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PUI: Final Project

Screen sizes:

Using Chrome

1520 x 935 (or standard laptop screen size)

360 x 844 (iPhone 12 Pro)

Part 1:

The purpose of my website is to visualize the population of the earth. The population recently (Nov. 15!) hit 8 billion, and a billion is an extremely difficult number for humans to visualize. The website aims to communicate just how large the population really is.

Through my website, I convey information about the earth's population, including rounded populations of various places like Tokyo, Japan and Paris, France. The entire purpose of the website is to convey this information.

I think it is interesting and engaging because it provides a unique way to interact and visualize large numbers, something that I have not seen among popular "big-number" visualization websites. Typically, these websites use horizontal or vertical scrolling, so I thought it would be interesting to use zooming instead.

The target audience of my website is anyone who lives on earth! I think this would be an interesting website to interact with for anyone, because everyone has a stake in the world population. I highlight this by beginning the website with a direct callout to the user: "This is you."

Part 2:

- Zoom in
    - While hovering over the main body of the website (where the image appears), scroll up and down to zoom OR
    - While hovering over the main body of the website (where the image appears), pinch to zoom

Part 3:

- D3
- I chose to use D3 at the recommendation of Hyunsung. It has built-in tools that support zoom and pan, including different interaction styles such as pinching, scrolling, and double tapping to zoom.
- I added my existing SVGs to D3 and used D3 to create the zooming interactions. I also used the zoom transformation value provided by D3 to control what images and text are shown.
- All the interactivity on my website was created using D3. This enables the zooming to show different images, rather than scrolling to view them.

Part 4:

Due to difficulty with D3, I wasn't able to implement a zoom feature I had planned: an auto-zoom from the earth to an individual person on website load. Additionally, I wasn't able to actively update the population counter on every zoom, and instead opted to update it only at select times.

Part 5:

I found it extremely difficult to work with D3 when using existing SVGs as D3 is typically used to create and manipulate new SVGs. It was also difficult since D3 was updated to version 7 last year, meaning that nearly all existing resources online were outdated and no longer worked. More than once, I spent hours trying to figure out why something didn't work only to find one sentence on a random website saying support for it was dropped with the new update. At one point, I tried downgrading to an earlier version because of this, but all the code I had done up to that point would have had to be redone.

Appendix: