

Programming Usable Interfaces Final Project

Part I:

The purpose of my website is to increase people's appreciation of honeybees by informing viewers of fascinating facts regarding the honeybee, as well as the crucial role that they play in our environment and in global food production.

The website includes general and fun facts about honeybees, as well as the different roles that bees can have within the hive. It also informs users of the impact that bees have on food production, highlighting the importance of honeybees as pollinators. Lastly, the website ends by offering actionable measures that viewers can take to help protect honeybees.

I made the website as interesting and engaging as possible by dividing the parallax page into six different sections, each with a different engaging element. The home page features an animation of two bees flying. The second page displays scientific facts about the honeybee, while the third page includes a clickable toggle that informs users of the three different roles that honeybees can have within a hive. The fourth page also has an animation of bees that display fun facts when the viewer mouses over them. The fifth page includes colorful interactive blocks of fun facts about bees' role in pollination, and lastly the final page offers three specific actions that users can take to protect honeybees.

While designing and developing this website, I intentionally kept a broad audience in mind, and chose bright and complementary colors that would be visually pleasing and attention-grabbing. Honeybees have a crucial role in the environment and affect the world's food production. Therefore, I felt that the target audience of this website should be kept very broad, as honeybees deserve to be appreciated by everyone. I hope that my website would be engaging to users of different ages and backgrounds.

Part II:

- I. Navbar: Navigates the user to the selected section.
 - A. Hover on each hexagon to see a brief title of each section. Click on the desired section, and the site will scroll to the selected section.
- II. Click to Scroll: Navigates the user to the next section.
 - A. Click the moving green arrow at the bottom of each section, and the site will automatically scroll to the next section.
- III. "Inside the Hive": Toggle reveals information and image about each bee role.

- A. Click through the horizontal radio buttons, one at a time (Must wait until transition is complete). The site will display information about the corresponding bee role, as well as an image of the bee.
- IV. “The Buzz on Honeybees”: Hover to reveal fun facts.
 - A. Hovering over each of the three floating bees reveals a block of text about a fact related to the keyword.
- V. “A World Without Bees”: Hover to reveal fun facts.
 - A. Hovering over each *colored* block results in a sliding up animation that reveals the type of crop that is dependent on bee pollination
- VI. “Protect Honeybees”: Hover to reveal an overlay of how one could help protect bees.
 - A. Hovering over each image enlarges the image and creates an overlay on it that has text explaining the action that one could take to protect honeybees.

Part III:

Name of tool ii. Why you chose to use it? (2-4 sentences max) iii. How you used it? (2-4 sentences max) iv. What it adds to your website? (2-4 sentences max)

1. Mouseover/Mouseout animation
 - a. I chose to use this on the navigation bar so that users could have a small label of text that briefly states what each section is about.
 - b. I implemented this animation through the JQuery JavaScript library. When a user mouses over a hexagon on the navbar, the corresponding text is revealed.
 - c. This animation increases the usability of the website because it helps users navigate through each section with ease.
2. Scroll animation
 - a. I chose to have buttons that trigger scrolling animations and transitions in the navbar as well as at the bottom of each section in order to help users navigate through the site.
 - b. I implemented this through CSS animations and a JavaScript function. When a user clicks on the navbar or on the green arrow at the bottom, the page has a sliding animation that takes the user to the next page.
 - c. This animation adds better flow throughout the website as well as increases usability by helping users navigate between sections in this scrolling website.
3. Toggle animation

- a. I chose this animation in order to add interactivity and engagement into the site
 - b. I implemented this through radio buttons and the .hide() and .slideToggle() JQuery functions. When the user clicks a radio button, the site reveals information about the selected bee role in a sliding animation and hides the previous information. This function works best if radio buttons are clicked one at a time, after each animation is completed.
 - c. This animation adds interactivity to the website, allowing users to click through the roles themselves, learning about each role at their own pace, instead of having all the information thrown at them at once.
4. Hover to reveal information
- a. I chose these animations to increase user engagement and interest in the website.
 - b. I implemented these animations in three different ways, which are shown in the last three sections of the website. All three are purely CSS animations. When hovering over the element, informational text is revealed, through either a textbox, an upward-sliding animation, or through an overlay over the element.
 - c. This animation increases user engagement and overall interactivity of the website, allowing the user to discover facts about honeybees as they hover through the different elements of the website.

Part IV:

Since the mockups from HW7, I decided to focus my website specifically on honeybees, rather than all bees in general. With this focus, I was able to break up the site into six different sections. I kept the idea of having the website be parallax, but I decided to change the placement of the navigation bar to the top of the screen for better access. I also honed in on specific interactions that each section could have to keep the site engaging and interesting.

Part V:

The biggest challenge I faced when implementing my design was having the pages be responsive. In particular, the “World Without Bees” page was especially difficult because Bootstrap does not account for 5 columns in their grid system. Therefore, I used online resources to create a 5-column grid and added css to make the five columns break down into three on smaller screens.