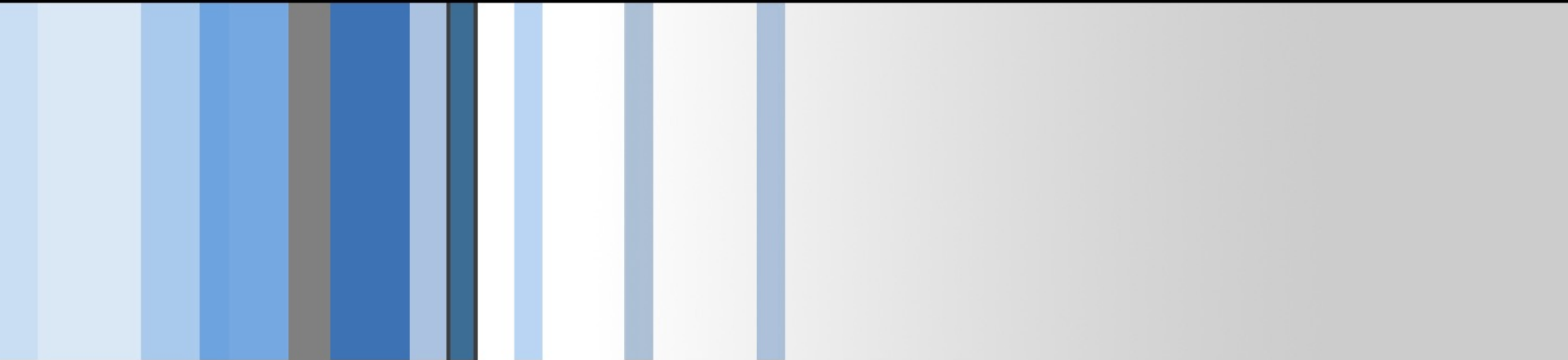


CSC 496: iOS App Development

Lab 1

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Pokédex version 2

Objective:

To create an iOS app that displays the name and profile picture of a Pokémon based on the user-inputted Pokémon ID.

Instructions:

• Download and Setup Project:

Download the **pokedex_ver_2.zip** file from our class website. Unzip the file and open the project in Xcode.

• Examine the Pokemon.Swift File:

Open the **Pokemon.Swift** file in the project. Locate the array **firstGenPokemonNames** which contains the names of the first-generation Pokémon.

• Implement User Input and Display in ContentView.swift:

In **ContentView.swift**, write code to accomplish the following:

- Use the **firstGenPokemonNames** array to find the name of the Pokémon corresponding to the entered ID.
- Display the Pokémon's name and its corresponding profile picture based on the entered ID.

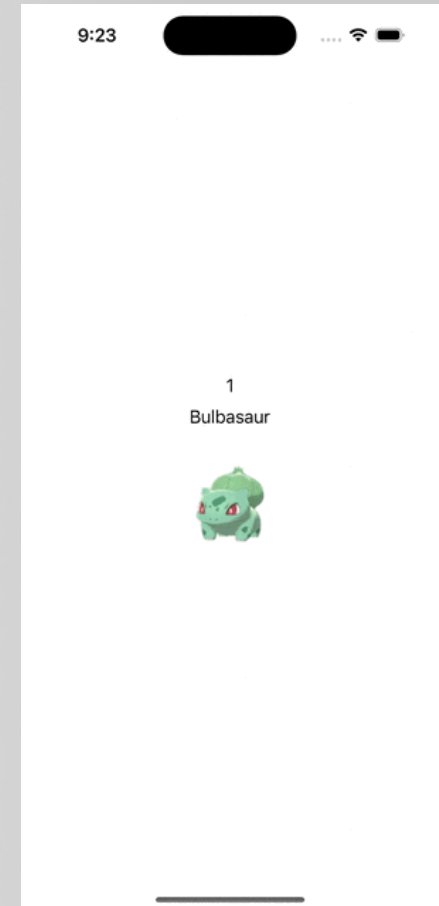
For example, if the user inputs Pokémon ID = 1, the app should display "Bulbasaur" along with its profile picture.

Tips:

You may use the `.font(.custom("Pokemon-Pixel-Font", size: 16))` modifier to set a Pokemon font.

How would you handle invalid input (try using nil-coalescing operator ??)

How would you handle edge cases where the user input exceeds 151 or falls below 0?



Pokédex version 2 Solution (using computed property)

```
import SwiftUI

struct ContentView: View {
    @State private var PokemonID = "1"

    var pokemonID_num: Int {
        get {
            return min(max((Int(PokemonID) ?? 1) - 1, 0), 150)
        }
        set(newID) {
            PokemonID = String(newID + 1)
        }
    }

    var body: some View {
        VStack {
            Text("Pokedex Ver 2.0")
                .font(.custom("Pokemon-Pixel-Font", size: 36))

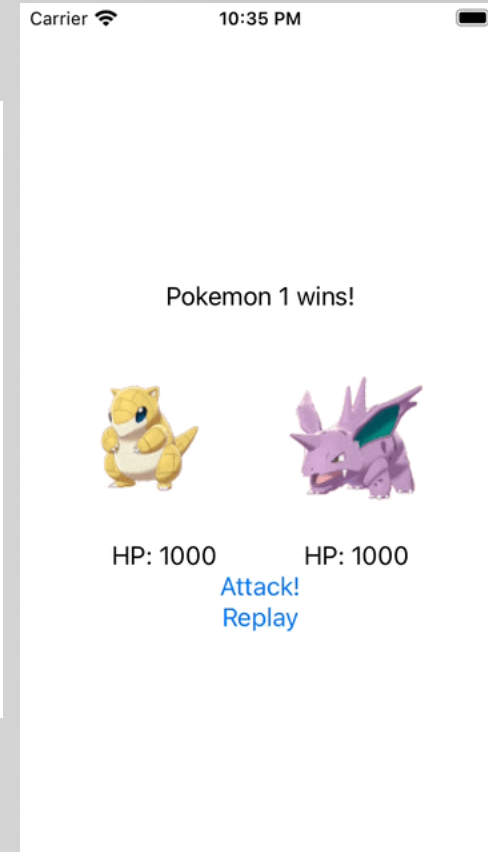
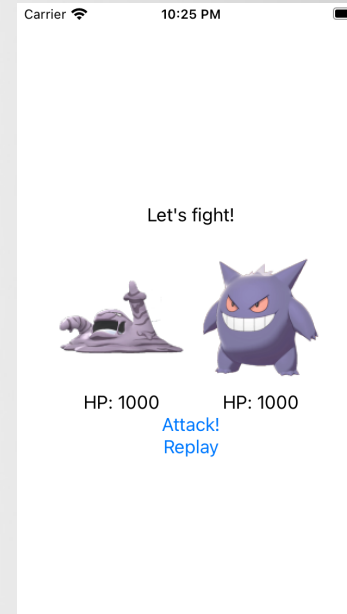
            TextField("Pokemon ID:", text: $PokemonID)
                .multilineTextAlignment(.center)
                .keyboardType(.numberPad)
                .font(.custom("Pokemon-Pixel-Font", size: 36))
        }
        .padding()
    }
}
```

In this case, the computed property `pokemonID_num` is derived from `PokemonID`. Any time you get or set `pokemonID_num`, the underlying `PokemonID` state variable is accessed or modified.

Lab 1: Pokémon Fight Game in SwiftUI

■ Pokémon Fight Game:

- Display two random Pokémon images side by side.
- Each Pokémon starts with 1000 HP.
- Pokémon take turns to attack each other.
- Pressing the "Attack" button deals a random amount of damage (1-100) to the opponent.
- **Note:** Only the attacking Pokémon should shake when the "Attack" button is pressed.
- Display the initial HP (Hit Points) of each Pokémon as 1000, and dynamically update it after each attack turn. The HP should decrease based on the random damage dealt during an attack.
- The game ends when one Pokémon's HP falls below zero.
- Display the winner of the battle.
- Pressing the "Replay" button should reset the game.



Q & A

