

How to build an AI CRM





Brian Kelleher

AI-driven mathematics

Goal: Build a custom AI CRM for your business

Overview

1. Why I like custom CRMs
2. How to structure data
3. How to divide up workflows
4. How to implement the code changes
5. Tips, tricks, and things to avoid

***LONG LONG AGO,
IN A FARAWAY
PLACE CALLED
DUBLIN...***

**Existing CRMs are bad,
expensive, and not customisable**

Hubspot, salesforce, etc

Enterprise

Starts at

\$3,600/mo

billed at **\$43,200/yr** 🐱

10,000  Marketing Contacts

Includes 10,000 marketing contacts. Additional marketing contacts are sold in increments of 10,000 from \$100.00/month. [More details.](#)

Talk to Sales

I wanted:

1. **AI automation**
2. **Customisation and Centralisation**

AI automation



Find new clients



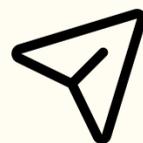
Analyse communications



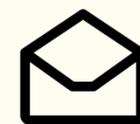
Research clients



Maintain detailed notes



Find contact info

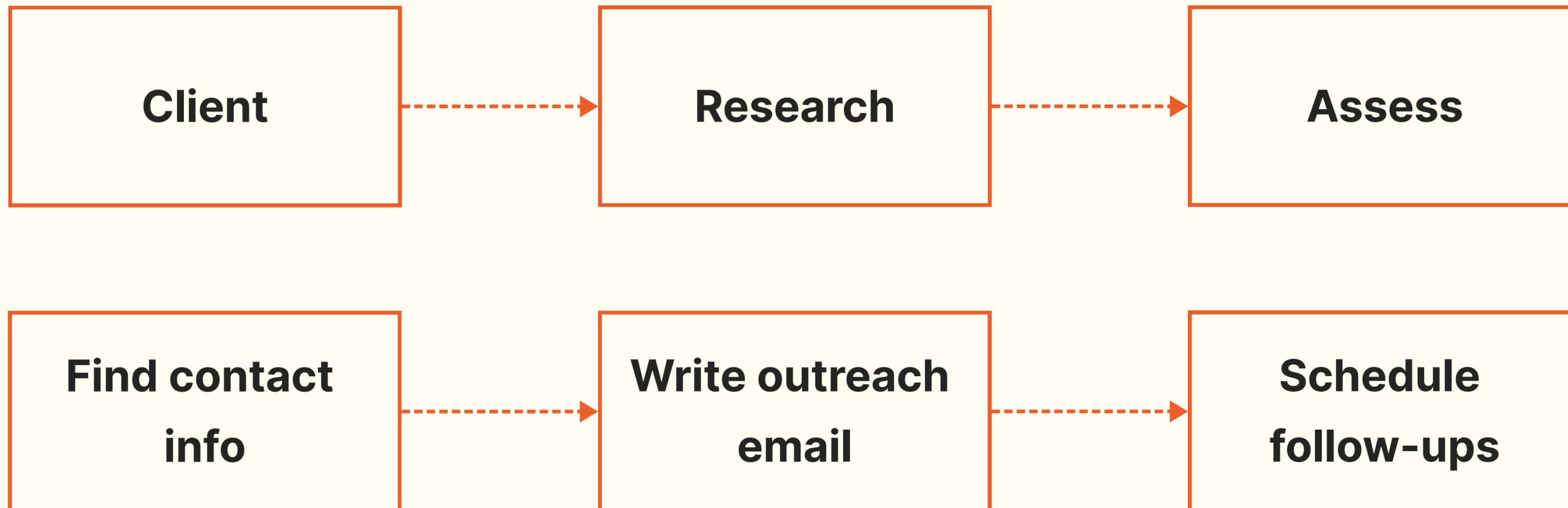


Send emails



Research and outreach

Autonomous workflows powered with AI



 **Communications**

Receive email

Update status

Analyse

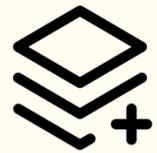
**Store key
takeaway**

**Schedule
action**

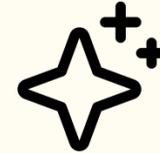
**Schedule
action**

**Schedule
action**

Customise and Centralise



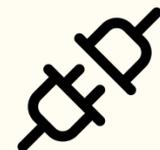
Add custom features



Easier to build agents



Central data source



Deeper integrations

Example of Microdoc CRM

CRM

Dashboard | Inbox | Contacts | Campaigns | Tasks | Other Tools

Dashboard

Check Inbox | Pending Actions | View List | Batch Email

Overview of your sales pipeline and recent activities.

Total Leads 🔍

81324

+1358.2% from last month

Active Leads 🔍

81026

+1354.4% from last month

Email Open Rate ✉️

38.5%

Based on 720 sent emails

Emails Sent ✉️

720

Total emails sent this month

Follow-ups Due 🔔

78

Due within 7 days

Recent Activity

Latest interactions and updates

MA Magid Awadalla 31/10/2025

Email sent: Dr Awadalla — sample cardiology dictation pack for CMR/CT and cardio-oncology letters Metadata: message_id: <CAPy9Qd-9inQbkoB-Zo3EcCs...

Free premium™ consultation for Edge City AI CRM™

(the next one will cost \$20k)

Plan to build CRM:

1. Decide on data structures
2. Plan out workflows
3. Use AI to implement

Warning

This approach is more powerful than generic CRM software, but it brings additional risk (bugs, security, etc) and added maintenance work

Data structures

What data do you deal with in your business?

Edge city events

Edge city locations

Participants

Volunteers

Sponsors

Sponsorship details

Correspondence

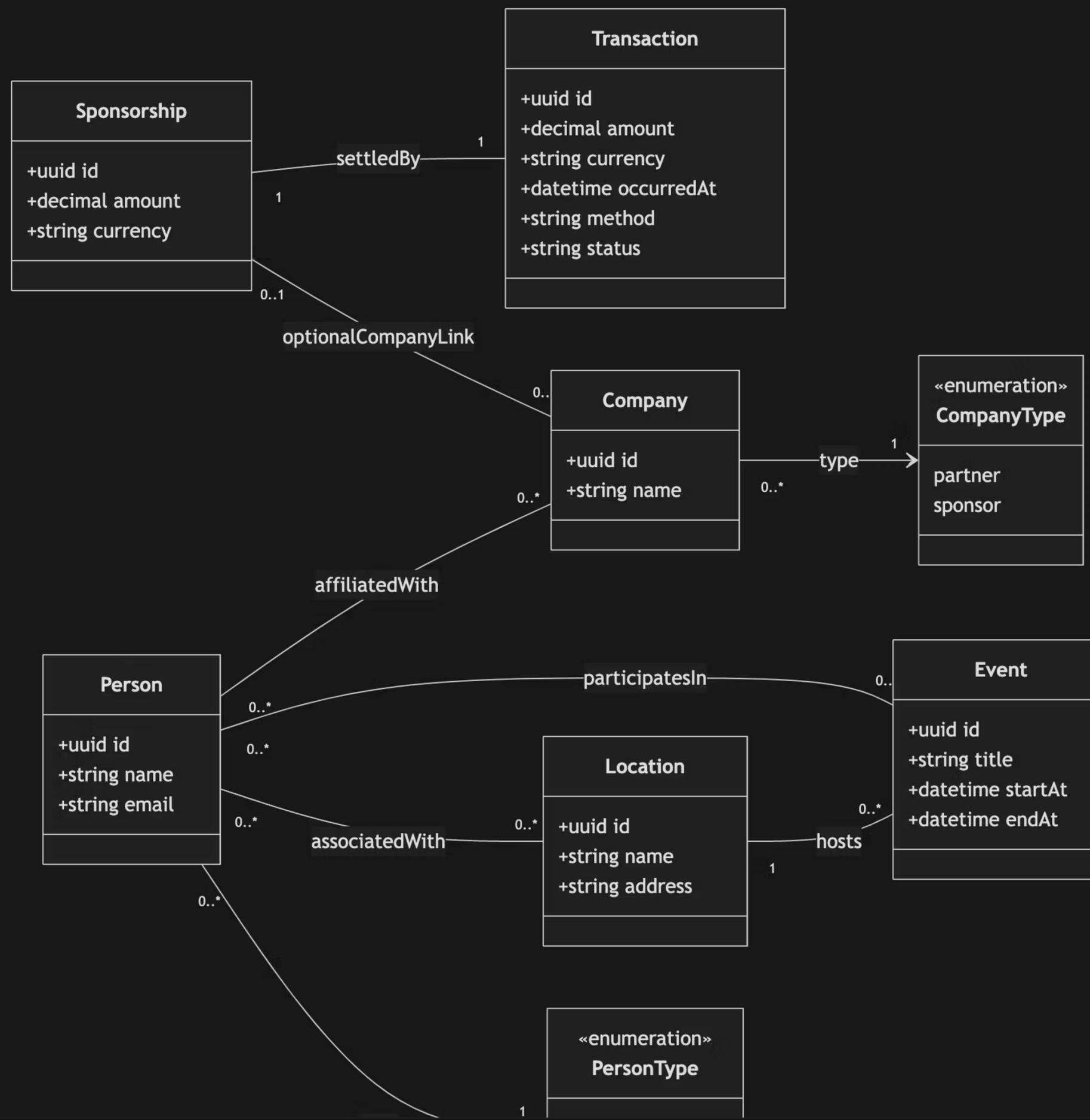
Prospective

Core team

Logistics info

General info

Financial analytics



This is the most important bit! If you get data structures right, you will save yourself a lot of pain

Step by step process:

1. Brainstorm (with AI) about all the data your business interacts with
2. Think about all the ways the data interacts (e.g. sponsorship → company)

Workflows

What are common things you do in your business?

Send thank you email to sponsors 2 weeks after Edge City finishes

**Find new possible ethereum
sponsors on LinkedIn**



**Send them personalised
cold email**

What are the common parts of workflows?

From previous example, the common bits are:

Determine audience

- LinkedIn API
- Sponsor database
- etc

Write email

- AI
- Templated
- Static

Send email

- Immediately
- Scheduled

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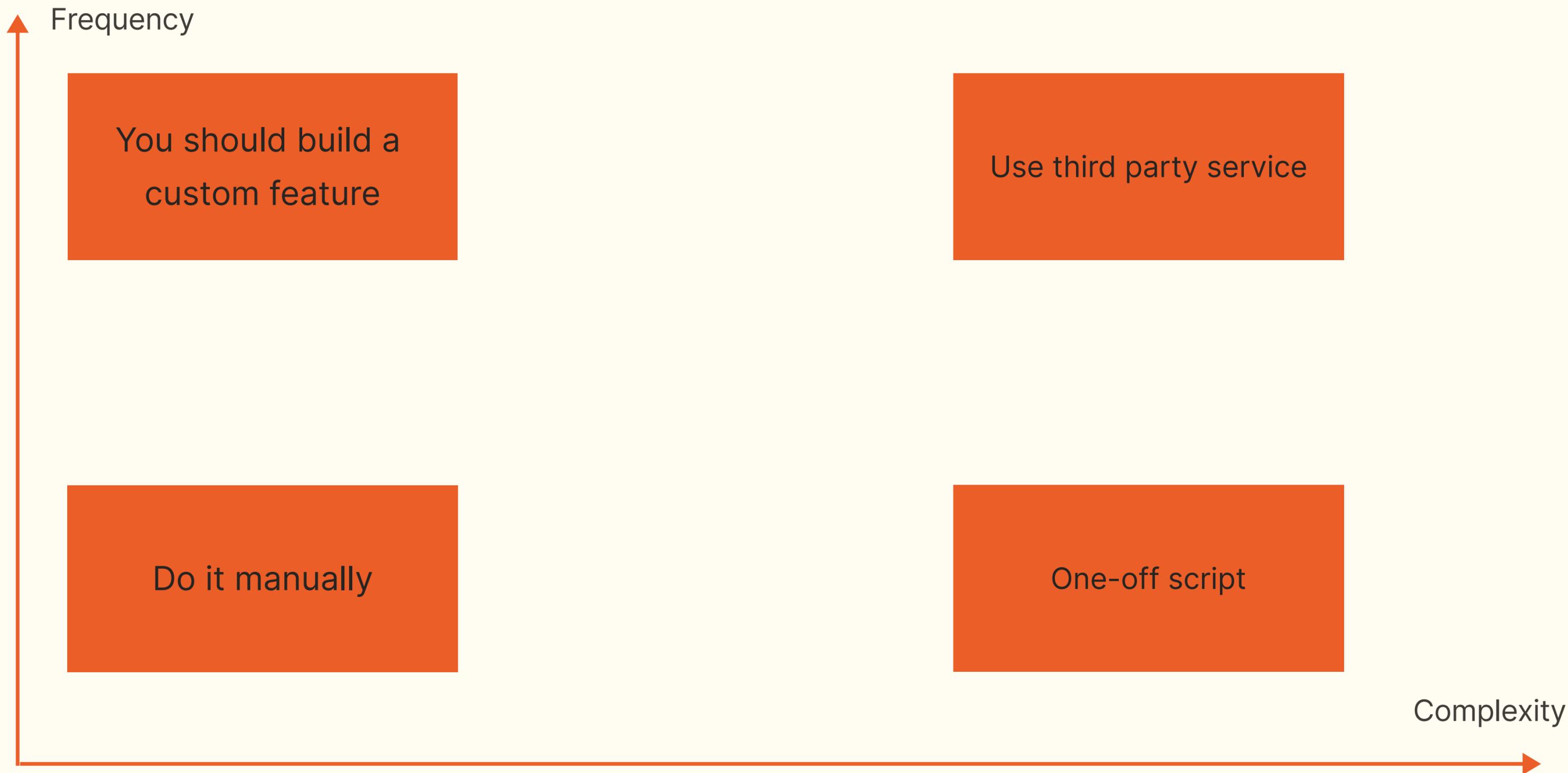
Based on the common bits, it sounds like we should build an email campaign feature

Warning

Some features are not worth reinventing

The screenshot shows the homepage of Warmbox. The navigation bar includes the Warmbox logo, links for Features, Solutions, Pricing, and Blog, and buttons for 'Book a demo' and 'Get Started'. The main content area features the headline 'Warm-up your cold email inbox. And never land in spam anymore.' followed by a sub-headline 'Reach the inbox of your leads with Warmbox, the warm-up tool that raises your inbox reputation & increases your email deliverability.' and a 'Warm-up my inbox' button. An illustration of a woman sitting at a desk with a laptop and a potted plant is positioned to the right. At the bottom, it states 'Already trusted by +5,000 companies' and 'Warm-up your inbox from any email service provider.' A 'PRODUCT HUNT #5 Product of the Week' badge is visible in the bottom left corner.

The screenshot shows the homepage of ZeroBounce. The navigation bar includes the ZeroBounce logo, links for Services, Solutions, Pricing, Resources, ZeroBounce ONE™, Sign In, and a 'Sign Up Free' button. The main content area features the headline 'Accurate, fast and secure email verification service' and a sub-headline 'We help you find valid emails and connect with customers. Our 99.6% accurate real-time email validation and deliverability tools boost your inbox placement and open rates.' Below this is a form with the text 'Enter an email address below to test our free email verifier', an input field containing 'email@example.com', and a 'Verify' button. There is also a link for 'Upload your list' and a 'Create an Account' button at the bottom.



**We have the data structures and workflows.
What now?**

Start with open source CRM codebase

The screenshot shows the GitHub repository page for 'nextcrm-app' by user 'pdovhomilja'. The repository is public and has 502 stars, 164 forks, and 16 watchers. The main branch is 'main', and there are 4 other branches and 0 tags. The repository contains 14 issues, 2 pull requests, and 1 project. The commit history shows a recent commit by 'pdovhomilja' fixing CVE-2025-29927, with 392 total commits. The file tree includes folders like .github, .vscode, actions, app, components, cypress, emails, hooks, lib, locales, prisma, public, rossum, and shadcn-examples. The 'About' section describes NextCRM as a CRM built on Next.js 15, using TypeScript, shadcn, Prisma, and MongoDB. It also provides a demo link and lists related technologies like typescript, mongodb, resend, prisma, tremor, next-auth, zustand, react-email, shadcnui, and next15. The 'Releases' section shows no published releases, and the 'Sponsor this project' section is visible at the bottom.

pdovhomilja / nextcrm-app

Code Issues 14 Pull requests 2 Discussions Actions Projects 1 Security Insights

nextcrm-app Public Sponsor Watch 16 Fork 164 Star 502

main 4 Branches 0 Tags Go to file Add file Code

pdovhomilja fix: CVE-2025-29927 ✓ 8bd2efe · 8 months ago 392 Commits

File	Commit Message	Time
.github	Update Issue template	last year
.vscode	feat: add Ukraine localization	last year
actions	feat: updated Dockerfile	last year
app	fix: password reset env variable	10 months ago
components	upgrade to the latest next 15.0.3	last year
cypress	Update - Projects	2 years ago
emails	feat: Updated task in project notification	last year
hooks	[Feature] - Admin - Mail to all	last year
lib	upgrade to the latest next 15.0.3	last year
locales	feat: added crm Contract	last year
prisma	feat: module CRM - remote leads API	11 months ago
public	[Update] - Admin	last year
rossum	Fix invite user route	2 years ago
shadcn-examples	Update - CRM - Dashboard	2 years ago

About

NextCRM is a CRM build on top of the latest Next.JS 15. using TypeScript, great UI library shadcn, Prisma and MongoDB as a database. Uploadthings as a S3 blob for document storage.

demo.nextcrm.io

typescript mongodb resend prisma tremor next-auth zustand react-email shadcnui next15

Readme MIT license Activity 502 stars 16 watching 164 forks Report repository

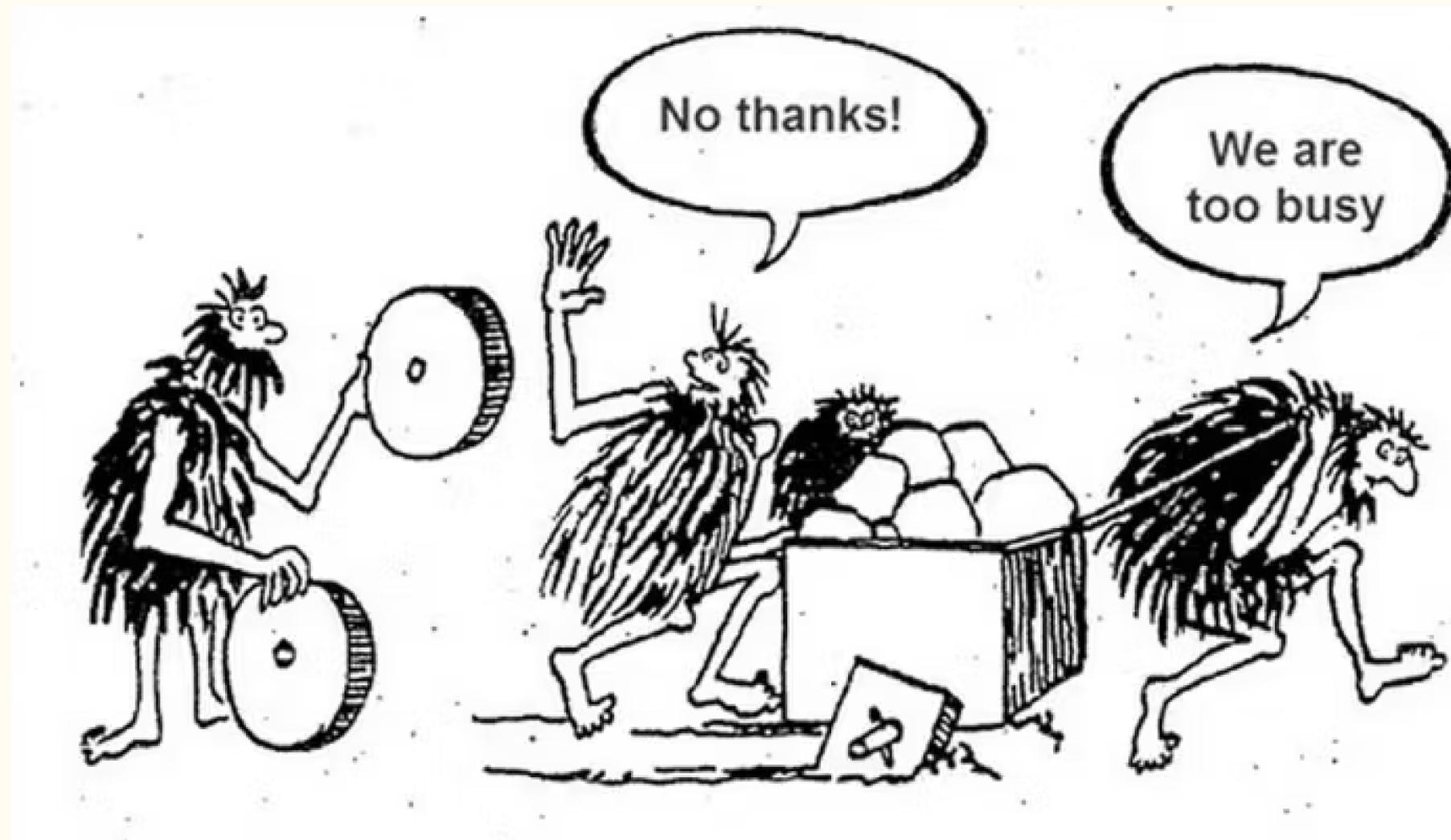
Releases

No releases published

Sponsor this project

Try Pitch

Keep things stupid-simple



Make code changes with Lovable, Replit, Codex, Claude Code, Cursor, Codex Web, etc (whatever works for you)

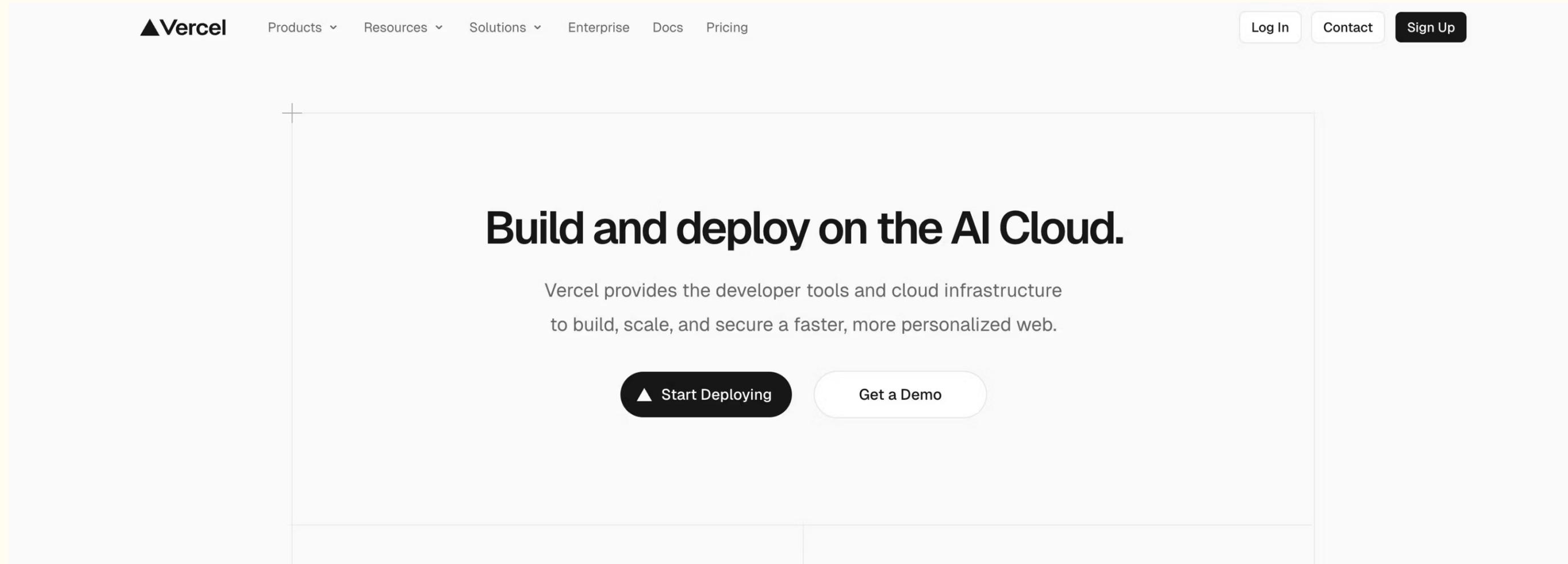
What should we code next?

I want to add a new analytics page. In this analytics page, I want to be able to see what percentage of edge participants are returning from a previous Edge City

+ HeroBrian389/healthc... ▾ 🔑 master ▾ 📄 1x ▾



Host on Vercel (or similar)



The image shows a screenshot of the Vercel website homepage. At the top left is the Vercel logo. To its right are navigation links: Products, Resources, Solutions, Enterprise, Docs, and Pricing. On the top right, there are three buttons: Log In, Contact, and Sign Up. The main content area features a large heading, a subheading, and two call-to-action buttons.

▲ Vercel Products ▾ Resources ▾ Solutions ▾ Enterprise Docs Pricing

Log In Contact **Sign Up**

Build and deploy on the AI Cloud.

Vercel provides the developer tools and cloud infrastructure to build, scale, and secure a faster, more personalized web.

▲ Start Deploying Get a Demo

Demo of Edge City CRM



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