



Team #5

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TRASH ROYALE

In short, Trash Royale is a multipurpose tool that is used in conjunction with the ever so popular game, Clash Royale.

Features include a Challenge Deck Generator, Bad Deck Generator, and Personal Stat Tracker.

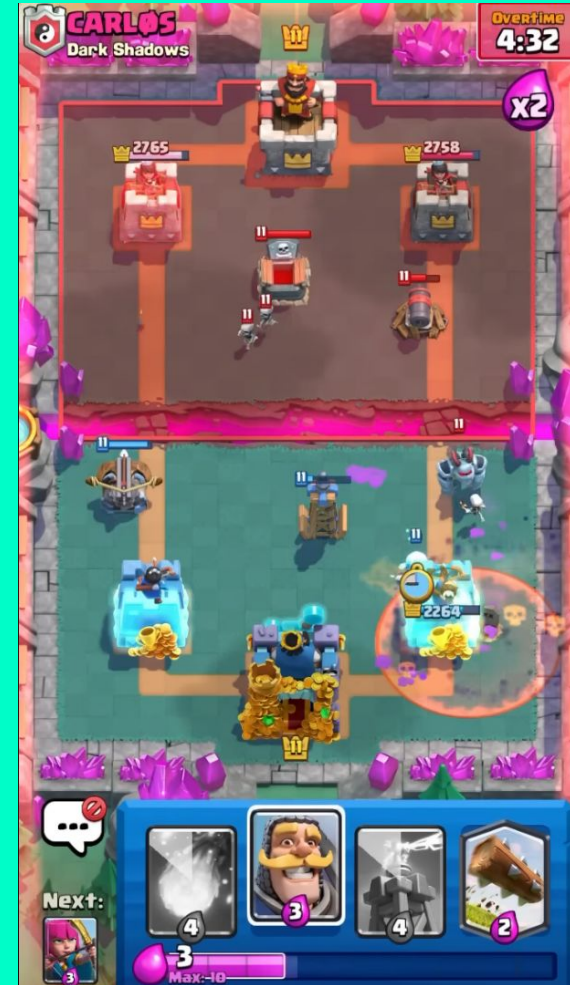
Our goal is to provide a Clash Royale companion to players that are more experienced, and are seeking out a challenge when it comes to testing their skill level.

WHAT IS CLASH
ROYALE?

Clash Royale is a competitive 1v1 card game made by the multi billion dollar company Supercell.

2 players face off against each other spawning units from a deck of 8 total cards chosen by the player beforehand.

The game ends after either one person's towers are completely destroyed, one person has more towers destroyed at the end of regulation, or the player who has done the most damage to another tower at the end of overtime.



TOOLS USED

Git (Version Control System)

- Managed Repositories with **GitHub**
- **GitHub** also was used as our Project Tracker

Visual Studio Code (IDE)

Docker (Used to help run, test, and share our application)

PostgreSQL (Database)

HTML, CSS, JS, EJS (Used for UI/frontend)

NodeJS (Application Server)

Clash Royale API (External API)

Methodologies agile, peer code reviews



TOOL RATINGS

Git: 5/5

GitHub: 5/5

Visual Studio Code: 5/5

Docker: 4/5

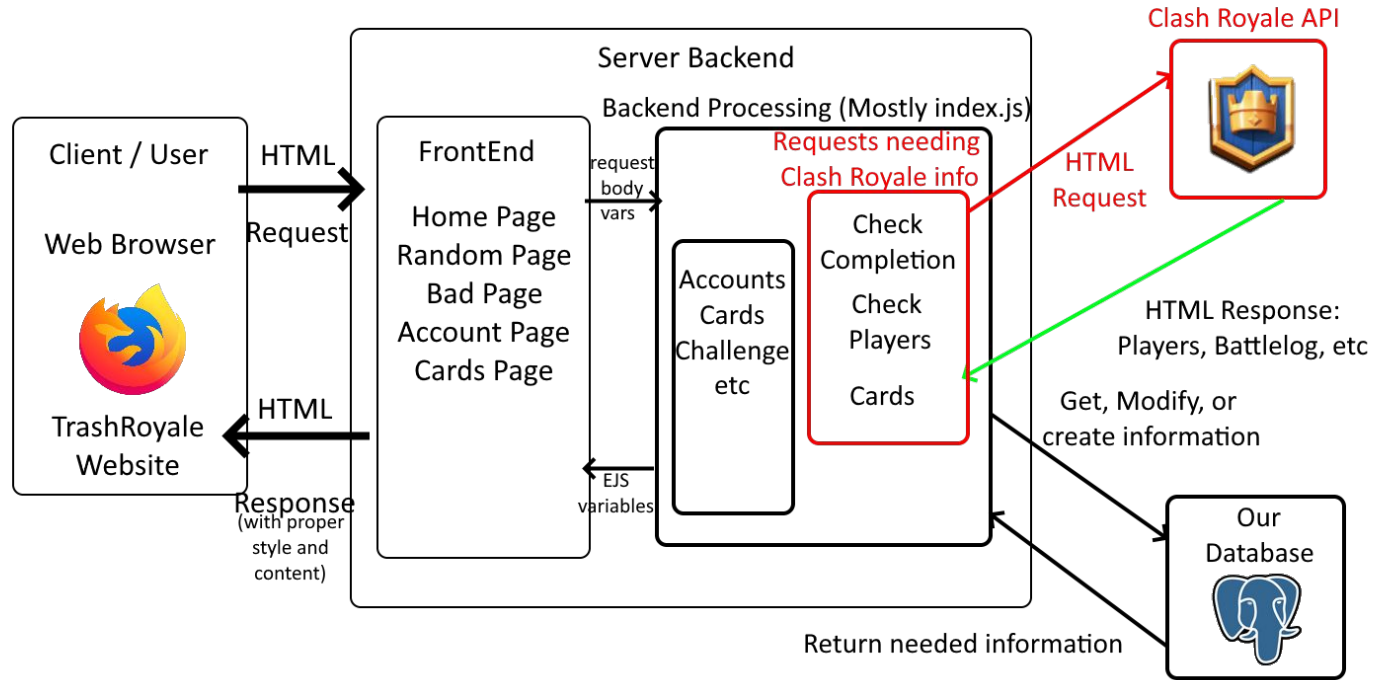
PostgreSQL: 4.5/5

HTML, CSS, JS, EJS: 4/5

NodeJS: 5/5

Clash Royale API: 2/5. Difficult to use due to their security requirements for IP Addresses

ARCHITECTURE DIAGRAM



CHALLENGES WE
ENCOUNTERED

WORKING AS A GROUP

Working in sprints was a new experience for most of our group members and proved to be a source of many problems over the past few weeks.

Finding times where everyone was available to sit down and work was difficult. Making sure everyone was on the same page and working together was difficult. And lastly combining pieces of functionality without creating new problems that had to be solved was almost impossible.

However we made it work, and got into the flow of using different tools to work together towards the end of the project.

USING THE CLASH ROYALE API

Supercell has added a fun piece of security to their API keys which makes you specify the IP Addresses at which you will use it from.

This coupled with CU Boulder's internet setup, and moving between different locations made testing our application very difficult.

Group members often had to make and test with a whole new API key on their local machine to get around this problem.

FUTURE ENHANCEMENTS

DAILY CHALLENGES

- Recommended daily challenges, both random and bad decks
- Store completion and track completion streaks to keep that retention rate up!
- Leaderboards for streaks to give you that great dopamine hit when you see a large number

DECK NAMING ALGORITHM

- Automatically create names for decks based on their cards, cycle, and cost
- Makes it easier to keep track of challenges with a way to describe a deck with words instead of an ID in a database

LIVE DEMO