

CS 242 Project Proposal

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1 Abstract

`yterm` is a web-based terminal emulator. It runs in browser and uses HTML Canvas API for basic graphics. I'm currently aiming to support most of ANSI escape sequences by the end of the three weeks.

2 Technical Specifications

- Platform: Web
- Programming language: TypeScript
- Stylistic conventions: Standard JS
- IDE: Visual Studio Code
- Tools: Google Chrome
- Target audience: My moderator, group mates, and me

3 Functional Specifications

`yterm` will support basic rendering of the terminal with a customizable and extensible framework. It will also support most of the ANSI escape sequences, which will bring colors and other fun things onto the stage.

4 Timeline

- W1
 - Basic framework
 - Supports basic terminal functionalities without ANSI escape codes
- W2
 - Add support for ANSI sequences for coloring
 - Add support for different styles/fonts
 - Full support for UTF-8.
- W3
 - Add support for other ANSI sequences
 - Optimize for performance.
 - Support for emojis.

5 Future Enhancements

I'm relatively new to linux TTY and PTY. The large number of existing protocols/standards for terminals will definitely take a long time to learn. One obvious direction for enhancements would be to support more extensions.