Lights Show

SM2715 – Creative Coding

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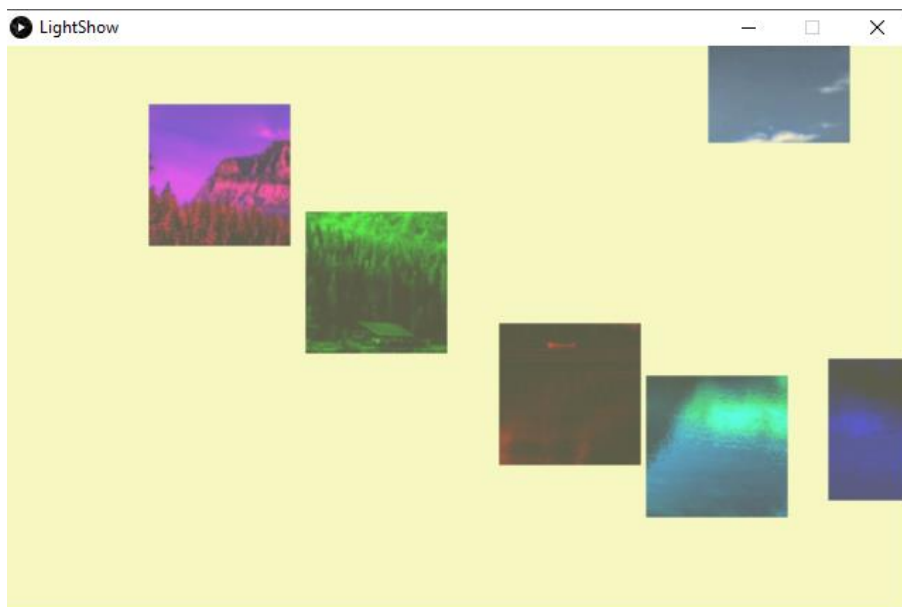# INDEX

Flow of Sketch

- Initial Screen
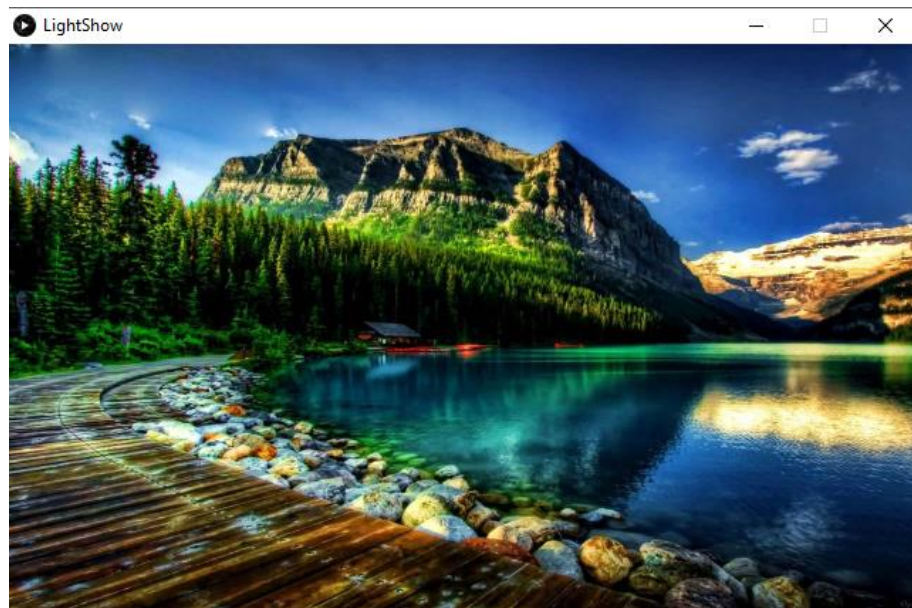

- After Mouse Click

  - Background is changed according to the pixel where mouse clicked.
  - Different portions of images are shown through different lights.

- Gradually over time

- Over time the number of lights increases.

- In the end, the image resets back after it reaches 50 lights.

- Over time the number of lights increases.
- Also, possible by pressing any key.

Description

The sketch intents to perform a light show. After the user clicks, that pixel is set as background and lights start appearing. It starts with 1 light and goes on till 50 lights. In the end, it resets the image as background. All the lights are shown at random locations and it keeps changings. Different kinds of lights are used like using only red channel to fill the region. The show can also be stopped and reset at any time in between by pressing any key.

Coding Techniques

The whole code is written in a clean and simple format. It contains meaningful variable names and comments which explain the code. Some of the key techniques used are:

- Nested for-loop (3 for loop structure)
- Pixel Array Manipulation
- In built drawing functions like ellipse (), fill (), etc.

How Code Works?

Initially the image is loaded to the screen using loadImage () function. After that when user clicks on the images, mousePressed () function is called. Inside that function, it changes the background colour to the clicked pixel and starts the light show. Light show begins with 1 as number of lights which increases gradually and stops at 50. The first for loop is run to remove all the previous lights. While the nested for loop, creates the number of required lights. All the created lights are given random location and some area around is shown through a colour channel. Precautions are also taken to make sure it does not go out of bound. Different types of colour channels are used. The show ends either when it reaches 50 lights or a key is pressed by the user. Key press is detected by the function keyPressed ().

Artistic Concept and Inspiration

Light shows are performed all over the worlds including Hong Kong. After watching "A Symphony of Lights" show in Victoria Harbour, I was amazed how the chemistry of light and sound could produce something so aesthetic. It covered different themes like awakening, energy, heritage, partnership and celebration in just around 14 minutes.

It made me think about Light Art, in which light is the main medium of expression. It always uses a statue to emit light or uses the light to make the statue. So, in this assignment I tried to use Light Art and emit different channels of colour as if they are lights. These channels keep changing over time like a light and sound show.

References

1. http://processing.org/
2. http://www.openprocessing.org/
3. https://www.youtube.com/channel/UCvjgXvBlbQiydffZU7m1_aw