

## **Pokemon Battles**

**Team Members:** Viano Arcery, Sean Block, Vishal Hada, Tobey Tan, Kyle Qin

### **Problem:**

Pokemon games have been around for many years. Offering rich stories and deep strategy, it has always been a favorite among gamers. Like most RPG games, Pokemon has always been a game that celebrated long playtime rather than short. Pokemon games can take many hours of exploration, playtime, and leveling to obtain your ideal Pokemon team. This is the first problem our web application, Pokemon Battles looks to solve. Pokemon Battles will be a “pick up and play” Pokemon game focused on battling, eliminating exploration and story, allowing you to level and obtain Pokemon faster. Another issue addressed by our web application is playing against your friends. Traditional Pokemon games don’t focus on simple online pvp multiplayer. Unlocking and playing online usually involves playing part of the story, getting your friends friend code, adding each other as friends, and joining the same online room either by being next to each other in person, or by paying for an online subscription. All this including the assumption that you both have the same console and Pokemon game. This makes something as simple as battling your friend a hassle. Our web application will eliminate these complications, focusing on quick Pokemon battles with your friends just a few clicks away, all in your browser. Pokemon Battles will bring the core Pokemon battling experience to the web allowing for quick fun battles with friends and people around the world.

### **Project Summary:**

Our product is a spinoff of traditional Pokemon video games and centered around one-versus-one Pokemon battles. Unlike the single player role-playing games, the application will be primarily made for multiplayer that will support many users who can play against one another. While it will lack story mode and exploration, our product will stay true to the traditional battling system found in previous Pokemon games. We plan to support the first 150 Pokemon for the initial development of our application.

In order to keep players interested and encourage a sense of achievement and progression, the application will incorporate an experience and currency system in which points can be spent on different Pokemon. More time playing on our application will in turn result in more options available to the user through different Pokemon and abilities. As you play more with the Pokemon you already have they can learn new moves and evolve.

## **Users and Stakeholders:**

### **Users:**

Users include any Pokemon players that want to play Pokemon with other players since Pokemon battles allows for multiplayer gaming. Users also included anyone in general who plays online games and wants to be able to play a fun multiplayer game with Pokemon characters. The game is mostly catered to the Pokemon community as the Pokemon community is still fairly large. There are current games similar to Poekmon battles that have many users but ours will be modernized and should attract the users of other older Pokemon games.

### **Stakeholders:**

Viano Arcery, Sean Block, Vishal Hada, Tobey Tan, Kyle Qin are members of the Pokemon Battles team. These are the designers and developers of the online multiplayer game Pokemon Battles. Each individual's grade in Web Science Systems Development as well as their sense of accomplishment depends on the success of this web application.

Dr. Callahan, Vandita Patidar

are members of the Web Science Systems Development teaching staff. These are the individuals that provide project development support, the success of the project also shows their educational efforts.

Online Gamers and Pokemon fans

in general because the game will be an online multiplayer game with Pokemon characters, which may introduce new characters and Pokemon itself to people who may have never played Pokemon games before.

Game Development Community

are potential future developers of this project, the source code and assets will be stored on open source platform GitHub. The development quality of Pokemon Battles from the five initial designers and developers is crucial for the game development community to find Pokemon Battles appealing and potentially participate.

## **Technology Stack:**

Valid semantic markup (HTML5)

Valid Stylesheet (CSS3, browser prefixes excepted)

HTML and CSS(bootstrap) will be used to create a UI that has a more modern and clean look.

Client-side scripting (Angular.js)

Server-side programming (Node.js with Express.js as a framework)

Database connectivity (Firebase)

Multiplayer Support (Socket.io)

Pokemon Data/Information (Pokemon api)

The Pokemon API will be used to get the characters and other Pokemon data needed for the game.

## **Functional and Non-functional Requirements:**

### **Functional:**

#### **Pokemon Battles:**

The main feature of our application is classic Pokemon fighting. Battles will be up to 6 Pokemon on both sides, one-versus-one. The player will be able to swap out their Pokemon like in traditional games. But unlike the original, no items will be incorporated into our application for the sake of complexity.

#### **Experience & Progression:**

As you play more games with your Pokemon, those Pokemon will gain experience. This will allow them to gain new moves and eventually evolve. Each online game the user plays will reward the player with currency that will unlock new Pokemon as they go on.

#### **Cross-Platform Support:**

Currently there are many different Pokemon games on a variety of consoles. To make playing with your friends easier, Pokemon Battles will run on all modern web browsers, PC and mobile alike.

#### **Multiple Browser Support**

Our game will be accessible in multiple different browsers and platforms such as Microsoft Edge, Chrome, Firefox, and Safari.

#### **Internal REST API:**

In order to support the development community, Pokemon Battles will have a REST API, allowing developers to access important aspects of the website.

### **Non-Functional:**

**UI styled after traditional Pokemon games**

The user interface will take elements from Pokemon themed games and from Pokemon in general. It will be a modernized UI with the Pokemon theme.

#### **Easy to join battle system**

The battle system will be easy to join to allow multiple players to join and play with each other.

#### **Responsiveness**

Our application hosts turn-based real time pokemon battles and requires that our software will respond to the users actions in a timely manner

#### **Scalability**

Our application should have the ability to incorporate more complex mechanics to our games. Potential features include single player features or two-versus-two battles.

#### **Open source**

The code will be on github of course and so it could be used as open source for others to use and build upon.

### **Estimated Project Schedule:**

<b>Date</b>	<b>Milestone</b>
1/25	Project Initiation
2/4	Game Mechanics and API Research Complete
2/11	Firebase and Socket.IO integration
2/18	Front-end and User Interface
3/4	Midterm Presentation
3/15	Front-end Back-end Integration

4/12	REST API for project
4/22	Final Presentation (Have project finished)

Concept

