



Contributions

Dorrin Ashrafi - Navbar, Hangman (Difficulty mode, S U C E Hint Pop-up, Game Functions, Restart Button), Login/Registration Errors

S₁

Tian Zhang - Word Database, Dictionary, Registration, Leaderboard, SQL

Erasmia Poulassichidis - Game Functions, Test Cases, Settings Page, Hint Pop Up, Keyboard, Restart Button, Login/ Registration errors

Cole Irish - Render, Login, Home page, Leaderboard and Score

Alex Recana - Logout, Game Over, Styling, Hangman/Settings implementation



Description of the Project

Our project is a versatile and multi-faceted application that offers unique, wonderful, and engaging functionalities including a dictionary that utilizes an API to fetch and display information to users, a unique take on the Hangman game, a database that stores user usage statistics and details, along with great features such as adjusting the theme of the display along with difficulty settings.

T₁ R₁ Y₁

Tools Used

- PostgreSQL
- NodeJS
- JavaScript
- Bootstrap
- HTML
- Python
- Handlebars
- Visual Studio Code
 - CSS

- Github
- Mocha
- Render

Tool Utilization and Versatility How useful was each tool?

PostgreSQL - Our database. Used to fetch and store data. 5 stars.

NodeJS - Pretty Much Necessary. 5 stars. Used to communicate between front-end and back-end and fetch and send information back to users when they make requests.

JavaScript - Also pretty much necessary. 5 stars.
Javascript is the backbones of the back-end, we used it for the game, endpoints, some front-end functionalities, etc.

Bootstrap - 4.5 stars. Easy to use and great tool that made our website look good as well as give some HTML functionalities

How useful was each tool?

CSS - Used for formatting and styling. 4 stars.

HTML - Provides the skeleton of our website. The structure of our web pages. 5 stars.

Handlebars - Extremely useful for formatting HTML. Can build and structure the pages using the data returned from API Calls. 5 stars.

Github - We used this exclusively for the development of our project. This version control system allowed us to work on the project together and allowed us to make separate branches to work on separate features. 5 stars.

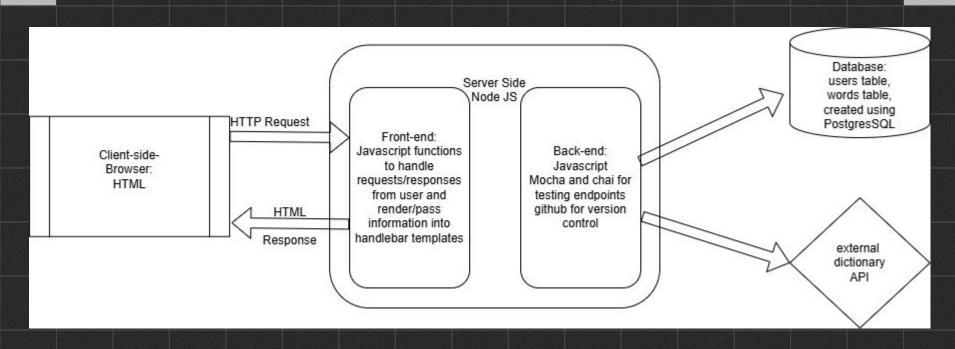
Mocha - Used for testing features. 4 stars.

Render - Used to host our website. 4 stars.

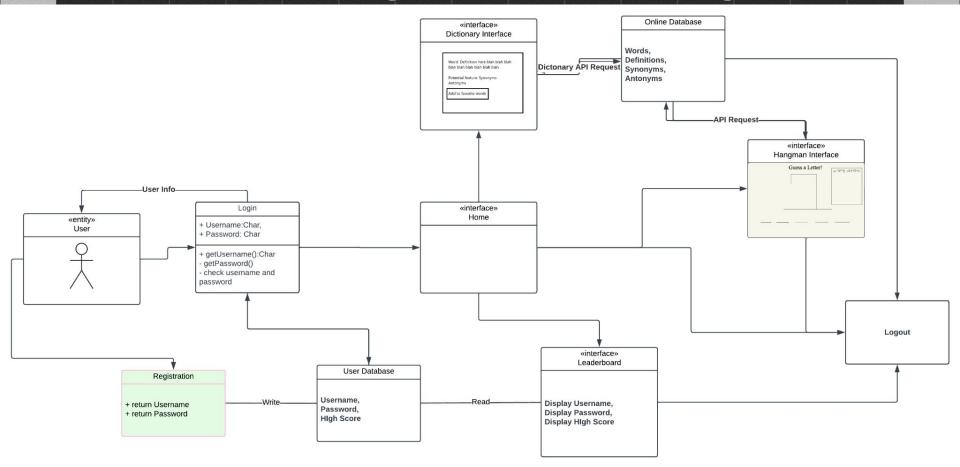
Python - Used to extract data for our database. 4 stars.

Tool
Utilization
and
Versatility
Cont.

Architecture Diagram



Ultimate Hangman Use Case Diagram



Encountered Challenges

- Bugs: (Some of the bugs that we encountered while creating the project were extremely difficult to find and fix.
- Complexity: Some of the features that we implemented were extremely complex and challenging to make. Examples include the actual game itself and some endpoints which were tricky to make.
- Time restraints. Due to the fact that the allocated time for the project was merely four weeks along with the fact that we also had to balance time with other projects and things in life, this was a great challenge.

Despite all the challenges, we loved working on our project and it turned out to be amazing!!!

Future Improvements and Enhancements

- Being able to resume and save active game sessions if you navigate away from the playHangman page or logout and sign back in
- Being able to add friends and play multiplayer
- Sound effects like after you lose/win or after a correct guess

S. U. R. P. R. I. S. E.

- Different types of game modes, like
 - Putting a timer and seeing how many words you can get within the minute
 - Awarding higher scores for speed
 - A pictionary mode, where the word hint is a picture related to the word that they have to guess

Live Demonstration!

