

## Youyou's Module Document

### Loading function:

- Overview: Appear when the render is happening and stop when the image gets generated.
- Function: setup in the css file and in write in the main js file, after i-loading is done hide the loading screen
  - Test Case:
    - Check if the map generated show up after loading in down
    - Appeared after the user chose to make a new map or set the map.
    - Check if the loading screen only located in canvas area didn't block the header.

### Download function:

- Overview: The user could easily download the map down by clicking a button
- Function: Create a Download function and call the function when Download button get clicked
  - Add debugger function before this part of code to help debug
  - The debugger function lets me keep on track with each line of the function and printout the result after this line get passed

#### Method:

Find canvas location and store the browser default path, let canvas image url sent to the image object. Replacing the mime-type will force the browser to trigger a download, rename the download file. Create a mouse event, and when the button gets clicked recall this function and download the png image.

- Test Case:
  - Download image after the page been load
  - Download image after creating a new map/new setting

### Menubar function:

- Overview: open a menu bar appear on the left of the webpage and provide an option for the user to click the menu icon image.
- Function: Make each bar clickable, and appear the menubar
  - Check if the menu bar appears in the right place
  - Check if the bar closed after the user clicked the option
  - Check if the menu bar gets closed after the user clicks for the event such as: new map.

### newmap():

located in the menu bar and reenter the loading phase and create a new map, create a new map by using a new random seed number  
setWorldSeer(value) create a random world seed number between 1 to 1000000.

#### Test Case

- Load a new map after click the new map function
- Hide the bar after click the new map function
- Print and check if received a new seed number to refresh the webpage.
- Check if the new map gets created by the Canvas

Popup(): popup a window after click the setting in the menu bar

- Test case
  - Check if the window gets popped out
  - If the pop up block in the right location
  - Check if the jump to setting() function
- There is an error happen when the map generation won't deallocate memory, for the new map function will keep increase memory until this error been thrown out.

#### Setting():

create multiple slider bar for user to pick to set up for the map. List variables can edit by the user are size, coast smoothness, inland, beach height, coast uniformity, number of the rivers, number of mountain ranges, the width of the mountain range, squigginess, mountain smoothness, and world seed number.

- Test case
  - If all the slider bar located in the right area
  - If all slider showed out in the popup window
  - Check if the form gets submitted and changed the internal variable values.
  - Check if each variable gets changed after the user changes the number in the slider, and regenerate a corresponding new map based on user's input value.
  - Check if the canvas jumps back to the loading screen and regenerate the image.