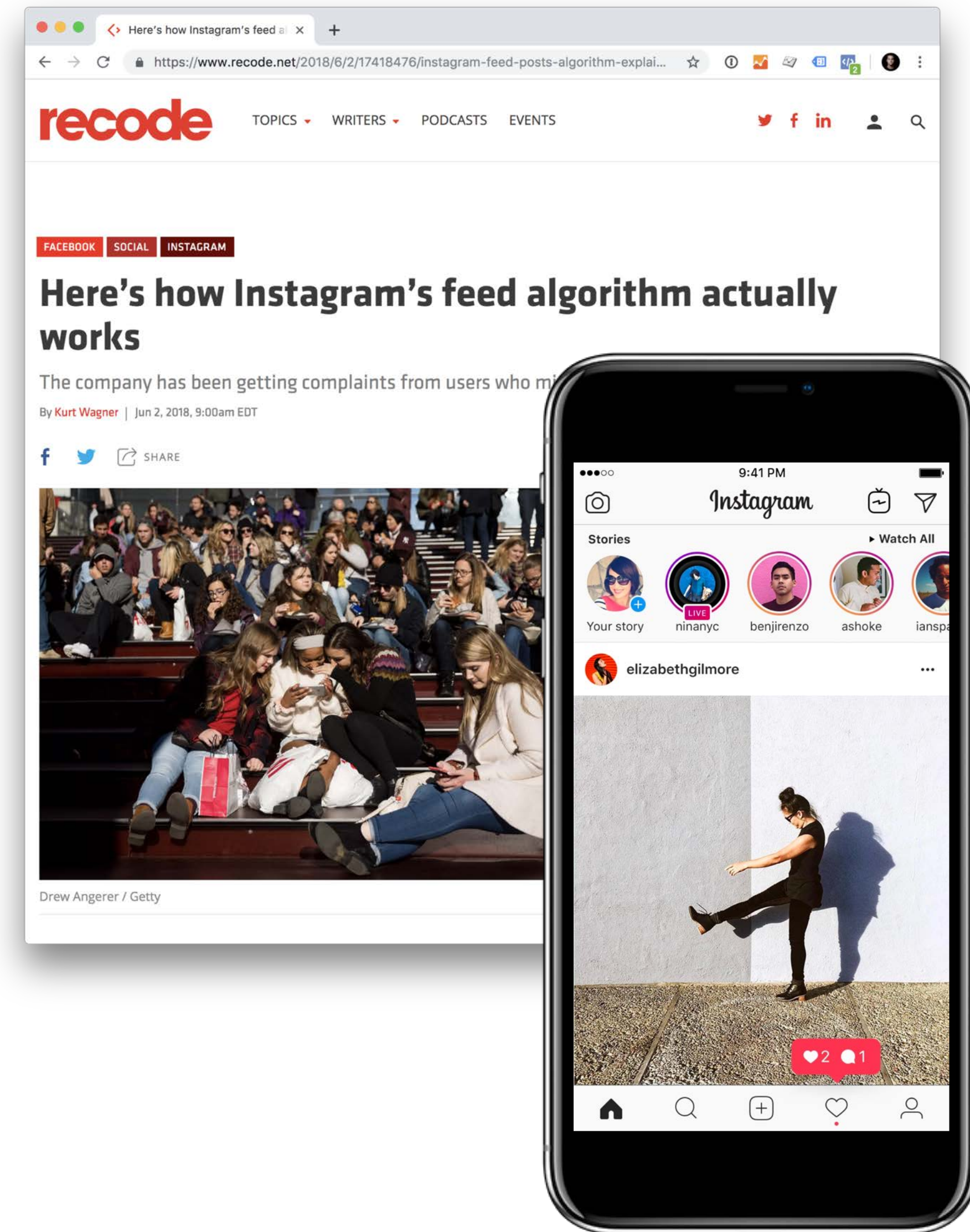
- Most problems have been solved and thought through by others
- Leverage this by looking at web site/app designs, layout, content, features, etc (inspiration, moodboard)
- Search for open source projects, look at sample code
- Follow tutorials of vaguely similar projects (similar concepts, eg CRUD, charts, etc)
- Reach out to people, ask how did something!
- Apply growth mindset, enough effort/time can figure it out

Philosophy

- Young people are back to being consumers
- Young people need to understand how they are being influenced by technology, the same way we learn of dangers of substances in Science
- Companies' whose revenue model is based on ads and valuation is based on continual user engagement, use an arsenal of tactics to keep users hooked, oft without consideration of wellbeing of user
- Everything is being monitoring and iterated on, to drive desired behaviour or 'conversion'
- Couple ability to code/make with their desired field

Wellbeing In A Technological World

- **Example Instagram changing feed from Chronological order to Algorithmic order**
 - Show what you're most likely to engage with (Like, Comment, Share)
 - Better content you see upfront, more likely to increase time on app, thus see more ads
 - Individuals already only upload their best photos
 - When you get the best of the best prioritized, creates distorted world view, increases feelings of loneliness, anxiety, depression
 - Understanding these mechanics and attributing appropriate importance is vital for wellbeing



Wellbeing In A Technological World

The screenshot shows a web browser displaying a news article on the Variety website. The browser's address bar shows the URL: variety.com/2019/digital/news/tiktok-musically-ftc-fine-violating-child-privacy-law-12031510.... The Variety logo is prominently displayed at the top, along with navigation links for 'FILM', 'TV', 'WHAT TO WATCH', 'MUSIC', 'TECH', 'INTERNATIONAL', 'REAL ESTATE', 'AWARDS CIRCUIT', and 'VIDEO'. The article title is 'TikTok to Pay Record \$5.7 Million FTC Fine for Alleged Violations of Children's Privacy Law', written by Todd Spangler. Below the title are three smartphone screens showing TikTok videos. To the right, a 'MOST POPULAR' section lists several articles, including one about Jeremy Renner's condition and another about the finale of 'Supernatural'. At the bottom, there is an advertisement for 'REGATTA GREAT OUTDOORS'.



Q&A / Discussion

Decoding: The Connection
Between CS Education & Industry

James Whelton