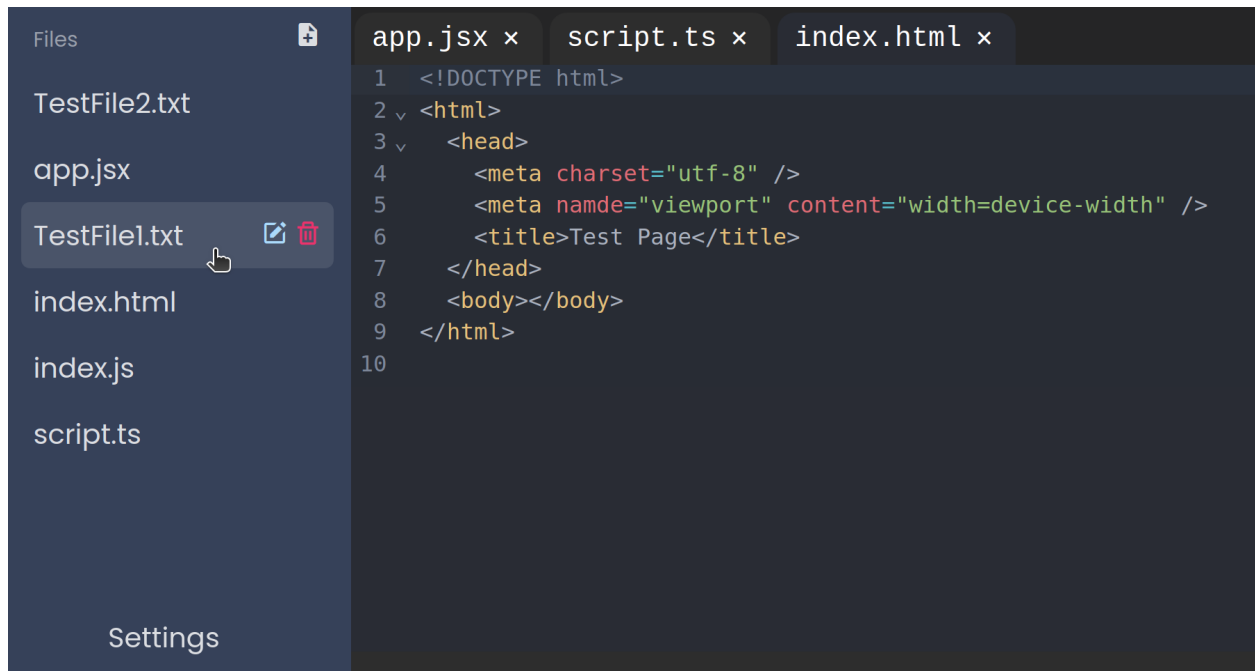


VZCode

<https://github.com/vizhub-core/vzcode>

Description

VZCode is a state-of-the-art multiplayer code editing platform designed to provide a real-time collaborative development experience. It provides a browser-based environment where users can simultaneously edit, allowing for instant collaboration on projects. With features such as file listing, real-time collaboration, and syntax highlighting, VZCode is a formidable solution for teams looking to streamline their development workflows.



Stack

Front End:

- [React](#)

- [Vite](#)
- [CodeMirror 6](#)

Backend:

- [NodeJS](#)
- [Express](#)
- [ShareDB](#)
- [JSON1 Operational Transform](#)

Goals

The project aims to:

- Offer a feasible alternative to VSCode + Live Share for frontend development
- Support instant feedback through hot reloading
- Facilitate easy project-specific IDE embedding
- Enhance user experience with advanced features
- Keep improving based on feedback
- Serve as a core for [VizHub's](#) next-gen editor

Milestones

See also [Live Kanban Board](#)

September

- Team onboarding and development environment setup
- Robust error handling and presentation of syntax errors
- Usability improvements for renaming files
- Set up live demo site where anyone can try VZCode

October

- Intelligent Autocompletions (using TypeScript language server)
- AI-Assisted Coding leveraging OpenAI
- Add interactive widgets from [codemirror-interact](#)

November

- Usability improvements for working with directories (rename, moving files)
- Make VZCode more like VSCode using existing CodeMirror extensions
- Presence improvements (colored cursors, selections, usernames)
- Usability testing & dogfooding VZCode for VZCode development

December

- Documentation and Demo Videos
- Final presentation and write-up
- Final code commits

Team

- Jack Hankin - Hankij@rpi.edu - Darmin-Geek
- Dominick Iadevaia - iadevd@rpi.edu - DomaDude123(Git)
- Evan Whymark - whymae@rpi.edu/whymarkevan@gmail.com(personal)/EvWhymark(Git)
- Amanda Ruan - ruana2@rpi.edu - aruan20
- Ngawang Ghongwatsang - ghongn@rpi.edu <https://github.com/nghongwatsang>
- Michael Krar - krarm@rpi.edu - michaelkrar
- Jordan Lewenthal - lewenj@rpi.edu - jlewenthal2004

Individual Milestones

September

- (who?) Robust error handling and presentation of syntax errors
- (Mike) Usability improvements for renaming files

October

- (Dominick) Intelligent Autocompletions (using TypeScript language server)
- (Jordan) AI-Assisted Coding leveraging OpenAI
- (Jack) Add interactive widgets from [codemirror-interact](#)

November

- (Amanda) Usability improvements for working with directories (rename, moving files)
- () Make VZCode more like VSCode using existing CodeMirror extensions
- (Evan) Presence improvements (colored cursors, selections, usernames)

December

- (everyone) Documentation and Demo Videos
- (everyone) Final presentation and write-up
- (everyone) Final code commits

Spaces

- Github: <https://github.com/vizhub-core/vzcode>
- Discord Channel within RCOS

Contribution Guidelines

- All team members will be added to the GitHub repository, no need to fork to PR
- Create a draft PR as early as possible to surface work in progress
- Run Prettier on the code before committing
- Students will review each other's PRs
- Curran will do final review, cleanup, and merge
- Use the "Closes #241" syntax to auto-close issues when PRs get merged
- Ideally 1:1 mapping between issues and pull requests
- If you want to work on something with no issue, create the issue first