CMPSC 580
Junior Seminar
Spring 2019

Assignment 8:
Practice Writing a Method
GitHub Repository for Submission
Wednesday, 27th March (Steps and Peer work)
Thursday 28th March (Reflection document and Lightning talk)

Objective

To describe the method to build a virtual construction in blocks. In this assignment, you are to write the steps involved with re-creating a block sculpture or a design in virtual sand. Your peer will read and follow your written steps to re-created your sculpture. At the end of this exercise, you and your peer will gain experience in writing and following method text.

GitHub Starter Link

https://classroom.github.com/a/4YWC-PzC

To use this link, please follow the steps below.

- Click on the link and accept the assignment
- Once the importing task has completed, click on the created assignment link which will take you to your newly created github repository for this lab,
- Clone this repository (bearing your name) and work locally
- As you are working on your lab, you are to commit and push regularly. The commands are the following.
  - `git add -A`
  - `git commit -m "Your notes about commit here"`
  - `git push`

Introduction

Whenever you are writing about how to complete a technical task, the steps must be clearly written so that the task may be *reproduced* by readers (if they want). When writing for research projects, the reproducibility of the research's results may determine whether your readers accept your conclusions. In other words, if the experiments in your work cannot be redone by others, exactly as you have done, and with the same results, then the conclusions of the work may appear untrustworthy. It is therefore essential that each step of your method be detailed and justified so that the experiment may be reproduced and confirmed by others.

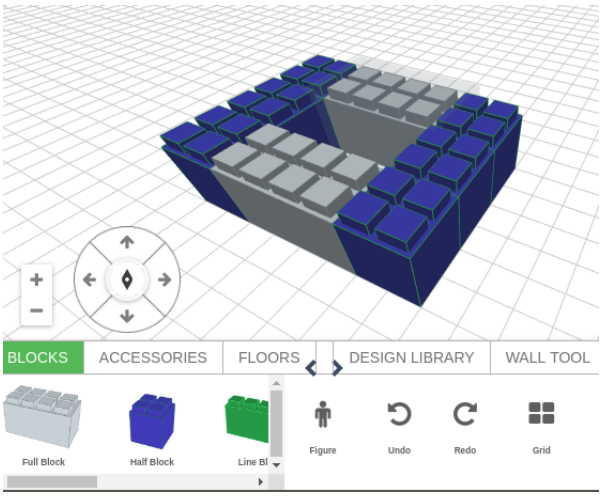

Figure 1: A Lego-like virtual model builder tool created by EverBlock from `https://build.everblocksystems.com/`. Build models using blocks, mini-figures and other textures which are similar to those from Lego.

The Methods section in your proposal is the section where you will inform the reader about what steps are involved to complete your project. The discussion of the steps may include mention of algorithms, technologies, datasets, analyses and similar elements of research that are involved in your work. We note that it is often this section that attracts the most criticism if the writing contains flaws. The readers will discredit the whole work if the Methods section appears to be inappropriate or misinformed for the project. It is therefore necessary to write your Methods section clearly where each of your steps is clearly discussed to support the project. It is also by the clarity and justification of each step that your proposal will gain its strength.

Quick Links

The links to the tools used in this activity are listed below. You are to choose one tool for use with assignment.

- **EverBlock**: `https://build.everblocksystems.com/`
- **Sandspiel**: `https://sandspiel.club/#`

Part 1: Make Your Original Creation

In this assignment, you are to design and draw an interesting construct using one of the tools shown in Figure 1 or Figure 2. You will write a simple Methods section to reproduce the design that you create. Note, your design can be any arrangement of bricks or any formation using sand and other materials; it does not have to be a recognisable object that you might see in the real world.

As you create your construct, avoid highly complicated designs. For instance, use no more than twenty (20) blocks for the *Everblock* design tool of Figure 1, or if you choose to create using the

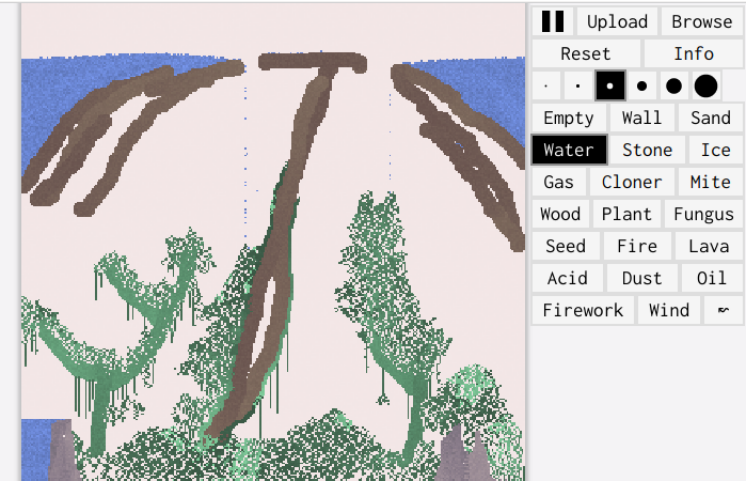

Figure 2: A "Swamp" illustration using the *Sandspiel* designer tool created by Max Bittker from `https://sandspiel.club/#`. This project is part of others at Chrome experiments, showcasing work by coders who are pushing the boundaries of web technology, creating beautiful, unique web experiences. Learn more about Chrome Experiments at `https://www.buildwithchrome.com/`.

Sandspiel tool of Figure 2, choose up to five or six different elements to manipulate for your design.

Clearly Record the Steps of Your Design

As you create your design, you are to keep clear notes about how (exactly) your construct is built, step by step. For example, if using the blocks tool of Figure 1, you are to record which block, of what colour, was placed where, in a position of the field. These steps must be clear since your partner will eventually use them to reproduce your design. When you have completed your work, make a screenshot to save for later. Note: You will NOT be sharing this photo with your partner until after he or she has used your written steps to re-create your design.

Part 2: During Lab, Exchange Your Method With a Peer, Compare Results

Before the end of lab, your written steps (in a markdown file) to create your design are to be completed and have been made available to your partner who will use them to redraw your design. For this, you may have to adjust the accessibility settings on your GitHub repository to allow your partner to access the markdown file. You and your partner are to exchange your written steps in this way and begin re-creating each other's design using instructions in the text (share no screenshot until each of you has finished, please). When you are finished working with each other's written steps, show your partner a screenshot of your original design and discuss the similarities and differences between your design and that which your partner has prepared from your instructions. Follow the questions in blue (below) to complete your reflection markdown document (a deliverable) for the activity.

Questions in Blue

As you discuss and compare your designs, respond to the following Questions in Blue for your reflection deliverable. Note: please respond to these questions only after you and your peer have followed each other's steps to re-create the original designs. When your peer has completed his or her design using your steps, you may exchange screenshots of the original designs. Include your screenshot and that of your partner, in your markdown reflection document.

1. Which tool did you use for your design?
2. Which tool did your partner use?
3. How were the designs similar? (Use specific examples, if possible)
4. How were the designs dissimilar? (Use specific examples, if possible)
5. What were the reasons why your design was different from the one created by your peer who used your steps?
6. How could steps of your design be made more clear (or be better justified) so that the creation of your design is easier to reproduce?
7. What hardships did you encounter during this activity?

Part 3: During Thursday's Class, Present the Conclusions of this Activity to the Class

For Thursday's class, you are to prepare a simple lightning-talk where you respond to the above questions in blue. Your talk should be no longer than three minutes to reflect over the questions.

Summary Of Deliverables

1. File: `written/steps.md`; In this file, you will explain the steps and all that is necessary to re-create your diagram using one of the two tools listed above. Please limit your steps to no more than twenty lines to create your design. Be clear and detailed in your writing.
2. File: `written/screenshot.png`; Create a screen shot of your design when completed. You will show this image to your partner AFTER he or she has completed his or her work using your steps.
3. File: `written/reflection.md`; In this markdown file, you will include the image(s) of your design and the one created by your partner. Here you will be responding to the five Questions in Blue above. Please note that you are to discuss the questions with your partner before you begin writing.
    - Be sure to mention the name of your peer-editor in your reflection.

4. Lightning-talk: You do not have to submit a file for this but you do have to present your ideas that you included in your `reflection.md` document from above. In your talk, you will have three minutes to brief responses to the five Questions in Blue, from above.

Help?

I'm available in person and via email if you want to run any ideas by me, or if you are having problems with your LaTeX. To ensure that I can offer timely assistance, please ask for help early!