Assignment FP4 – Final Project Write-up

Part 1

The purpose of this project is to show users that tomatoes, or all veggies, don't just come from shelves. They grow in soil and have distinct likes and dislikes for the sun, water, and temperature. Coming from an architecture background, I also want to make cute illustrations that are entertaining to look at. The project is a scroll-based website that shows the life of a tomato, which is something we see in every grocery store as well as my favorite fruit and veggie. As users scroll down, the next phase of the tomato's life is uncovered, and finally, it is going to suggest how it becomes a red delicious red tomato. It is a visually pleasing web page to navigate through with simple interaction and cute illustrations created by myself. Texts on the storyline and tomato's life with today's planting technique will be provided, which is the main layer of interactivity of this project. On the other hand, if the user wants to know more, they will be able to scroll through and come to the last page where I link a video from Liziqi which is a real-life demonstration of the life of a tomato.

The targeted audience is children in elementary schools who are learning about simple sciences, as well as reading short paragraphs. Nowadays children spend a lot of time online instead of in nature, which isn't necessarily a bad thing, yet it would be better if they are more educated on planting, agriculture, fruits, and vegetables, and be able to appreciate these. Therefore, the main devices or screen sizes I would recommend for this project are tablets like iPads and desktop/laptop screens, and increasing screen width doesn't harm the usability of this as it's tested to work well on both 13-inch and 27-inch screens.

Part 2

- Scrolling/Dragging
    - Scroll down or drag the page down(on a tablet or mobile device) to see the next page

- Clicking/Tapping
    - Click or tap the menu on the left side to navigate to all pages. This is available on all pages.
    - Click or tap the center image on all pages except the last page in order to change text.
    - Click or tap the switch on the last page(named “video”) to mute/unmute the background video content
- Hovering
    - Hover on a center image to see the related object based on text. Available on the main screens or from page 2 to page 8.
- Keypress
    - User can also choose to use a keyboard to navigate the site, so instead of scrolling through it, they can press up or down arrow key to navigate to next or previous page, and use keyboard features such as F4 or F10 to mute/unmute the website.

Part 3

- Javascript library: Fullpage.js
- I choose to use fullpage.js because it enables full page scrolls with simple codes. Full page scrolls are really useful and helpful to my project as it enhances the reading and storytelling experience. Scrolling down feels like opening another chapter.
- I download the library from the author’s GitHub with Liscence and stuff first, then implemented my website using a key function called *fullpage(...)* which enables me to assign page anchors and colors. I also used on built-in features such as *continuousVertical* to make the page a continuous scroll which connects the last page to the first.
- The function and features I used adds simple interactions to my website which helps with the storytelling. For example, users are able to click the menu and lands on

whatever anchor point easily. They are also able to see this webpage as a continuous story which starts from the beginning and ends and starts again. This also resembles the biological life cycle of a tomato.

Part 4

Originally, I generated two different designs, and in the think aloud test, users were confused about the mode of interaction they should use. After the test, I found two major places to improve, which is 1. the size of the clickable element, and 2. letting the user know how to interact. As my audience is rather younger generations, the interaction needs to be simple enough that they can learn and figure it out easily. Therefore, I changed from using the progress dots to larger/finger friendly menus, make all clickable buttons large enough by fitt's law, and ensure that I provide an instruction at the first page so users won't be confused.

Part 5

When implementing the website, one major challenge I encountered was dealing with a scroll-based website rather than these websites where you click and it jumps to anothe page(bun bun cinnamon roll). Doing CSS for scrolling page is definitely different from these different page ones, as I had to figure out what's changed and what's unchanged for each page, and sometimes add layers to the same page by using "position: absolute" and "z-index". I also encountered difficulties when making the website usable on mobile/tablet devices as the video seems to be not working properly at first, which I fixed later using a *playsinline* attribute.

Appendix: Screenshots from WAVE