**Part 1**

**i. What is the purpose of your website?**

- My website is an interesting game-like tool that gives people a vital capacity test through long voice input. The normal vital capacity testing process is cold and boring, and I aim to make it more engaging and encouraging by adding gamification elements.

**ii. What information do you convey with your website?**

- Through the website, I encourage users to input their voice as long as possible to test their vital capacity. I leverage people’s voice input to control the growth of a digital tree – only when the time of the voice input reach a certain point can the tree fully grow up and blossom.

**iii. How is it interesting and engaging?**

- People would be encouraged when seeing the growing tree and feel rewarded when seeing the tree blossom in the end. I believe this idea can also be applied to existing medical equipment (probably for kids) to make the vital capacity measurement process more fun and engaging.

**iv. Who is the target audience?**

- Kids who are reluctant to vital capacity testing; young people who want to learn about their vital conditions while having fun.

**Part 2**

**i.** interaction type: voice input

**ii.** input your voice and make it as long as possible

**Part 3**

**i.** p5.js

**ii.** It can be used to create interactive digital design or arts and is convenient for people with few coding experience (has extensive documentation and active community)

**iii.** I self-learned it through [*https://p5js.org*](https://p5js.org)and looked the libraries to see references and examples of mic input. I also referred to several YouTube tutorials.

**iv.** p5 helped me implement the voice interaction.

**Part 4**

**i.** I improved the visual design to make it more visually appealing.

**ii.** I added text instructions at the beginning to guide people input their voice and used encouraging words to compliment people when they successfully pass the vital capacity test.

**iii.** I added the function of clicking to enter full screen and pressing Esc key to exist. When I tested the interactive demo, people mentioned that they would like to see a more immersive experience in full screen.

**Part 5**

The biggest challenge I have is to implement the tree-grow effect. I referred to p5 library and online tutorials and finally created the “treeGrow” function that can push branches from nodes. I also have difficulty defining the voice input length and the final solution is the result of many testings on myself.