

Report on Online Code Editor with Live Preview

Abstract

This project is about creating an online code editor that runs in a web browser. It lets users write, edit, and preview HTML, CSS, and JavaScript code instantly. The editor is simple to use, works in real-time, and has features like saving code, sharing through a link, and starting with ready-made templates.

Introduction

The Online Code Editor with Live Preview was designed to help students and developers quickly test front-end code. Unlike normal coding software that needs installation, this one works completely in the browser. It shows the output instantly using an iframe. Built with React and Monaco Editor (the same editor used in VS Code), it provides an easy and smooth coding experience.

Tools Used

- React.js – for building the user interface.
- Vite – fast development server and build tool.
- Monaco Editor – code editor with syntax highlighting.
- HTML, CSS, JavaScript – main web technologies.
- LocalStorage & URL Compression – for saving and sharing code.

Steps to Build the Project

1. Set up a React project using Vite.
2. Add Monaco Editor for coding in HTML, CSS, and JS.
3. Create components for the editor, preview window, and navigation bar.
4. Use an iframe to show live previews of the code.
5. Add layout options (split screen, editor only, preview only).
6. Provide starter templates for quick use.
7. Save code locally using LocalStorage.
8. Add a share option with URL compression (LZ-string).

Conclusion

This project shows that a simple online coding tool can be built with modern front-end technologies. It is useful for quickly testing ideas and learning. Features like live preview, templates, and code sharing make it very practical. In the future, cloud storage could be added to save code permanently.