Space-Invaders

JERKS Final Presentation

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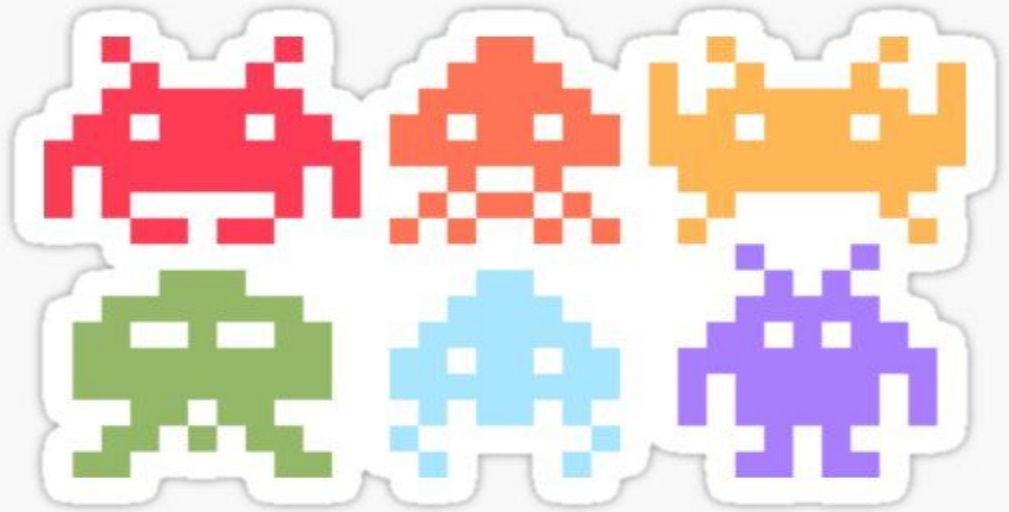
Presentation Contents

Project Background

Motivation

- Our goal was to create a web application to mimic and modernize the renowned, retro arcade game Space-Invaders
- All of our team members have been avid fans of the game since it was released

Functionality

- The modernized take on the game is through a login system to save previous progress as well as a profile page to view updates on your scoring

Implementation

- The implementation of our web application was through firebase for the backend/server as well as react, javascript, and HTML for the frontend

Asset Design

Image/Audio

Images
All of the sprites used in the game were handmade pixel by pixel using piskelapp.com

Audio
8 bit audio was created using https://sfxr.me/

Central Features

1   **Dynamic Data**

2   **Upload Data from Client to Backend**

3   **Meaningfully Search Through Server-side Data**

Dynamic Data

Real-time Updates

- The game will display real-time updates of scores, (which are based on # of aliens killed as well as waves progressed), wave progress, and other information to the player.

[Insert Image Here]

Upload Data from Client to Backend

Score Tracking + Registration

- Uploads player's score to backend after every game in which the user outscores their previous highscore
- Saves user login information when they create an account

[Insert Image Here]

Meaningfully Search Through Server-side Data

User Login

- Searches through backend data to find user's login information and ensure it is correct, allowing them to keep track of their saved progress

[Insert Image Here]

Unique Features

1   **Laser Shooting (Player/Alien)**

2   **Player/Alien Movement**

3   **Scoring History**

Laser Shooting (Player/Alien)

Projectiles

- Made it possible for the player to destroy aliens by shooting them with a laser projectile
- Aliens randomly shoot back at player to affect player "armor"
- Added sound to both lasers

[Insert Image Here]

Player/Alien Movement

Movement

- Enabled alien scrolling as a wave so that all the aliens are aligned and go to one end of the screen before descending towards the player
- Allowed player to move left and right using the keyboard

[Insert Image Here]

Scoring History

Scoring History

- On the profile page, we provide data on the history of the user's scores and create a line chart to visually represent it

[Insert Image Here]

Demo