

the Puzzling Project

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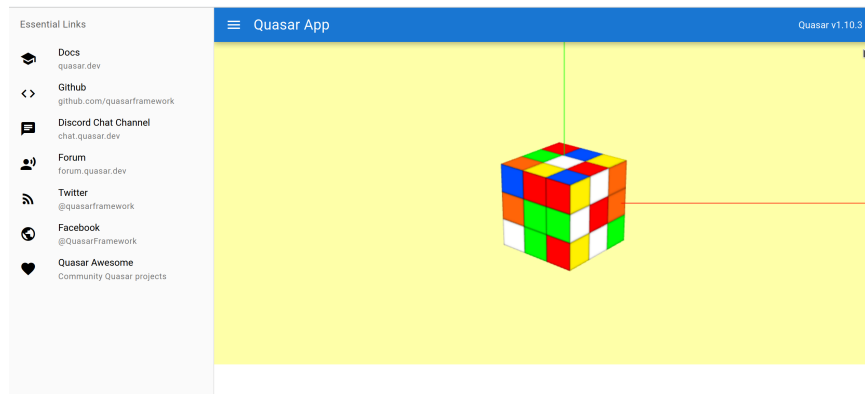
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1 about

- a rubik's cube simulator
- a platform for cubes and puzzles



2 purpose

- for fun
- learn how to develop a software from scratch
- get familiar with modern designing patterns
- learn Computer Graphics
- teamwork with git

3 structure

- Vue's mode(MVVM)

4 technology stack

4.1 vue.js

- a modern front-end framework
- easy to learn and use(relatively)
- vue CLI

4.2 quasar

- a vue.js based framework
- built-in electron and SPA(Single Page App) support
- a good vue.js component library

4.3 webGL

4.3.1 three.js

- easy to learn
- plenty of tutorials, both english and chinese
- official chinese document(for some reason it's hidden recently, but still can be found)

4.3.2 base webGL(2)

- (relatively) hard to learn
- more flexible

4.4 SQL

- we may have to write our own database engine
- database designing
- mySQL, sqlite, etc

4.5 electron

- quasar built-in support
- use vue-electron package
- electron is not the main focus

5 code style

5.1 eslint

- need discussion

5.2 DRY –Don't Repeat Yourself

- good abstraction
- reusable API

6 comments and documents

6.1 need good advice

7 version control & package management

7.1 git

- github
- gitlab

7.2 yarn/npm

7.3 test

- not so sure how to deploy tests
- gitlab
- travis

8 platform

- linux
- windows
- macOS

9 license

- need discussion
- currently GPLv3

10 IDEs

- vscode
- webstorm (edu license)
- emacs/vim

11 some fantasy

11.1 ONIT typescript?

- better language
- better OOP support
- I'm not familiar with typescript, but since three.js and vue both have ts support, we may give it a try.

11.2 **CANCELED** rebuild on C++ Qt platform?

11.2.1 pros:

- better language
- better OOP support
- faster
- more flexible(mainly because I'm more familiar with openGL)

11.2.2 cons:

- the worst package management
- less extensibility
- node.js is modernized and it is the future trend
- much more code, especially openGL

11.3 is vue necessary?

- perhaps not, but we could try it first
- using a framework can save lots of code