Cassie Xu
PUI Final Write-up

DisEvolution

Get Started

Responsive Screen Size to test:
- Desktop
  - 1512px wide screen - 14.2" MacBook Pro
- Tablet
  - 834px wide screen - iPad Pro 11"

Cassie Xu

Part 1: Purpose

As a dedicated Disney fan, the prospect of immersing oneself in an interactive timeline that traces the evolution of a few of iconic Disney characters (particularly Mickey Mouse, Daisy Duck and Goofy) in chronological order is nothing short of a magical journey. Visitors to the website could go through the evolution of these characters to learn about how their appearance changes and how the story continued.

Such a captivating resource would not only serve as an entertaining experience but also as a valuable educational tool, as for each character, a 5-question fun trivia quiz is implemented along with the story timeline. The interactive timeline, along with the trivia quiz together, would allow fans like me and newcomers who are interested in Disney cartoon to delve into the intricate of Disney's history and the growth of its characters.

Cassie Xu

Part 2: Interactions

- Home page - pick a character to explore
  - Hover on each character -> "click to learn more" appears when hover, character and button turn into colored version -> click on character to learn more
- Character page - interactive timeline
  - Scroll down to see cards slide in & corresponding dot appears on timeline (animation)
- Character page - trivia quiz
  - Hover on quiz options -> color changes
  - Select your answer -> if correct, turns yellow; if incorrect, border color turns red with correct answer shown
  - Click "Next" button -> move on the next question
  - Click "Finish" button -> shows quiz result
  - Click "Try again" button -> restart quiz
- Character page - back to top
  - Click on "top" mickey mouse button -> back to the top

Cassie Xu

Part 3: External Tools

- **Home page - pick a character to explore**
  - I used **JS along with CSS** to achieve the **mouseover and mouseout effects**
  - As we learned in lecture, JS is responsible for the behavior of the website. So the first tool that came to my mind was JS. I wanted to achieve the effect that once users hover on the character images, not only the images themselves change status, buttons also change color and feedback would pop up on screen as well. In order to achieve this, I used the iterative method "forEach" to go through the three characters and added 'mouseover' and 'mouseout' effect separately. This added interactive and playful elements to my website when users explore the website. The pop-up message also reminds them the character is clickable and more information will be displayed when clicked.
- **Character page - interactive timeline**
  - I used **JS along with CSS** to create the slide-in animations
  - Initially I tried to search for any library or API that could help me achieve the animation effects. After doing some research I realized that JS itself is a powerful tool to create animation, as we could use DOM to control html elements and create new elements.

Cassie Xu

Part 3: External Tools

○ Since I have items on both sides of the timeline, I wanted to animate based on where they locate. So I created a function to first make the card item "invisible", and as users scroll, their action will be detected and the card will slide in accordingly. Additionally, the dot will appear on the timeline when the cards slide in, further adding animation element. The animative timeline could capture and maintain the audience's attention more effectively than static images, and the dynamic movement makes the content more engaging as well.

● **Character page - trivia quiz**
  ○ I used **Jquery** and a quiz plugin from https://github.com/jchamill/jquery-quiz .
  ○ For progress bar I used an example from codepen: https://codepen.io/vikas001/pen/bJzdaj for reference.
  ○ Upon decided implementing a trivia quiz section on my page, I searched for quiz API or library that I could use. This quiz plugin that I found matched my criteria for the quiz and additionally, I could customize the questions, format, response etc. using jquery, which is a powerful tool to use and learn. I added an additional JS file provided by the author who

Part 3: External Tools

- ○ created the plugin and customized the style in the CSS file. I designed the quiz in my main JS file with questions, answer options, and response for correct/incorrect answers. To make clear to users which specific question they're answering and the number of questions left, I made a progress bar to indicate the user status. The trivia quiz adds playful element to the website as users are able to interact and answer questions, maybe even play with their family and friends. The progress bar I included would be an excellent way to provide clarity and context during the quiz, and adds a sense of structure and accomplishment to the game.

Cassie Xu

Part 4: Iteration

Thanks to user testings and lab criques, I got many instructive feedback on my initial designs and helped the later iterative process.

- I added hover effects to make characters look more "clickable"
- I added more animations and interactive element
- I added a progress bar to indicate the quiz status
- I added correct answer in the response message if the users got the wrong answer
- I designed customized disney theme response message for trivia quiz to add to the sense and atmosphere of this magic world
- I got rid of the "start" button of the quiz and enabled the quiz questions to be displayed directly when users scroll down to reduce redundant actions and attract visitors to play with the trivia.
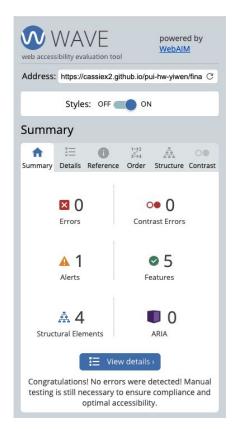
Cassie Xu

Part 5: Challenges

Implementing what I designed on Figma to an actual website was tricker than I thought, I encountered different problems as I moved forward
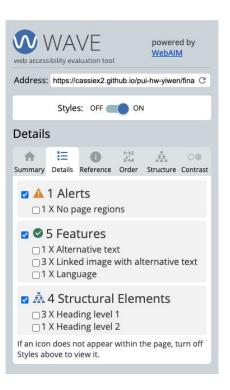- Initially I wanted to implement an arrow with drawing effect on home page, but I could not find appropriate tool to make that happen, so I used CSS animation instead
- I'm having a hard time to make the timeline animated as I designed, the direction of the slide-in effect was difficult to control
- The most challenging problem I faced was to get progress bar align with the quiz status - when clicked to the next question, the progress bar status also needed to change. I spent a lot of time figuring this out.

Overall I would say I solved over 95% of the problems and I learned a lot of problem solving skills during the process.
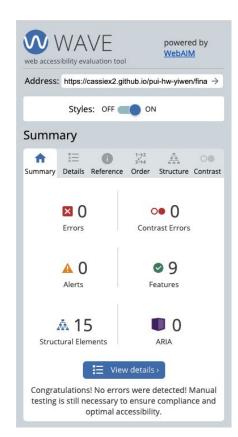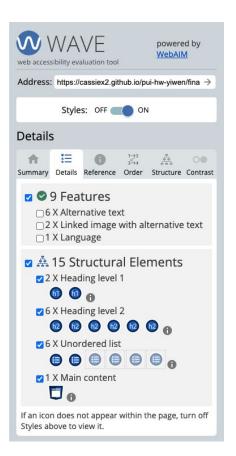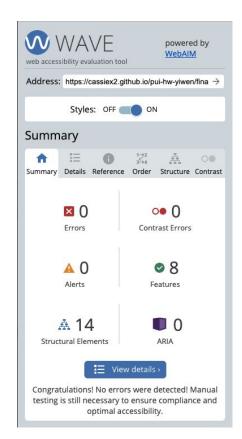
Appendix: Accessibility

Home page

Cassie Xu

Appendix: Accessibility

**Character
page - Mickey**

Appendix: Accessibility

Character page - Daisy

Cassie Xu

Appendix: Accessibility

Character page - Goofy

Cassie Xu