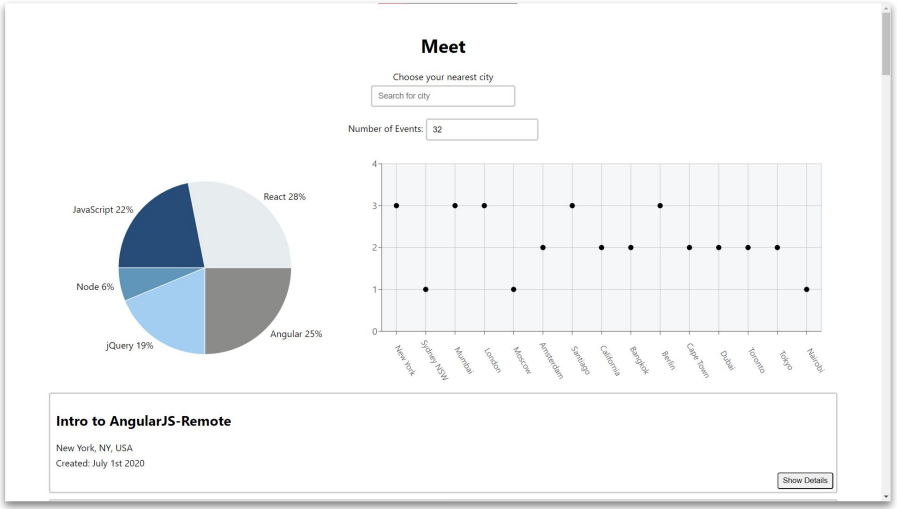
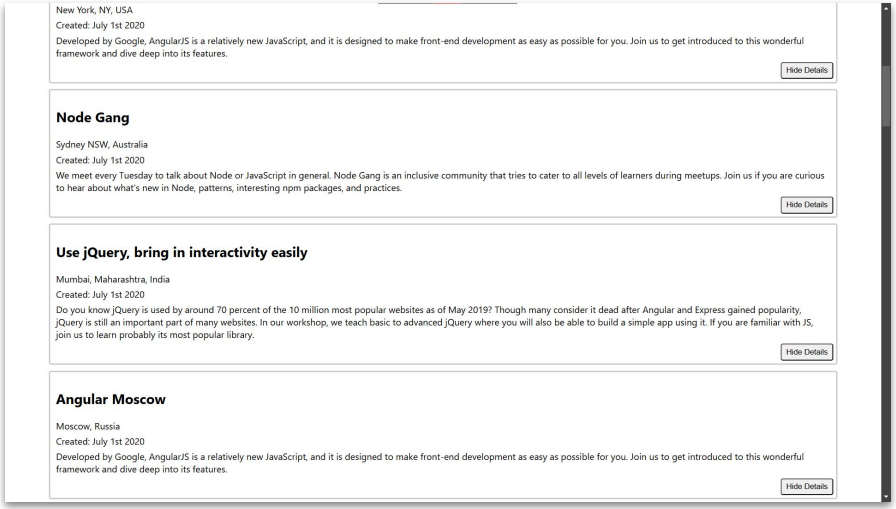
Case Study for Meet App





Overview
Meet app is a serverless PWA built with React using a test-driven development (TDD) approach. It provides movie details, lets users manage profiles and favorite films, and integrates the Google Calendar API for event tracking with interactive charts.

Purpose & Context
Developed for a CareerFoundry web development course, Meet app showcases full-stack JavaScript skills, API integration, and data visualization while following industry best practices.

Objective
The goal was to build a scalable, full-stack app with React, Recharts, and GitHub Pages, demonstrating expertise in modern web development for a professional portfolio.

Approach

Serverless

Using a Google Calendar API, I am able to pass that data into an easy to read list of events. This is a Behavior-driven development(BDD) test suite for a React app, verifying that event details toggle correctly when users interact with them. It uses Jest-Cucumber for structured testing and React Testing Library for rendering and interaction.

[Jest-Cucumber]

Key features include offline support, push notifications, responsive design, and cross-platform compatibility, ensuring a seamless and scalable user experience.

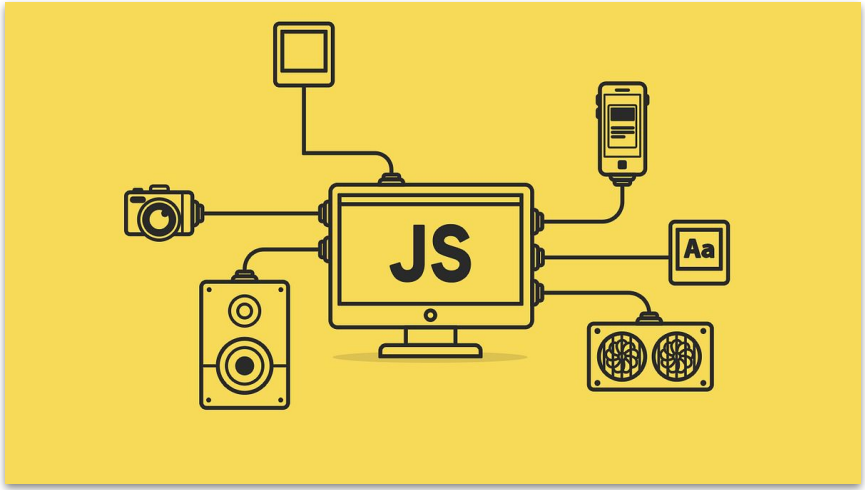
```
test("User should see a list of suggestions when they search for a city.", ({
  given,
  when,
  then,
}) => {
  let AppComponent;
  given("the main page is open", () => {
    AppComponent = render(<App />);
  });

  let CitySearchDOM;
  when("user starts typing in the city textbox", async () => {
    const user = userEvent.setup();
    const AppDOM = AppComponent.container.firstChild;
    CitySearchDOM = AppDOM.querySelector("#city-search");
    const citySearchInput = within(CitySearchDOM).queryByRole("textbox");
    await user.type(citySearchInput, "Berlin");
  });

  then(
    "the user should recieve a list of cities (suggestions) that match what they've typed",
    async () => {
      const suggestionListItems =
        within(CitySearchDOM).queryAllByRole("listitem");
      expect(suggestionListItems).toHaveLength(2);
    }
  );
});
```

Serverless Functions

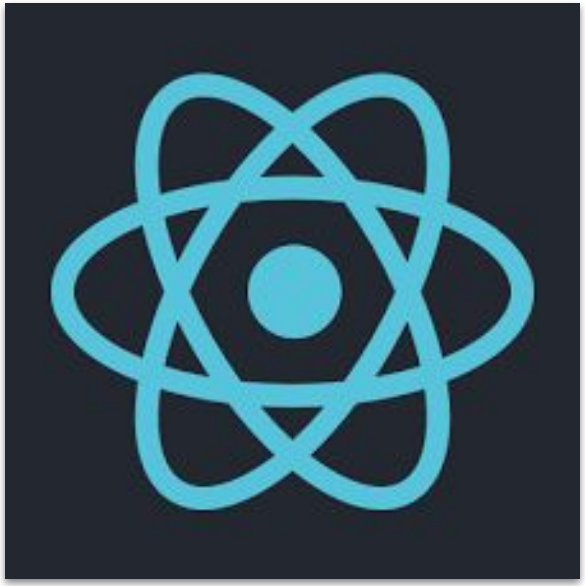
This application leverages serverless functions, specifically AWS Lambda, to handle backend operations. These functions authenticate users with the Google Calendar API and securely retrieve event data. By utilizing serverless technology, the app automatically scales to meet demand, reducing operational costs and ensuring high availability—without requiring manual server management.

Challenges

I found this project better to manage, as this was one of the later projects that I built, within Careerfoundry. I still learned a lot though. This project pushed me to master serverless functions with AWS Lambda, Google Calendar API authentication, and database structures. Building a PWA with React using TDD was challenging, especially implementing offline functionality and event filtering. Debugging frontend-backend interactions improved my API integration and serverless skills. Overcoming these challenges refined my React expertise and problem-solving abilities. I'm grateful for my mentor and tutor for their invaluable guidance.



Duration



This project spanned approximately 5 weeks to complete. I had a lot of fun with this project, especially with learning more about API's. I look forward to creating more serverless projects with the React framework.

Thank You For Viewing!

Would you like to connect with me?

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