A DEGREELESS DEVELOPER BOOK

101 JAVASCRIPT PROJECT IDEAS

Project Ideas for VaillaJS, React, React Native and Node

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DegreelessDeveloper, Field, G 101 JavaScript Projects

The main category of the book —Computer Science — programming-JavaScript.

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About

Hi! My Name is George and I am a Self-taught Full-stack developer who has been in the IT industry for around the last 5 years now, based at a huge consultancy company. I have been fortunate to be involved with building some massive IT systems, apps and Software solutions, using a range of technologies.

This Book Is design to give you only small amounts of detail so that you have free roam to create what ever you feel like. It also will improve your problem solving skills, further your ability to read documentation and add to your portfolio

Twitter - @GeorgeAField1

Facebook Group - DegreeLessDevelopers

Vanilla JS Projects

01 Weather Location Info App

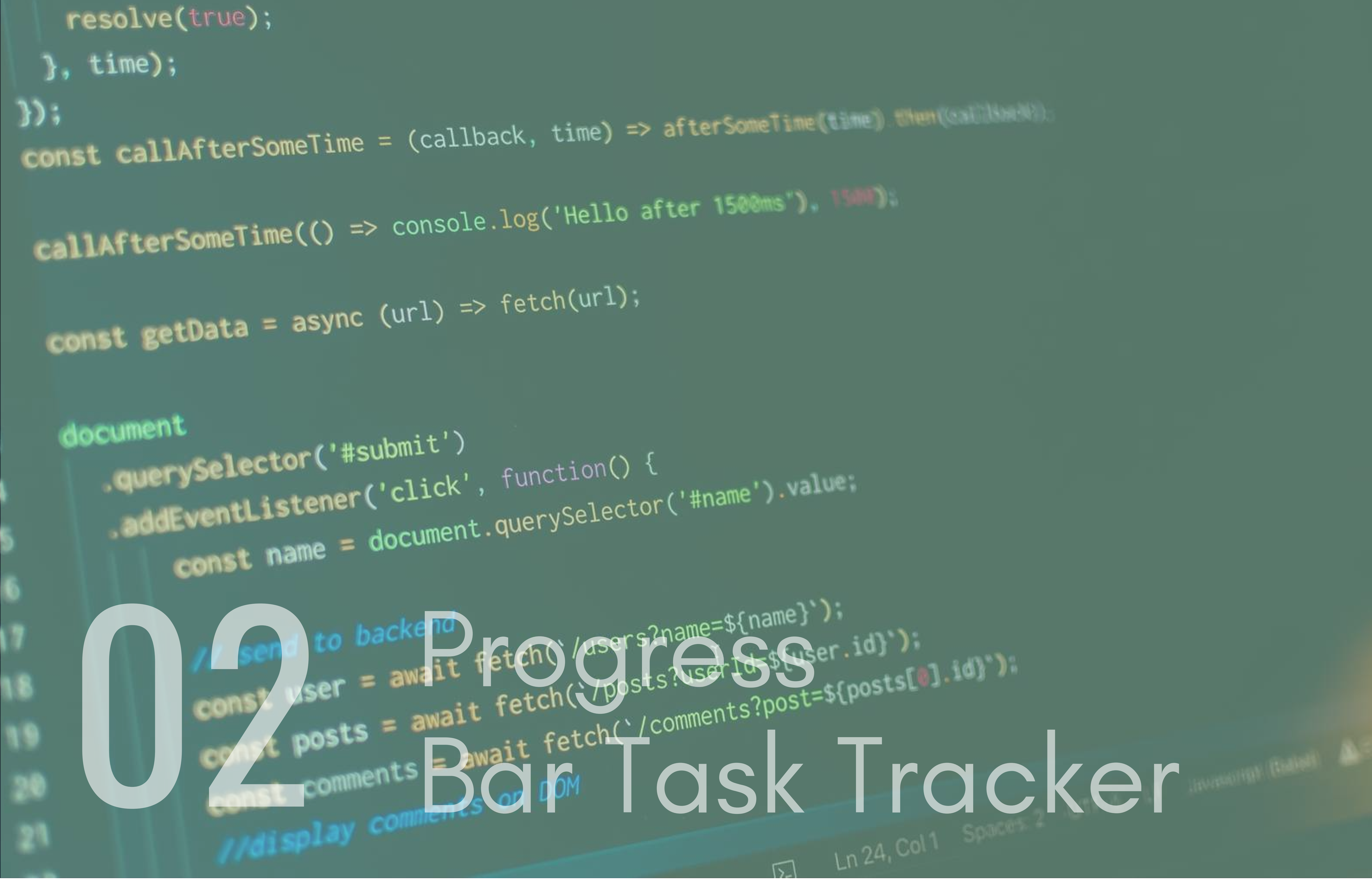
Description

Build a web page that shows the users location on a map and displays the weather information underneath it. You can use the Google Maps API to show the location of a user on the Screen & ipapi.co to get the users location.

Documentation

Ipapi - https://ipapi.co/developers/

Google Maps API - https://developers.google.com/maps/documentation/



```
    resolve(true);
  }, time);
});
const callAfterSomeTime = (callback, time) => afterSomeTime(time).then(callback));

callAfterSomeTime(() => console.log('Hello after 1500ms'), 1500);

const getData = async (url) => fetch(url);

document
  .querySelector('#submit')
  .addEventListener('click', function() {
    const name = document.querySelector('#name').value;

    // send to backend
    const user = await fetch(`/users?name=${name}`);
    const posts = await fetch(`/posts?userId=${user.id}`);
    const comments = await fetch(`/comments?post=${posts[0].id}`);
    //display comments on DOM
```

02 Progress Bar Task Tracker

Description

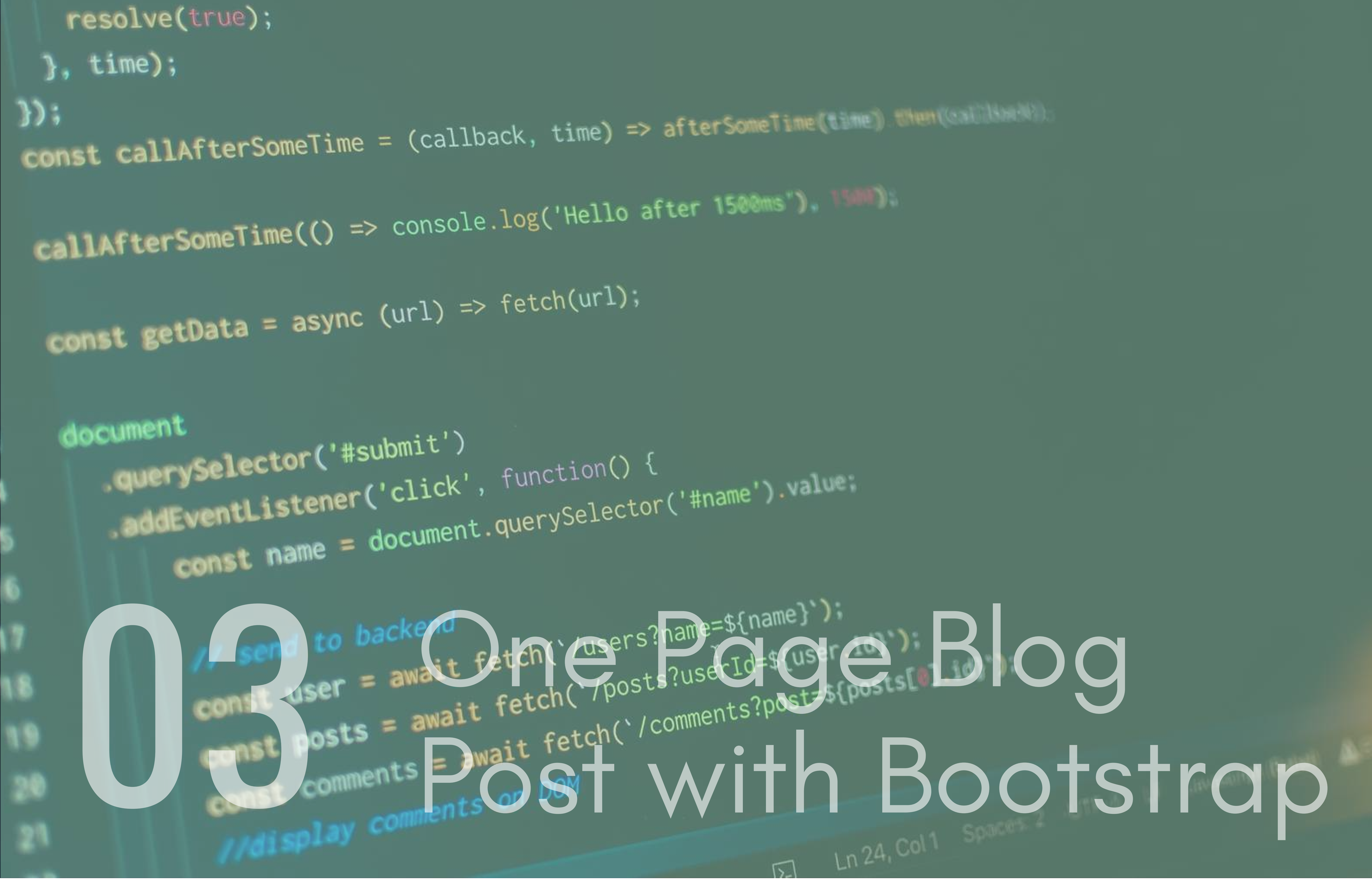
Build a web page that has some tasks with a checkbox next to it. Once a task is completed a progress bar should then fill up bit by bit and the percentage that it fills up should be based on the weight of the task.

Documentation

A starter template can be found here -

https://gist.github.com/cferdinandi/12c50d0b796fd3b733b8bb87d21d071d

it that contains the basic html elements you will need to start this project.



03 One Page Blog Post with Bootstrap

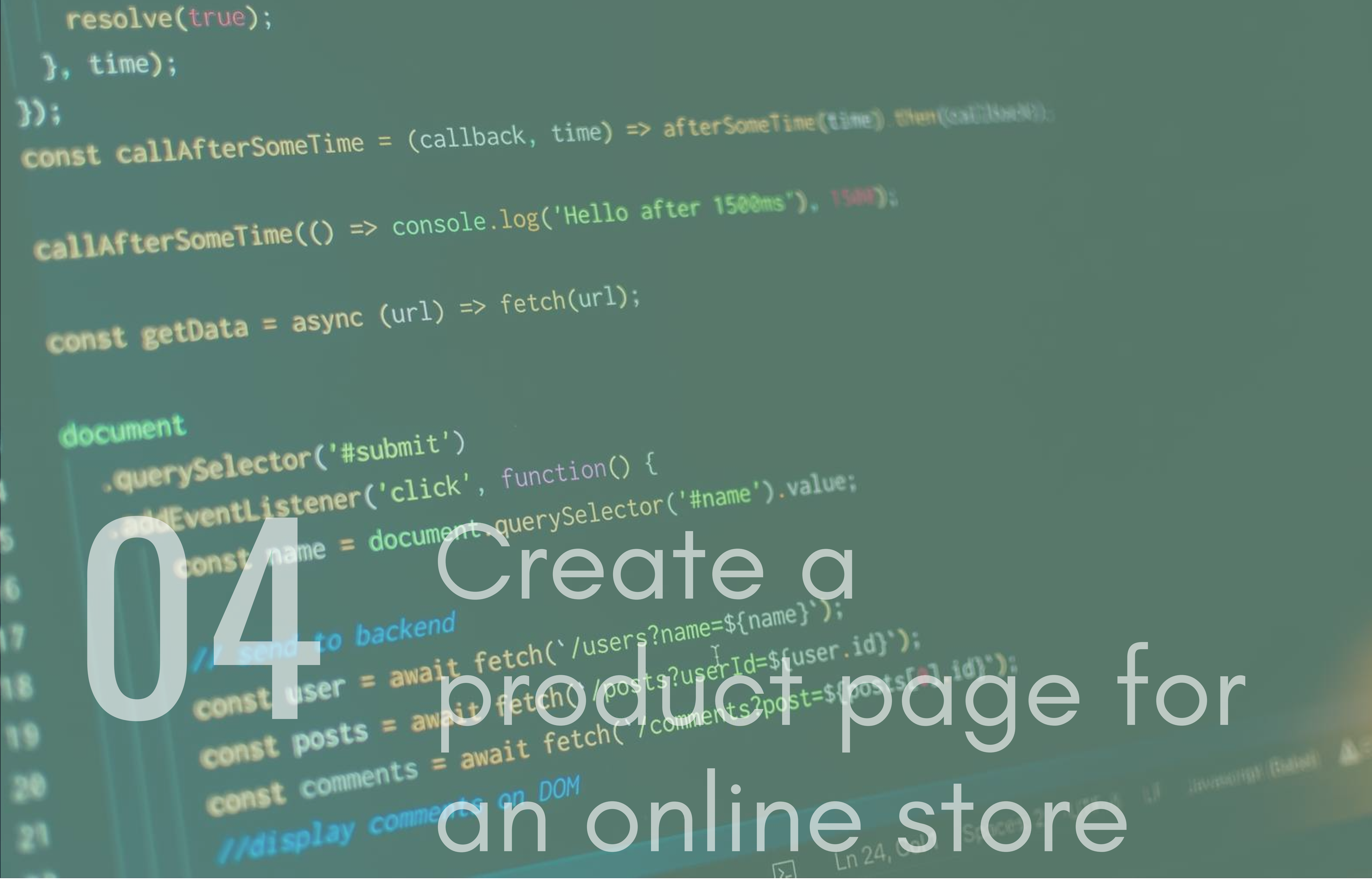
Description

Create a one-page blog post using bootstrap that displays a carousel of GitHub users underneath it. You should use vanilla JS to make the carousel function and make request to the github api. The blog must have a header section where an image is positioned with some text over it, an article section where the article resides, an about the author section where the author information is found and the GitHub users carousel underneath it at the bottom of the page. Check the UI design given below to get a visual representation of the layout.

Documentation

Bootstrap - https://getbootstrap.com/

Github API - https://developer.github.com/v3/



```
    resolve(true);
  }, time);
});
const callAfterSomeTime = (callback, time) => afterSomeTime(time).then(callback());

callAfterSomeTime(() => console.log('Hello after 1500ms'), 1500);

const getData = async (url) => fetch(url);

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    const posts = await fetch(`/posts?userId=${user.id}`);
    const comments = await fetch(`/comments?post=${posts[0].id}`);
    //display comments on DOM
```

04 Create a product page for an online store

Description

Create a product page that display items of a product in a carousel. The page must also have an accordion on it that uses vanilla JS to function correctly. Other items on the page must include customer reviews, and a purchase button that makes an alert pop up.

Documentation

There is no external documentation for this task. To give you some tips, break down the UI design and focus on each part individually. Make use of google, google is your friend!

```
    resolve(true);
  }, time);
});
const callAfterSomeTime = (callback, time) => afterSomeTime(time).then(callback);

callAfterSomeTime(() => console.log('Hello after 1500ms'), 1500);

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    const comments = await fetch(`/comments?post=${posts[0].id}`);
    //display comments on DOM
```

05 Create a quiz website

Description

Create a quiz website using the Open Trivia Database API and JS. You can create a quiz using JavaScript but the data for the questions comes from an API. To do this the page should show a score, so that the user can see how many they have correct, and one button to submit their answer and go to the next. The score will be visible to the user throughout the quiz so they will know if they got the answer wrong immediately and there must be at least 10 questions.

Documentation

Open trivia API - https://opentdb.com/

```
    resolve(true);
  }, time);
});
const callAfterSomeTime = (callback, time) => afterSomeTime(time).then(callback);

callAfterSomeTime(() => console.log('Hello after 1500ms'), 1500);

const getData = async (url) => fetch(url);

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    const posts = await fetch(`/posts?userId=${user.id}`);
    const comments = await fetch(`/comments?post=${posts[0].id}`);
    //display comments on DOM
```

06 interactive one-page travel website

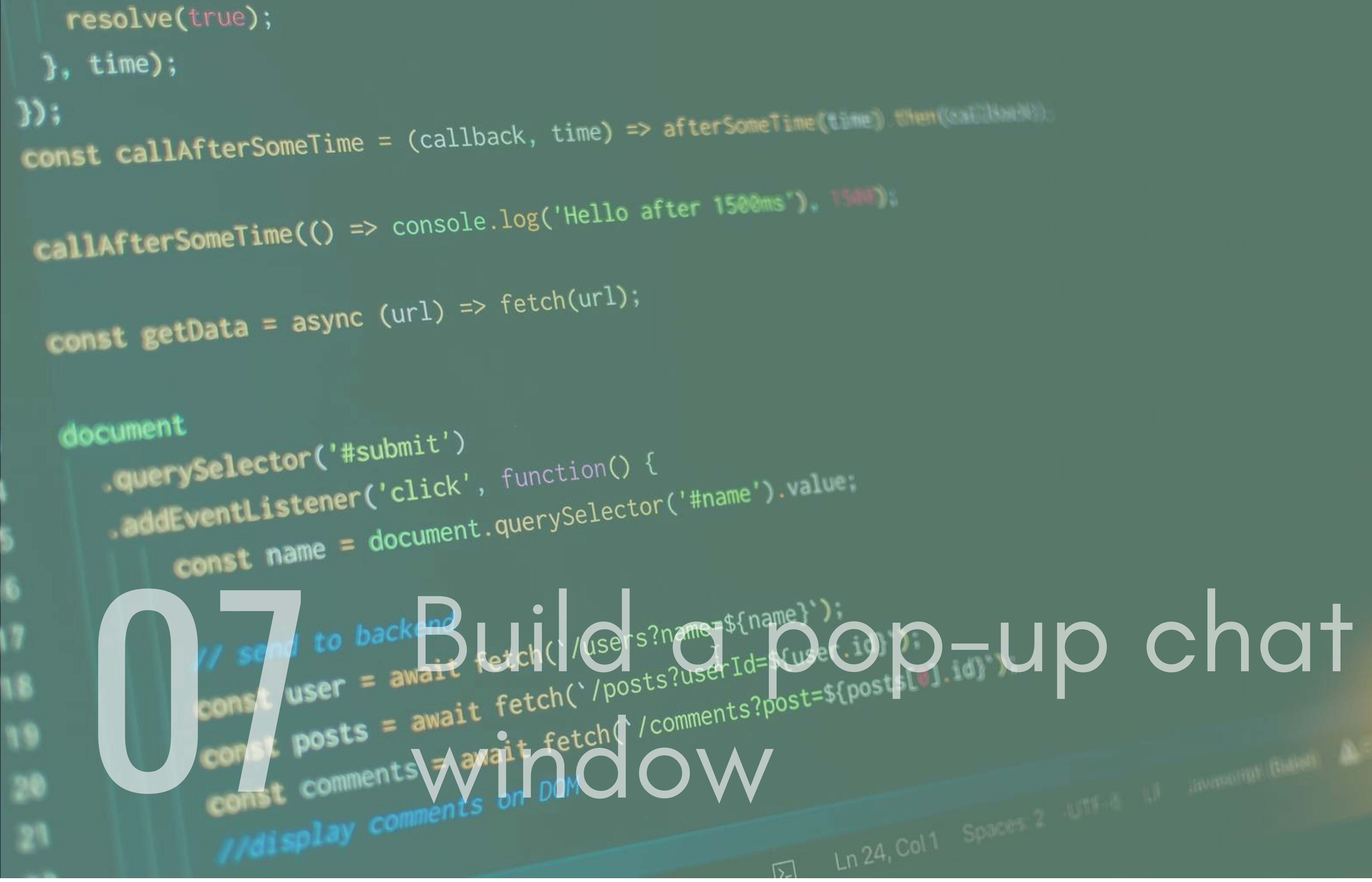
Description

Build an interactive travel website that is like the one linked in the UI layout. You can use JavaScript to make similar animations used in the example given. You could also expand on it and make certain text change based on the size of the screen, maybe you could change an image based on where a user click.

Documentation

AOS - https://michalsnik.github.io/aos

Bootstrap - https://getbootstrap.com/



07 Build a pop-up chat window

Description

Build a simple popup chat window. The window should have a close button, send button, and a message area. When you send a message area you could make an alert pop up with the message or you could make it add to a message list.

Documentation

There is no documentation for this. Try using plain JS to create the window, you should be able to do it using just HTML, CSS and JS.

08 Build Tic-Tac-Toe Game using JS

```
    resolve(true);
  }, time);
});
const callAfterSomeTime = (callback, time) => afterSomeTime(time).then(callback);

callAfterSomeTime(() => console.log('Hello after 1500ms'), 1500);

const getData = async (url) => fetch(url);

document
  .querySelector('#submit')
  .addEventListener('click', function() {
    const name = document.querySelector('#name').value;

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    const user = await fetch(`/users?name=${name}`);
    const posts = await fetch(`/posts?userId=${user.id}`);
    const comments = await fetch(`/comments?post=${posts[0].id}`);
    //display comments on DOM
```

Description

Build a Tic-Tac-Toe game using HTML, CSS and JS. This game will get you writing a lot of code and will help your problem solve by stringing lots of code together. It will also help you understand DOM manipulation.

Documentation

Helpful Article (It is in jQuery not JS) - https://levelup.gitconnected.com/building-a-tic-tac-toe-game-app-with-javascript-5916e58071fb

jsfiddle Example - https://jsfiddle.net/vasanthkay/oer5b9q5/

```
    resolve(true);
  }, time);
});
const callAfterSomeTime = (callback, time) => afterSomeTime(time).then(callback));

callAfterSomeTime(() => console.log('Hello after 1500ms'), 1500);

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    const comments = await fetch(`/comments?post=${posts[0].id}`);
    //display comments on DOM
```

09 Re-create Giphy with its Own API

Description

Create a web page which uses a search input and Giphy's api to display giphs on a page. The page should contain a search input where the user can type in a query and a button to initiate the search. The giphs that are returned from the api call should be displayed under the search area.You will need to use vanilla JS to make the api request and display the results.

Documentation

Giphy API - https://developers.giphy.com/

```
    resolve(true);
  }, time);
});
const callAfterSomeTime = (callback, time) => afterSomeTime(time).then(callback));

callAfterSomeTime(() => console.log('Hello after 1500ms'), 1500);

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    //display comments on DOM
```

10 Create a graphic with WebGL

Description

WebGL is a graphics driver built to perform 2D and 3d Rendering. You could use this to create a cool graphic or a simple game. This project can be interesting, creative and enable you to learn a lot. Maybe you could even try and create a retro game like Packman or Snake.

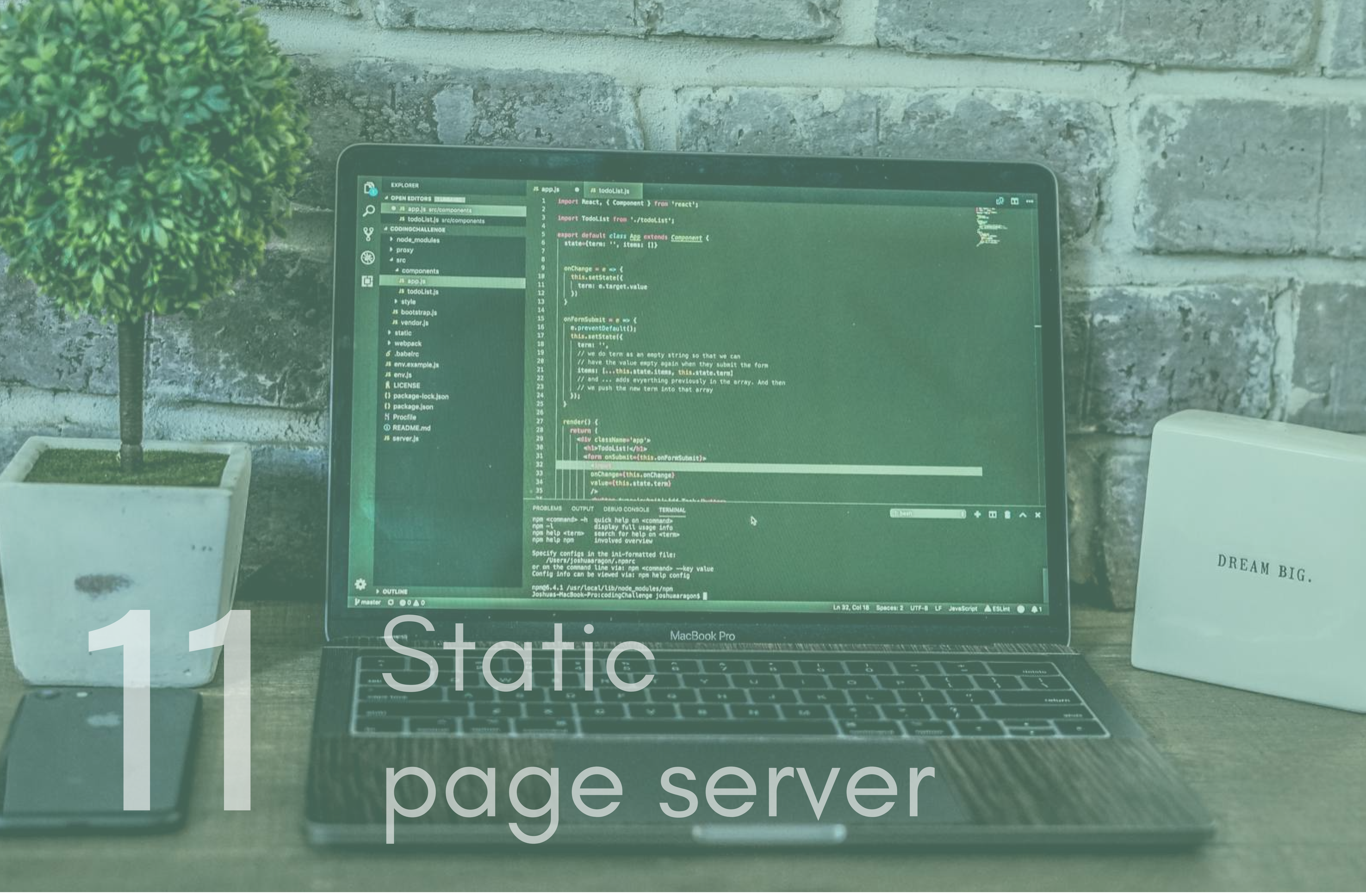
Documentation

WebGL API - https://developer.mozilla.org/en-US/docs/Web/API/WebGL_API

inspiration - https://github.com/diogofferreira/pacman-3D

Node JS Projects

A common use of Node.js in the industry is to build scaleable microserviceses. With this in mind, I have created a mix of projects that will get you to build some of these.



11 Static page server

Description

Node combined with express make a great combination. That combination can be used to create a server that serves static assets such as html files, images, stylesheets ect. A great project to get your head around how this works, and to get to grips with the basics of node, would be to build a static page server that serves up content.

Documentation

Express - https://expressjs.com/

12 Notifications Service using send grid

Description

A common service that a lot of systems have is some form of notification service. These are normally what trigger push notifications, emails, marketing info etc to be sent out. With node we can set up an endpoint, that when hit, triggers an email to be sent via the SendGrid API. To take this further you could send custom templates using a template engine such as handlebars.

Documentation

SendGrid - https://sendgrid.com/docs/for-developers/sending-email/

SendGrid NPM package - https://www.npmjs.com/package/@sendgrid/client

13 Chatroom using Socket.io

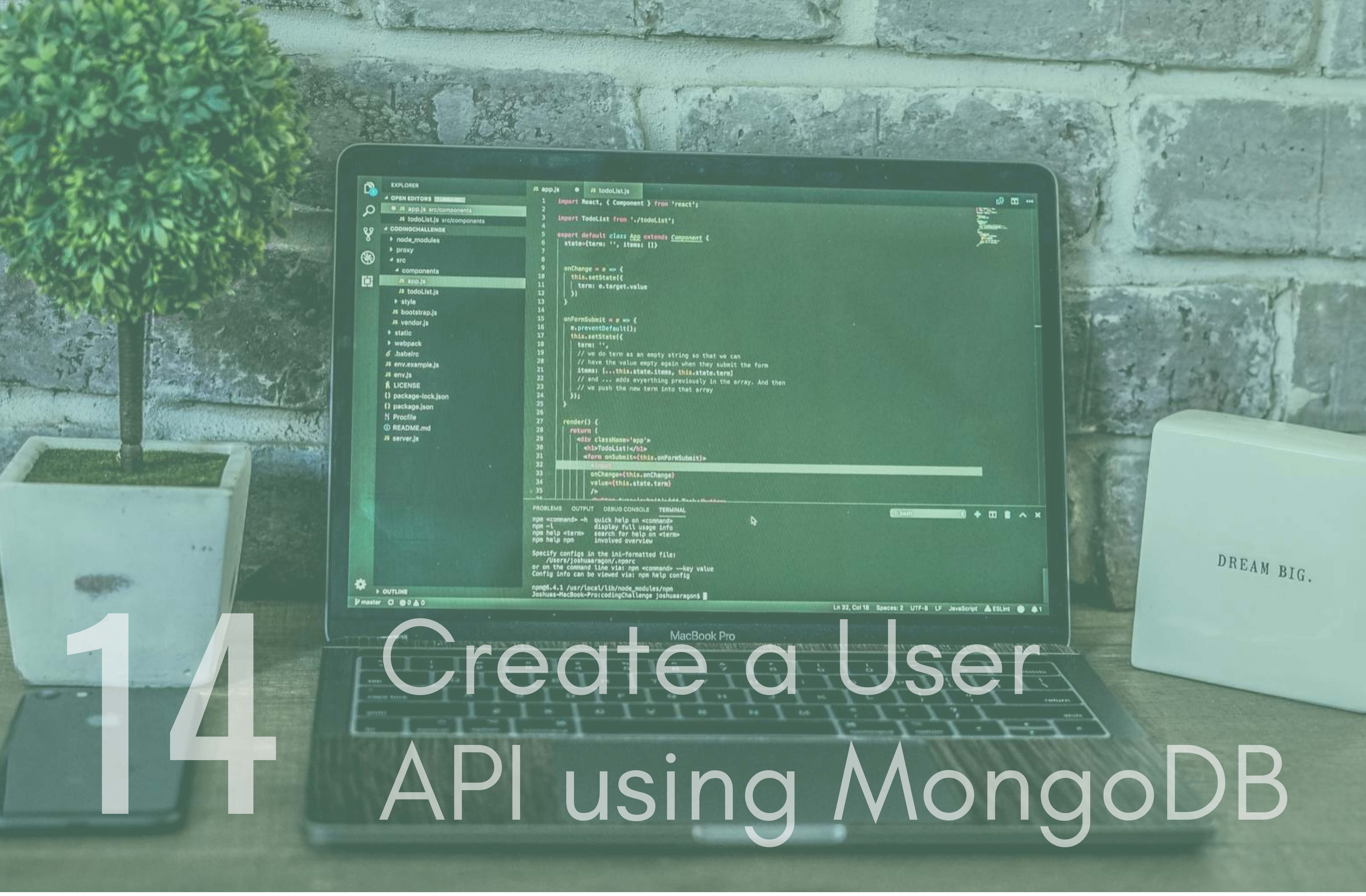
Description

Websockets are commonly used when streaming data over the internet in real time. Socket.io is a JavaScript library that is built on top of this and is a great, fun tool that can be used to create cool projects such as a chatroom.For this you will need to create a html page that has a simple chat type window on it. Create socket connections and you could even store the conversations users have through your chat room to a database.

Documentation

Socket.io - https://socket.io/

Article on Websockets - https://blog.teamtreehouse.com/an-introduction-to-websockets



14 Create a User API using MongoDB

Description

Create a REST API that allows you to create, update, delete and retrieve user data. The user data should be stored in MongoDB and each request should have a http status attached to it. You will probably want to use the npm package mongoose, which provides a useful way of interacting with MongoDB.

Documentation

MongoDB - https://www.mongodb.com/

Mongoose - https://www.npmjs.com/package/mongoose

15 Create an order microservice using shopify

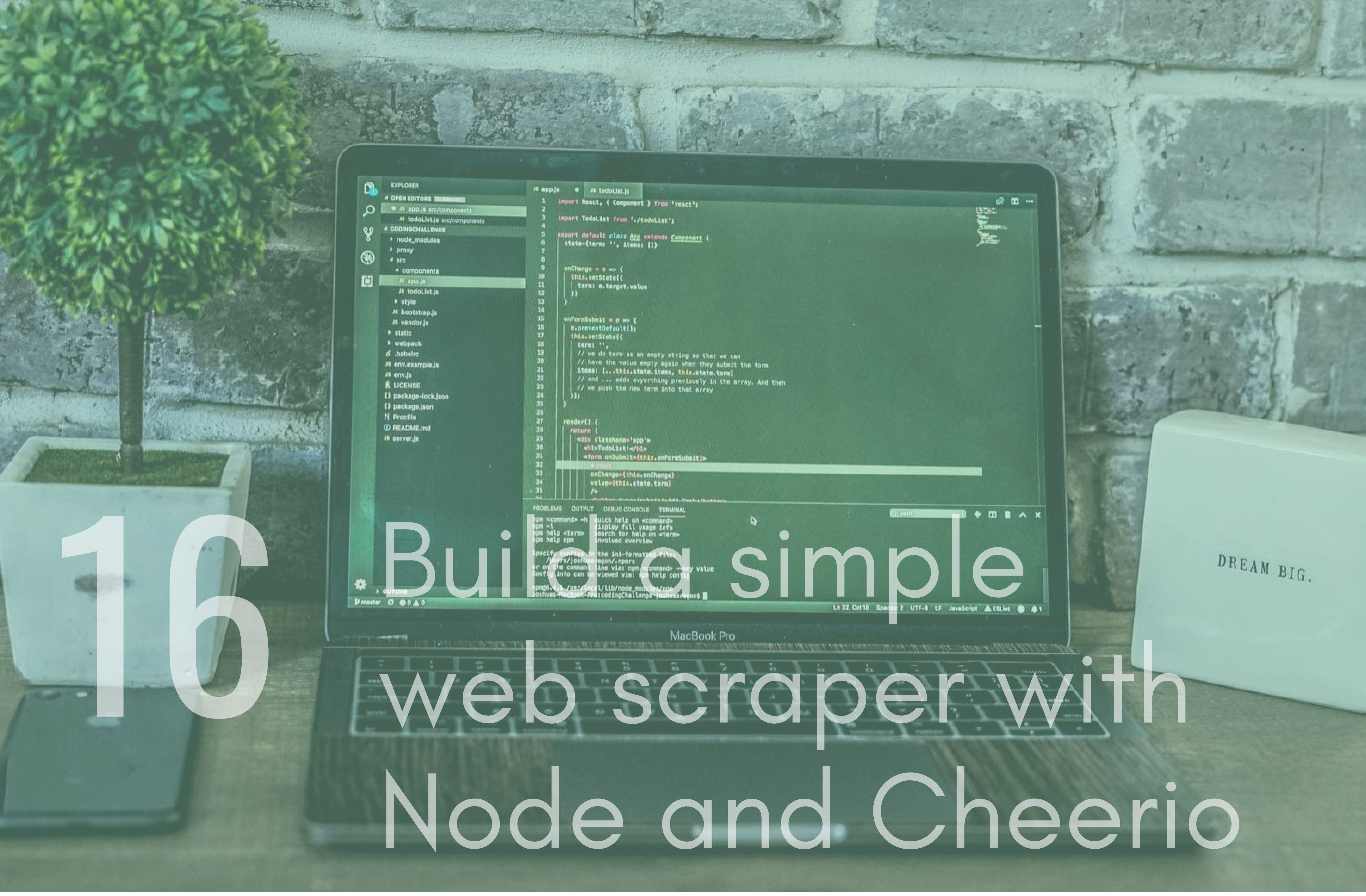
Description

As mentioned earlier, Microservices are a common architectural design in modern system development. Learning how to build one not only helps you learn how to use node, but it also gets you coding something that will be hugely impressive to an employer.To do this we are going to use shopifys API as a way of creating orders and storing those orders. We will create a service that has two endpoints. One to create an order, the other two save the order.

Documentation

Shopify Order API - https://help.shopify.com/en/api/reference/orders/order

Express - https://expressjs.com/



16 Build a simple web scraper with Node and Cheerio

Description

Node also has some great packages that allow you to perform web scraping tasks. Create a node script that scrapes the content of a website for price data and then puts it into a text file. To do this you can use the following packages – fs, cheerio and puppeteer (if it's a JavaScript based site, e.g react built).To take this further, you could put the data into a SQL database for you to query later.

Documentation

puppeteer - https://pptr.dev/

cheerio - https://cheerio.js.org/

17 Remote Control for a Car

Description

Another cool use of WebSockets, you can create a cool remote-control using node and a simple html page with buttons. You will also need a small computer called Arduino to do this so there will be a small set up cost, but it will be a lot of fun!

Documentation

Article - http://www.webondevices.com/arduino-nodejs-rc-car-driven-with-html5-gamepad-api/

Socket.io - https://socket.io/

18 Build a Google Cloud Vision API that stores returned data

Description

Google has an incredible vision API that utilises AI to read text from images, perform recognition tasks and a variety of other cool features.Create a REST API that allows you to send an image to it (the image must contain text), the data from the image is then extracted via google and stored in a NoSQL Database such as MongoDB.

Documentation

Google Vision API - https://cloud.google.com/vision/overview/docs/get-started

mlab - https://docs.mlab.com/

19 AI Chatbot using amazon Alexa

Description

Amazon Alexa is a fun way to create something interesting while learning node. Using the development console, you can set up a basic chatbot in not time at all and then code a node webhook that gets called to do task. You could use it to return to Alexa some football scores, find some local restaurants or maybe a simple weather finder.

Documentation

Amazon Developer Console – https://developer.amazon.com

21 fulfilment service that gets flight details for a chatbot

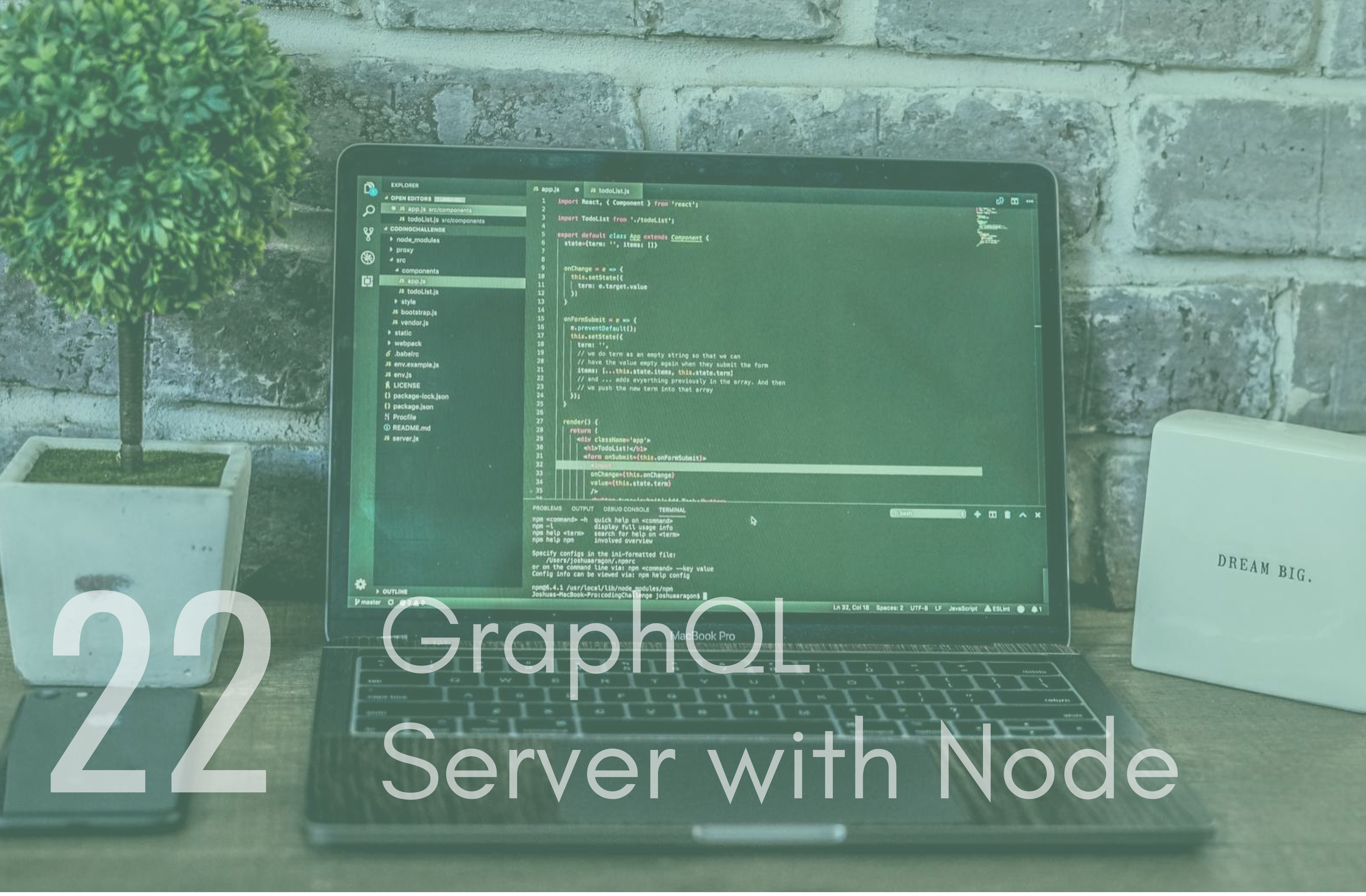
Description

Like the Amazon Alexa example, the idea behind this is that you create a webhook that is used by google to fulfill a request. When a user of a google Dialogflow chatbot asks for flight details the webhook will be called and the code that you write should reach out to a flight api, fetch the details and return it.You can use one of Google Dialogflow's flight chatbot templates so that you don't need to build it and can concentrate on the webhook.

Documentation

SkyScanner API -
https://partners.skyscanner.net/affiliates/travel-apis

Dialogflow - https://dialogflow.com/



22 GraphQL Server with Node

Description

GraphQL is a query language for APIs and a run-time for fulfilling quires. When you combine node with GraphQL, you create a powerful that lets you get exactly what data you need. Check out the documentation below, I have also included an article to help.

Documentation

GraphQL - https://graphql.org/

Article - https://medium.com/codingthesmartway-com-blog/creating-a-graphql-server-with-node-js-and-express-f6dddc5320e1

23 Serverless cloud function

Description

Serverless Architecture is becoming a very popular way to build apps and IT systems. This is because it allows for easy scalability, lower barrier to entry, lower cost and offloads the need to maintain infrastructure.Cloud functions are a useful tool in serverless architecture. They are useful, single functions, that are executed when events are emitted from your cloud infrastructure. Create a cloud function that returns some mock product data.

Documentation

Google Cloud Functions - https://cloud.google.com/functions/docs/concepts/overview

24 Build your Own Hangouts

Description

WebRTC is becoming increasingly supported by more and more web browsers. This makes it increasingly possible to build Google Hangout-styled apps that will become more and more common now that the technology is becoming much more accessible.Try and build your own using node, I have included an article to get you started below.

Documentation

Article - https://hackernoon.com/how-to-build-a-video-call-voice-chat-app-in-webrtc-using-javascript-node-js-d256d434acbc

25 PDF Generator

Description

PDF generation is a common use case for node. Services that create pdf reports, invoices ect are the main reason for this. Try creating a pdf generator using the pdfkit NPM package.

Documentation

pdfkit - https://pdfkit.org

26 Create an IoT Visualisation App

Description

The Internet of Things, or IoT, refers to the billions of physical devices around the world that are now connected to the internet, collecting and sharing data. Thanks to cheap processors and wireless networks, it's possible to turn anything, from a pill to an aeroplane to a self-driving car into part of the IoT.Why not create a visualisation app and IoT device? You can use Node and Arduino to create an IoT process. Checkout the article below to start building.

Documentation

Article - https://hackernoon.com/create-your-first-arduino-node-js-iot-visualization-app-in-under-15-minutes-619f8e6f7181

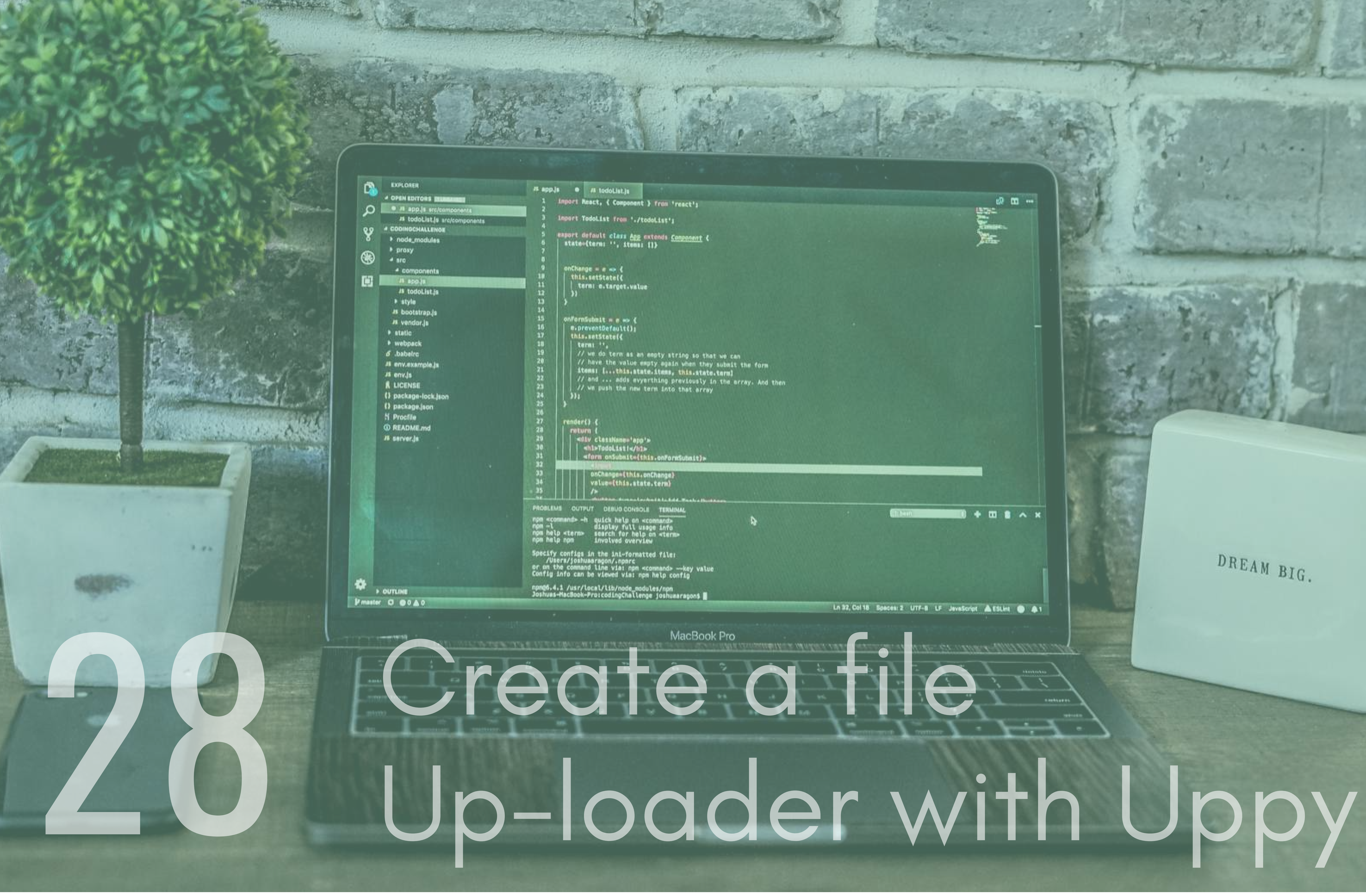
27 REST API for a Kaggle data set

Description

Kaggle offers free to use datasets that contain large volumes of data, referred to as Big Data. Big Data is extremely large data sets that may be analysed computationally to reveal patterns, trends, and associations, especially relating to human behaviour and interactions.One good thing about Kaggle is that the data is open for you to use. Why not take the data and write a script that puts it into a DB, then create a Rest API around it that lets you access it?

Documentation

Kaggle - https://www.kaggle.com/datasets



28 Create a file Up-loader with Uppy

Description

Uppy is a Sleek, modular open source JavaScript file up-loader that enables you to fetch files remotely from places such as Instagram and dropbox. Use it to create a cool file upload tool with node.

Documentation

uppy - https://uppy.io/

29 REST API that requires authentication using passport.js

Description

Passport is authentication middleware for Node.js. Extremely flexible and modular, Passport can be unobtrusively dropped in to any Express-based web application. A comprehensive set of strategies support authentication using a username and password, Facebook, Twitter, and more.Create a REST API using node, express and passport. Check out the article mentioned below for a guide on how to implement it.

Documentation

Passport.js - http://www.passportjs.org/

Article -https://medium.com/@kris101/building-rest-api-in-nodejs-mongodb-passport-jwt-6c557332d4ca

30 Command-line cryptocurrency trading bot

Description

Crypto currency is currently a massive business sector. The amounts of money being traded here are staggering. They are also of huge interest to financial institutions who create bots, scripts and cool new algorithms to trade on the crypto market. Why not have ago at it yourself by creating a command line trading bot that you could leave on a server running. There are plenty of simulation APIs that you could use to create dummy trades, even the simulations use real market data though so you could test and build something that makes you money here!

Documentation

Zenbot - https://bit.ly/2nbjJlV
Article - https://bit.ly/2oQeGaU
Crypto Algorithms - https://bit.ly/2pFh9pk

```
import React, { Component } from 'react';

import TodoList from './todoList';

export default class App extends Component {
  state={term: '', items: []}


  onChange = e => {
    this.setState({
      term: e.target.value
    })
  }

  onFormSubmit = e => {
    e.preventDefault();
    this.setState({
      term: '',
      // we do term as an empty string so that we can
      // have the value empty again when they submit the form
      items: [...this.state.items, this.state.term]
      // and ... adds evyerthing previously in the array. And then
      // we push the new term into that array
    });
  }

  render() {
    return (
      <div className='app'>
        <h1>TodoList!</h1>
        <form onSubmit={this.onFormSubmit}>
          <input
          onChange={this.onChange}
          value={this.state.term}
          />
```

```
npm <command> -h  quick help on <command>
npm -l            display full usage info
npm help <term>   search for help on <term>
npm help npm      involved overview

Specify configs in the ini-formatted file:
    /Users/joshuaaragon/.npmrc
or on the command line via: npm <command> --key value
Config info can be viewed via: npm help config

npm@6.4.1 /usr/local/lib/node_modules/npm
Joshuas-MacBook-Pro:codingChallenge joshuaaragon$
```

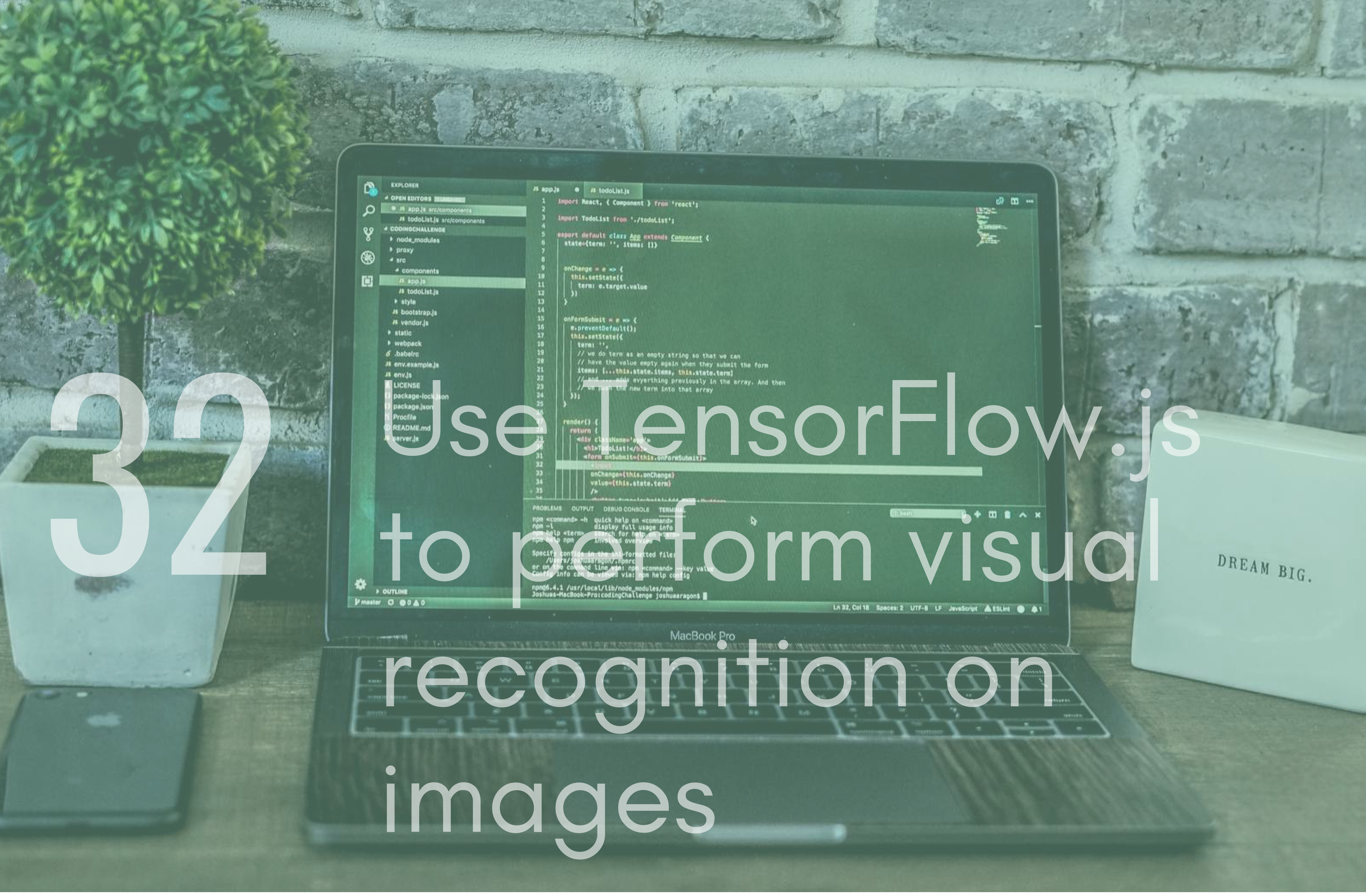
31 Build a BlockChain

Description

You have probably heard the term “blockchain” flying around in relation to Cryptocurrency and, most probably, in relation to bitcoin. Blockchain however has been around for a while and is described as the following – “A blockchain is a continuously growing list of records, called blocks, which are linked and secured using cryptography”. It can be used for a multitude of things, checkout the article below on 20 Real-world use cases. It is a great technology to get you thinking creatively and solving problems. It is also not as hard as you may think to set up your own blockchain with node, so why not give this a go?

Documentation

Build Your First Blockchain example - https://bit.ly/2pFkyo6
What is Blockchain? - https://bit.ly/2AaV4Pg



32 Use TensorFlow.js to perform visual recognition on images

Description

Machine learning is going through huge growth in the IT industry. This means there are more and more jobs appearing around this area. Although python is the go-to for ML, there is still a demand for skills with libraries such as TensorFlow. I recommend trying to build an image recognition script using node and TensorFlow. It can be fun and you will be able to apply a lot of problem solving skills here.

Documentation

TensorFlow - https://www.tensorflow.org/

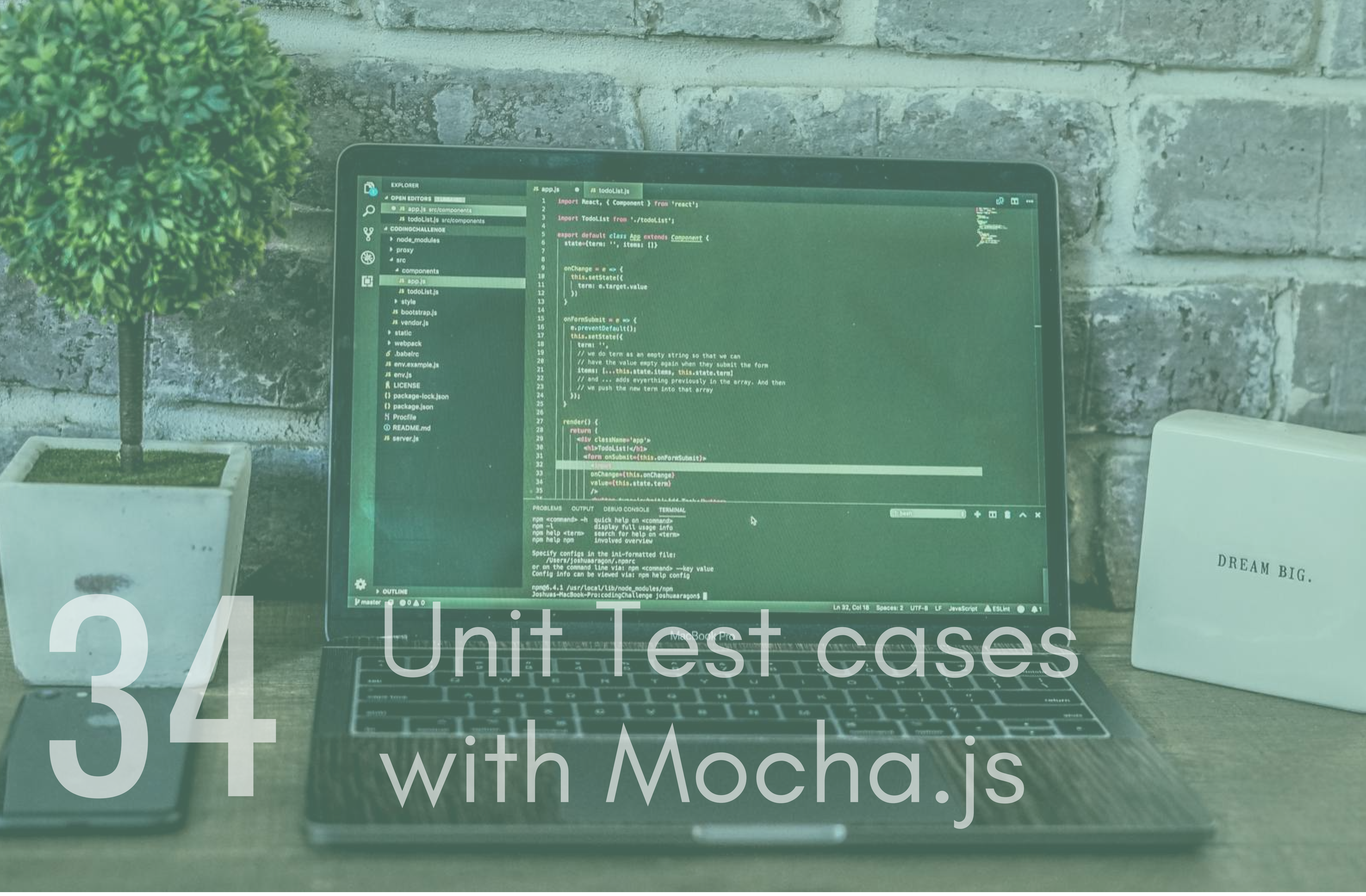
33 Create an AWS Lambda Function

Description

Create an AWS Lambda Function, this is amazons equivalent to googles cloud function, that enables you to run a single function when it is requested. AWS is also the largest of all the cloud service providers so learning how to create a Lambda function using node is not a bad idea.

Documentation

AWS Lambda - https://aws.amazon.com/lambda/



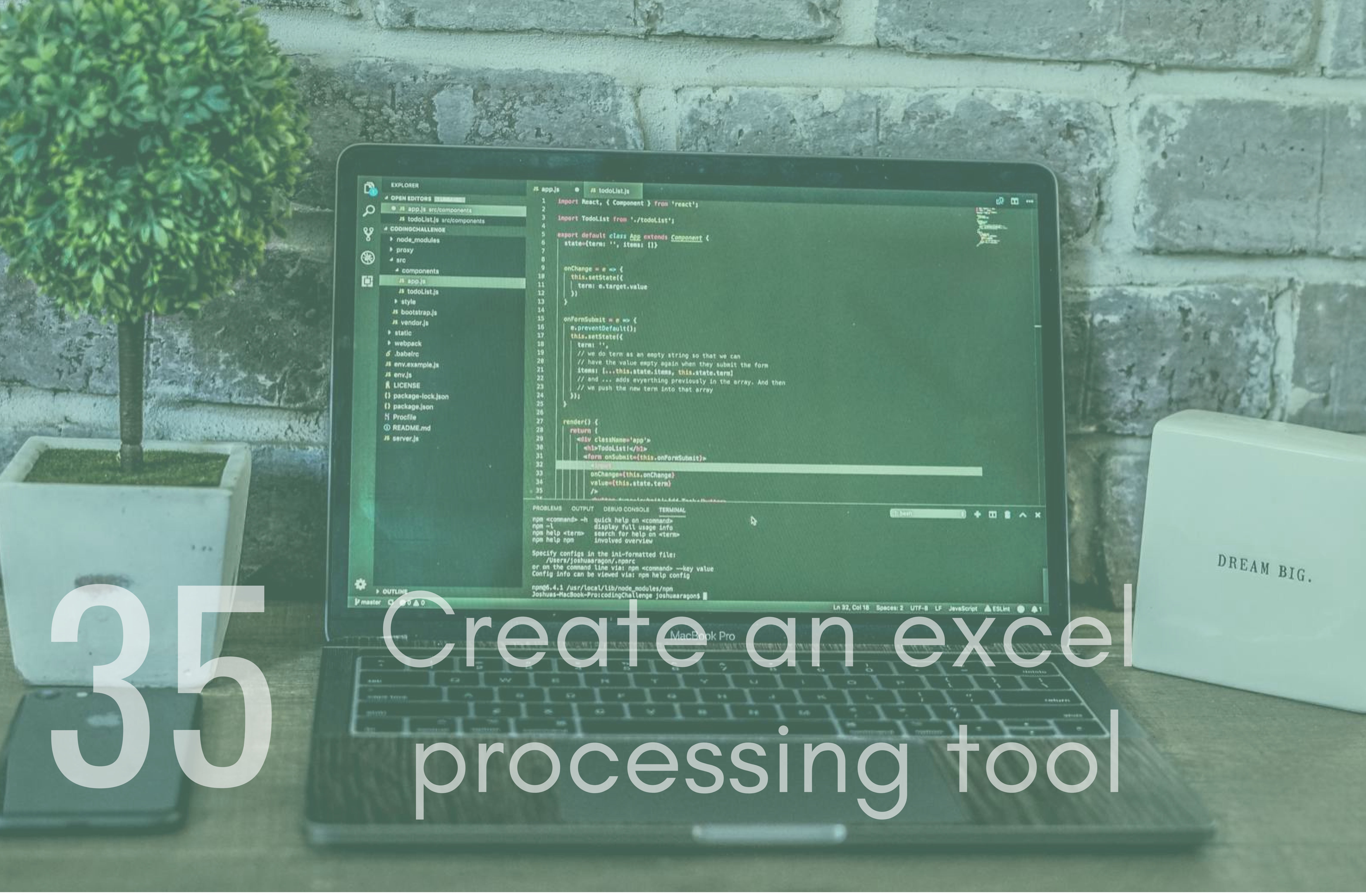
34 Unit Test cases with Mocha.js

Description

One thing us developers often forget about, normally due to the ecitment of trying to find a missing semi colon, is unit tests. Testing our code is something that we should all be doing and something I am 100% sure you will be doing at some point in your developer life.Mocha is one of the most popular for testing with node and having a go at writing some test cases will never go a miss. For this, Create a basic express app with some endpoints, or download a simple express app, and write some test cases for the various endpoints.

Documentation

Mocha - https://mochajs.org/



35 Create an excel processing tool

Description

I am sure that excel needs no introduction. You could create a tool that reads in an an excel file, performs some processing on it and then uses moment.js to create a timestamp. You can then append the timestamp to the name of the file.

Documentation

Node-csv -https://github.com/adaltas/node-csv

Moment - https://github.com/moment/moment

36 Slack message to phone message using Slack and Twilio

Description

Twilio and slack are to really cool communication tools. Use Twilio and slack APIs to send slack messages to a phone. You could create some code so that when someone messages a Slack chat, a text notification is sent out to the users of that group.

Documentation

Slack API - https://api.slack.com/

Twilio - https://www.twilio.com/docs/usage/api

37 Facebook Messenger Chat Bot

Description

Facebook messenger chatbots are a common thing among businesses. They use them to automate responses when unavailable to answer or to help direct a user to the right person.In this project you could create a chatbot with node where it acts as a webhook for facebook messenger to call.

Documentation

Facebook Messenger API -
https://developers.facebook.com/docs/messenger-platform/

38 A real-time multi-user sketchpad

Description

Build a cool sketchpad that can be accessed by multiple users. They should all be able to draw on it at the same time. You can use p5.js and WebSockets to enable you to do this.

Documentation

Socket.io - http://socket.io/

Express - http://expressjs.com/

p5.js - https://p5js.org/

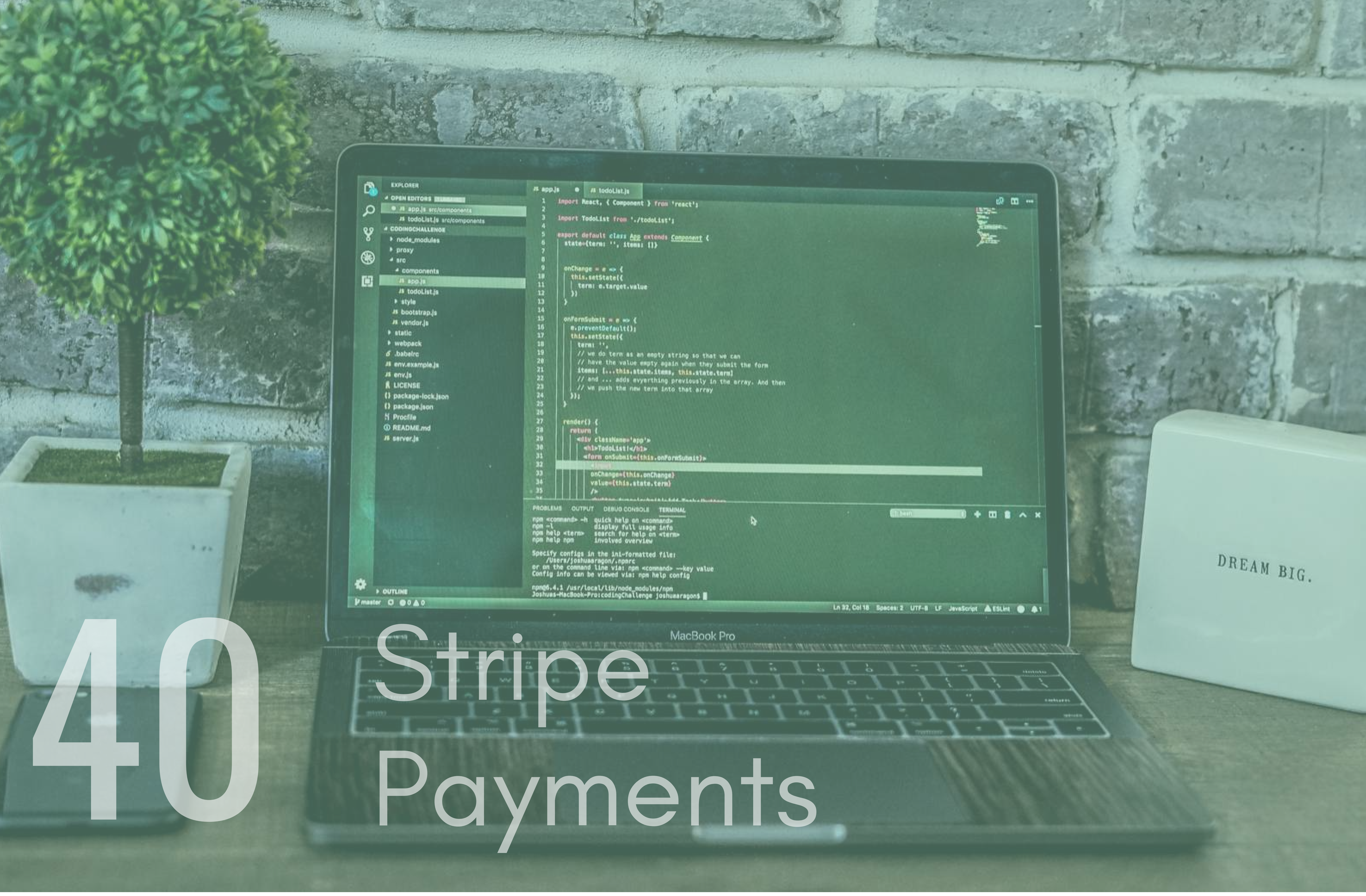
39 Twilio Phone Verification

Description

Create a two step phone verification service using node and Twilio. The user will receive a text message and need to reply back to it.

Documentation

Twilio Verification - https://www.twilio.com/docs/verify/api/v1/quickstart/nodejs#clone-and-setup-the-verification-application



40 Stripe Payments

Description

Stripe is an incredible solution that handles security and payment info for you, combining it with Nodejs can provide a great way to handle payments.Create a simple payment app using stripe.

Documentation

Stripe - https://stripe.com/gb

Example - https://catonmat.net/stripe-payments-with-node

41 Open Banking APIs

Description

Open banking APIs have become really popular and enable you to do some really cool banking activities. Set up your own API that utilises these banking APIs to get data about your bank account or some other activities.

Documentation

Barclays Bank - https://developer.barclays.com/catalogue

Lloyds - https://developer.lloydsbank.com/

Openbankingtracker - https://www.openbankingtracker.com/

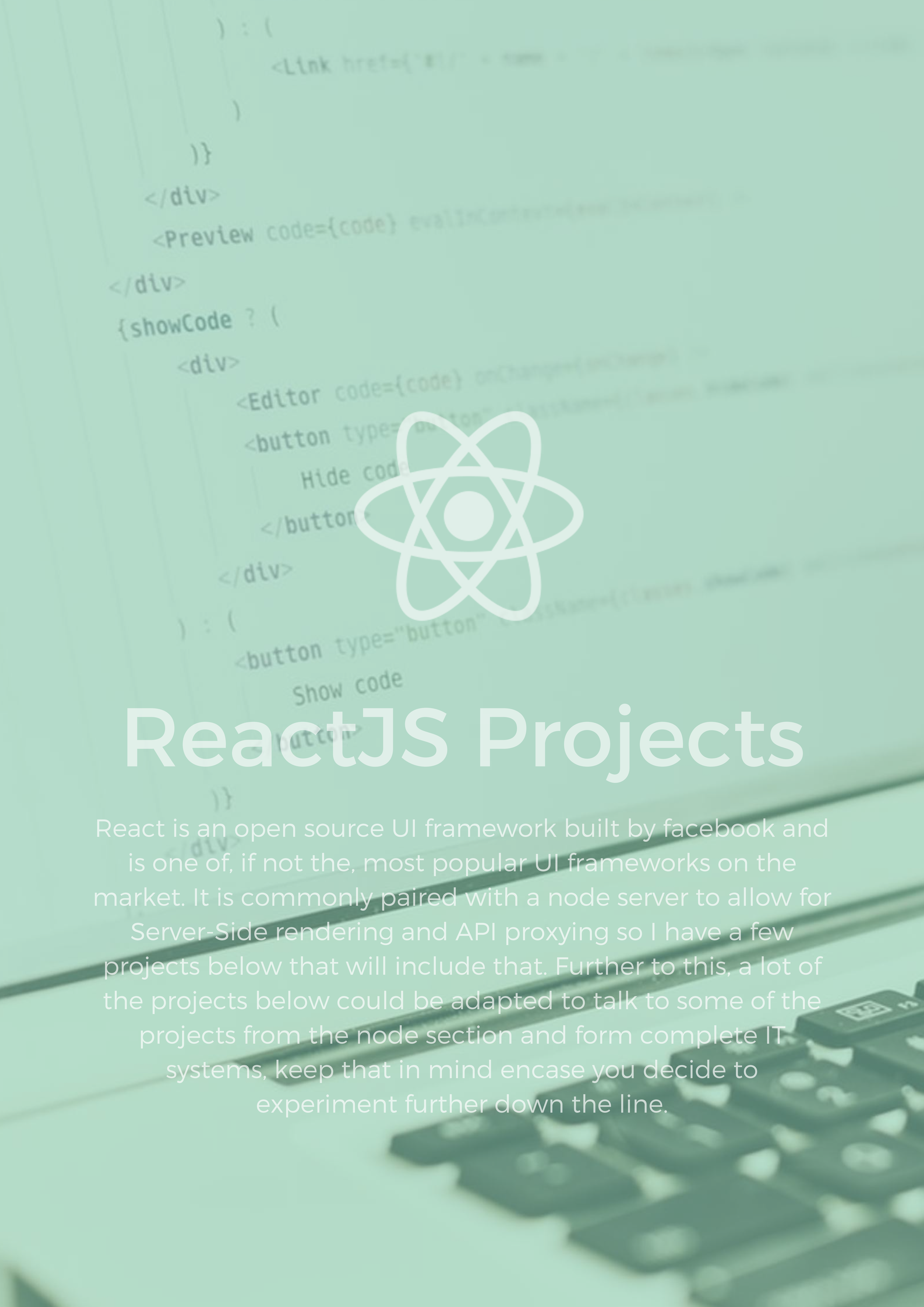
42 Integrate Swagger UI with Node.js

Description

Swagger UI allows anyone to visualize a RESTful API. Visualization is automatically generated from the Swagger specification. So Swagger UI takes an existing JSON or YAML document and creates interactive documentation. It is an industry standard utility that is used on the majority of projects out there as a way to provide quick access to testing API endpoints. Further to this it is great for devs as it creates interactive documentation making for faster development. I’ve included links to the Swagger website and a useful article that will help you out.

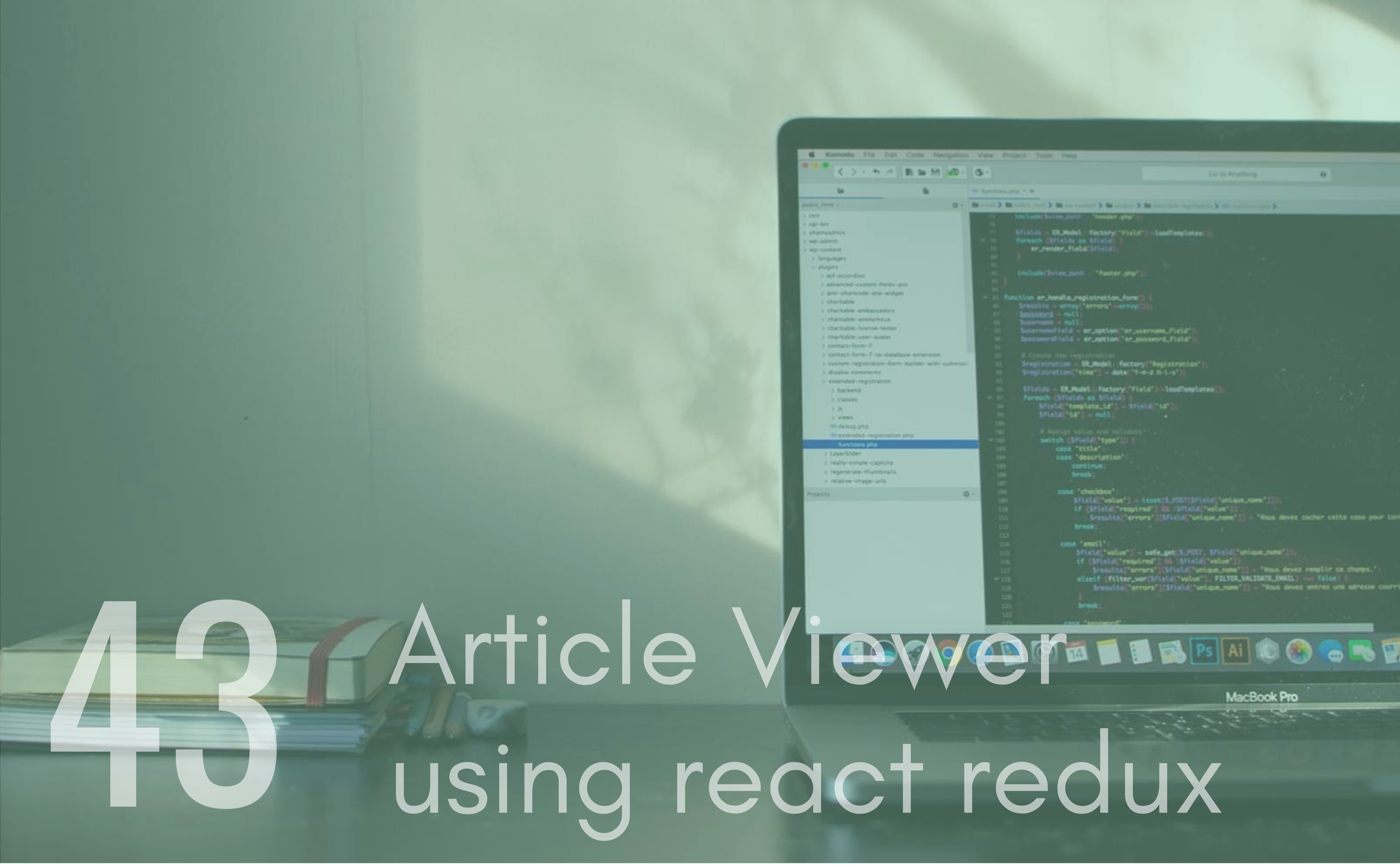
Documentation

Swagger - https://swagger.io/tools/swagger-ui/



ReactJS Projects

React is an open source UI framework built by facebook and is one of, if not the, most popular UI frameworks on the market. It is commonly paired with a node server to allow for Server-Side rendering and API proxying so I have a few projects below that will include that. Further to this, a lot of the projects below could be adapted to talk to some of the projects from the node section and form complete IT systems, keep that in mind encase you decide to experiment further down the line.



43 Article Viewer using react redux

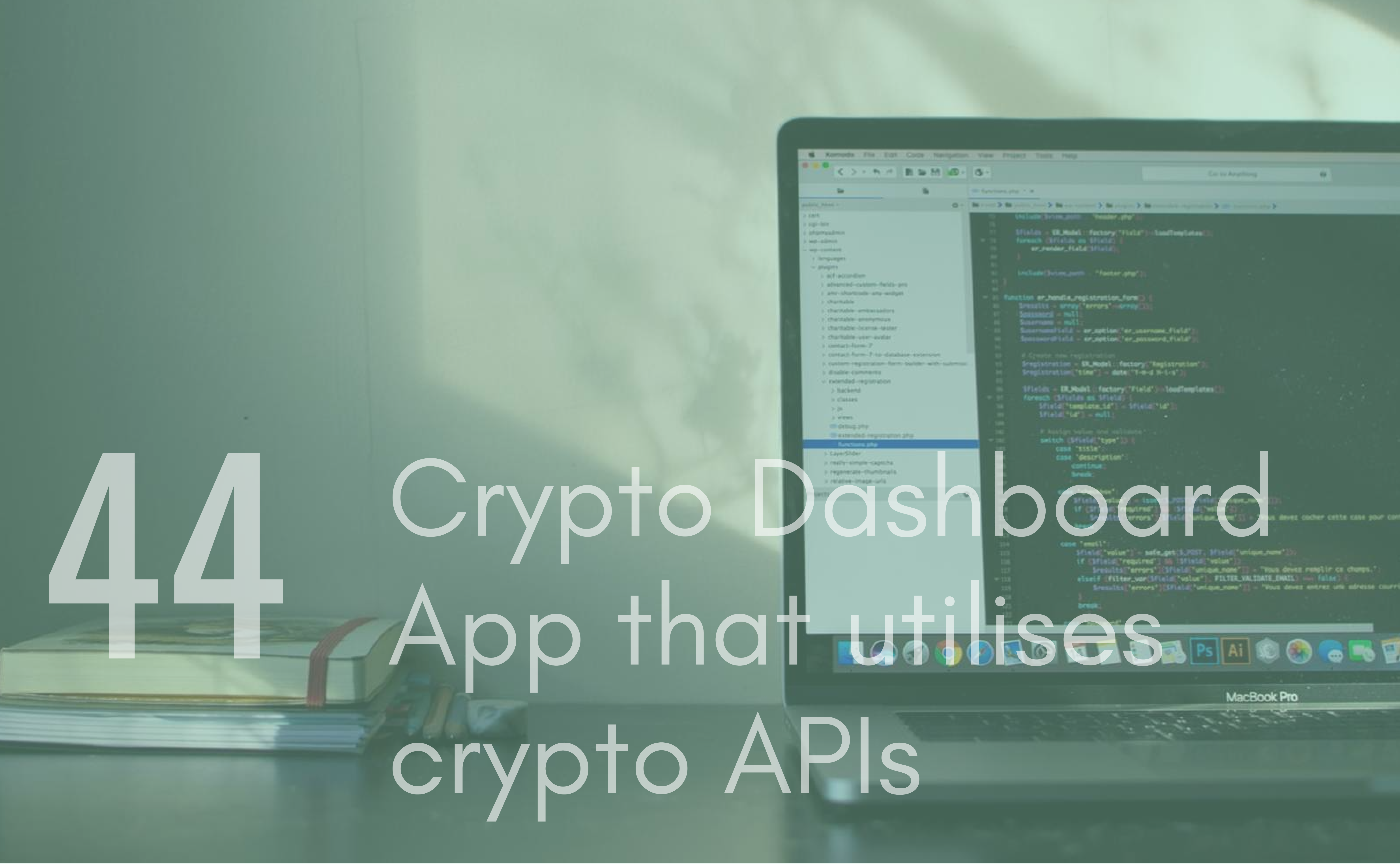
Description

React redux is a commonly used react package that allows you to easily manage the state of your application. Another way of looking at this – it helps you manage the data you display and how you respond to user actions. I would recommend using it, or a redux equivalent, in almost all of your apps as it allows for consistent experiences when it comes to creating a single source of truth within your apps. Create a react and redux app that quires the News API.

Documentation

News API - https://newsapi.org/

React Redux - https://redux.js.org/basics/usage-with-react



44 Crypto Dashboard App that utilises crypto APIs

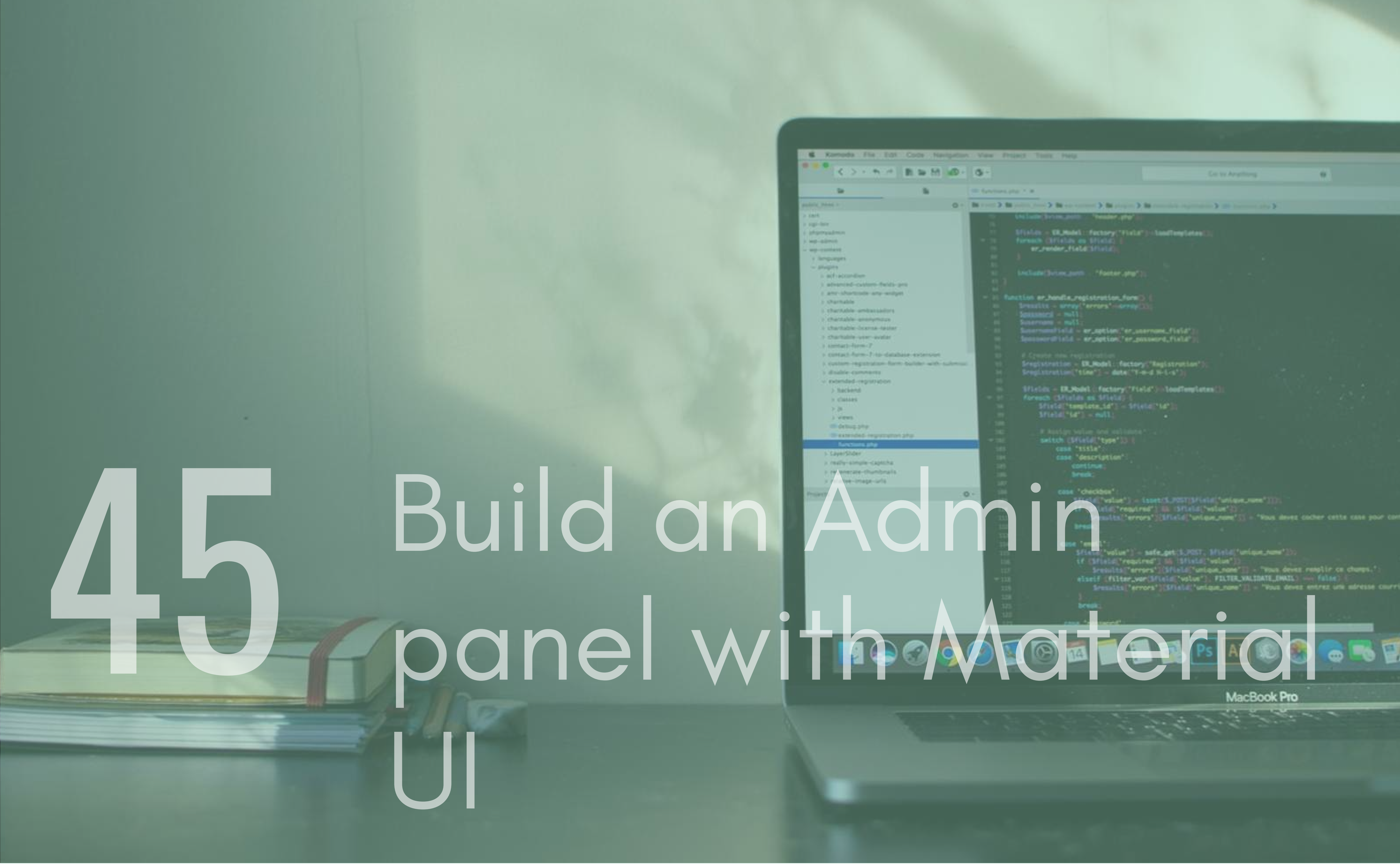
Description

Crypto Trading dashboards are a common use case for react with many trading platforms using react as its UI. Create a react app that has a basic UI that displays the current prices of crypto pairs. You can use something like chart.js to help you create some graphs.

Documentation

Chart.js - https://www.chartjs.org/

Crypto api - https://coinlayer.com/



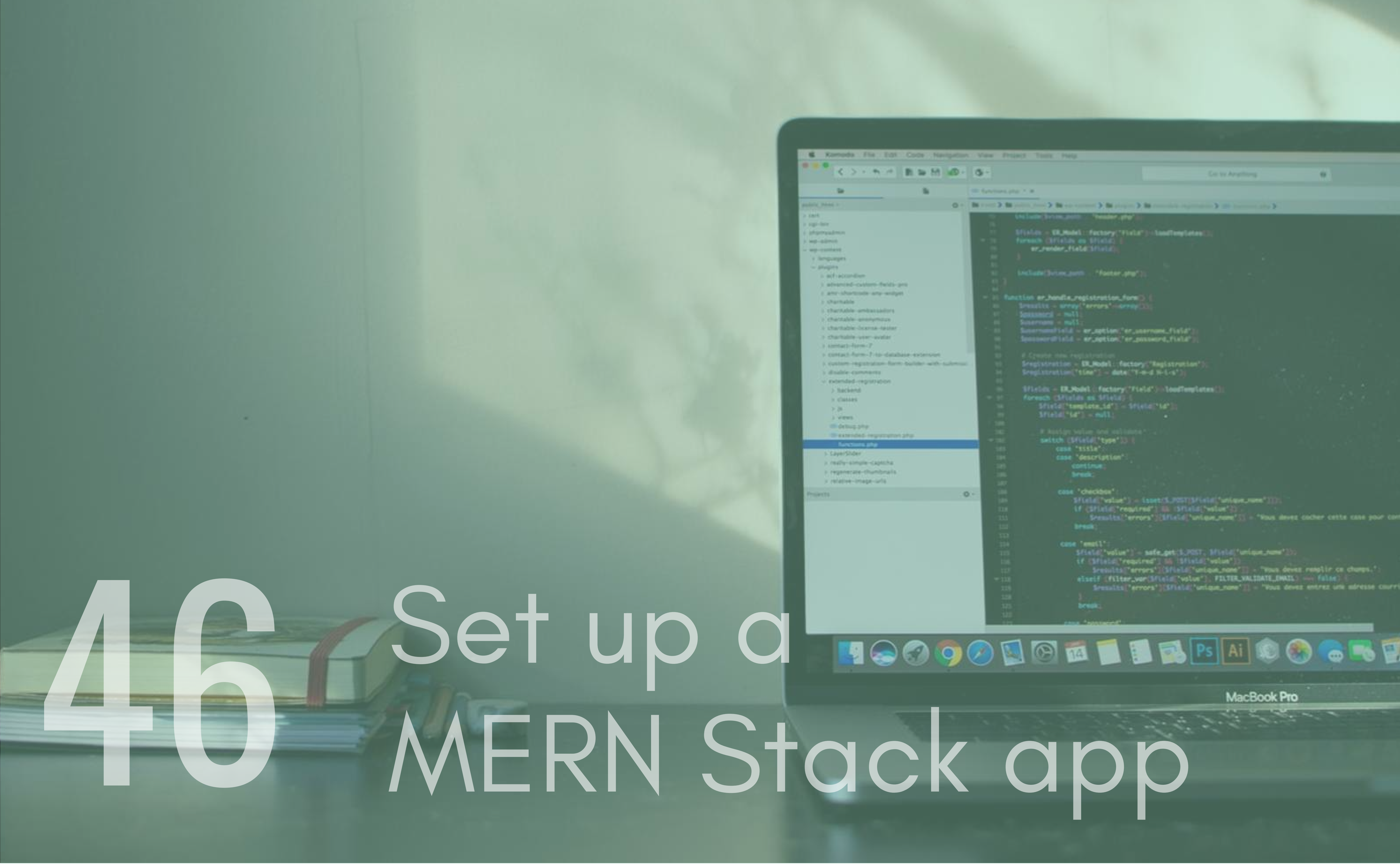
45 Build an Admin panel with Material UI

Description

UI component libraries are used across every project that uses a UI. Whether it means creating it yourself, or using a pre-built library, its crucial that you understand the documentation around how to use UI libraries.Create a simple Admin panel using material UI that has a message section, a navbar with hamburger menu on the left, a user image on the right and anything else you see fit.

Documentation

Material-ui - https://material-ui.com/



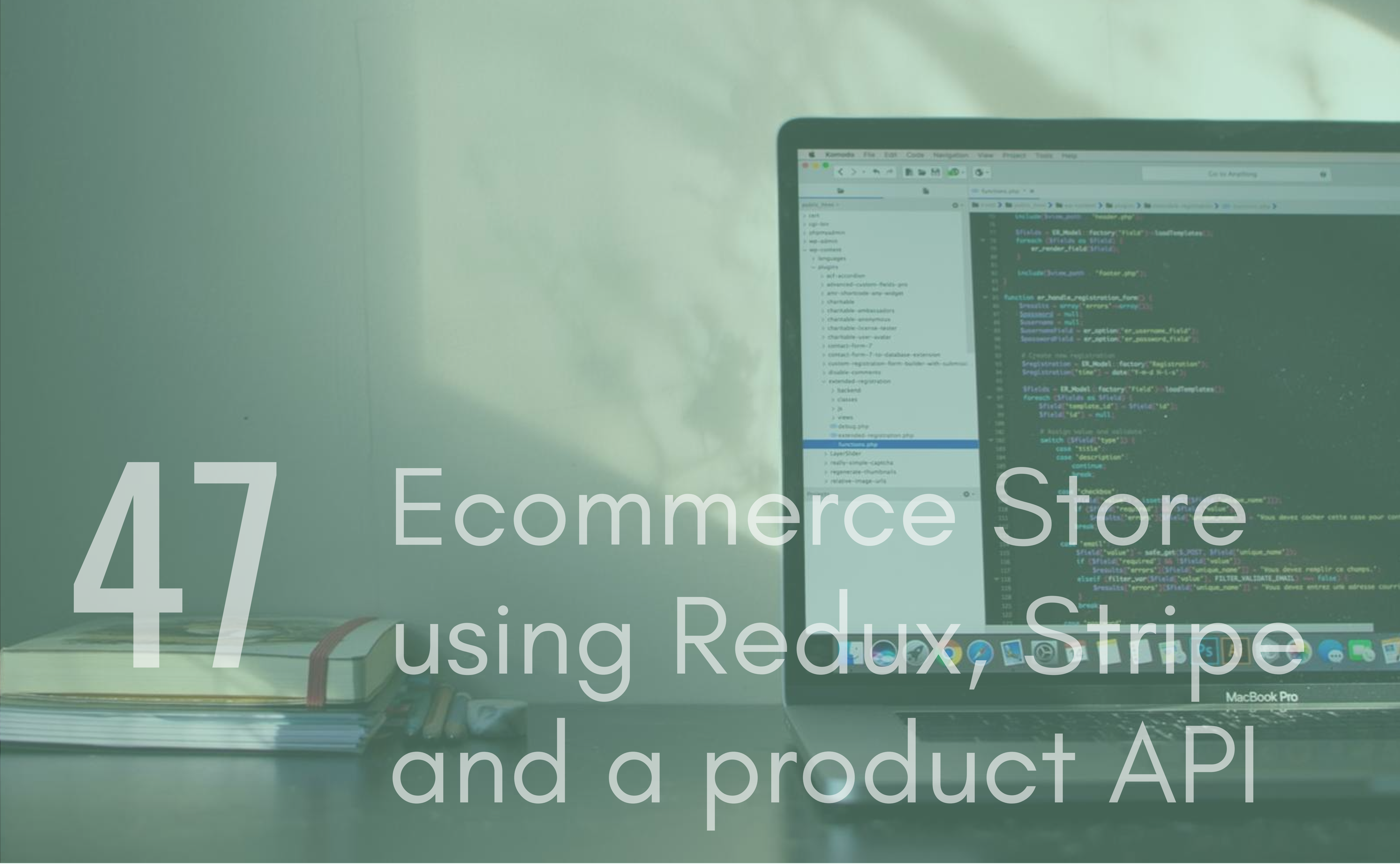
46 Set up a MERN Stack app

Description

When prototyping apps, it is common that a MERN Stack app is created to rapidly build an idea. MERN refers to MongoDB, Express, React and Node. Setting up one from scratch will help you gain an understanding as to how it all works together.

Documentation

MERN Stack Article - https://blog.cloudboost.io/creating-your-first-mern-stack-application-b6604d12e4d3



47 Ecommerce Store using Redux, Stripe and a product API

Description

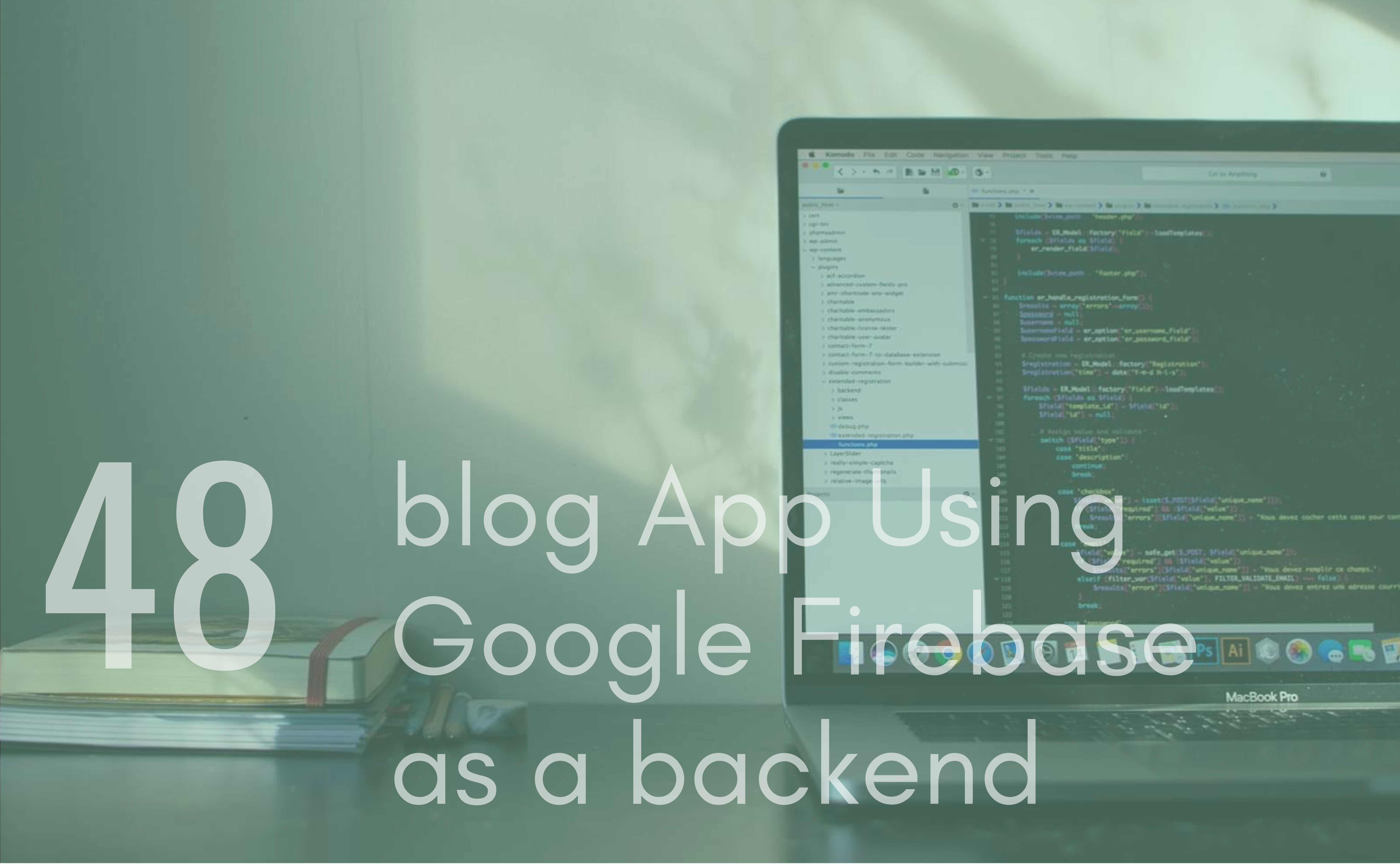
eCommerce based apps are one of the most common use cases for React. Shopify, one of the largest eCommerce platforms, is built using React as its front end. One project you could work on is building an eCommerce store using Redux, stripe and a mock product api to get your product data.For the UI you could use the storefront UI kit that you can find in the documentation below.

Documentation

Stripe - https://stripe.com/docs

Mockapi - https://www.mockapi.io

React Redux - https://redux.js.org/basics/usage



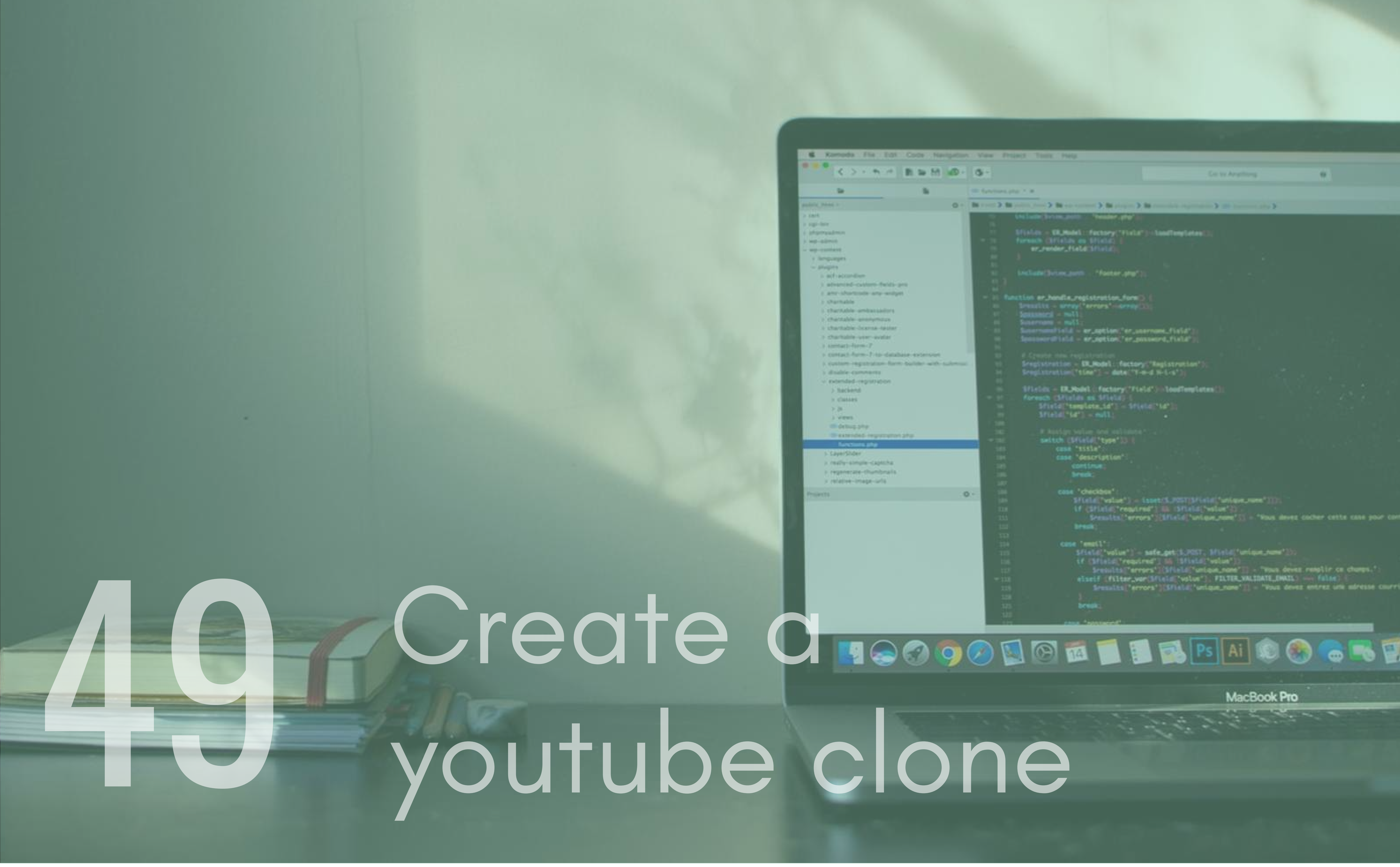
48 blog App Using Google Firebase as a backend

Description

Google Firebase offers a great way to rapidly build an app. It provides you with all the tools that you need to create the backend of an app, leaving you to code the UI. You could use it to be the backend for a blogging app. Using react and the Firebase APIs you can create user accounts, sign ins and database calls.

Documentation

Google Firebase - https://firebase.google.com/



49 Create a youtube clone

Description

You could create your own version of YouTube by using the YouTube API or another video provider API that has some form of search functionality. Create a search component that allows you to type in a search term. You can then display results on the screen.There is also a lot of room for expansion here, you could integrate with Google sign in APIs or use Facebook's API to add other content.

Documentation

Youtube API - https://developers.google.com/youtube/v3/docs

Vimeo - https://developer.vimeo.com/

50 movie search app using elasticsearch and ReactiveSearch

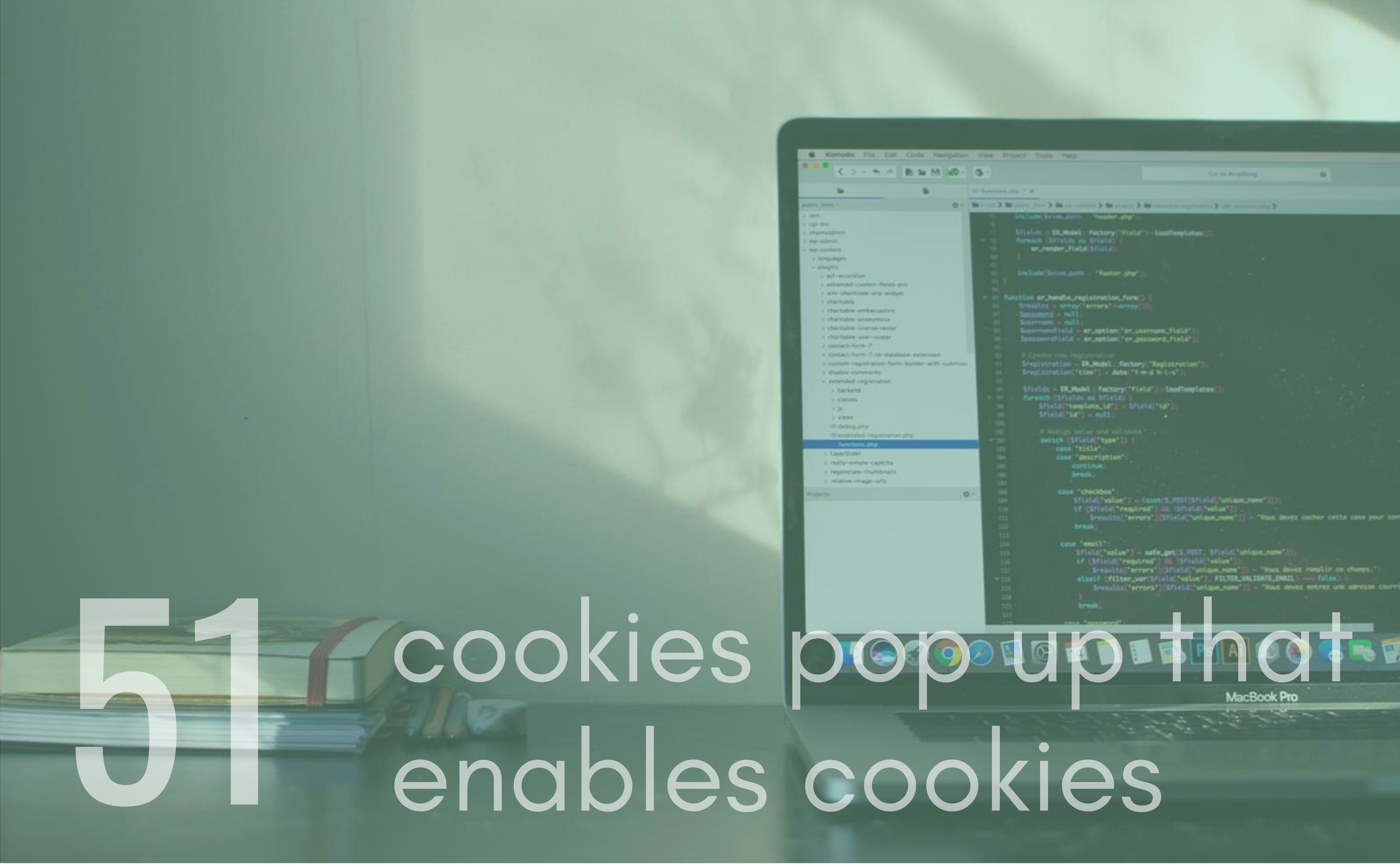
Description

Elasticsearch is a super fast, open-source, full-text search engine. It allows you to store, search, and analyse large volumes of data quickly (we are talking milliseconds here). It is generally used as the underlying engine/technology that powers applications that have complex search features and requirements.With react we can use ReactiveSearch to build a layer over the top of it to create a really fast search engine. Why not create a movie search app that lets you search by topic, title or actors?

Documentation

ReactiveSearch - https://opensource.appbase.io/reactivesearch/

Elasticsearch - https://bit.ly/2VEaUNm



51 cookies pop up that enables cookies

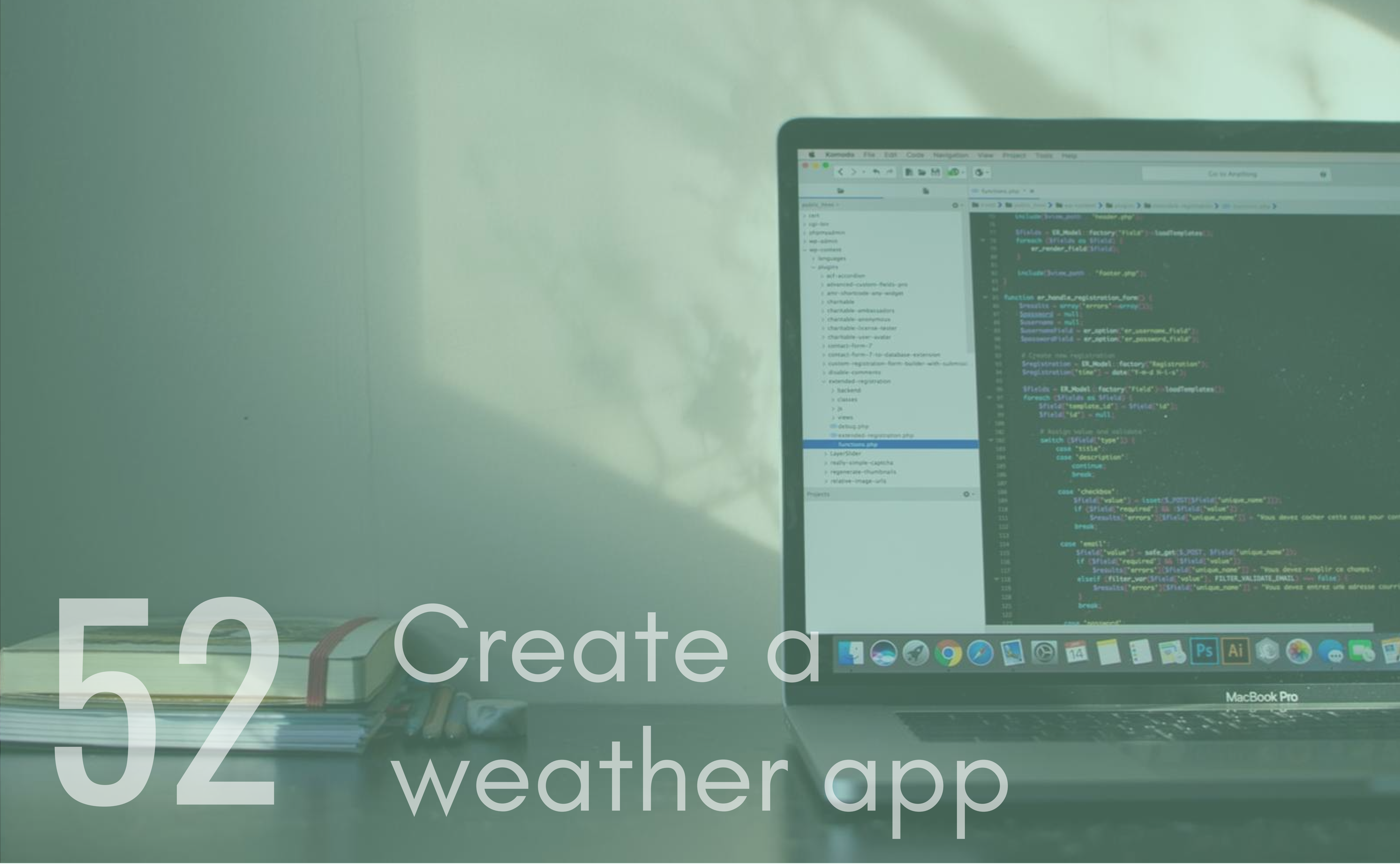
Description

Cookies are a common part of almost every website on the web. Like it or not, they provide great value to businesses but also have uses within apps for doing practical things across sessions. Create an app that has some form of cookie acceptance model and then sets cookies if a user accepts.

Documentation

Modals - https://www.npmjs.com/package/react-modal

React-cookie - https://www.npmjs.com/package/react-cookie



52 Create a weather app

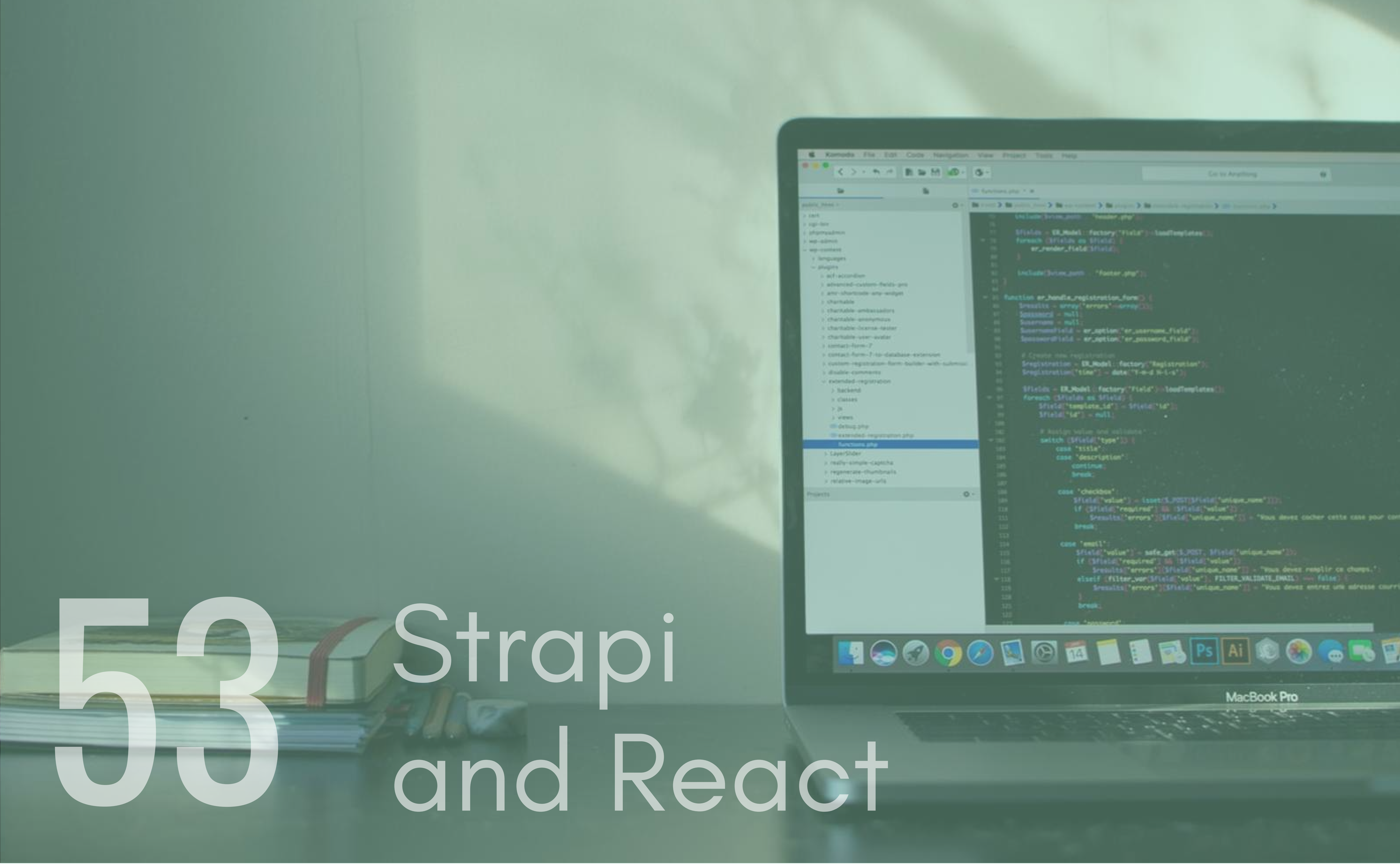
Description

Create a weather app that shows the user the weather around their area. You could go further here and possibly add places to the map of interest near the user's location using google's api.

Documentation

Ipapi - https://ipapi.co/developers/

Google Maps API - https://developers.google.com/maps/documentation/



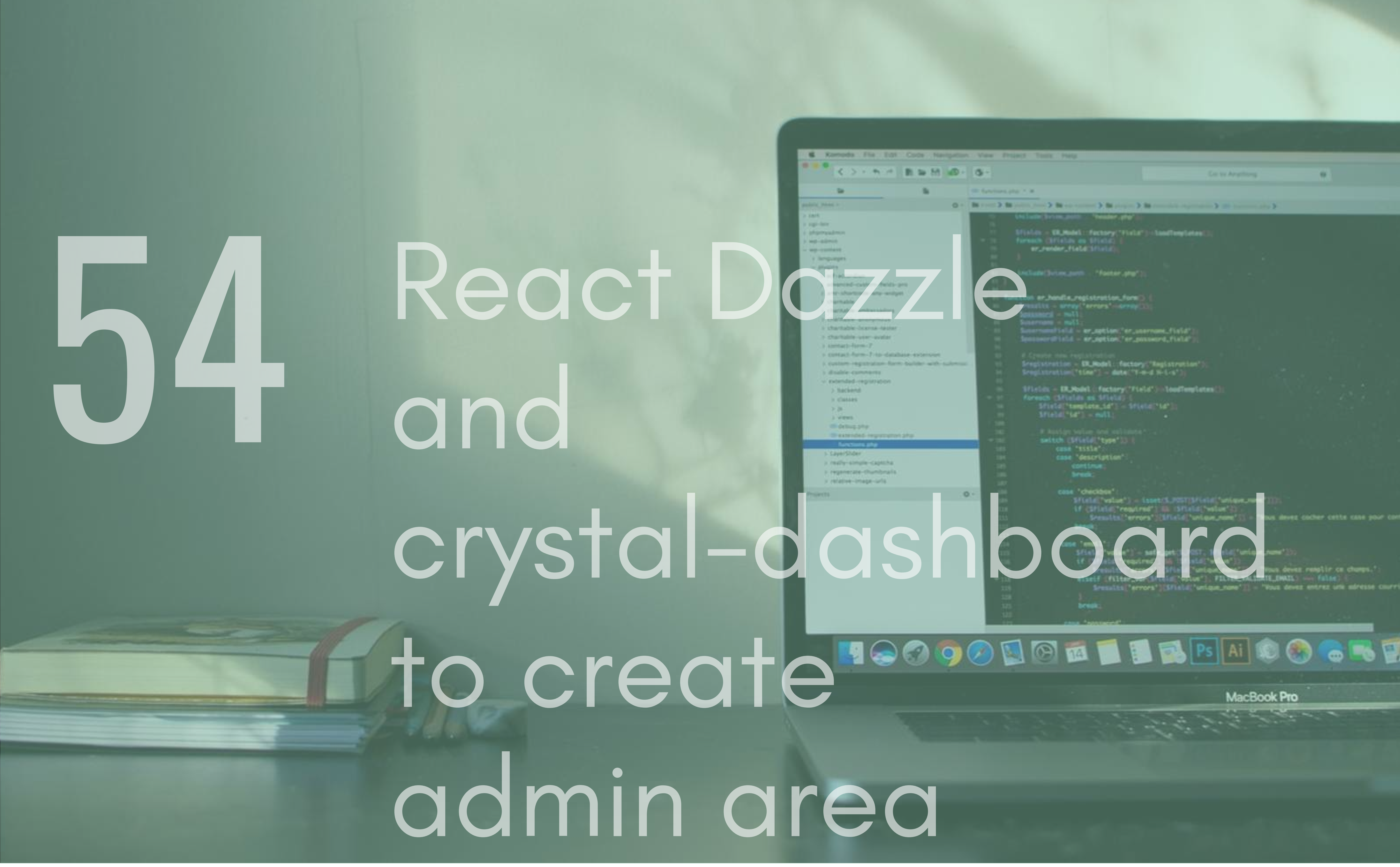
53 Strapi and React

Description

Strapi is a headless CMS that provide a way to build self-hosted, customisation and high performance Content APIs. Use React and Strapi together to create a system where components on the frontend are filled with data that comes from strapi.

Documentation

strapi - https://strapi.io/



54 React Dazzle and crystal-dashboard to create admin area

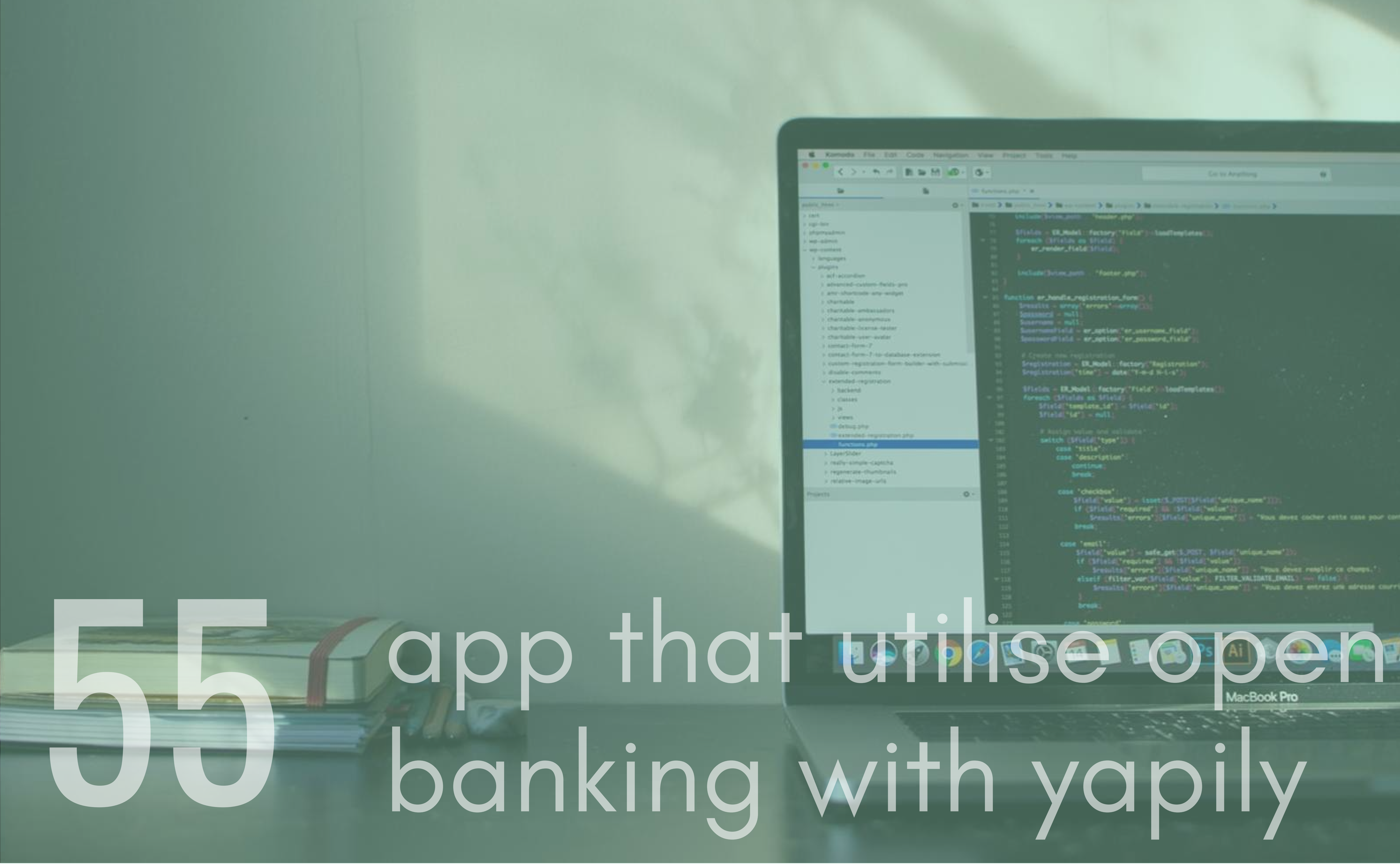
Description

Use the crystal-dashboard component library to create a stunning admin area, connect up the components to API / data sources and then use react dazzle so that a user can move around dashboard elements.

Documentation

Crystal-dashboard - https://github.com/JSLancerTeam/crystal-dashboard

Dazzle - https://github.com/Raathigesh/Dazzle



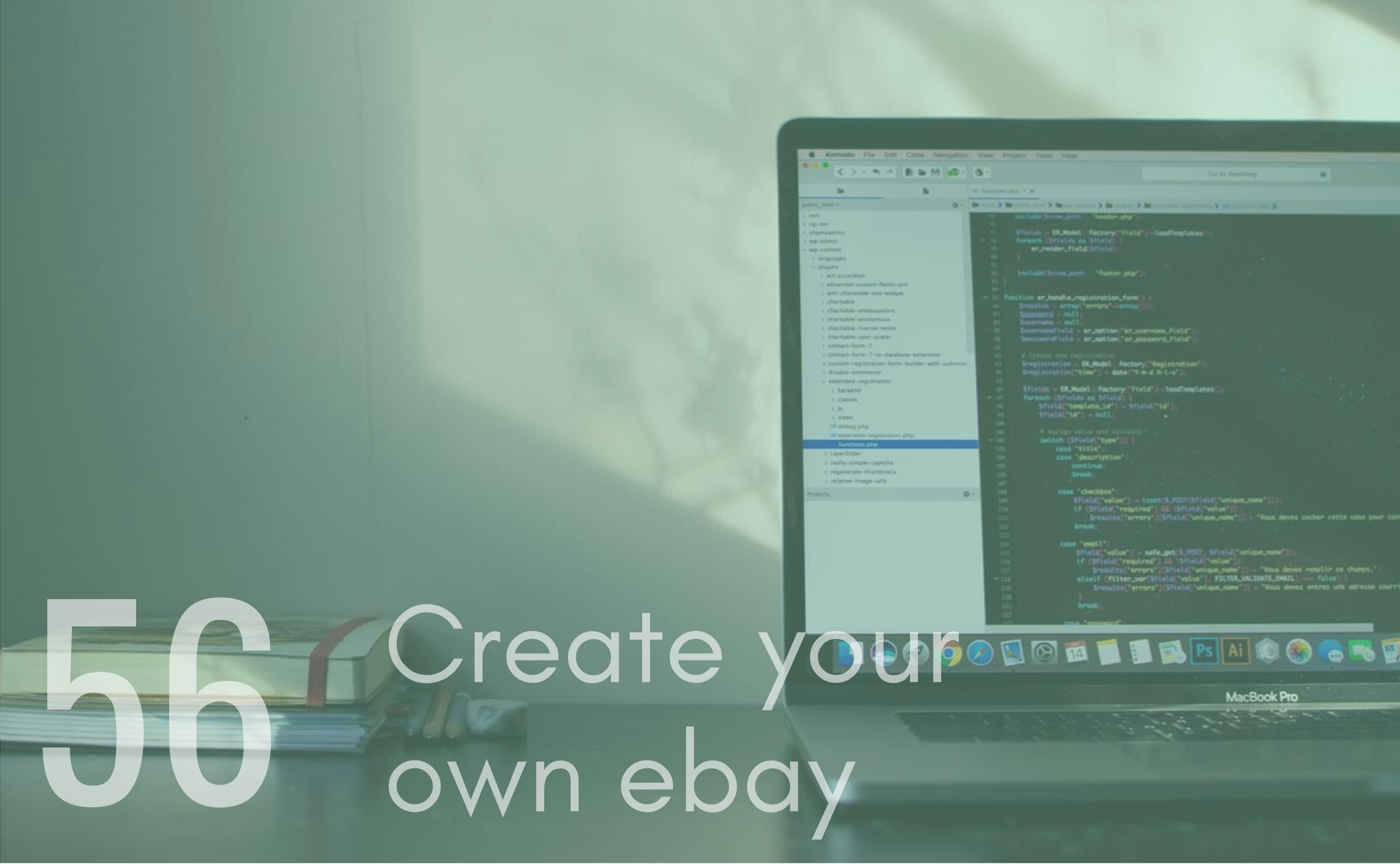
55 app that utilise open banking with yapily

Description

Yapily is a technology enabler, offering service providers an easy way to retrieve financial data and initiate payments providing one single secure API for connectivity to financial institutions. Create an app that utilises this power. Maybe it could be a simple account viewer, enabling a user to view all of their account data in one place or create financial reports based on their account history.

Documentation

Yapily - https://www.yapily.com/



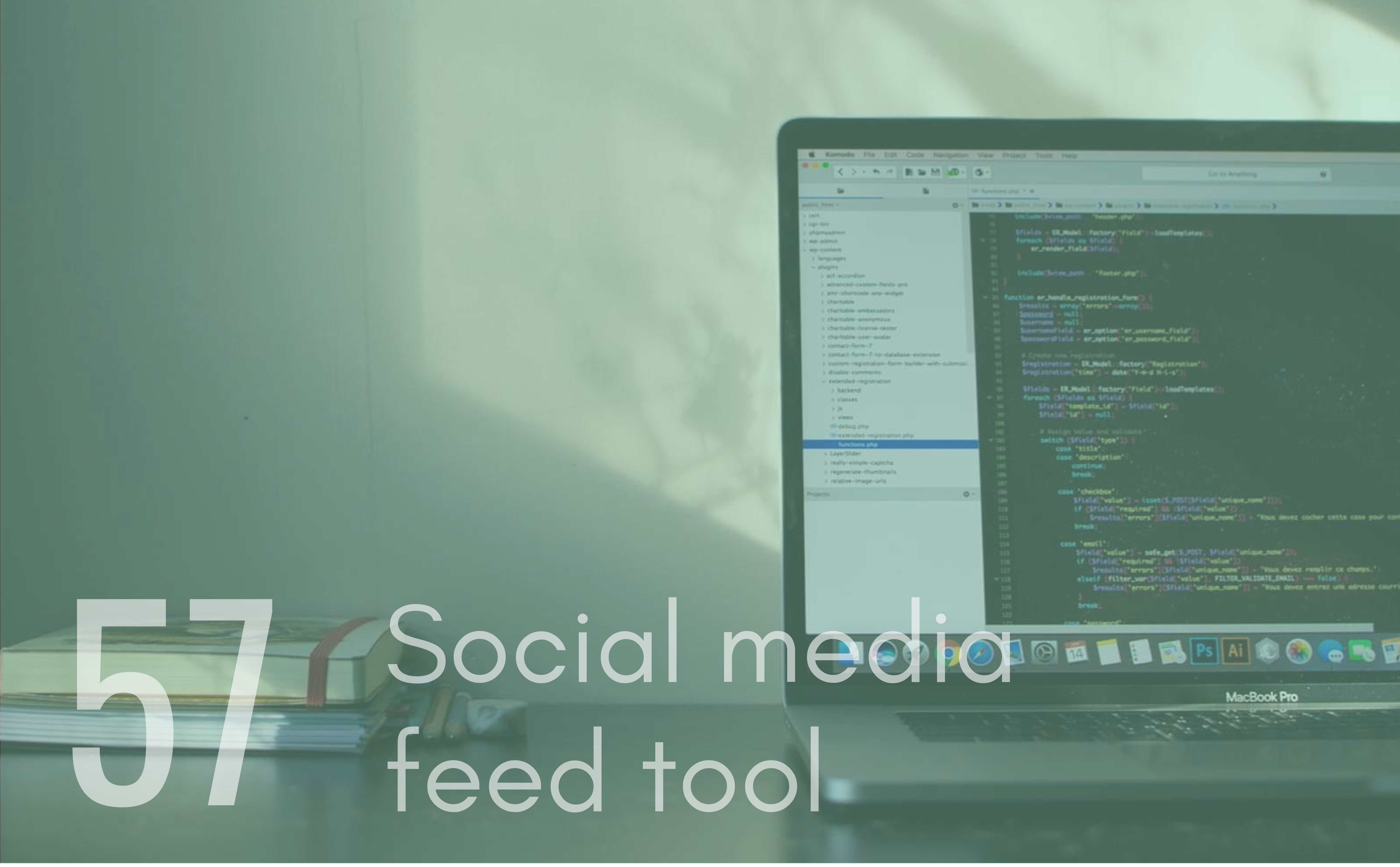
56 Create your own ebay

Description

Use ebay's browse APIs to create your own version of the online auction site. You could create a simple search bar and display listing. You could take this further by using other ebay APIs to allow for auction placing through your app. Maybe even create a tool that lets you set up automated bids on items.

Documentation

Ebay - https://developer.ebay.com/api-docs/buy/browse/overview.html



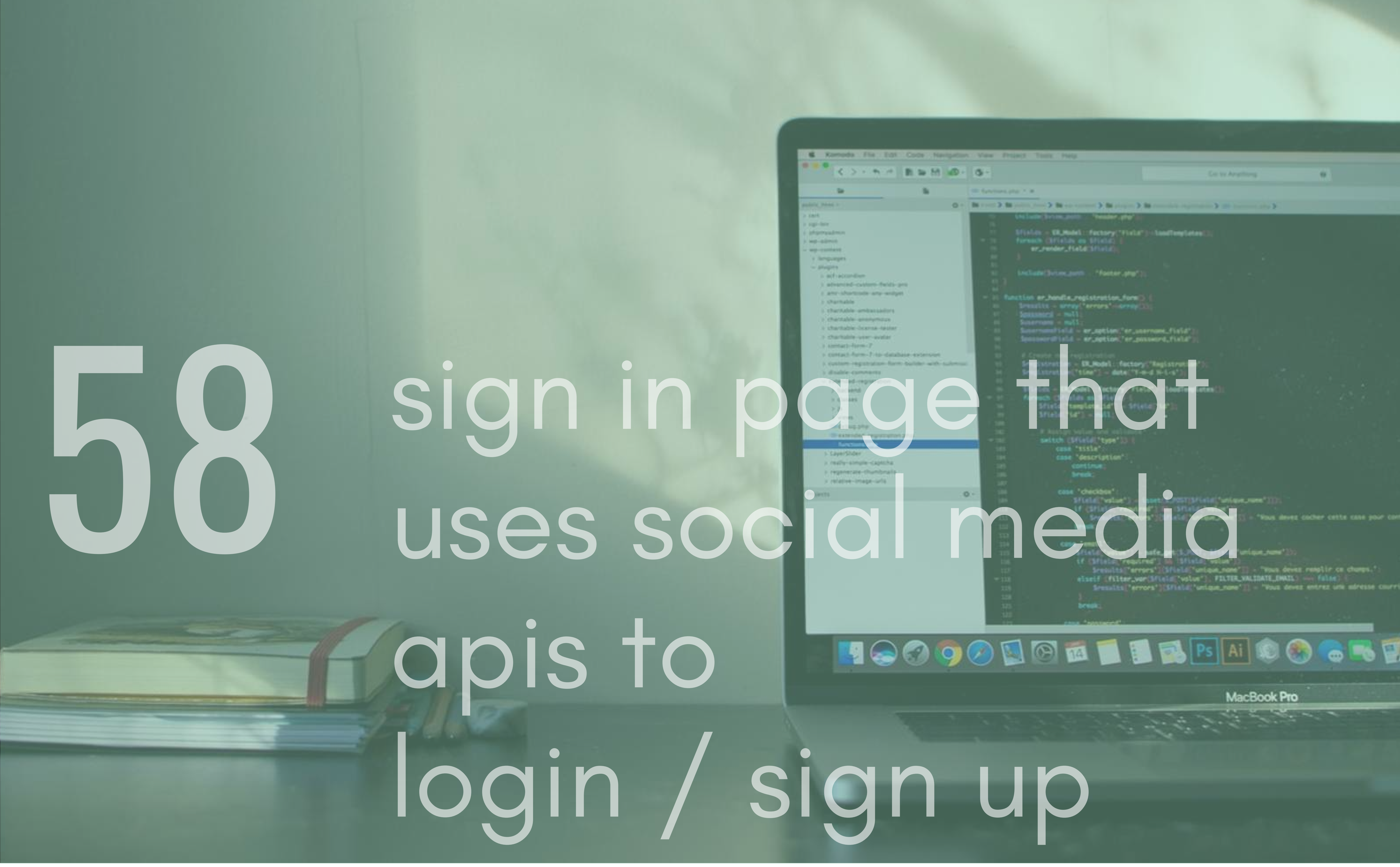
57 Social media feed tool

Description

Most people, including yourself, probably have more than one social media account. Why not create a tool that lets you view your accounts on one page. You could also create a ‘snapshot’ button that takes a screenshot of the data on your feeds at that time and lets you save it. If you really want to experiment here, why not save the image to the cloud.

Documentation

Facebook API - https://developers.facebook.com/
Twitter API - https://developer.twitter.com/en/docs
Instagram API - https://www.instagram.com/developer/



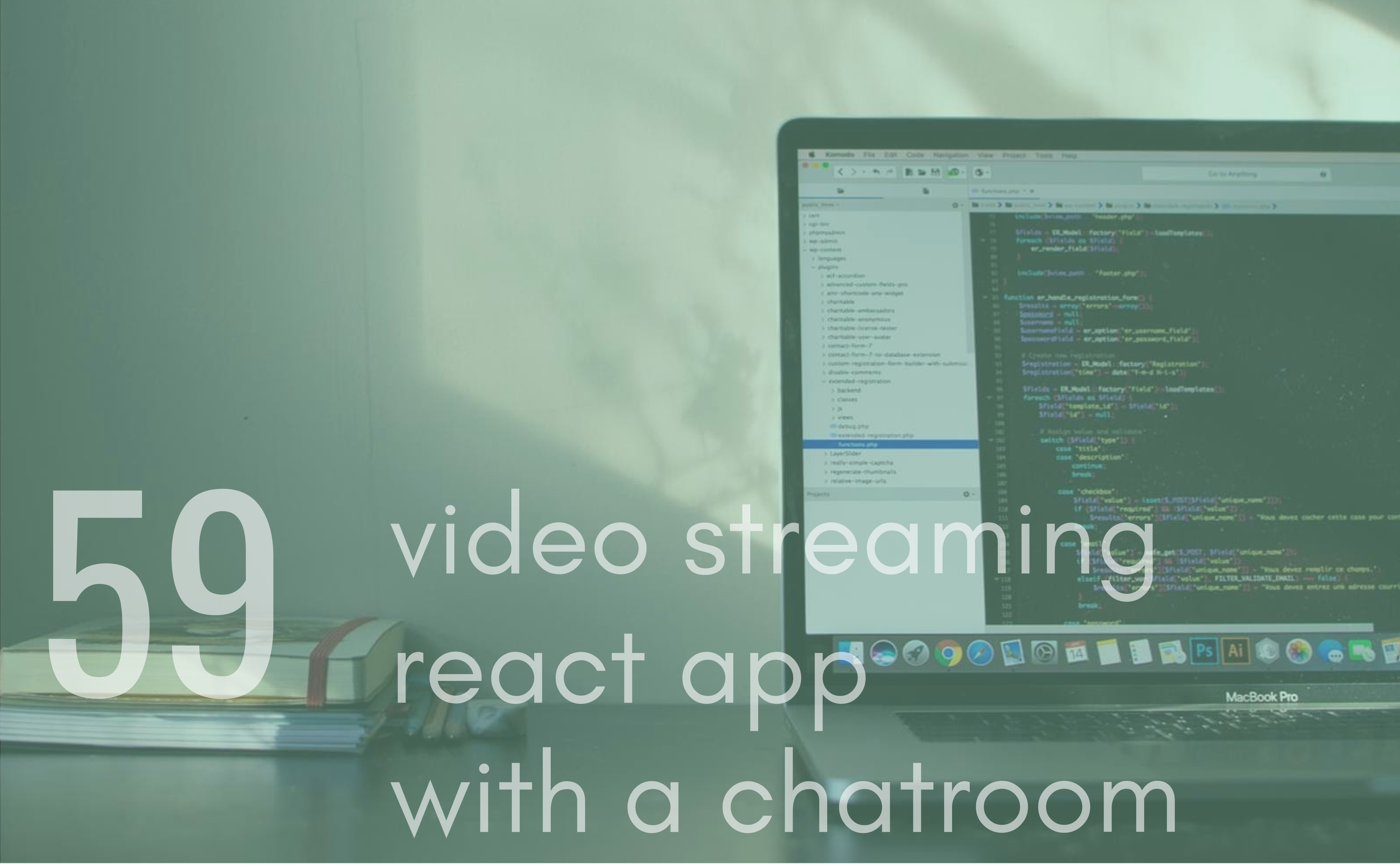
58 sign in page that uses social media apis to login / sign up

Description

A really common use case is using social media accounts to login and sign up users to allow for a smoother user experience and to reduce dropout rates of new users. Create an app that requires you to login and sign up using social media accounts. You could even use a Firebase API, or maybe the user service mentioned in the node section of this book, to save the user data to a database.

Documentation

Facebook API - https://developers.facebook.com/
Twitter API - https://developer.twitter.com/en/docs
Instagram API - https://www.instagram.com/developer/
Google Identification - https://developers.google.com/identity/



59 video streaming react app with a chatroom

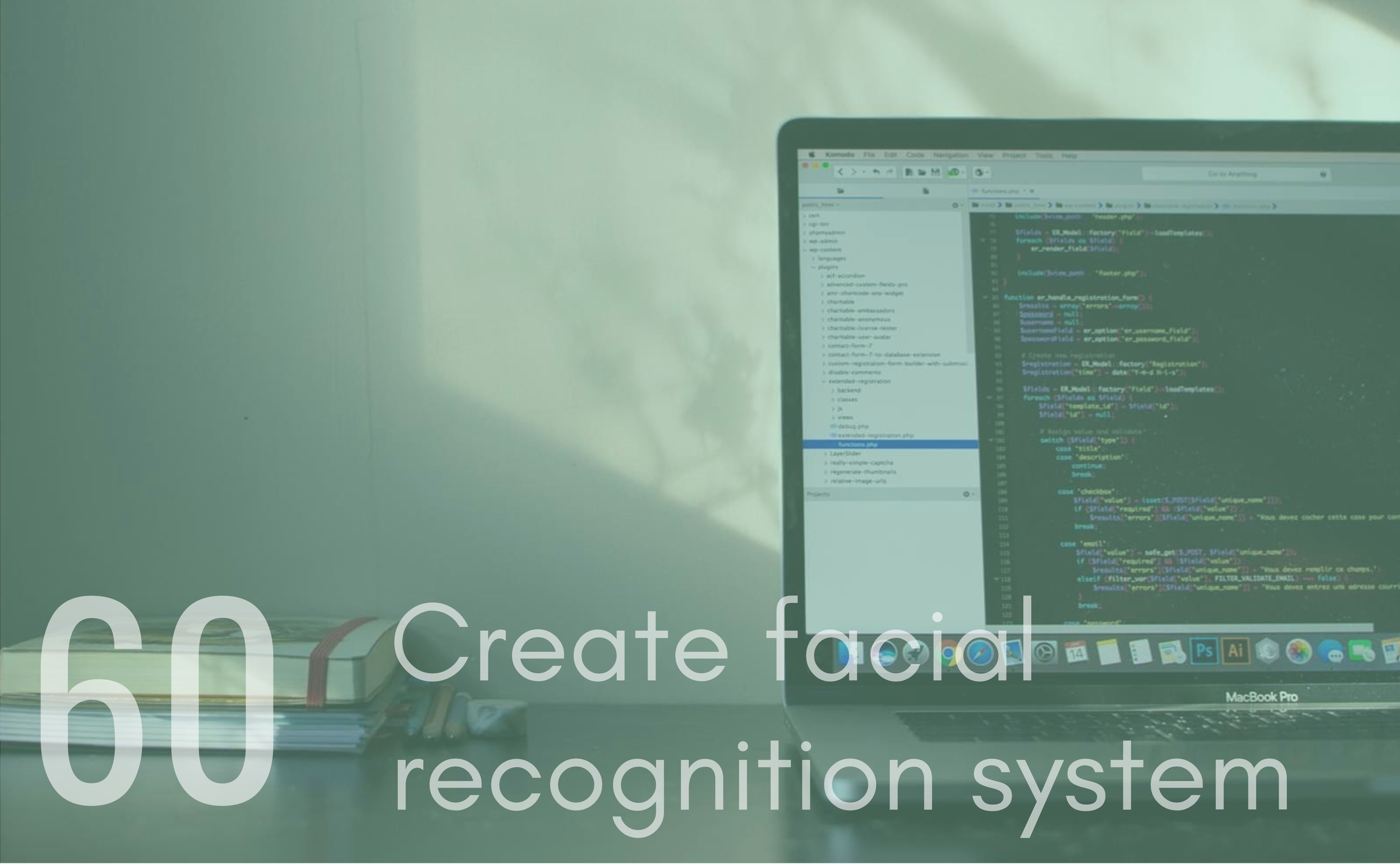
Description

Create your own video streaming service that streams video from some location (could be a server that you host, a cloud location, google cloud blob storage is perfect for this). You could also implement a chat room so that people can discuss what's on the video, you could even create a live stream service.To do this use socket.io for the chat part and Video-React for the video part.

Documentation

Video-React - https://github.com/video-react/video-react

Socket.io - http://socket.io



60 Create facial recognition system

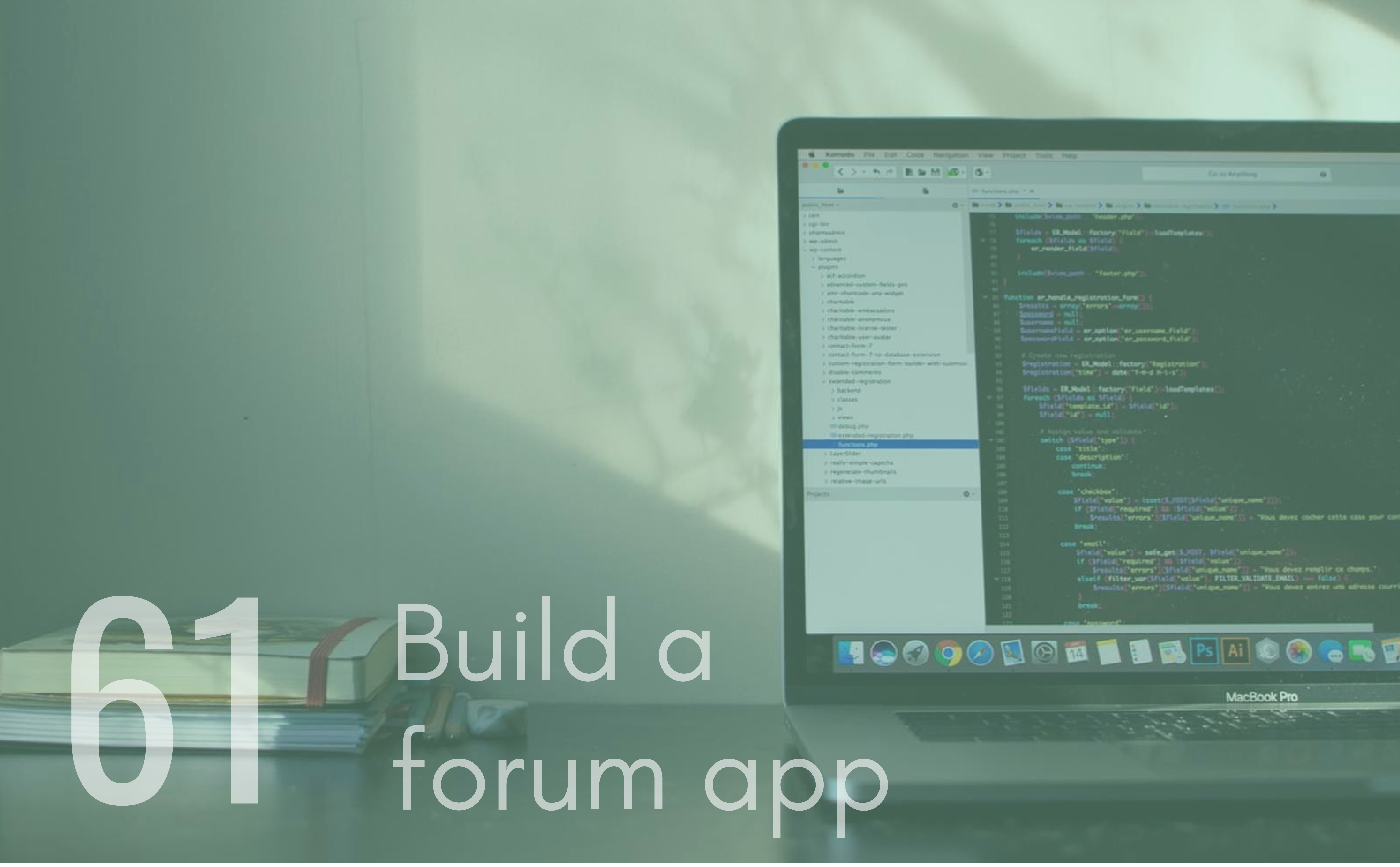
Description

Create an app that uses your webcam to capture your face and then sign you into a page based on if it recognises it or not. To do this you can use react-webcam to capture your face and access the webcam and Amazon ReKognition as a way of using AI to recognise a face.

Documentation

react-webcam - https://www.npmjs.com/package/react-webcam

Amazon Rekognition - https://aws.amazon.com/rekognition/



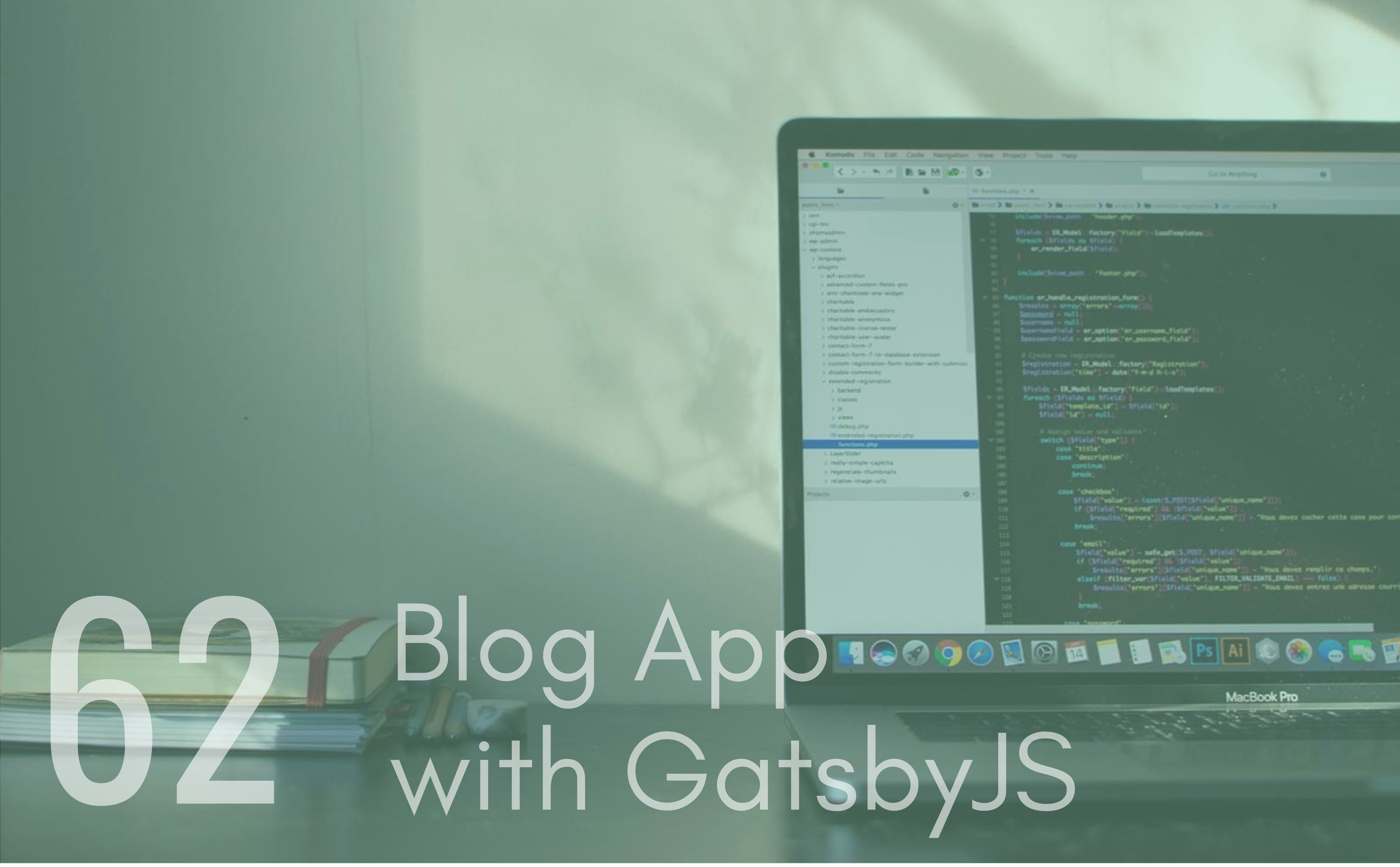
61 Build a forum app

Description

Build an app where a user can submit topic to a forum, read the topics on a forum and comment on them. To find some inspiration on layouts for a forum take a look in the documentation section

Documentation

Forum inspiration - https://dribbble.com/tags/forum



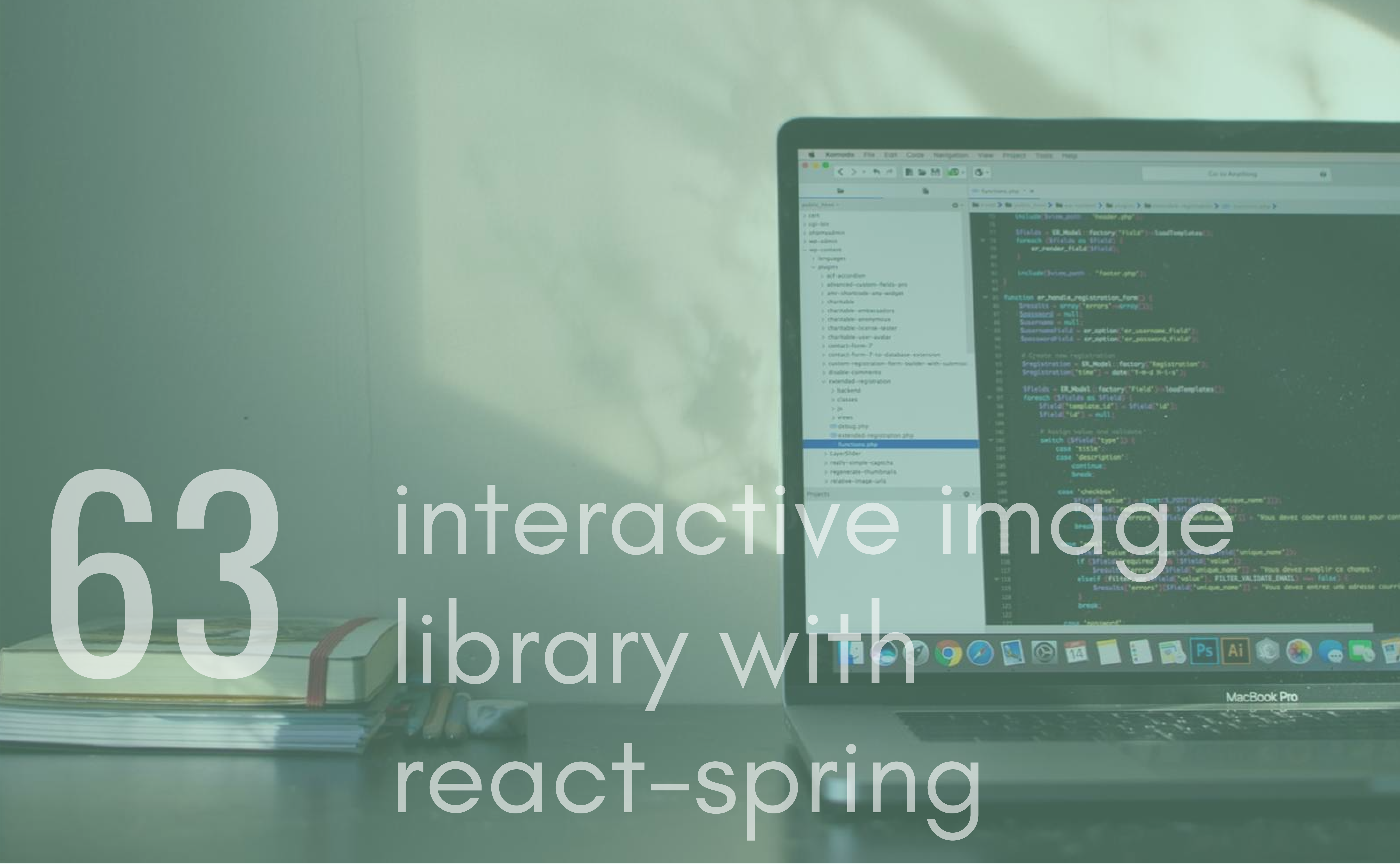
62 Blog App with GatsbyJS

Description

Gatsby is a free and open source framework based on React that helps developers build blazing fast websites and apps. It is used by hundreds of developer teams because of its incredibly fast performance. It also boasts a huge community, so there is a strong support system in place.

Documentation

Gatsbyjs - https://www.gatsbyjs.org/



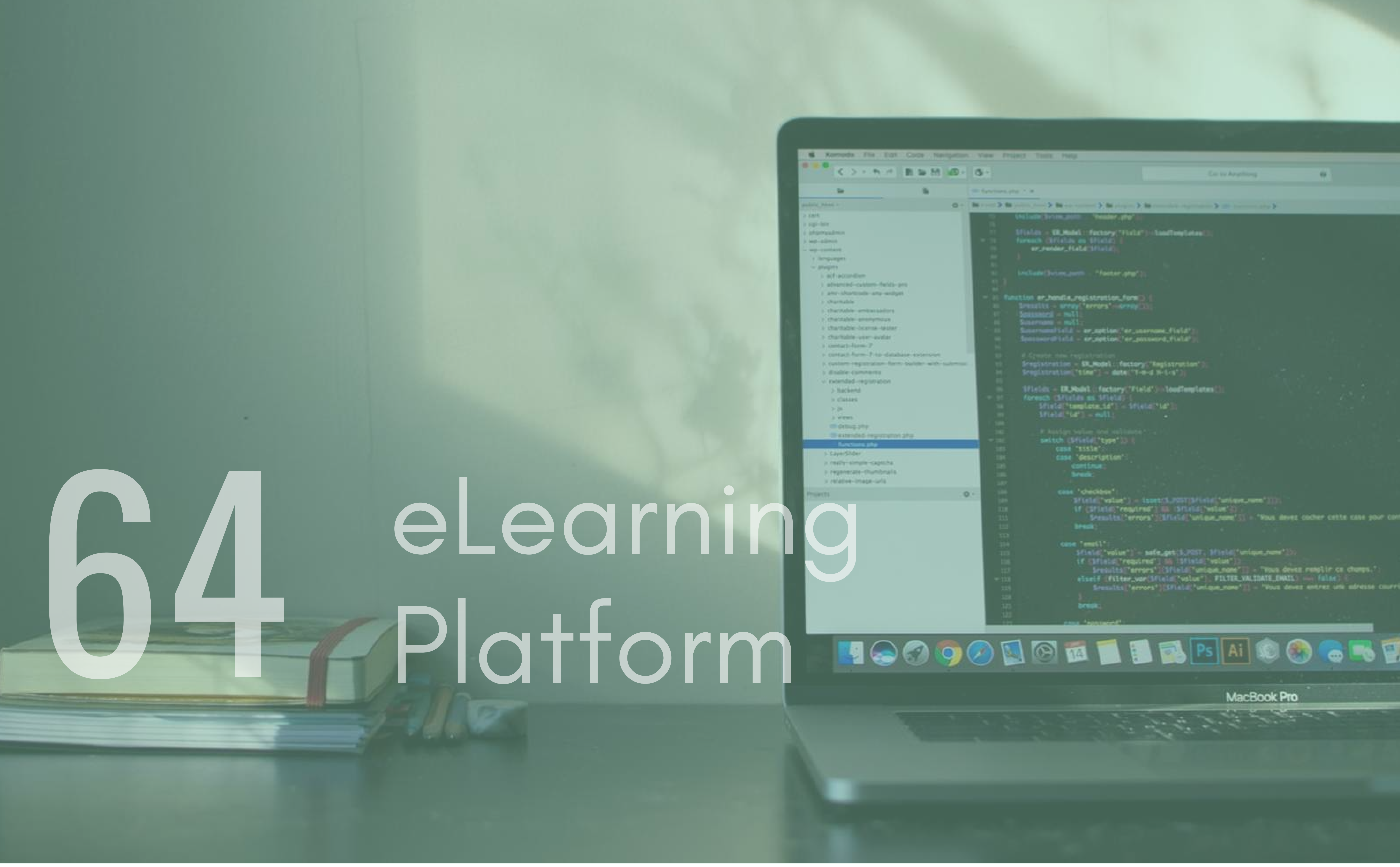
63 interactive image library with react-spring

Description

React Spring is a spring-physics based animation library that gives you the tools to create modern animations. Use it to create a really cool interactive experience where images animate in various ways. You could even try using infographics to create an immersive learning experience around a particular topic.

Documentation

React-spring - https://www.react-spring.io/



64 eLearning Platform

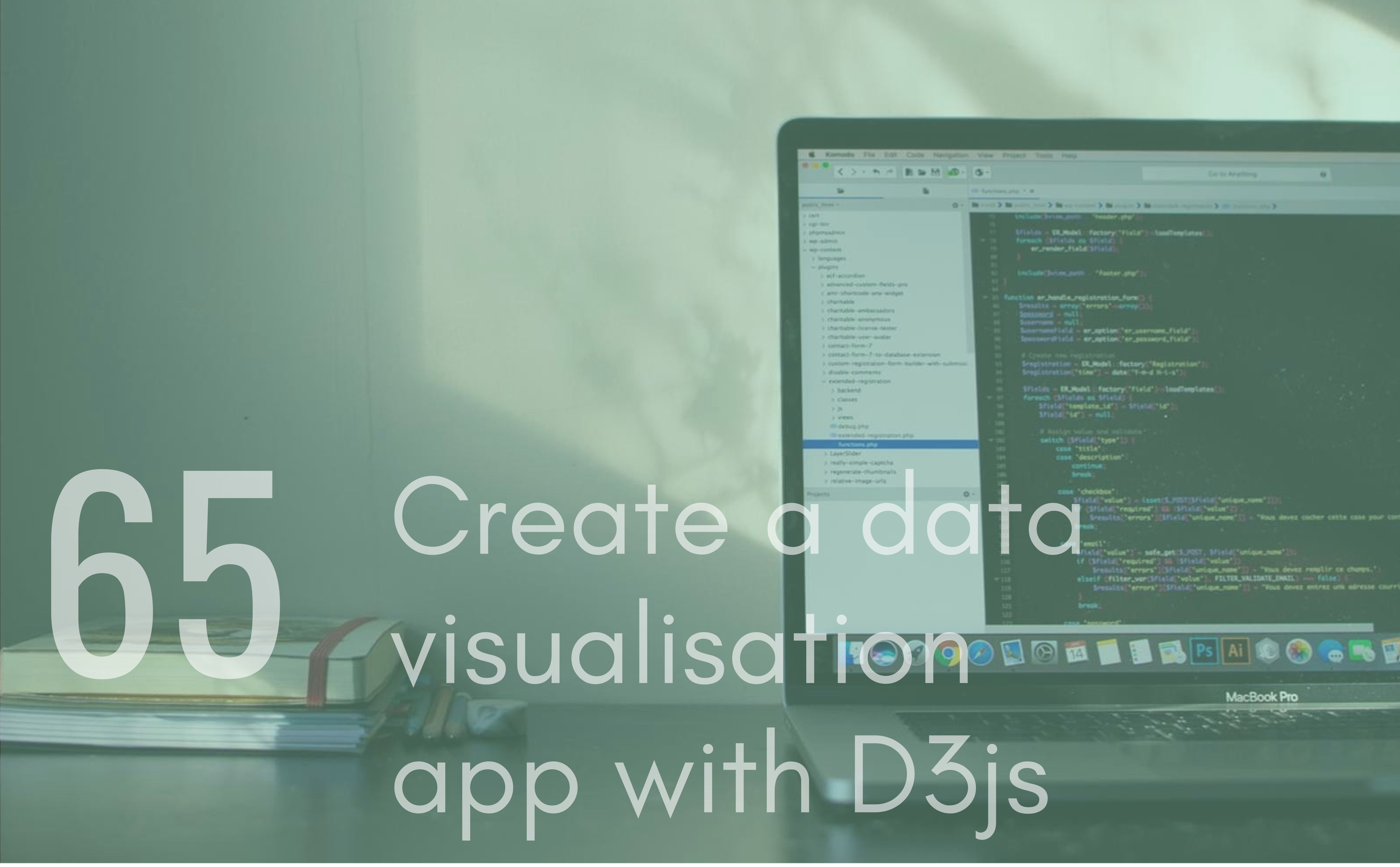
Description

eLearning platforms are becoming more popular due to the rising costs of Degree education. Build your own eLearning platform, you could take a look at udemy or treehouse for inspiration. To help you out, use the react-burger-menu package to get you a basic layout. Then try filling out the remainder of the space with courses. A course component could contain basic course information, an image and a start course button. I've left some useful UI libraries to help you out.

Documentation

react-burger-menu - http://negomi.github.io/react-burger-menu/

Evergreen - https://evergreen.segment.com/



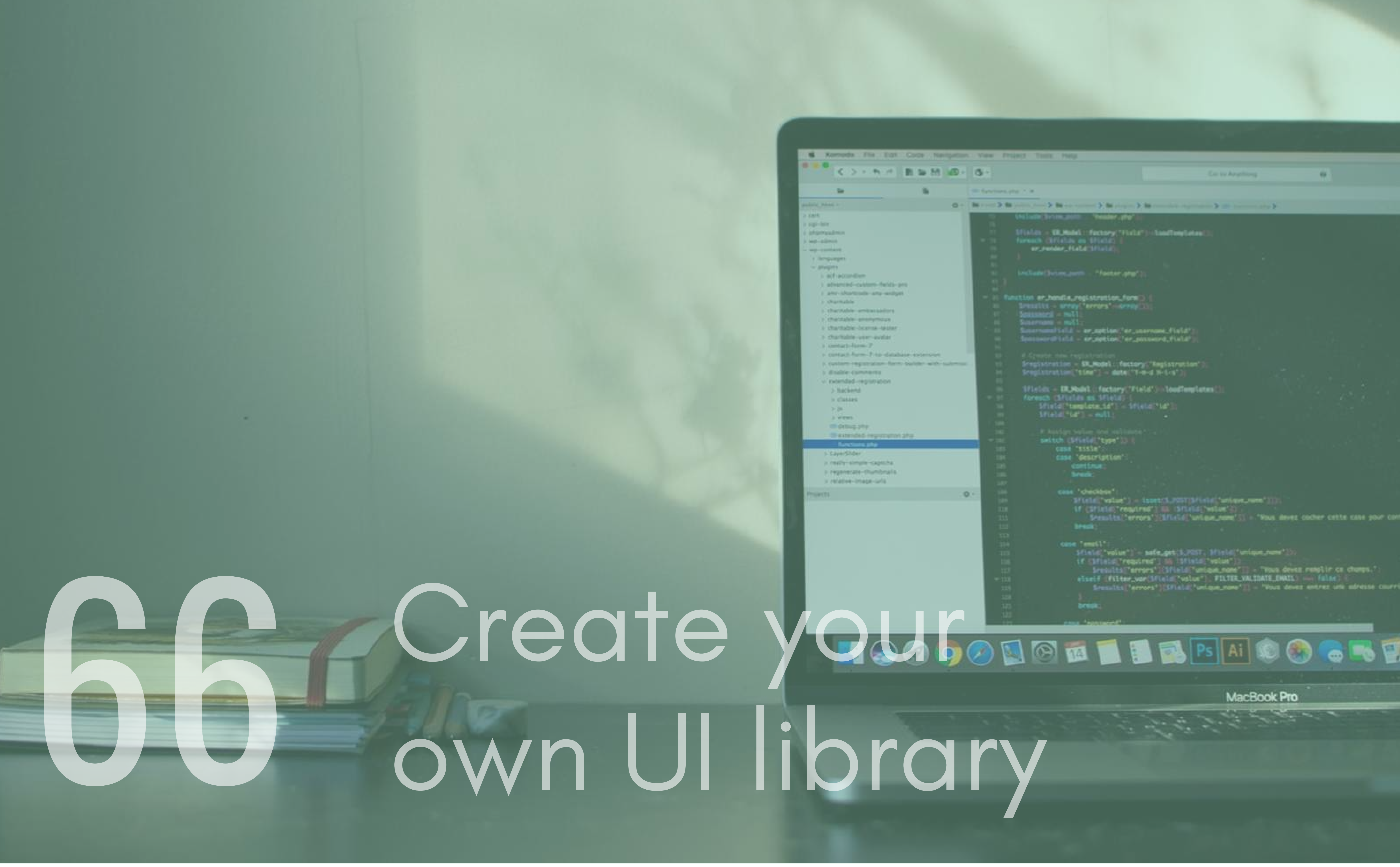
65 Create a data visualisation app with D3js

Description

D3js is a common data driven library that allows you to create incredible visual experiences for a user. It is also used by a lot of companies and is an industry standard. Creating a project with this is going to be really useful to you and will help you get your thinking hat on!

Documentation

D3js - https://d3js.org/



66 Create your own UI library

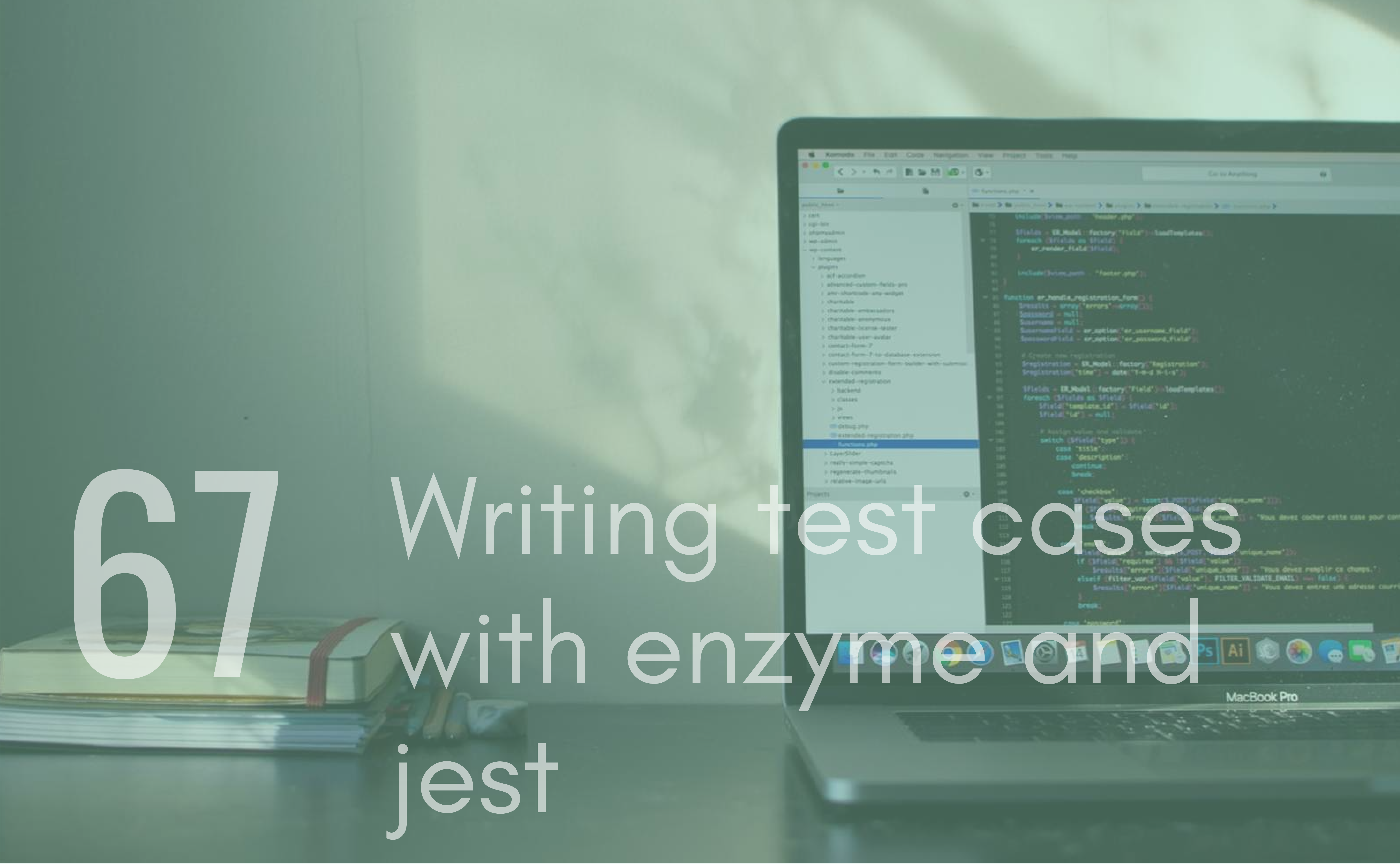
Description

Create a basic UI library. Try creating the following components: button, card, text, input, form and a checkbox. I would recommend taking a look at the inspiration link I have left below for design ideas for your components. You could take it further by turning it into a proper npm package, I have provided links for information on how to do this below.

Documentation

Create Your Own npm library - https://itnext.io/how-to-write-your-own-reusable-react-component-library-a57dc7c9a210

UI design - https://collectui.com/



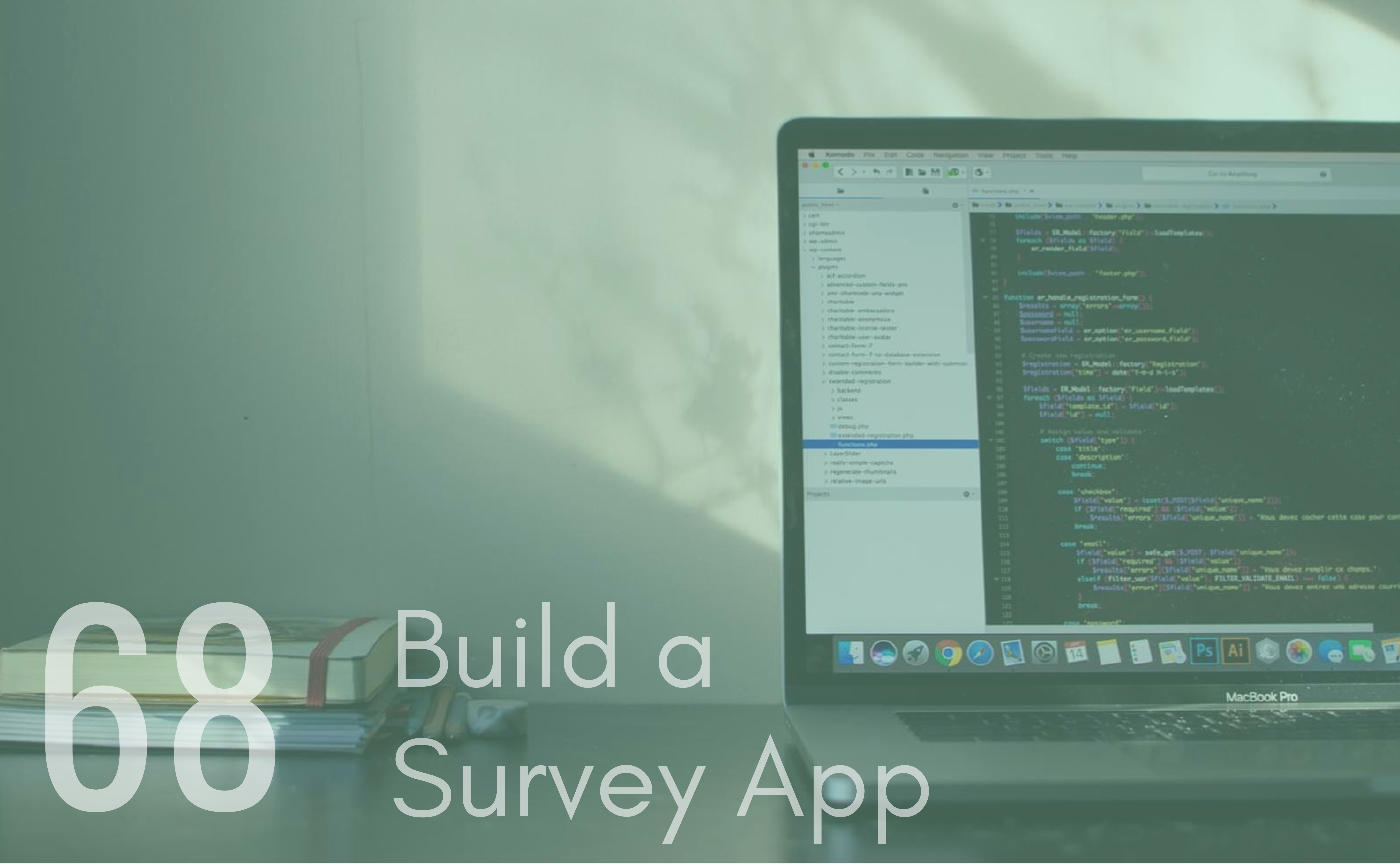
67 Writing test cases with enzyme and jest

Description

Enzyme and jest are popular testing libraries created by Airbnb and Facebook(enzyme - Airbnb, Jest - FaceBook).Together they create a rich set of tools that allow you to test your code with ease. It can be a steep learning curve at first but once you get your head around the core concepts it is quite easy to pick up. For this, clone a project and create a few simple components that render some code and then create unit tests for them. Alternatively, you can use the repo I have left below and write test cases for the code in it.

Documentation

Repo - https://github.com/insin/react-hn
Jest - https://jestjs.io/
Enzyme - https://airbnb.io/enzyme/docs/api/



68 Build a Survey App

Description

Survey based apps/features are used a lot on real world apps to get feedback from users. Create an interactive survey experience using react-form and a transition library. Each transition should reveal a new question and at the end, the answers should be displayed on the summary screen.

Documentation

React-form - https://www.npmjs.com/package/react-form

POSE transition library - https://popmotion.io/pose/

React Native Projects

React Native is Facebook's answer to cross platform app development with JavaScript. Companies such as airbnb, instagram and Bloomberg have all opted for react native due to its familiar development environment. Below are some great project ideas that will help you develop your react native skills.

69 Google Maps Clone

Description

There are a lot of really good Map packages out there that provide you with a fully customisable map. You can get location data from the device, create cool points of interest and style the map to your liking. If you connect to the various APIs you can create your own directions app or leave points on the map that you could share with friends.

Documentation

React native maps - https://github.com/react-native-community/react-native-maps

Google Maps - https://developers.google.com/maps/documentation

70 Build a AR App

Description

Augmented reality (AR) is a type of interactive, reality-based display environment that takes the capabilities of computer generated display, sound, text and effects to enhance the user's real-world experience. The most famous example of this is Pokemon GO.It is one of the current emerging technologies and has a lot of investment in it. You could get ahead of the world by creating your very own AR app using Rect-Native.There are two packages that you can use to do this, one for iOs and one for android. Please check the documentation section to find out what packages they are.

Documentation

React-native-arkit(iOs Only) - https://github.com/react-native-ar/react-native-arkit

React-native-arcore - https://bit.ly/31Hfbmm

71 Build a VR App

Description

Virtual Reality (VR) literally makes it possible to experience anything, anywhere, anytime. It is the most immersive type of reality technology and can convince the human brain that it is somewhere it is really not.You could create an App that creates an immersive experience for your users that integrates with other packages to create a fun app. To do this you will need to use Facebook's react 360 library that can be found in the description below.

Documentation

Facebook's 360 VR kit(react360) -
https://facebook.github.io/react-360/

72 Instagram Clone

Description

If you don’t live in a bubble then I am sure that you have heard of instagram. Instagram is an incredible app that boasts tons of features meaning that if you were to build a clone of it, you would pick up a ton of knowledge. I have provided an article in the documentation that highlights how you could do this with firebase and react-native. This is a challenging app to create but there is so much to learn from it that I would recommend having a go.

Documentation

Article - https://blog.expo.io/instagram-clone-using-firebase-react-native-expo-cc32f61c7bba

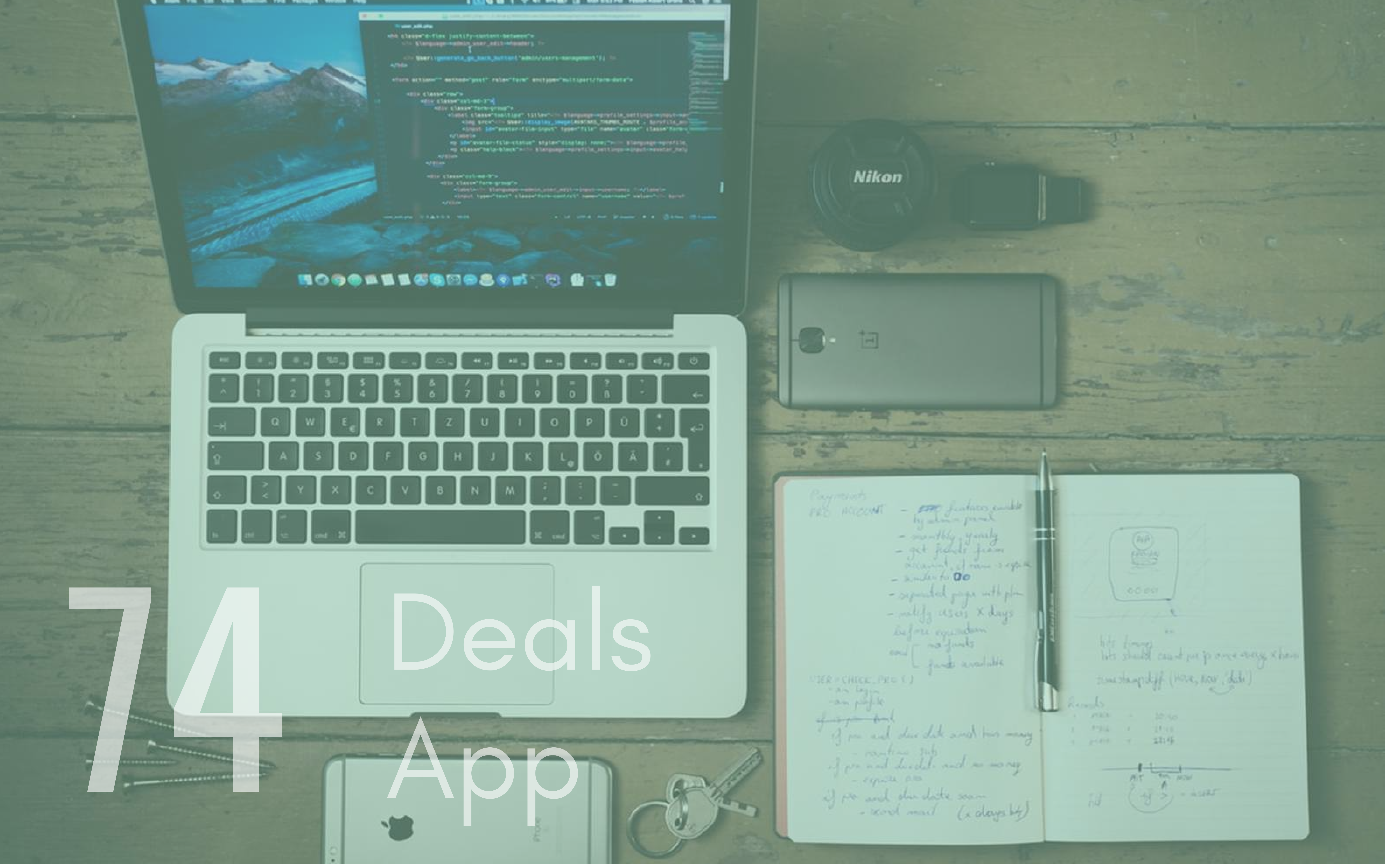
73 Tinder Clone

Description

Create an app that is similar to Tinder. You could use the react-native-deck-swiper package to get the animations of the swiping action. Why not make it something random where you rate peoples dinners or something like that.

Documentation

React-native-deck-swiper -
https://github.com/alexbrillant/react-native-deck-swiper



74 Deals App

Description

This is a slightly complex app idea but it is another app that would offer an incredible amount of learning. You would need to use several APIs to get deals, possibly allow a user to upload a deal, maybe integrate a barcode scanner that lets you check the price online.There is a lot you can do with this so I would recommend at least checking it out. Take a look at some of the apps that are out there for inspiration.

Documentation

Barcode Scanner Article - https://bit.ly/31N5Rxl

Google has a deals API - https://bit.ly/2Va4JS3

75 Finance App

Description

Finance apps are becoming increasingly popular and are of great value to people who use them(I use about four, so not being biased here at all…). Create a finance app that lets the user view the balance of their bank account/accounts. Similar to the example I have given earlier, you could use open banking apis to allow for access to get the info. Maybe you could create an app that integrates with Paypal and other online finance services to give the user some kind of dashboard on their phone.

Documentation

Openbankingtracker - https://www.openbankingtracker.com/

PayPal API - https://developer.paypal.com/docs/api/overview/

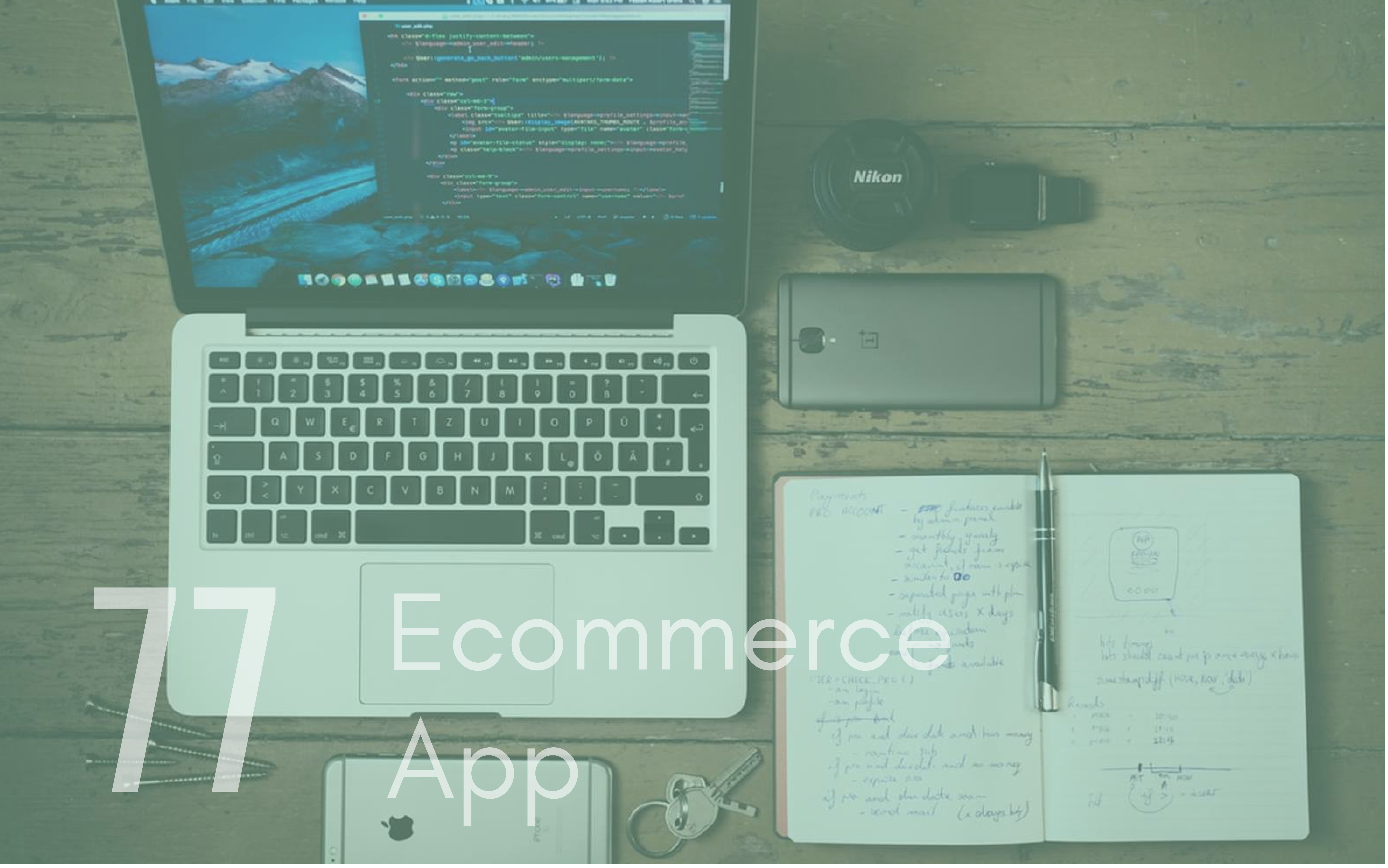
76 Expense Tracker

Description

Build an app that lets you take a picture of a receipt and uploads it to a database for you. The app would also ask the user to input the amount of money spent and the expense type(e.g Business, Client, Training). You could take this further and use AI to automatically get the price from the image.

Documentation

camera with React-Native - https://github.com/react-native-community/react-native-camera



77 Ecommerce App

Description

It’s a classic but also something that is implemented by a lot of companies. Building an eCommerce App will provide you with tremendous value and will look good in a lot of Job Interviews. You can use stripe for payments, mock product APIs to get your product data and some UI component library to provide you with a decent set of components.

Documentation

Stripe - https://stripe.com/docs/api

PayPal API - https://developer.paypal.com/docs/api/overview/

UI compoenet List - https://bit.ly/2KX1Z3L

78 Article App using Shoutem UI

Description

Shoutem UI provides a modern, clean set of UI components that would be perfect for creating an Article based news app. Create a simple app that lets the user Login, Sign Up, Write an Article and read articles. You could use Google Firebase as a backend for you. Firebase will provide you with a solution to store users info and also hold your article data. You go a step further and create a cloud function that gets the article data for you.

Documentation

Shoutem UI - https://github.com/shoutem/ui

Firebase - https://firebase.google.com/

79 Recipes app using Google Recipe API

Description

People are always on the lookout for new Recipes, create an app that uses the Google Recipe API to provide a list of recipes for to a user. The user should be able to click on the recipe and view the instructions, ingredients and time to cook.

Documentation

Shoutem UI - https://github.com/shoutem/ui

Google Recepie API - https://developers.google.com/search/docs/data-types/recipe

80 Nutritional/Calorie Counter App

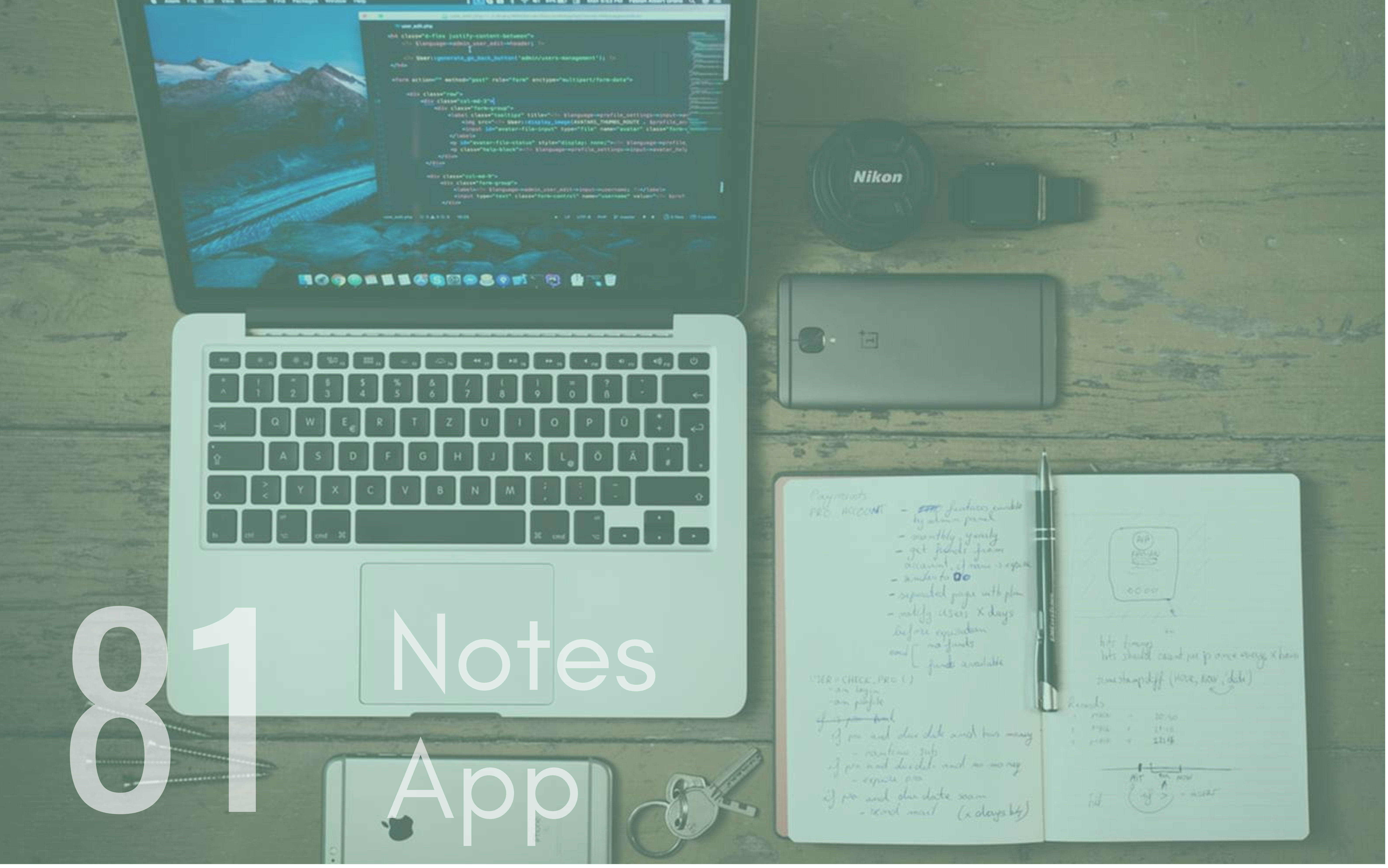
Description

Create an app that tracks the calories for a user. You can use a Nutritional API that returns the nutritional information for any food.

Documentation

FatSecret API - https://platform.fatsecret.com/api

esha API - https://www.esha.com/products/nutrition-database-api/



81 Notes App

Description

Create an app lets a user record rich notes. You could take this further by allowing a user to save it to a cloud provider like Google Drive or dropbox.

Documentation

Google Drive API - https://developers.google.com/drive/

Dropbox API - https://www.dropbox.com/developers/documentation/http/overview

82 Translator app

Description

Create an app that utilises Google Cloud Translator API to translate voice into the language of your choosing. You could even experiment and add some features to the app based on location. For example, if you translate into Spanish, and the user location is in Spain, then maybe suggest some sites to go and see.

Documentation

Google Translate API -
https://cloud.google.com/translate/docs/intro-to-v3

83 Music app that uses the Spotify and Soundcloud APIs

Description

Use the shopify and Soundcloud APIs to search for music suggestions based on some user inputs. You can then show the user some responses based on the inputs you asked. Use a UI library that offers Cards so that you can create a clean way of displaying the results.

Documentation

Spotify API - https://developer.spotify.com/documentation/web-api/

SoundCloud API - https://developers.soundcloud.com/

84 subscription organisation app

Description

subscription organisation app that will keep track of all your subscriptions. A lot of subscription based companies will provide APIs that you can use to get basic account data. You could also ask for users to manually input data. I would recommend using Firebase to give you an easy to use backend setup.

Documentation

Google Firebase - https://firebase.google.com/

85 anti-smartphone addiction app

Description

Create an app that alerts users who are spending too much time on their phone. You could take it further by sending motivational quotes/images to them via a notification pop up.

Documentation

Quotes API -https://quotes.rest/

86 party planning and invitation app

Description

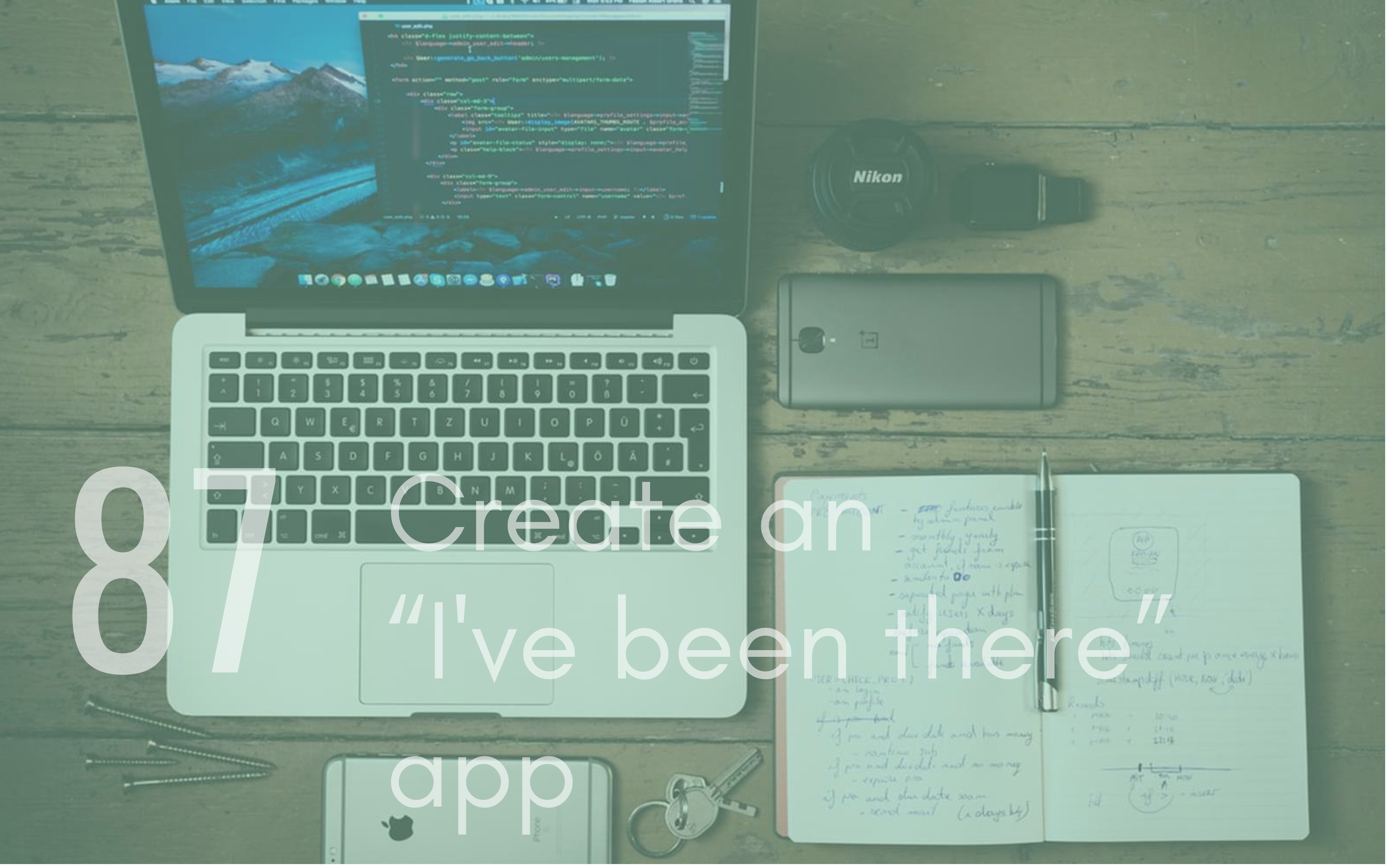
Create an app that allows the user to plan a party, work out costs and send out invites to friends. You could make this app really cool by using APIs, such as Twilio, Facebook messenger and Google Calendar, to send out notifications of parties and schedule them into calendars.

Documentation

Google Calander API - https://developers.google.com/calendar

Facebook Messanger API - https://developers.facebook.com/docs/messenger-platform/

Twilio - https://www.twilio.com/docs/usage/api



87 Create an “I've been there” app

Description

A user should be able to add their location to a map and tag images or a story to that location. If another user then goes to that location they can view other people's thoughts on it, view their images and get recommendations.

Documentation

Google Maps API - https://developers.google.com/maps/documentation/

88 Stock Market App

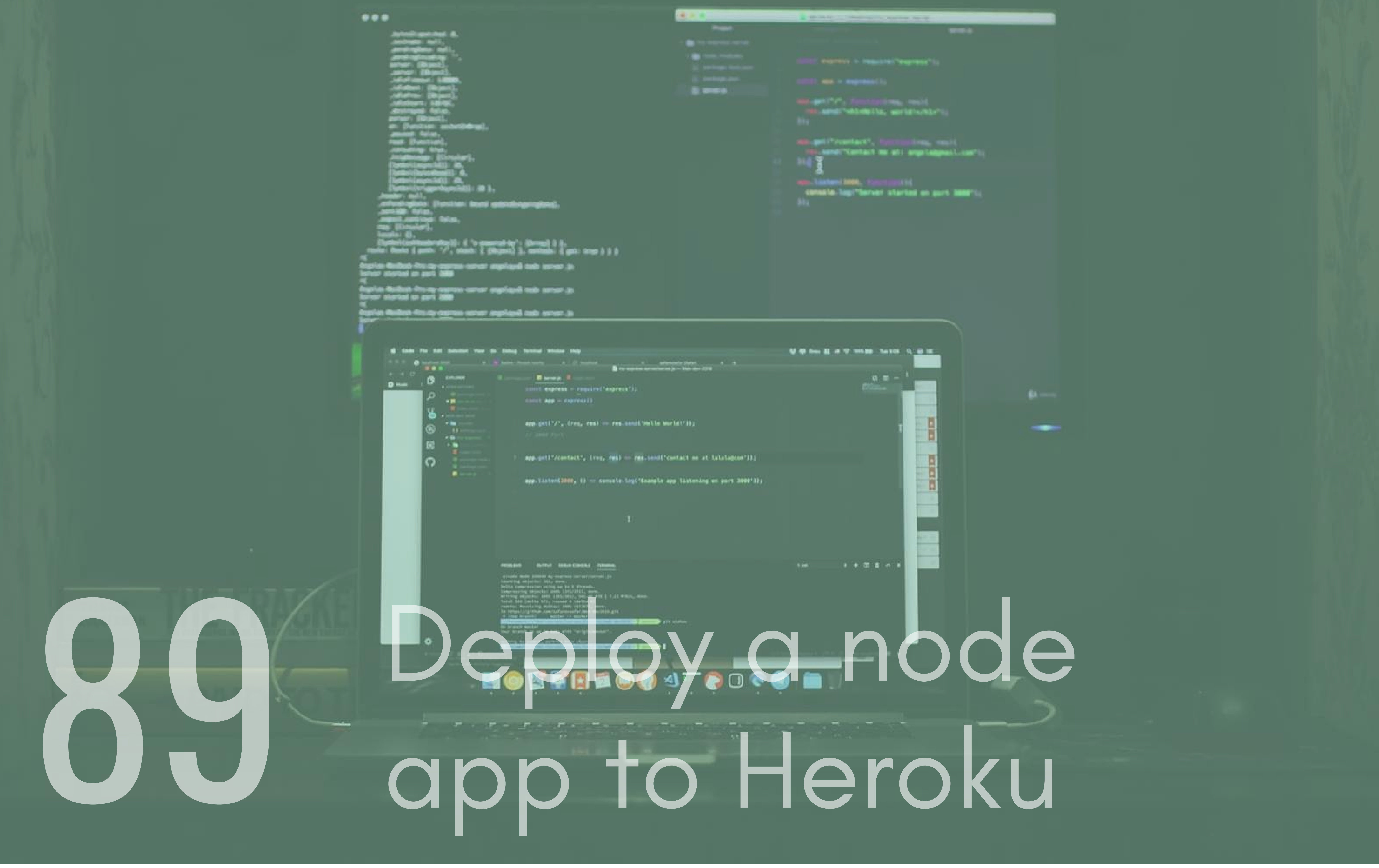
Description

Create a stock tracker app where a user can add various stocks they own and track the prices for them. You can use the api for this.

Documentation

alphadvantage - https://www.alphavantage.co/documentation/

Bonus Projects



89 Deploy a node app to Heroku

Description

Heroku is a platform as a service (PaaS) that enables developers to build, run, and operate applications entirely in the cloud. Essentially it offers a simple way to publish an app to the world and it is a platform that is used by hundreds of businesses around the world. Deploy either an app that you have created from this list to Heroku or use the one given below.

Documentation

Heroku - https://www.heroku.com/

Repo - https://github.com/johnpapa/node-hello

90 Deploy a react app to DigitalOcean

Description

DigitalOcean lets you create scalable Linux virtual machines. You can use these to deploy you web abs to, as well as any Databases that may accompany them. It is slightly harder to set up as you have to configure the Server yourself. If you don't have an app to use then use create-react-app, I have provided a link below.

Documentation

Digitalocean - https://www.digitalocean.com/

create react app - https://github.com/facebook/create-react-app

91 Deploy a react app to Netlify

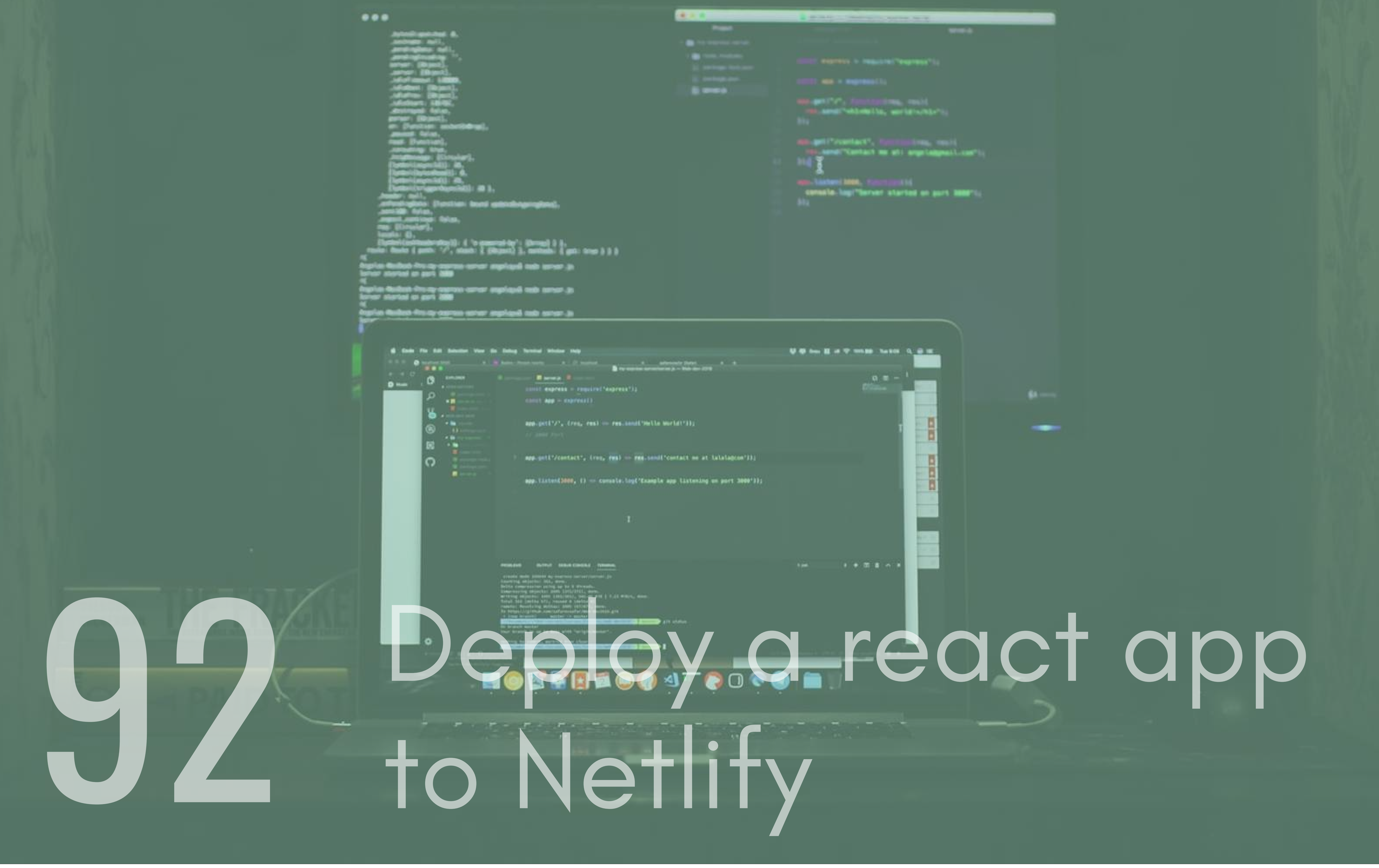
Description

Netlify offers similar services to Heroku, however it has a really generous free package that is perfect for prototyping apps. As a result it is used by a lot of companies for exactly that but also to host large scale applications. Deploy a React app on Netlify, if you are struggling to find one, use create-react-app to create a simple project.

Documentation

Netlify- https://www.netlify.com/

create react app - https://github.com/facebook/create-react-app



92 Deploy a react app to Netlify

Description

Netlify offers similar services to Heroku, however it has a really generous free package that is perfect for prototyping apps. As a result it is used by a lot of companies for exactly that but also to host large scale applications. Deploy a React app on Netlify, if you are struggling to find one, use create-react-app to create a simple project.

Documentation

Netlify- https://www.netlify.com/

create react app - https://github.com/facebook/create-react-app

93 Deploy a MERN app
Digital Ocean

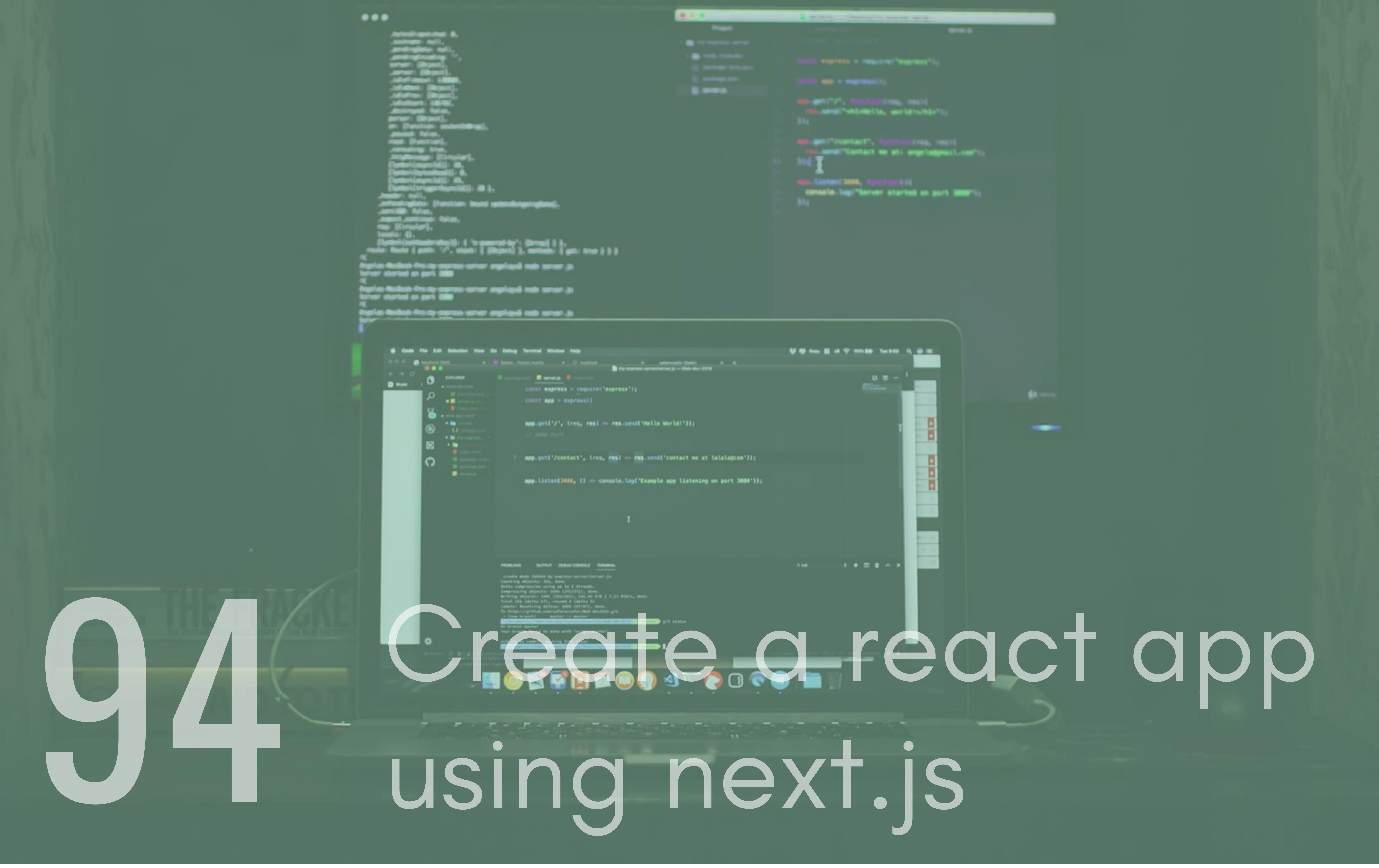
Description

As mentioned in project #92, DigitalOcean lets you create scalable Linux virtual machines. Lets now use this platform to deploy a complete Fullstack app to the server, complete with its own MongoDB instance. I have left a link to a GIT repo below that contains a simple MERN stack app.

Documentation

MERN Repo - https://github.com/anikethsaha/MERN-Boilerplate

Digitalocean - https://www.digitalocean.com/



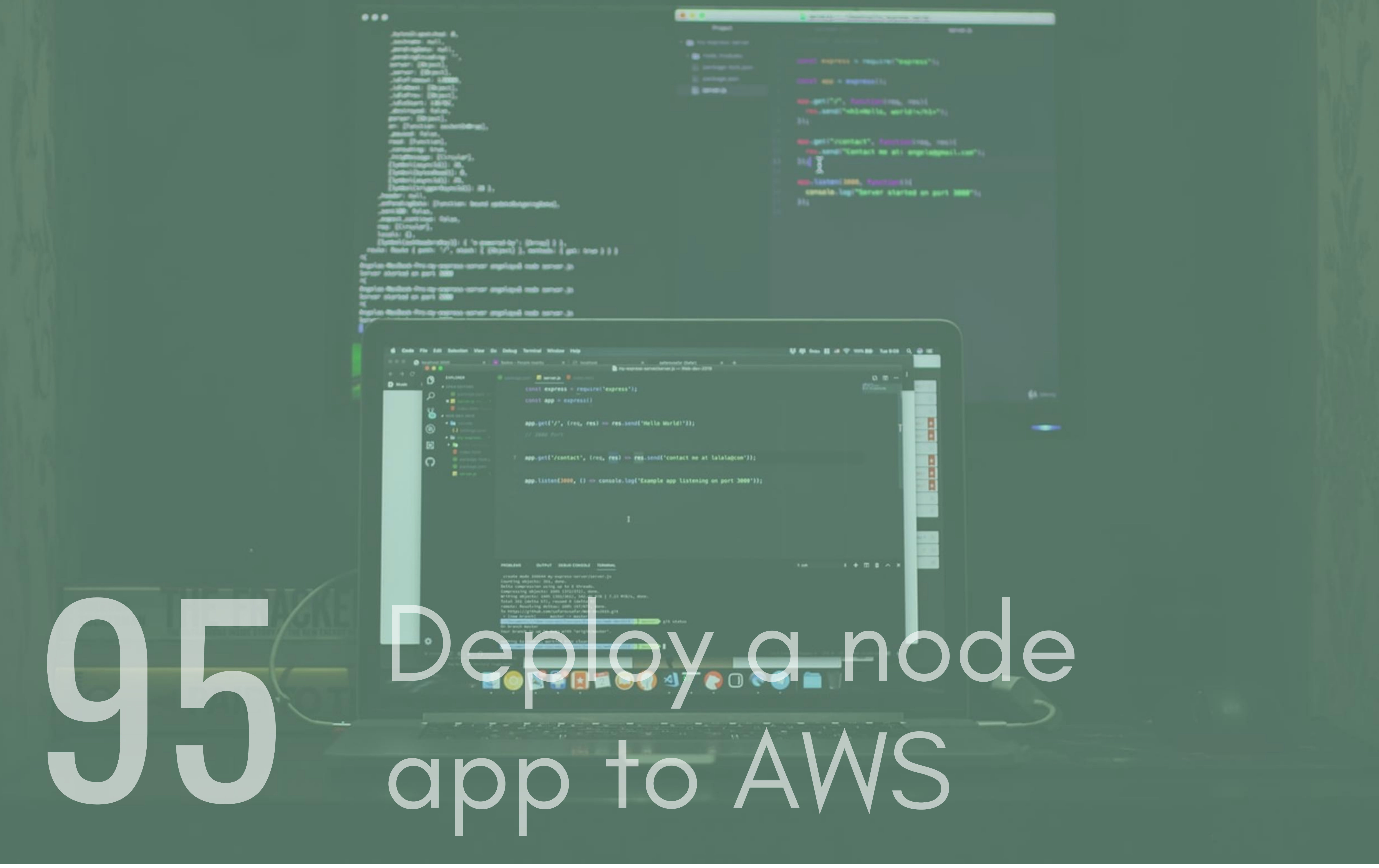
94 Create a react app using next.js

Description

NextJs allows you to create server-side rendered apps with ease. It provides you with Automatic code splitting for faster page loads, Simple client-side routing and Able to implement with Express or any other Node.js HTTP server. This makes it of great use when building apps as it can make development time much faster on more reliable. Create a simple app that uses the features the next.js has to offer. Create a few pages that route to each other and try to build some functionality on top of it.

Documentation

https://nextjs.org/



95 Deploy a node app to AWS

Description

Amazon Web Services (AWS) is the world's most comprehensive and broadly adopted cloud platform, offering over 165 fully featured services. It is used by thousands of companies around the world due to it f;flexibility and reliability. Use AWS Elastic Beanstalk and Amazon DynamoDB(A NoSQL DB, similar to MongoDB) to deploy a node and express app to AWS.

Documentation

AWS - https://aws.amazon.com/getting-started/projects/deploy-nodejs-web-app/

96 Deploy a node app to Google Cloud’s App Engine

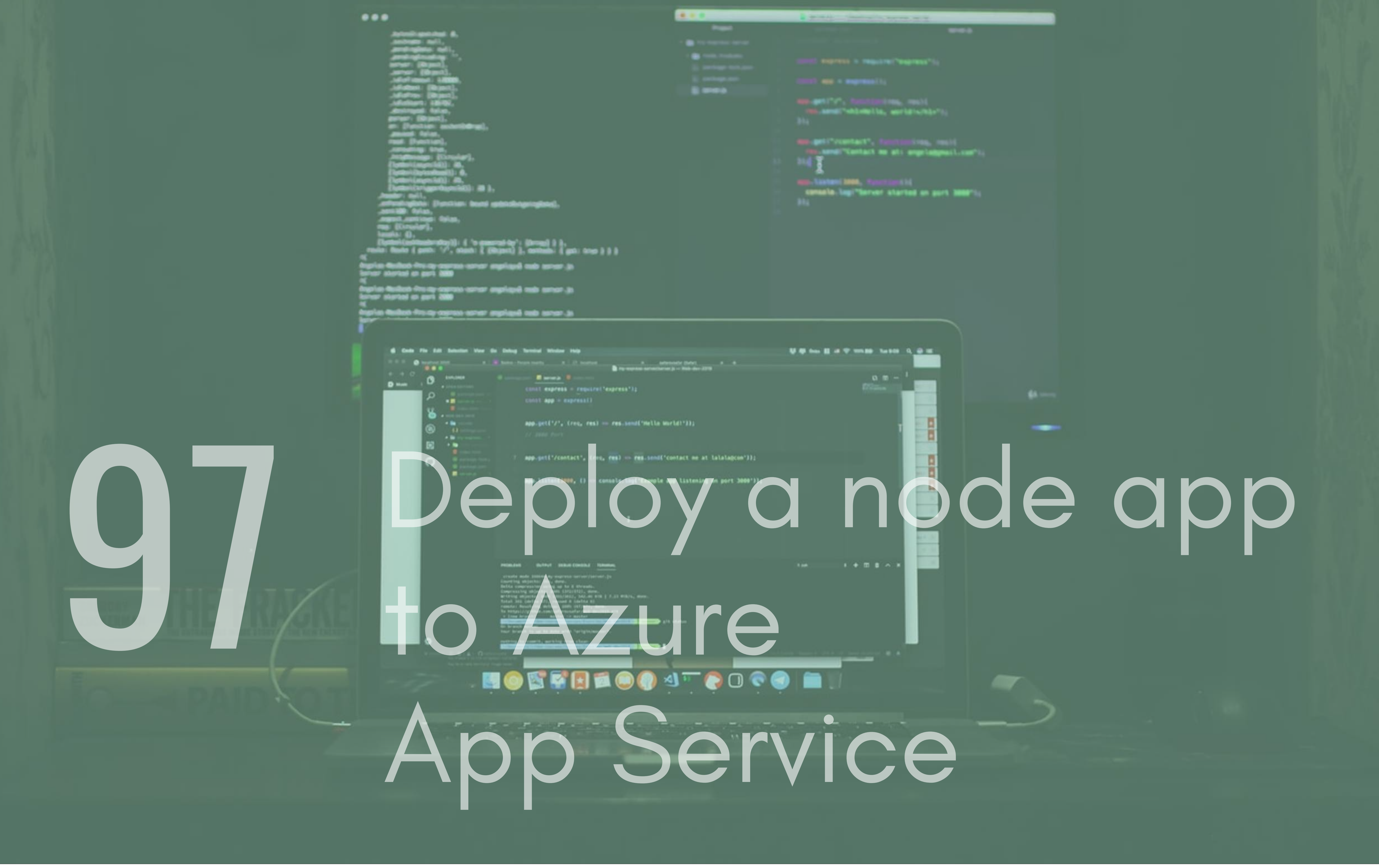
Description

App Engine is a fully managed server-less application platform on Google’s cloud. It is great for deploying node apps that can scale with ease with minimal maintenance and high uptime. It is another service that is used by large and small organisations, so it’s worth knowing a little bit about.

Documentation

App engine - https://cloud.google.com/appengine/

Article - https://medium.com/google-cloud/deploying-a-node-js-app-on-google-cloud-8419de45e5dc



97 Deploy a node app to Azure App Service

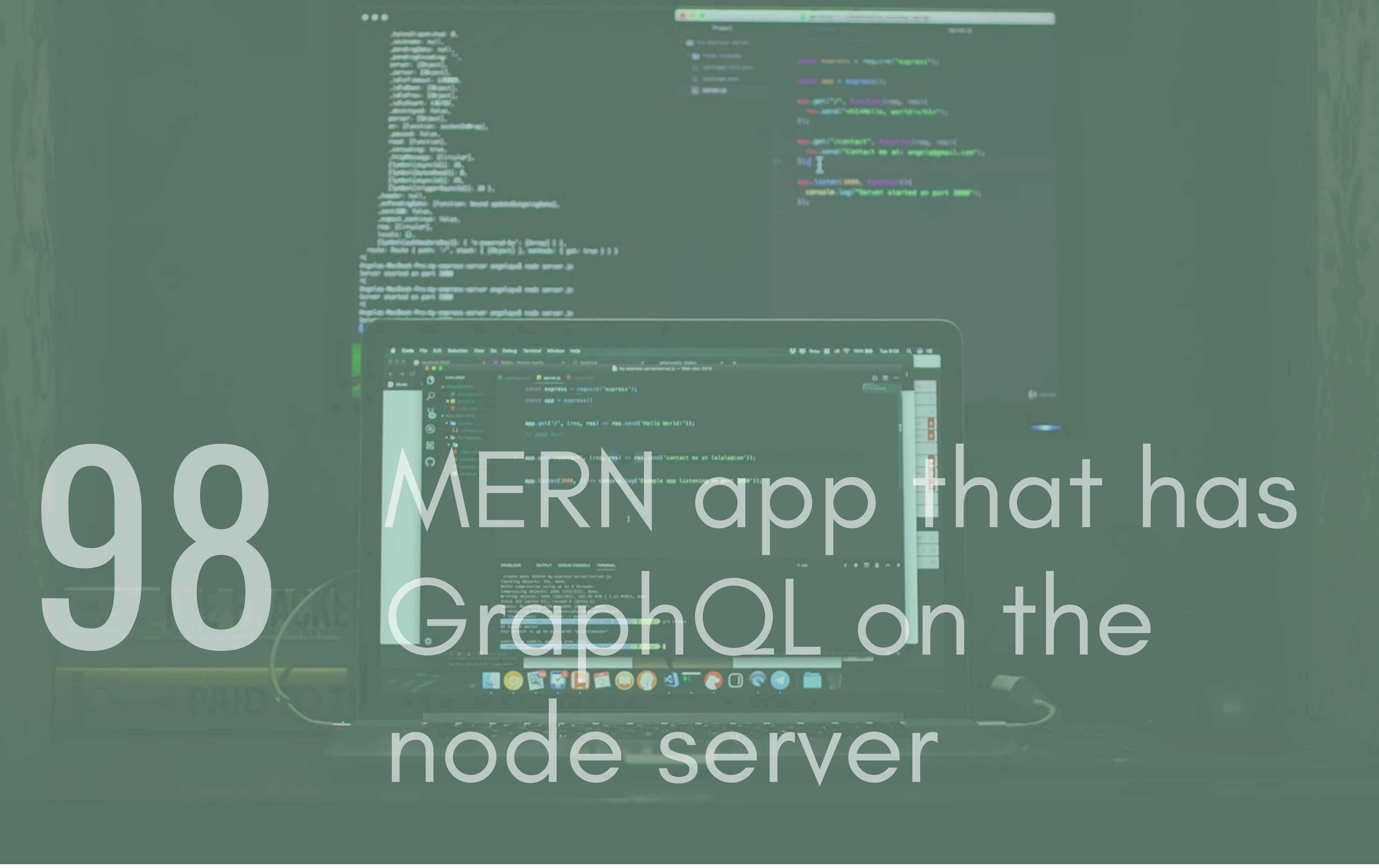
Description

Azure App Service provides a highly scalable, self-patching web hosting service. Azure is the last of the top 3 Cloud hosting services but is still very popular in the industry and is used by a lot of Companies. Deploy a node app to Azure's App Service so you have a solid understanding of how the deployment process works.

Documentation

Azure - https://azure.microsoft.com/en-gb/

Article - https://docs.microsoft.com/en-us/azure/app-service/app-service-web-get-started-nodejs



98 MERN app that has GraphQL on the node server

Description

GraphQL is a query language for APIs and a runtime for fulfilling those queries with your existing data. A common use case for GraphQL on a server side rendering application is to reduce the need for multiple REST API calls. Create a MERN Stack app that uses a GraphQL node server to fetch mock user and product data with one API call from the React app. You could use Apollo on the back end to provide the GraphQL side of things.To create some mock APIs for your GraphQL schema to map to, check out the mock api link provided below.

Documentation

Graphql - https://graphql.org/

Article - https://blog.logrocket.com/crud-with-node-graphql-react/

99 Use StoryBook to create isolated, reusable components

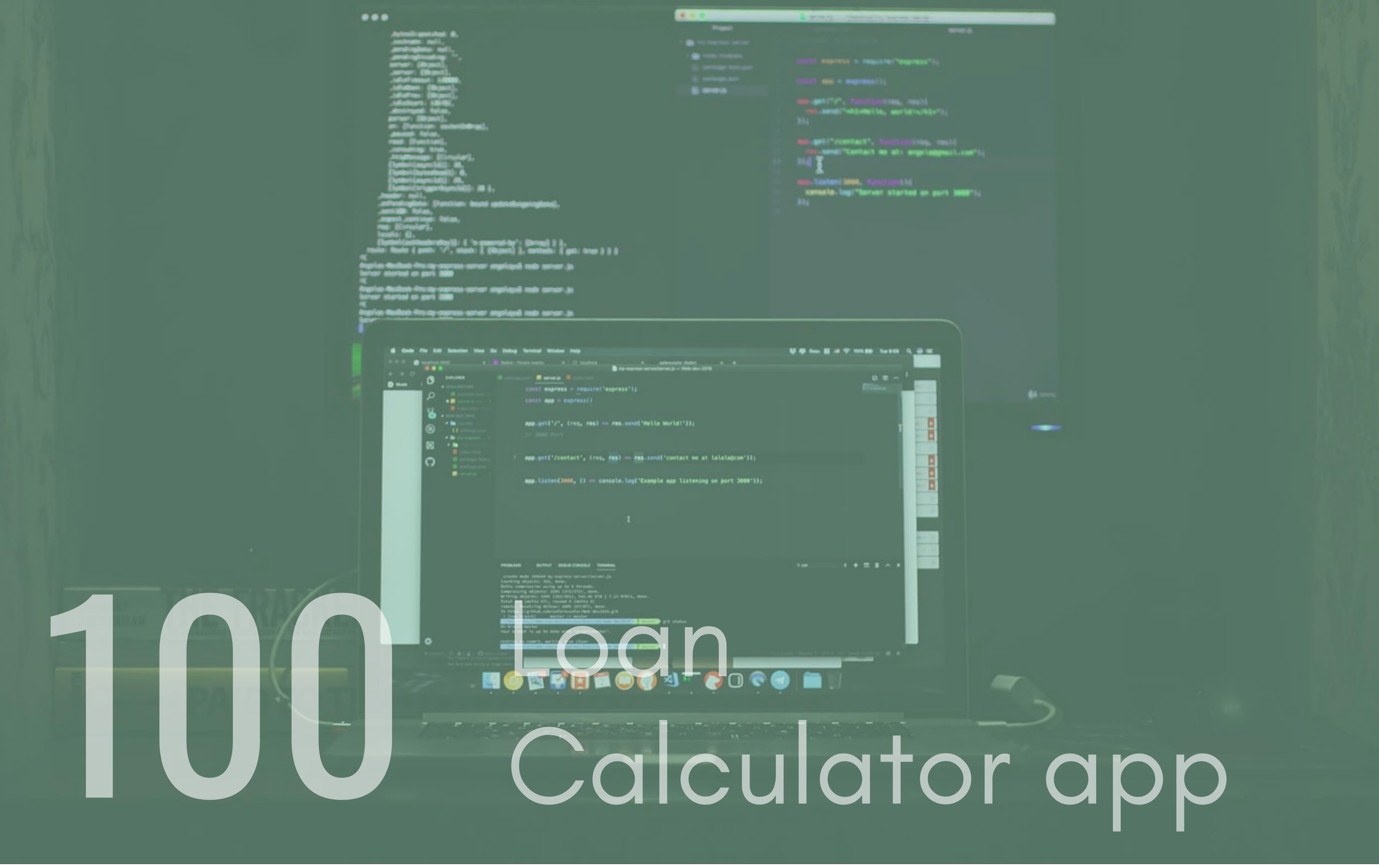
Description

Storybook is an open source tool for developing UI components in isolation for React, Vue, and Angular. It makes building stunning UIs organised and efficient. Storybook is the most popular UI component development tool for React, Vue, and Angular. It helps you develop and design UI components outside your app in an isolated environment.Create a Storybook project and create some components with it.

Documentation

Storybook - https://storybook.js.org/

Article - https://blog.logrocket.com/crud-with-node-graphql-react/



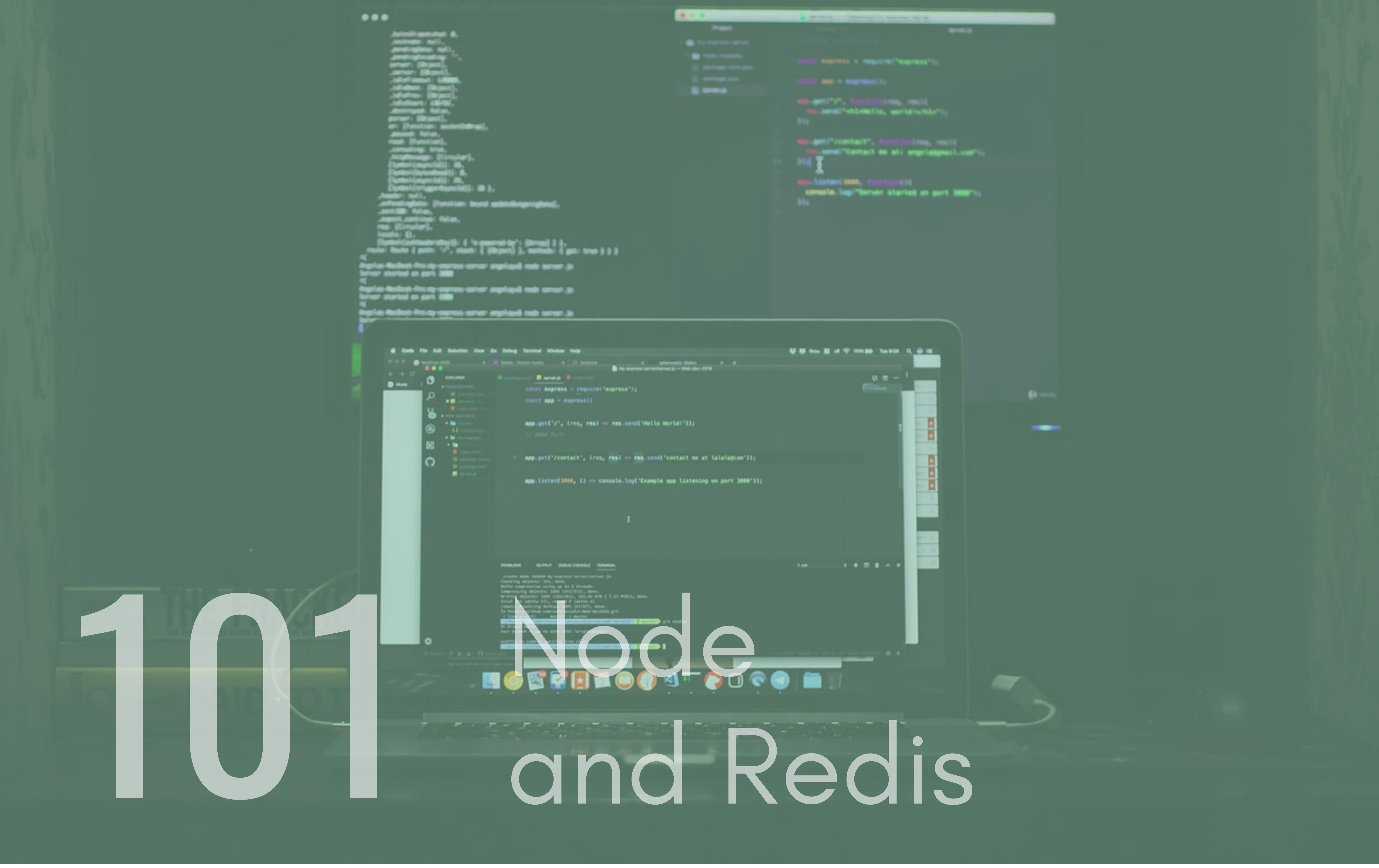
100 Loan Calculator app

Description

Create an app that has a slider on it where the user can select the amount of money they want to borrow. The slider should start at £100 and go up to £2000. Then, once they have selected the amount, they are asked a series of questions.These questions should be asked in a user journey fashion so there must be one or two questions per page. Once the user has answered the questions they are then shown the total cost of borrowing the money. The cost should be calculated based on the answers they gave to the questions.

Documentation

Useful UI Library -https://demos.creative-tim.com/argon-design-system-react/#/



101 Node and Redis

Description

Redis is an open source (BSD licensed), in-memory data structure store, used as a database, cache and message broker. When paired with node it can become a really useful session management tool or Quick Access Data store.

Create a node app with some endpoints that store data into redis.

Documentation

Redis - https://redis.io/