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## Brainfuck Interpreter User Guide

#### Access the application

To access the application, go to the following link:

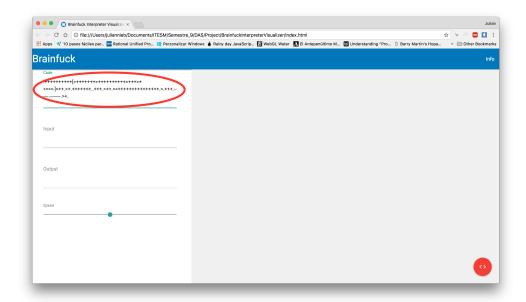
https://juliannieb.github.io/BrainfuckInterpreterVisualizer/

There, you'll find useful information of the project like a video tutorial, a link to the GitHub repository and so on.

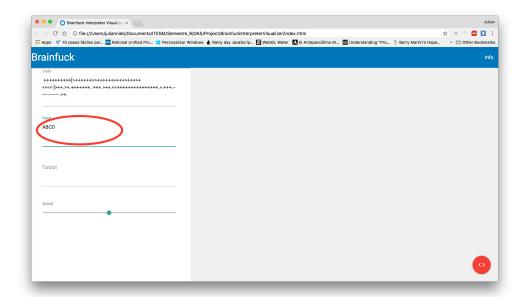
#### Run a Brainfuck program

To use the interpreter without the visualization and only run the code, simply follow the next steps:

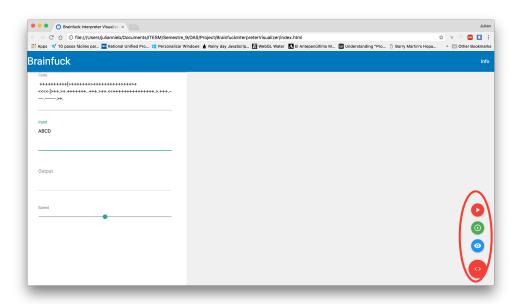
1. Write your Brainfuck code in the "Code text box".



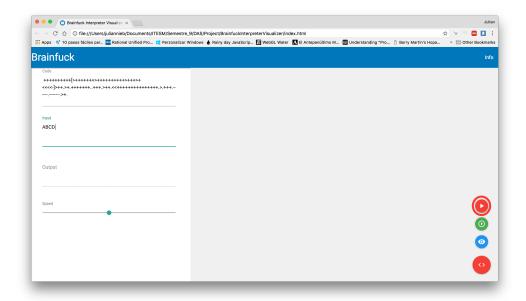
2. If you need any inputs for your code, write them inside the "Input text box".



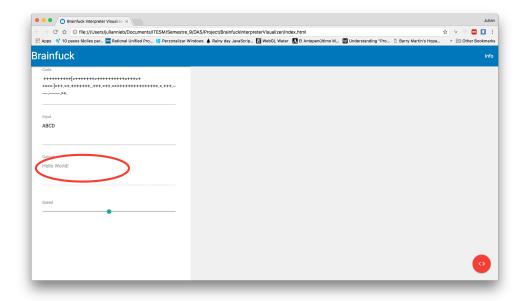
3. Open the "Running options".



4. Select the "Run" option (red "play" button).



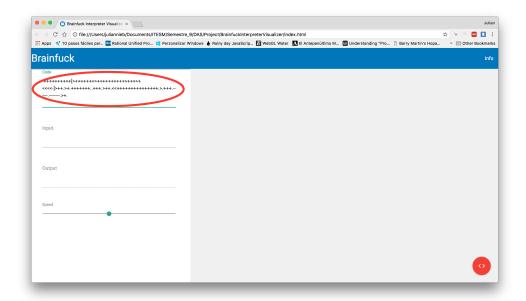
5. If your code has any outputs, they will be displayed in the "Output text box".



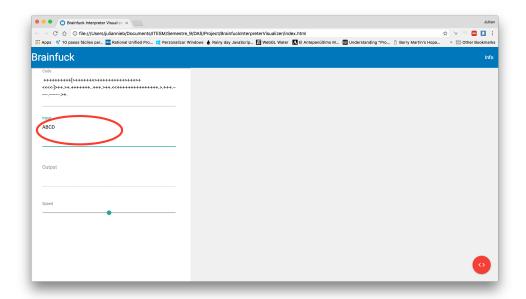
#### Run and visualize a Brainfuck Program

To interpret a Brainfuck program and visualize the process in real time, follow the next steps:

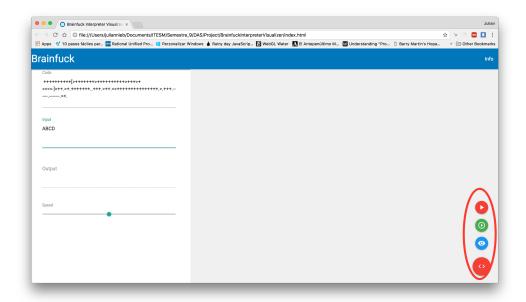
1. Write your Brainfuck code in the "Code text box".



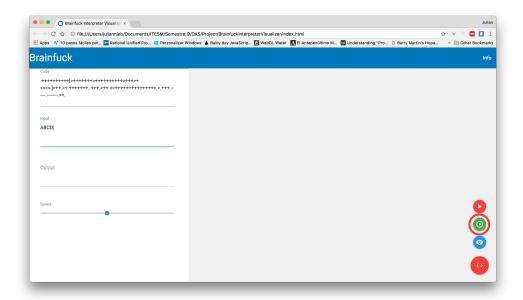
2. If you need any inputs for your code, write them inside the "Input text box".



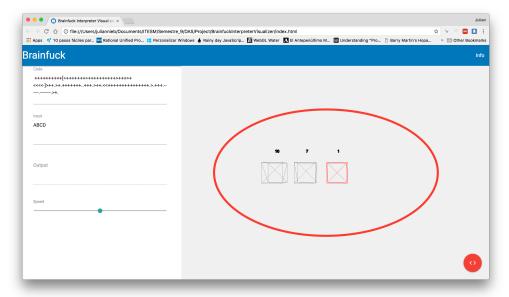
3. Open the "Running options".



4. Select the "Run-Visualize" option (green "play" button).



5. The visualization will start in the "Visualization canvas".

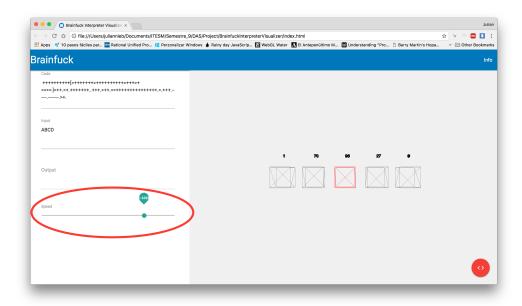


Each cube represents a memory cell.

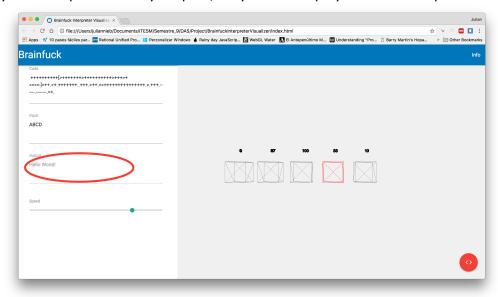
The red cube represents the current pointed cell.

The numbers above the cubes represent the current value of each memory cell.

6. You can control the speed of the visualization with the "Speed range".



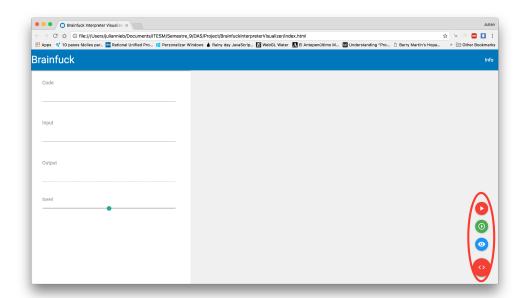
7. If your code produces any outputs, they will be displayed in the "Output text box".



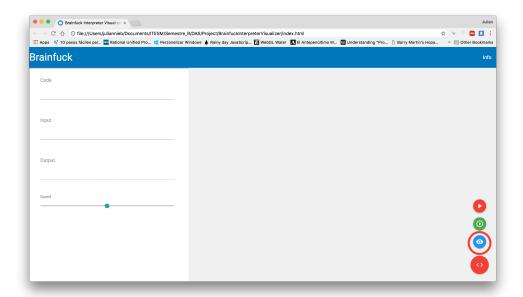
#### Visualize commands directly from the keyboard

To convert your keyboard in the commands source and visualize the execution in real time, follow the next steps:

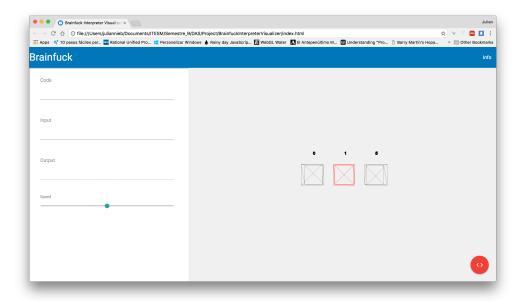
1. Open the "Running options".



2. Select the "Run" option (blue "eye" button).



3. Your keyboard will be turned in the commands source for the program. Type any valid Brainfuck command and the visualization will be rendered in real time in the "Visualization canvas".



4. To exit the visualization mode just press the "Enter" key and the program execution will stop.

### Local installation

- 1. Go to the <u>GitHub repository</u>.
- 2. Download the project as a ZIP.
- 3. Unzip the project.
- 4. Open the index.html file in a web browser.