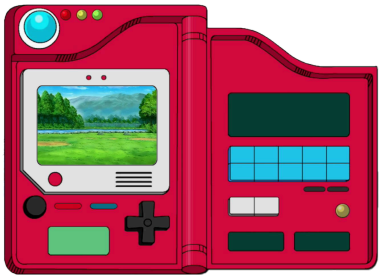
Full-Stack Engineer - Take Home

For this exercise, we would like you to flex your fullstack skills. You'll be using the PokéAPI to build a basic pokédex. Keep best practices in mind as you will be asked about design choice(s), code implementation(s) and new feature(s) to your app during your on-site. We will provide you a repository containing boilerplate code including classes and tests.

What is a Pokédex?



An electronic encyclopedia device in the Pokémon world that records and retains information about various Pokémon. It provides details on Pokémon species, including their habitat, activities, height, weight, cry, location, and more. The Pokédex is designed to help Trainers complete a database of encountered Pokémon by recording data each time a Trainer meets a new Pokémon in battle. The term "dex" in Pokédex is derived from the concept of a library or gathering of contacts, similar to how phone books or rolodexes catalog information.

Encountered v. Caught

In Pokémon games, "encountered" refers to when you see a wild Pokémon, but have not necessarily caught it. This means you have come across the Pokémon in the game world, but have not added it to your party or Pokedex yet.

On the other hand, "caught" refers to when you successfully capture a wild Pokémon using a Pokéball. When you catch a Pokémon, it is added to your party and Pokedex. You can tell if you have caught a Pokémon because a Pokéball icon will appear next to its HP during battle.

So in summary:

- Encountered means you have seen the Pokémon, but not necessarily caught it.
- Caught means you have successfully captured the Pokémon and added it to your collection.

Deliverable Specifications

An application that covers the basic features of a pokédex consisting of the following views:

1. Page to View All Pokémon
    a. Filter by type, location, size, height, etc
    b. Filter by many fields
2. Page to View A Pokémon
    a. List all details pertaining to the Pokémon
    b. A way to view evolutions and view evolved Pokémon
    c. Whether a Pokémon has been encountered or caught by the trainer
    d. Ability to denote the trainer/user has encountered and/or caught the Pokémon
3. Page to View Trainer's Collection of Pokémon
    a. This view shows a trainer all the Pokémon they have encountered or caught
    b. Include a visual indicator and ability to filter on caught/encountered
    c. Sort by fields

Requirements

1. You are not required to use the boilerplate code. You may build it yourself but will not be graded on doing so (purely preference).
2. You are required that your implementation can successfully run and pass all provided tests
3. You are required to use provided classes
4. You are required to use React, Typescript, NodeJS & ExpressJS
5. You will push your changes to a remote repo and share it as submission
    a. You will provide of README of how to startup your app
        i. Please specify which node and npm version you're running

Do's & Don'ts

1. Don't worry about user authentication & login
2. Don't clone the PokéAPI database
3. Do use the front-end design library of your choice
4. Do document where appropriate
5. Do think about routing
6. Do be intentional about reactivity
7. Do be intentional about what you're saving to meet the deliverable specifications
8. Do think about schema design
    a. You do not need a persisted database. In-memory is ok!
9. Do have fun with it!

Submission

Please send an email and include an invitation to your repo to:

- david@aldoa.com
- kevin@aldoa.com
- jake@aldoa.com

On-Site Prep

Be ready to defend your decisions and demo what you've built! You are going to be asked to build on top of your take-home so keep your designs scalable and be ready to code.

Happy Coding!

Resources

Boilerplate Repo: https://github.com/chinkevin25/pokedex

PokéAPI: https://pokeapi.co/
React: https://react.dev/reference/react
Typescript: https://www.typescriptlang.org/
NodeJS: https://nodejs.org/en
ExpressJS: https://expressjs.com/

Bulbapedia (Pokédex): https://bulbapedia.bulbagarden.net/wiki/Pok%C3%A9dex
Niantic Catching Pokémon:
https://niantic.helpshift.com/hc/en/6-Pokémon-go/faq/102-finding-catching-wild-Pokémon/
Pikachu (Peace): https://x.com/pokeferlax/status/1720032072364867719