PokeBook: Pokemon gaming assistant

Project Summary:

This project is an Pokemon gaming assistant application based on website platform in front-end and associated databases in back-end. Generally, the purpose of application is providing users a convenient and useful gaming assistance with information and suggestion of Pokemon. To achieve the goal, we offer users to search Pokemon information specifically by their characters including names, types, abilities and etc, and we provide related suggestion of battle strategy based on their features like strengths and weaknesses. In addition, the application would have other helper functionalities to improve the performance of main functions.

Description:

In this particular project, we plan to create an interactive website which provides some insights on Pokemon games based on existing databases and API. The website is mostly Pokemon-fans based, and we develop it as an assistance tool which gives general overview, efficient queries, potential suggestions of Pokemon for users. For optimal results, we are accumulating data for every generation of Pokemon.

The fundamental functions we are trying to provide basically comes in four categories:

1. Pokemon Retrieve

2. Pokemon Ranking

3. Relation of Property Type Restraint

4. Battle Team Simulation and Pokemon Development

Problems:

There are various websites, forums, and even APIs about Pokemon. We will elaborate problems of each source in the following paragraphs respectively. There are countless websites about Pokemon topics, but most of them do not even support basic queries and a considerable amount of them leads users to other websites when they wish to inquire specific information about Pokemon. This trend has greatly lengthened users' time spent on searching desired data, which violates the purpose of providing quick access and queries of data.

Taking a brief look at forums around us, we can find that forums are basically made up by long segments of texts, and users has to read them through in order to acquire desired information. In terms of data visualization and delivery, a search engine (website) about

Pokemon can serve the purpose of providing quick and specific information with more efficacy.

APIs are good ways to accumulate information, however, only a limited number of the population can to coding, needless to say performing various operations on APIs. What we need is a platform to synthesize millions of data tuples and select desired and relevant data for users.

Usefulness:

It is to be noted that this website would only be useful to people who are interested in Pokemon. However, it would serve as a great tool for its target audience. It would be extremely useful for all users to do quick searches on specific Pokemon and other information. For those who have just started Pokemon, this website can provide essential information such as abilities and features of Pokemon. For users who are familiar with this game, the suggested team formation can also provide additional insight into how to form optimal teams.

Realness:

The validity of data can be ensured by several authorized database and APIs. In other words, all of the queries carried out on this website will be real and up-to-date. In terms of suggested team formation, synthesized data is entirely based on raw data.

Functionality:

Users can use live search to CRUD any Pokémon with name.
Users can use advance search to filter Pokémons by type and get result with its type restraint relation.
Users can use advance search to get part calculating Pokémon's information.

Users can filter by type to get the information of Pokemon with type restraint relation and generation status.

UI Mockup:

We decide to develop a website user interface which allows users to interactive with the back database.

Navigation bar

Search Bar	What's New	Filter Bar
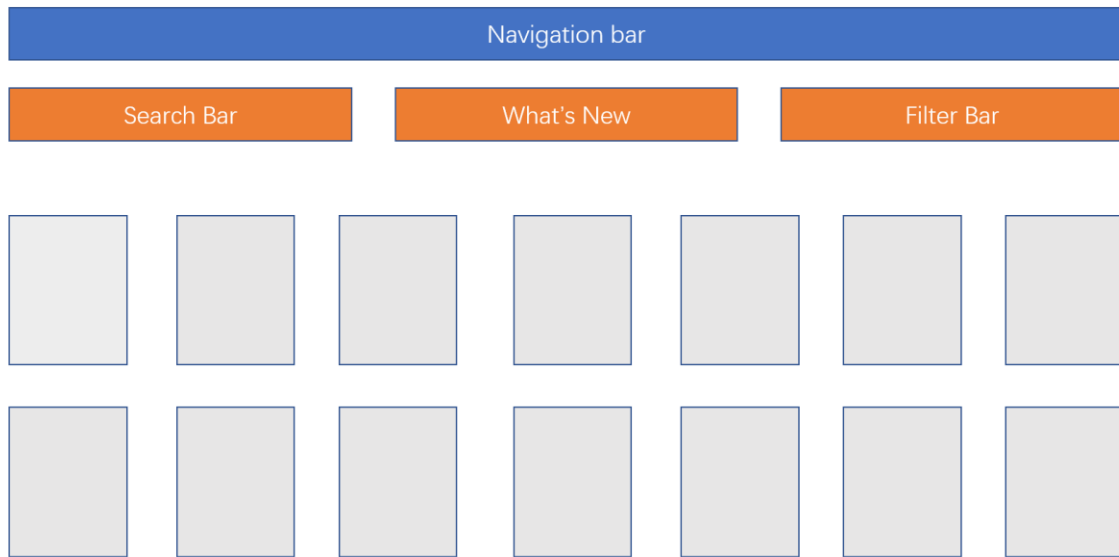
This is a UI mockup for the main page of our application, the functions we are going to implement are navigation bar, search bar, filter bar and Pokemons.

Navigation bar

Previous		Next

Picture of Pokemon	Description
	Battle Simulation
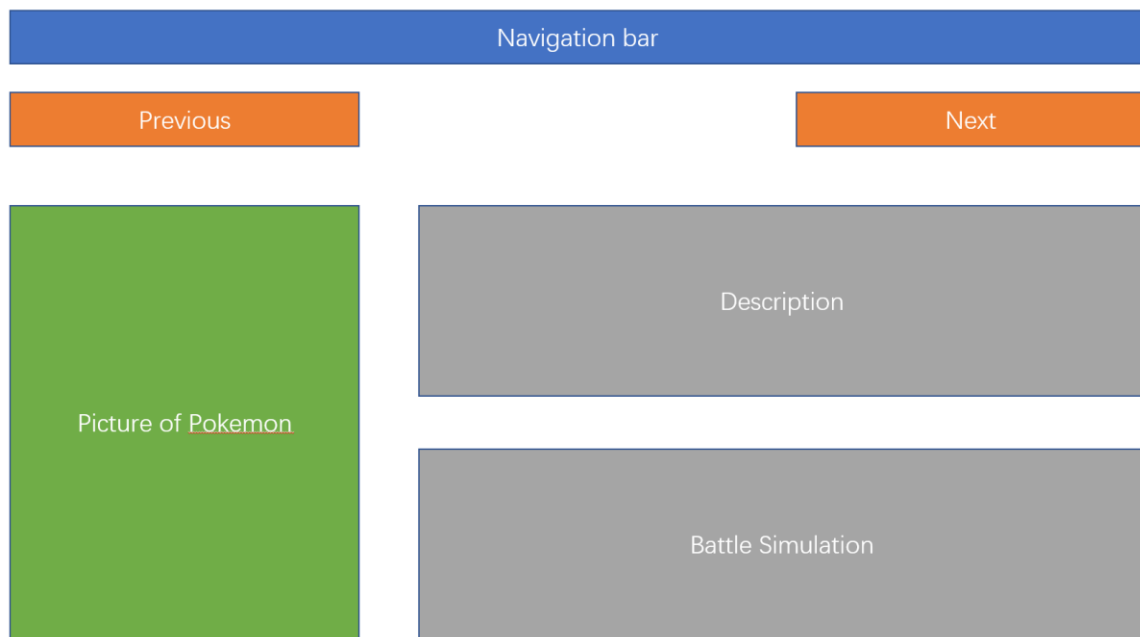
This is a mockup after the user clicked each Pokémon, and this will be the detailed information for each Pokémon.

Project work distribution:

jinyuy2 and jialinh4 will work primarily on the front-end. This includes tasks such as creating the webpage UI, communicating to and from the backend, optimizing user experience, and classifying all categories in an appropriate manner.

yifan20 and faruhan2 will work primarily on the back-end. This includes tasks such as selecting data from the user's request, processing the data, and sending back the necessary info to the front end. We are still deciding on frameworks to use for the frontend and backend.