RMIT
UNIVERSITY

COSC2659 - iOS Development
Assignment 1

Lecturer: Mr. Tom Huynh

Student name: Nguyen Quoc Hoang

Student ID: s3697305

Introduce the app

The Pokedex (styled as Pokédex) is an electronic encyclopedia device for storing all information about fictional species in the video game series Pokemon. The game first appeared in 1996 as Pocket Monsters Red and Green versions in Japan, which then has become a big name in the gaming and animation industries. Even though almost 3 decades have passed, Pokemon still remains a trademark and is the childhood of many young adults today. This is a full-fledged Pokedex app running on the iPhone, built with Swift 5.1 and SwiftUI 3 and targeted at iOS > 15.5. It has all the core functionalities search as search by name, ID or type. You can also add Pokemons to your Favorite List, up to 6 of them (following the original gameplay). This app features 151 Pokemons in the first generation.

Why do you choose that topic? Any motivation or inspiration?

I chose to re-create Pokedex app as Pokemon was my best childhood game. I remember I would wake up at 6am to train some of my Pokemons before getting ready for school when I was in elementary school. I hope this app also brings back some good memory if you happen to be a Pokemon fan like me <3.

What are the main features and extra creative features you have done? For each feature, explain briefly how you do it?
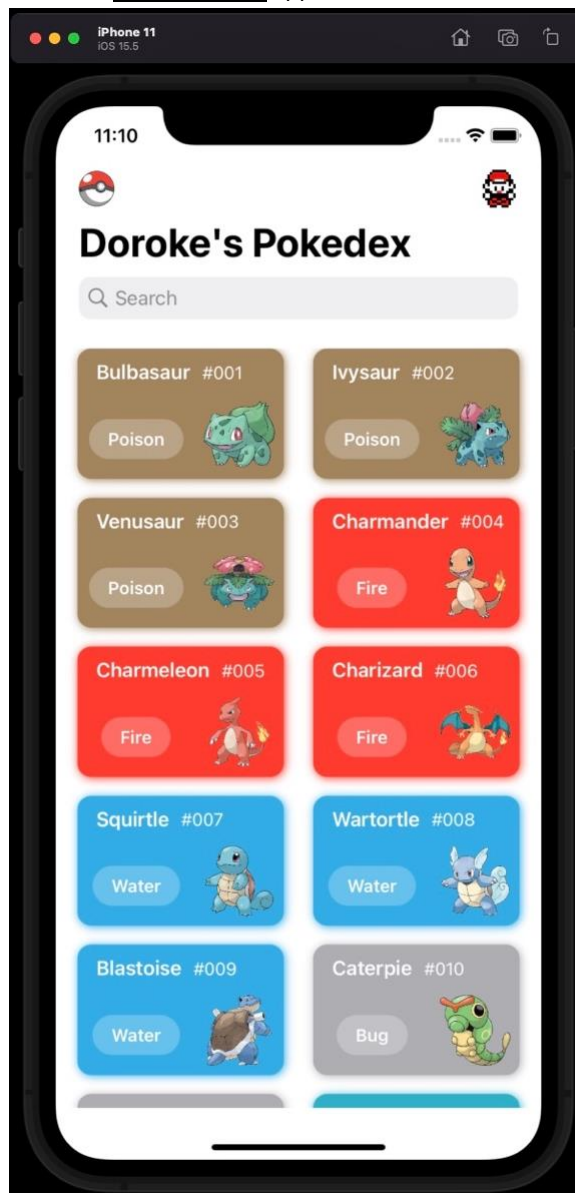
Main features

- **Wiki-styled app** that allows you to browse, look up and see detail information for each Pokemon in the first generation.
- A **map view** similar to Pokemon GO's playstyle where it displays locations of a Pokemon spread across different cities in Vietnam that you can come and capture. For this feature, I implemented using Apple's built-in MapKit API.
- Built with most recent, cutting-edge **technology stacks** from Apple (Swift 5.1, SwiftUI 3, iOS > 15.5).
- Carefully crafted and polished **design** to invoke the feeling of a Pokedex app.

Extra creative features

- **Online data fetching and parsing**: the dataset of this app is not stored locally but fetched from a remote API. Data is fetched with URLSession and parsed with JSONDecoder. This app requires internet connection to run.
- **Smart search**: Pokemon can be searched by name, ID or type, all in one search bar. A simple Linear search can achieve this.
- **Dynamic color display**: UI is rendered dynamically to match the Pokemon's type.
- **Favorite list**: this is the biggest extra feature of this app. User can add up to 6 Pokemons into their favorite list or remove them to leave space for new ones. The UI will be updated accordingly depending on the state of whether the Pokemon is in the Favorite list or not. User can remove the Pokemon from the list view, or directly from the detailed view.
- **Trainer's information**: displays information about me. Trainer's name can also be changed here using state binding. The designed is inspired by Facebook.
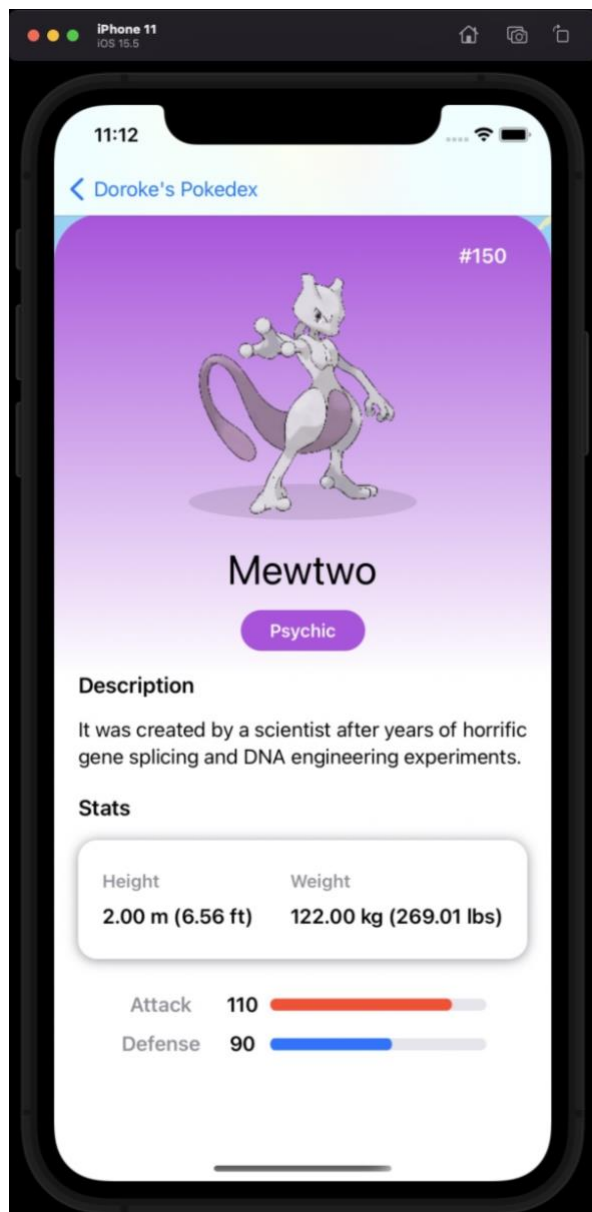
Screenshots of different views of the app

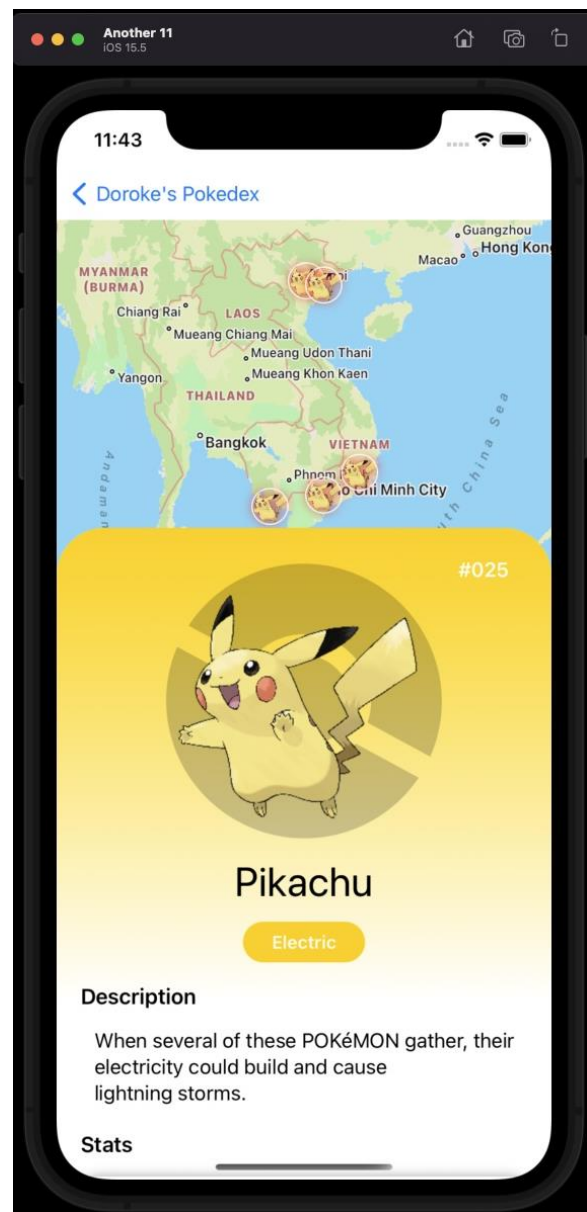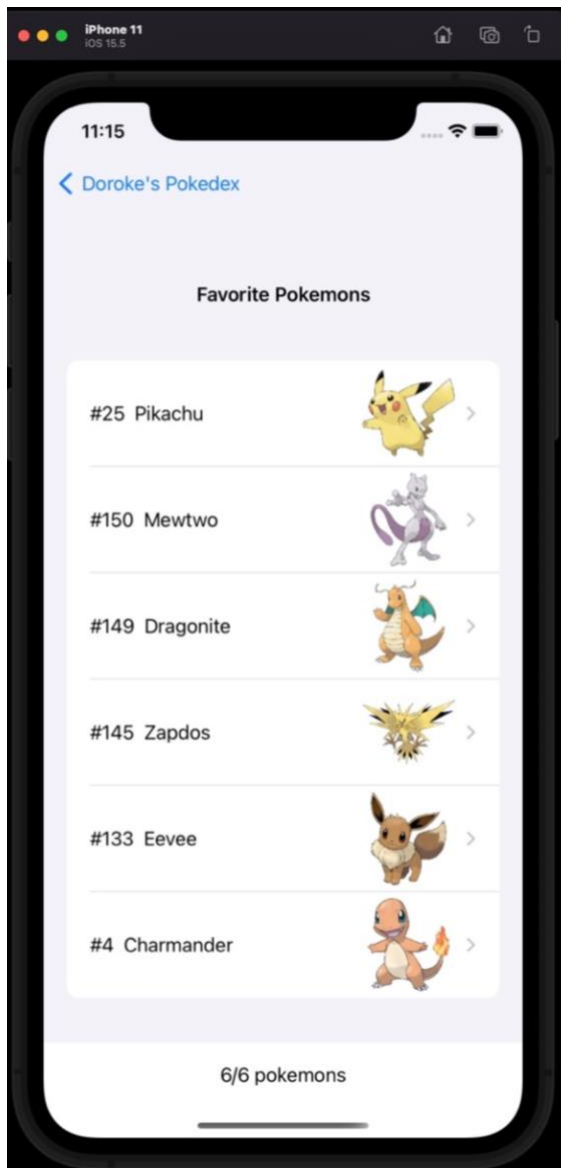PokedexView: app's home screen

PokemonView: showing details of a Pokemon

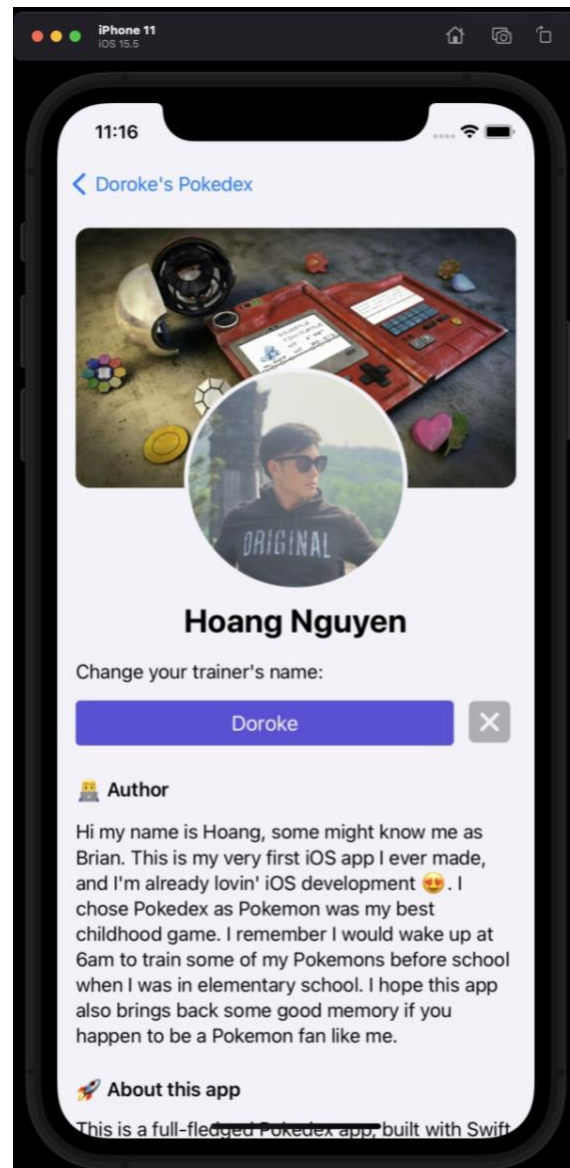Stats View: data visualized with bar chart

UI updated when Pokemon is captured

List of favorite Pokemons   <u>TrainerView</u>: Facebook-inspired design

Project's Github repo (GIF and videos are available on here)

https://github.com/hoangdesu/Pokemon-iOS

Any potential idea for future features you want to build for this app later on

- Location-based game: user has to walk near Pokemon to capture
- User can share each other information using NFC (Near Field Communication) technology