

Mobile Web Final Presentation

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Introduction

Quizoot: Trivia Game

Description: A battle of wits in which a group of players attempt to be the fastest to name the country whose flags are displayed. The players must answer within an allotted time and the player with the most correct answers at the end of the round is the winner.

- Used a “Mobile First” design, starting with smaller screens and working up in size.
- Responsive to changes in screen formats and sizes.
- Browser based to reduce the demands on the client device and allow for a wider range of devices.
- Open-source with minimal dependencies.
- Easily extendable with adequate documentation.

Similar and Related

- **Kahoot (proprietary and closed-source):**

- URL: <https://kahoot.com/>
- Description: Kahoot is a game with user-generated multiple-choice quizzes where players can play together.
- Proprietary and closed-source

- **Darkhold (GPL-3 licensed / open-source):**

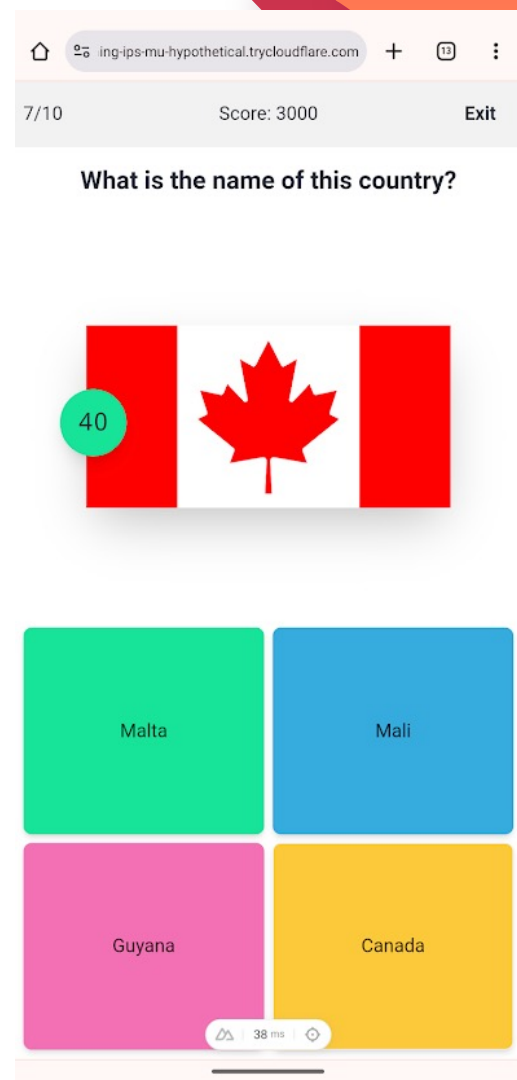
- URL: <https://github.com/surajcm/darkhold/>
- Description: A self-hosted alternative to Kahoot
- Not mobile-first and written in Java

- **Kascreech (Unlicensed / open-source):**

- URL: <https://github.com/w-henderson/Kascreech/>
- Description: Real-time multiplayer platform based on Kahoot built with Rust and React

Features: Game

- Host has access to multiple game modes:
 - World
 - Continents
- Host creates room for players to join via room code or players can scan the QR code.
- Host can start the game when 1 or more players have joined the room.
- Questions are displayed on the players device and on the host device.
- Questions contain:
 - Image of random countries flag.
 - four multiple-choice country names, one of which correctly matches the image.



Features: Game – cont.

- Correct answer will increase a player's score and answering faster increases the amount.
- Question ends after the timer runs out of time, everyone has answered the question, or the host ends the question early.
- Scoreboard with top 3 players are displayed at the end of a game.
- Can also be played alone with singleplayer mode.

Features: Technology

- Client-server connections use Socket.IO.
- TailwindCSS and DaisyUI allow for consistent design and responsive views across devices.
 - Tailwind includes media queries and standardizes our CSS.
- Uses Rest Countries (A Restful API) to gather country names and their matching flags.
- Nitro powers our back-end routing and event handling (included in Nuxt)
- Cloudflare Quick Tunnels allows for devices outside of the network to access the development site.



Demo!

Tools

- **Vue.js:**

- Progressive JavaScript framework for building single-page applications and web-based user interfaces.

- **Nuxt:**

- JS framework that integrates a server within Vue.js

- **Tailwind CSS:**

- CSS framework allowing responsive design

- **daisyUI:**

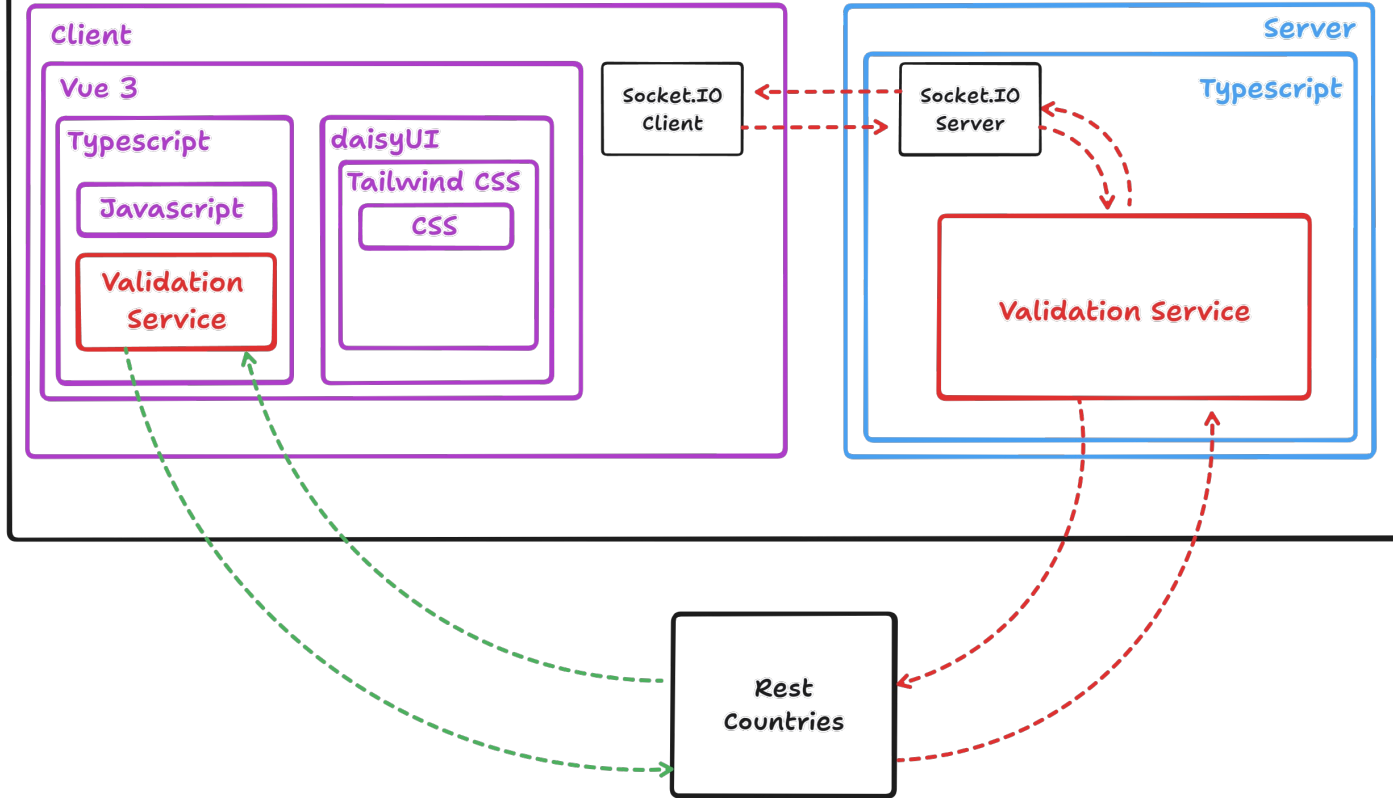
- Component library for Tailwind CSS

- **Node.js:**

- JS runtime environment that allows backend development



Nuxt 3



Project Statistics

Lines of Code (estimate):

- Back-end: 1500 lines
- Front-end: 2000 lines
- Total: 3500 lines

Languages Used:

- Vue: 64.1%
- TypeScript: 34.7%
- JavaScript: 1.2%

Number of Commits (Main): 200

CI / CD

← Deploy to GitHub Pages

✓ **Fix overflow and max length** #6 Re-run all jobs ...

Summary

Jobs

- ✓ **build**
- ✓ deploy

Run details

- Usage
- Workflow file

build
succeeded 2 minutes ago in 53s Search logs ↺ ⚙

> ✓ Set up job	5s
> ✓ Checkout repository	1s
> ✓ Enable corepack	0s
> ✓ Set up Node.js	0s
> ✓ Restore cache	2s
> ✓ Install dependencies	14s
> ✓ Build	22s
> ✓ Upload artifact	2s
> ✓ Post Restore cache	0s
> ✓ Post Set up Node.js	0s

Project Statistics – cont.

Client Memory Usage:

- Avg. 40.5MB

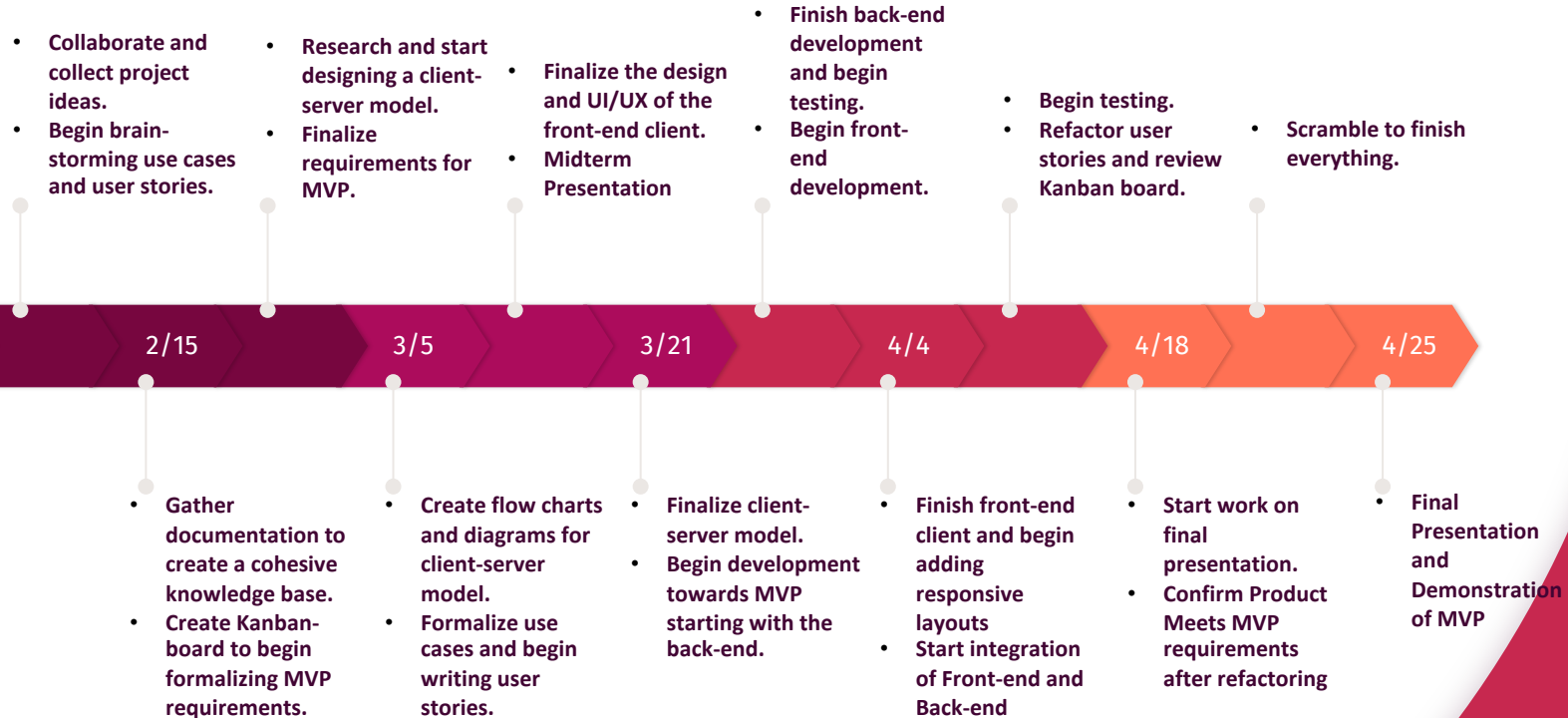
Storage Requirements:

- On AWS server: 25.2MB
(9.33MB gzip)

Event Handlers:

- Client-to-Server: 13
- Server-to-Client: 27

Timeline



Work Breakdown

AmyJane Reilly

- UI/UX Design and Mock-ups
- Front-end Research, Planning, Design, and Development.
- Research on Front-end Tools: DaisyUI, Tailwind CSS, Vue.js
- User Stories:
 - Display country flag correctly on all devices.
 - Adjust UI layout for ease of use.
 - Research and filter controversial countries.
 - Write markups for most pages.

Trey DeaBueno

- Tech Lead
- Backend Research, Planning, Design, and Development.
- Research on Back-end Tools: Nuxt, Node.js
- User Stories:
 - Have multiple people join a room.
 - Stand up server.
 - Send and receive packets to the server via Socket.IO.
 - Integrate front and back-ends.

Daniel Buck

- Scrum Master
- Timeline, Planning and Documentation
- Back-end Research, Planning and Design
- Front-end Design and Planning
- User Stories:
 - Track score as the game progresses.
 - Create Scoreboard markup.
 - Create Credit page markup.
 - Display scores and the winner upon game conclusion.

Testing - Devices

- Google Pixel 7 / Google Pixel 8 Pro
 - OS: Android 14
 - Browser version: Chrome 122 / Brave 1.63
- Samsung Galaxy S21+
 - OS: Android 14
 - Browser version: Chrome 122
- Apple iPhone 13
 - OS: iOS 17.3.1
 - Browser version: Safari 17.3.1
- Windows 10/11
 - OS: 22H2
 - Browser version: Chrome 122



Plans: Features

- Dark theme
- Register for account and user creates their own questions
- User can see their games played, games won, score
- 1v1 battle mode
- Option to join public games
- (Host) World option filterable
- (Host) Time for questions changeable
- (Server) Multiple servers worldwide with connection between them

Plans: Project

- We expect to continue working on this for a while.
- Review and revise documentation.
- Clean up repository
- Etc.

Licenses

- Presentation:
 - This work is licensed under CC BY 4.0. To view a copy of this license, visit <https://creativecommons.org/licenses/by/4.0/>
 - Presentation template by [SlidesCarnival](#).
- Repository: <https://github.com/Quizoot/Quizoot>
- MIT license

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- Distribution
- Modification
- Private use

Conditions

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Limitations

- Liability
- Warranty

Tools Information

Vue.js:

- Repo: <https://github.com/vuejs/core/>
- URL: <https://vuejs.org/>

Nuxt:

- Repo: <https://github.com/nuxt/nuxt/>
- URL: <https://nuxt.com/>

Tailwind CSS:

- Repo: <https://github.com/tailwindlabs/tailwindcss>
- URL: <https://tailwindcss.com/>

daisyUI:

- Repo: <https://github.com/saadeghi/daisyui>
- URL: <https://daisyui.com/>

Node.js:

- Repo: <https://github.com/nodejs/node>
- URL: <https://nodejs.org/en>





Questions?

See you!