HuffmanCode

Introduction

本程式使用JavaScript與HTML完成，並且採用Chrome為載體執行所有的程式邏輯與UI呈現。 主程式的部分實質上為一個網頁，經過後期用Webpack 做bundle、obfuscate、minify後再由Electron將網頁包進去使其成為一個獨立的執行檔。其中Electron負責把網頁與chrome結合，並可透過Electron與系統溝通，使網頁有更多可能性。

本程式的UI採用Vue.js及Bootstrap為框架去構建，其中Vue.js在這當中扮演著與HTML DOM溝通的橋梁，使JavaScript與HTML的DOM可以更方便的溝通。並且能快速的繪製大部分重複性的場景，而Bootstrap在這當中擔任美化的作用。

Feature

- 計算Huffman Code
- 計算Entropy 與 Average Length

Environment

This program can support Windows 10 21H2 or newer also it doesn't support the other OS

How to use

Click "Huffman Coing 1.0.0.exe" and fill in the symbols and probabilities then click 'Execute' the result will show in the row of "Huffman code"

How to compile

First of all you must to install Node.js on your computer also open the terminal and go to the folder of "code_theory" and execute the following cammand :

```
npm install && npm run build
```

The web files will in the folder *dist* and the executable file will at the following path : *build/win/Huffman Coding 1.0.0.exe*

Reference

Framework

- Vue.js

- Bootstrap

package

- Webpack
- Electron
- electron-build