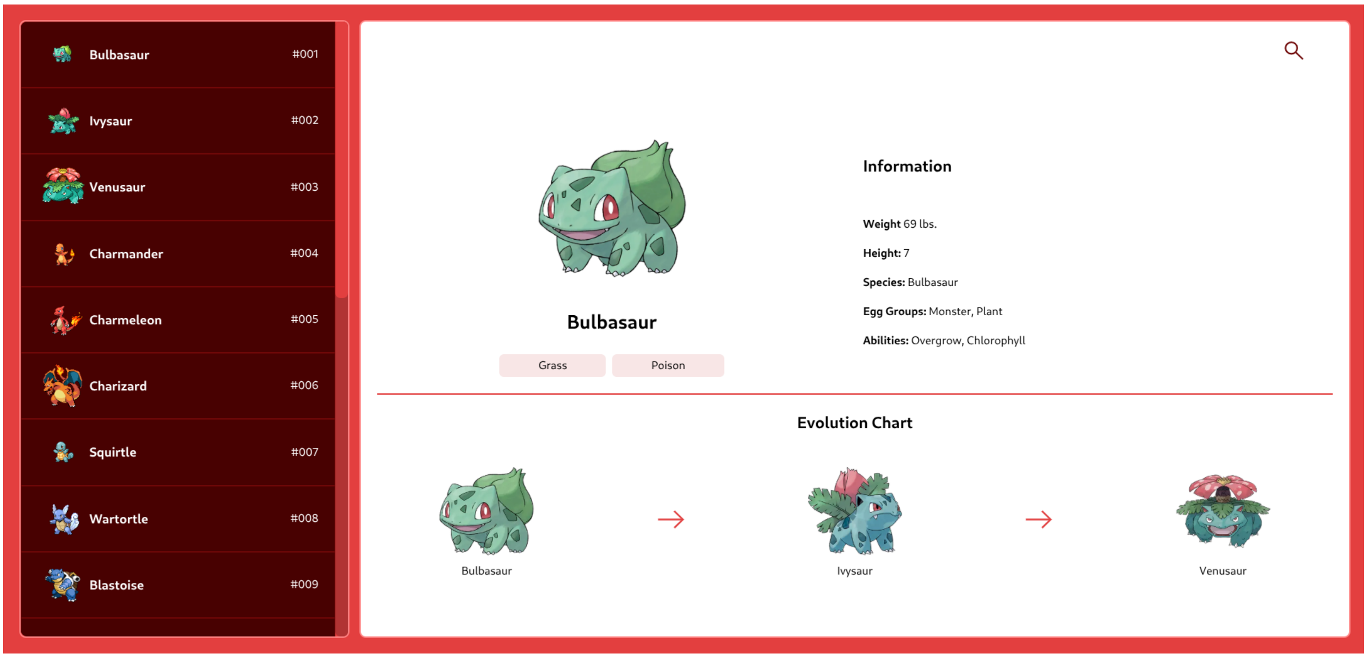
Pokedex

This Pokédex app lets users explore and search for Pokémon by fetching real-time data from an external API. It's a lightweight and interactive tool for any Pokémon fan.

User Instructions

The application features the following screen:



Information

Weight 69 lbs.

Height: 7

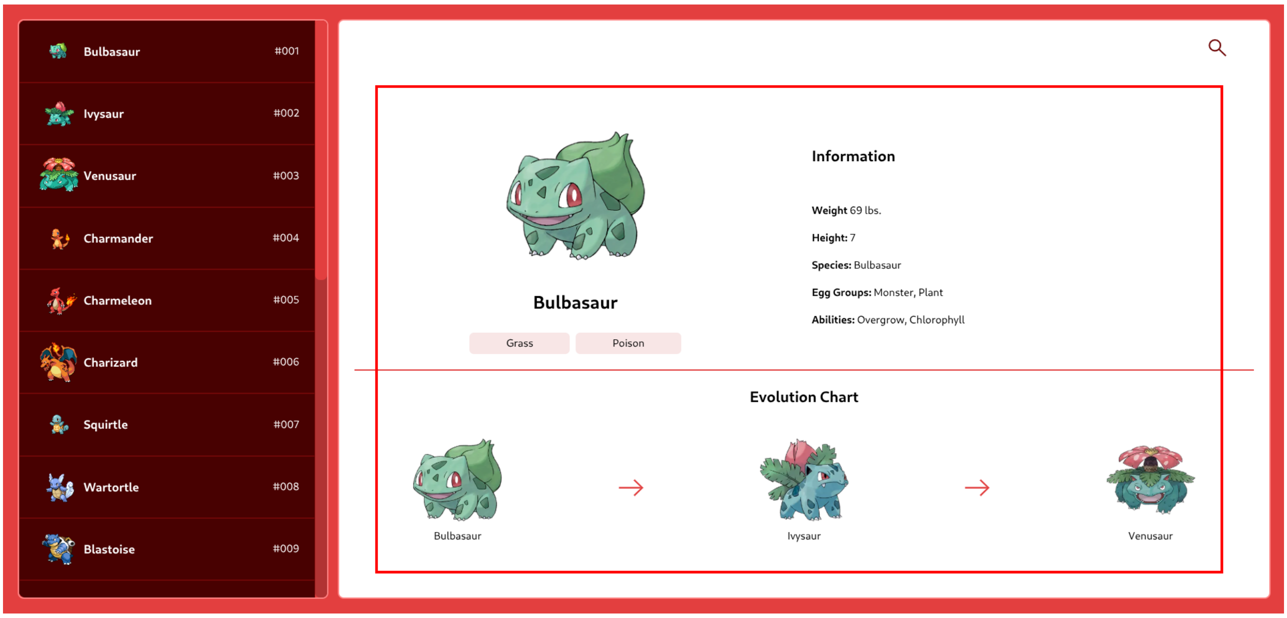
Species: Bulbasaur

Egg Groups: Monster, Plant

Abilities: Overgrow, Chlorophyll

Where the user can perform the following actions:

1. Upon entering, a Pokémon will be displayed in the **Information** section, showing relevant data such as name, height, weight, species, photo, evolution chain, etc.



Information

Weight 69 lbs.

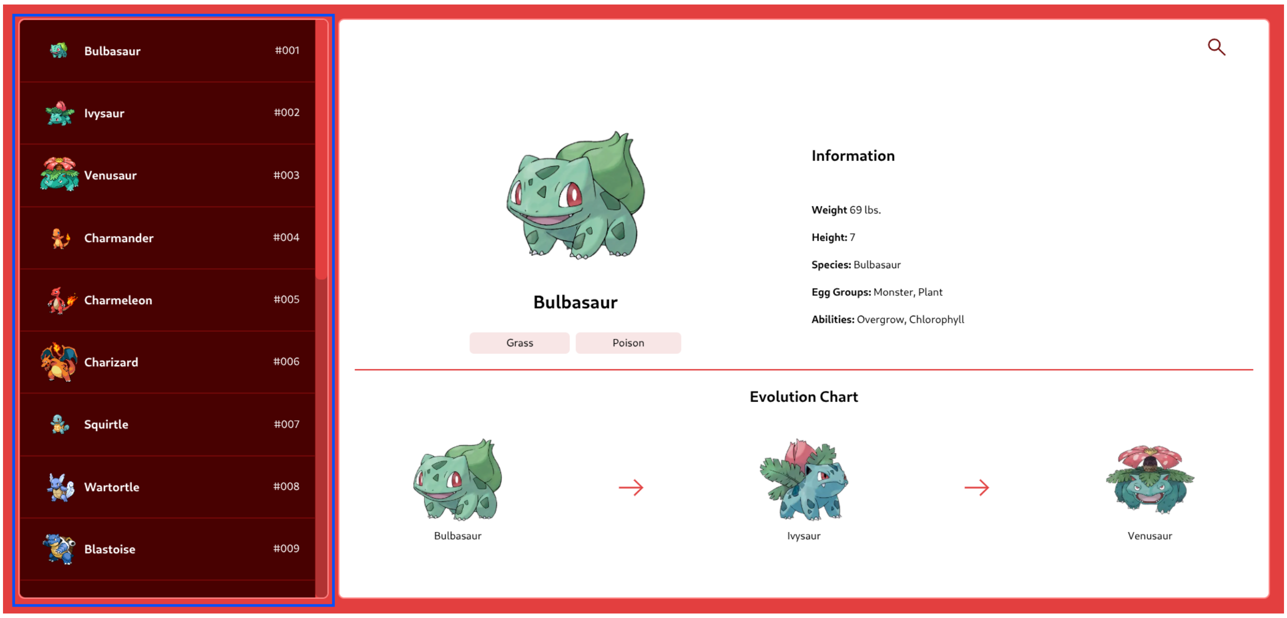
Height: 7

Species: Bulbasaur

Egg Groups: Monster, Plant

Abilities: Overgrow, Chlorophyll

2. On the left side of the screen, there is a slide-out menu where the user can select any desired Pokémon to view its information.



Information

Weight 69 lbs.

Height: 7

Species: Bulbasaur

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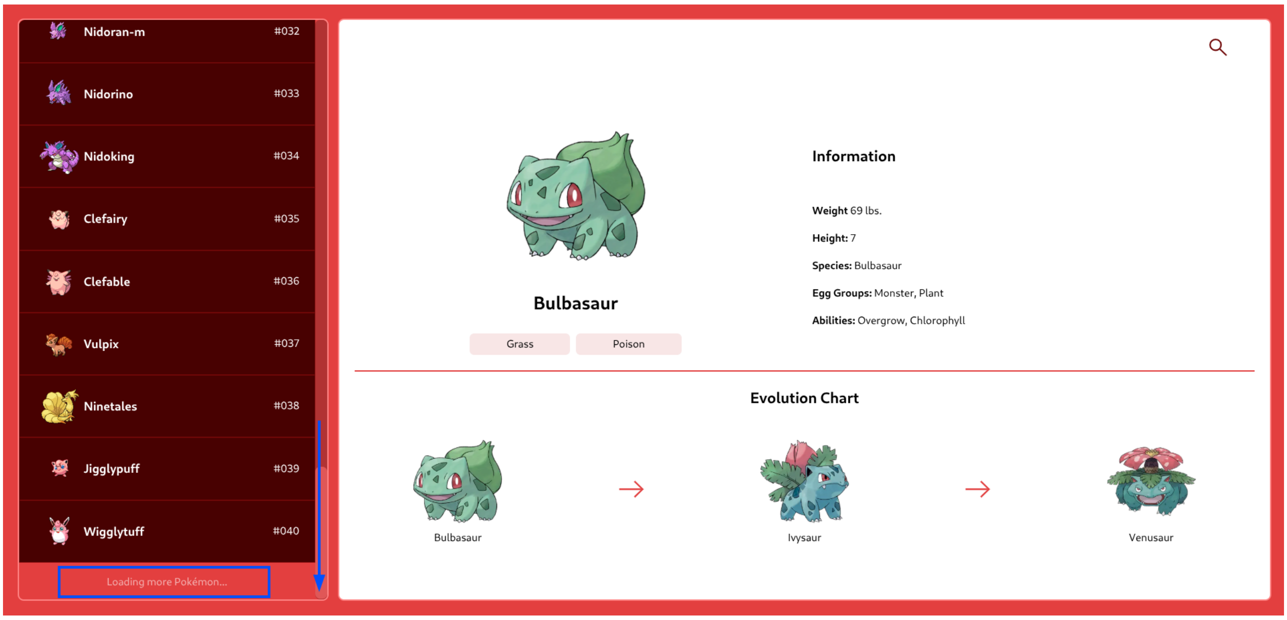
Abilities: Overgrow, Chlorophyll

3. In the slide-out menu, the user can scroll to the bottom to load more Pokémon as they go down. 20 Pokémon are loaded at a time until all are displayed.



Information

Weight 69 lbs.

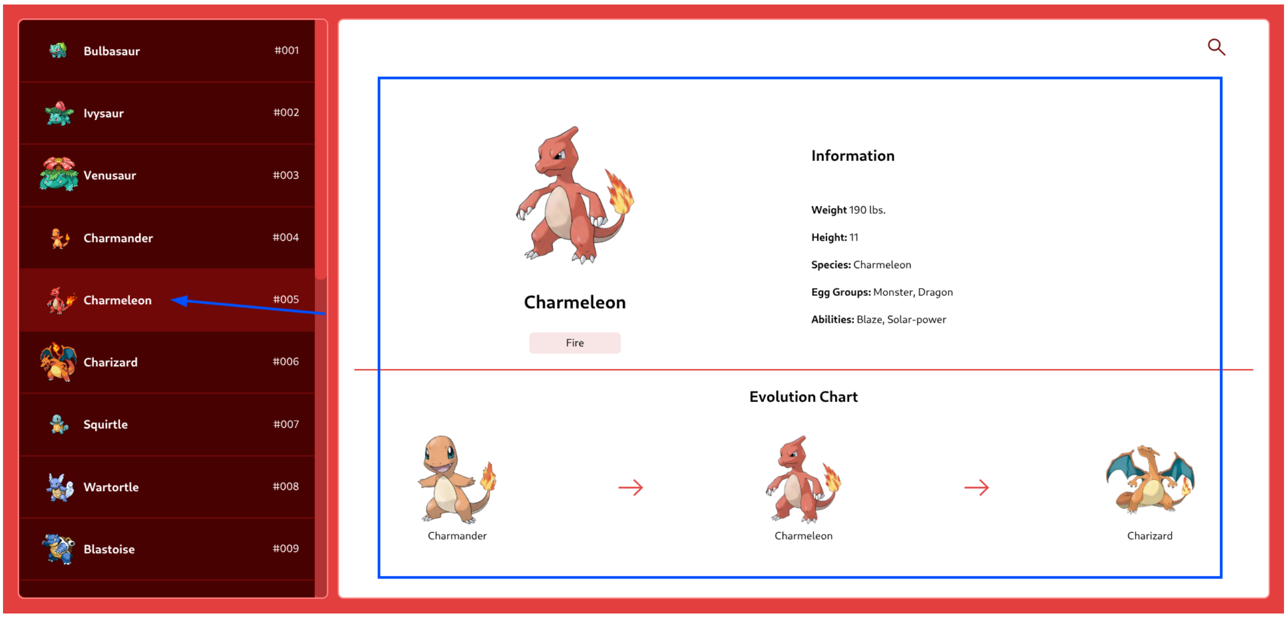
Height: 7

Species: Bulbasaur

Egg Groups: Monster, Plant

Abilities: Overgrow, Chlorophyll

4. Any Pokémon can be selected from the menu, and upon selection, its information will appear in the **Information** section.



Bulbasaur	#001
Ivysaur	#002
Venusaur	#003
Charmander	#004
Charmeleon	#005
Charizard	#006
Squirtle	#007
Wartortle	#008
Blastoise	#009

Charmeleon

Fire

Information

Weight 190 lbs.

Height: 11

Species: Charmeleon

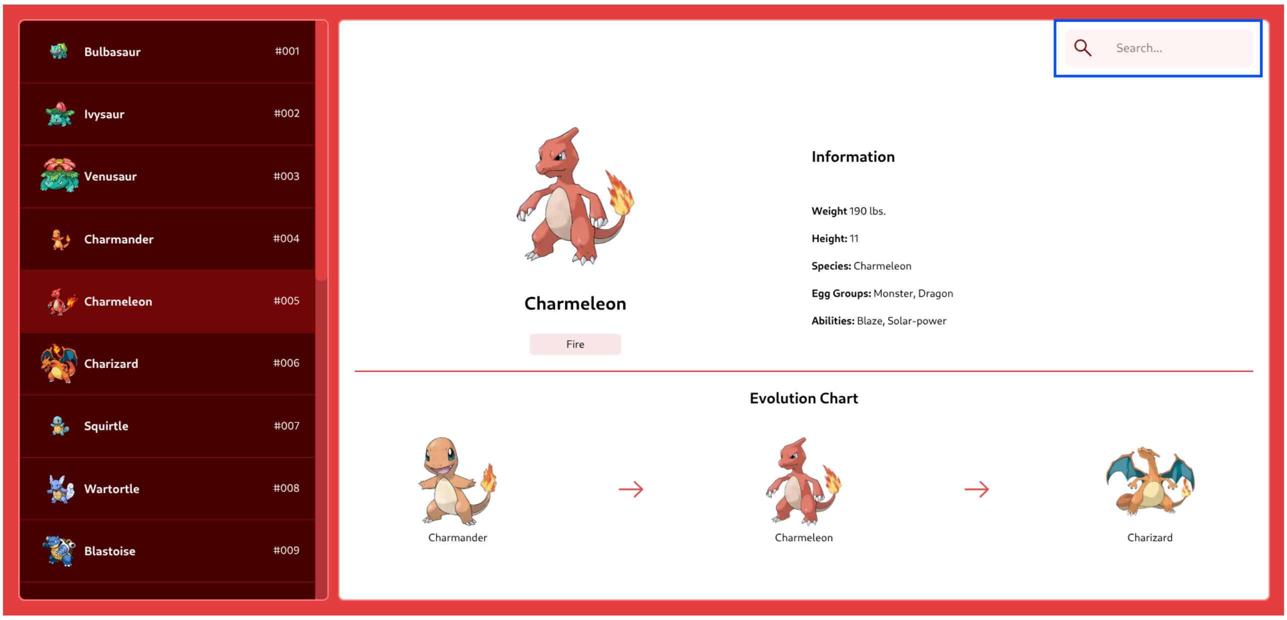
Egg Groups: Monster, Dragon

Abilities: Blaze, Solar-power

Evolution Chart

Charmander → Charmeleon → Charizard

5. Hovering the mouse cursor over the magnifying glass icon (search icon) at the top right of the white section will display a search bar where the user can type the desired Pokémon name.
It's important to mention that the search is triggered while typing, with a short delay that waits for typing to stop before performing the search—this is done to avoid overloading the API.
The search is also performed using **partial matches**, so it's not necessary to type the full name exactly.
It is **not case-sensitive**, so uppercase and lowercase letters don't affect results.



Bulbasaur	#001
Ivysaur	#002
Venusaur	#003
Charmander	#004
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Charmeleon

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Species: Charmeleon

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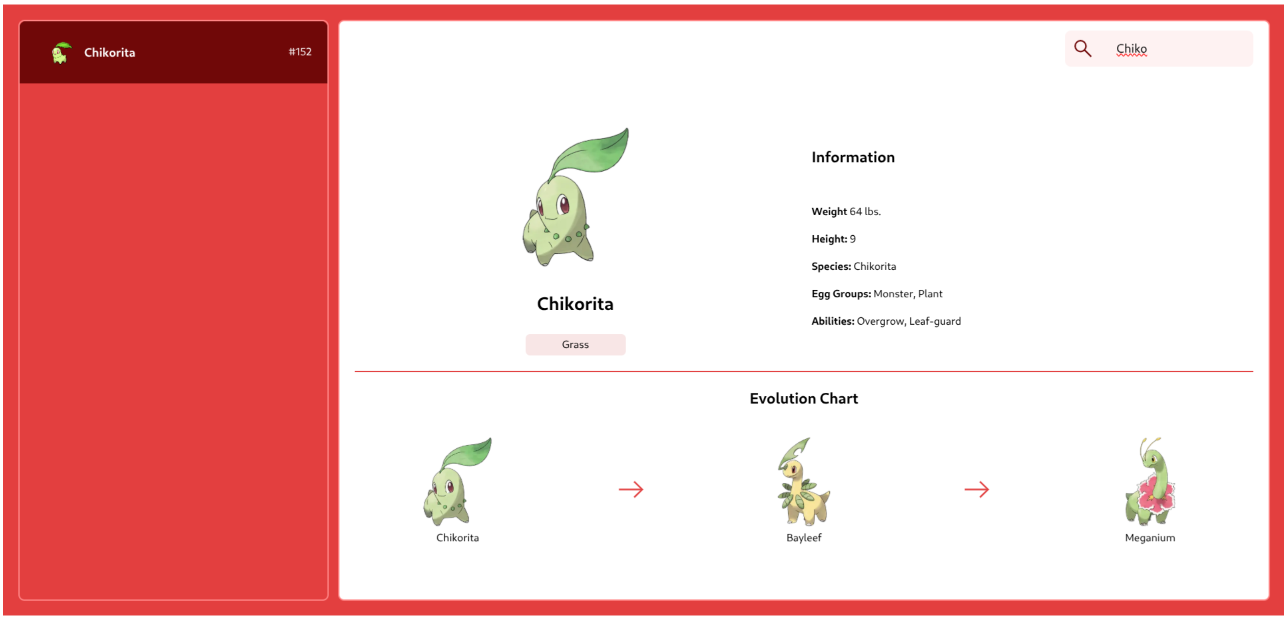
Abilities: Blaze, Solar-power

Evolution Chart

Charmander → Charmeleon → Charizard

As the user types, the results will appear in the slide-out menu on the left.



Chikorita #152

Chiko

Chikorita

Grass

Information

Weight 64 lbs.

Height: 9

Species: Chikorita

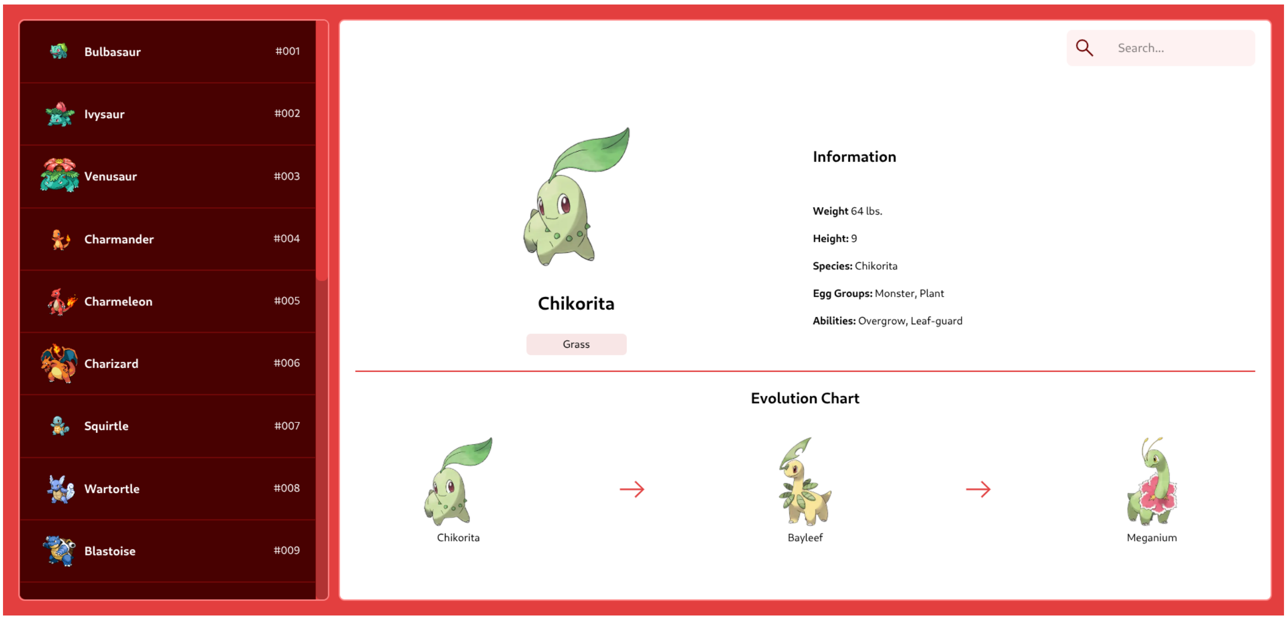
Egg Groups: Monster, Plant

Abilities: Overgrow, Leaf-guard

Evolution Chart

Chikorita → Bayleef → Meganium

6. Deleting the search text will restore the previously displayed Pokémon list in the slide-out menu.



Bulbasaur	#001
Ivysaur	#002
Venusaur	#003
Charmander	#004
Charmeleon	#005
Charizard	#006
Squirtle	#007
Wartortle	#008
Blastoise	#009

Search...

Chikorita

Grass

Information

Weight 64 lbs.

Height: 9

Species: Chikorita

Egg Groups: Monster, Plant

Abilities: Overgrow, Leaf-guard

Evolution Chart

Chikorita → Bayleef → Meganium

Technical Instructions

The program was developed using the following tech stack:

- **NextJS (ReactJS):** for the frontend.
- **TailwindCSS:** for styling.
- **TypeScript:** as the programming language.
- **Docker:** to containerize the app and simplify deployment without dependency conflicts.
- **Vercel:** as the CI/CD and hosting platform.
- **Git / GitHub:** as version control, integrated with Vercel for automatic deployments.

Install or Display Options

To view the solution, you have the following options listed from fastest and easiest to most manual:

1. **Hosted page accessible from any device:**
   https://pokedex-zeta-woad.vercel.app/

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2. **Docker image with the pre-built site**

   Only requirement: **Docker**, which you can download from the official website:
   Docker Official Website

   Once installed, run the following command:

   ```
   docker run -p 3000:3000 joctan04/pokedex-ui:latest
   ```

Then open the browser and go to: `http://localhost:3000` or `http://127.0.0.1:3000`

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3. **Manual compilation of the project**

   Requirements:

   - **Git**: to clone the repository.
   - **Node.js** (recommended version: 18.x or higher): also includes npm.
   - **npm**: Node.js package manager (automatically installed with Node.js).

   Steps:

   1. Clone the repository:

      ```
      git clone https://github.com/joctan-tec/pokedex.git
      cd pokedex
      ```

   2. Install dependencies:

      ```
      npm install
      ```

   3. Run the development server:

      ```
      npm run dev
      ```

   4. Open your browser and go to: `http://localhost:3000` or `http://127.0.0.1:3000`

Important Note About Search Functionality

Since the API does not provide native search functionality, a custom solution was implemented using a **key-value dictionary**, where the key is the Pokémon name and the value is the ID.

A search system was built to simulate a **Full Text Search**, enabling **partial match** lookups across all names. This allows for quicker and more efficient retrieval of Pokémon data without needing to make excessive API calls.

Also worth mentioning: the list of Pokémon names and IDs was extracted directly from the **PokeAPI** and processed using a **Python script** to generate a simplified file. This reduced the file size from **125KB** to just **30KB**.