Task 3: Implementing CSS Pseudo-Classes on Your Profile Page

Objective:

Enhance your profile page's user interface by integrating CSS pseudo-classes. This task will focus on using `:hover`, `:first-child`, `:last-child`, and `:nth-child()` pseudo-classes to add dynamic styling to various elements. The goal is to improve the interactivity and visual appeal of your profile page, making it more engaging for users.

Pre-requisites:

- Basic understanding of HTML elements and CSS properties
- Familiarity with a code editor like Visual Studio Code

Concepts Covered:

- CSS Pseudo-Classes
- `:hover`
- `:first-child`
- `:last-child`
- `:nth-child()`

Concepts:

1. **Understanding and Using `:hover`:**

   The `:hover` pseudo-class is used to select and style an element when the mouse is over it.

```
a:hover {
    color: #ff5733;
    text-decoration: underline;
}
button:hover {
    background-color: #ff5733;
    color: #fff;
}
```

2. **Styling the First and Last Child Elements:**

   The `:first-child` and `:last-child` pseudo-classes are used to style the first and last elements in a parent container.

```
ul li:first-child {
    font-weight: bold;
}
ul li:last-child {
    font-style: italic;
}
```

3. **Targeting Specific Elements with `:nth-child()`:**

The `:nth-child()` pseudo-class is used to style elements based on their position in a parent container.

```
ul li:nth-child(even) {
    background-color: #f0f0f0;
}
ul li:nth-child(odd) {
    background-color: #e0e0e0;
}
ul li:nth-child(3n+1) {
    color: #ff5733;
}
```

Setup:

1. **Install Visual Studio Code (VS Code):**

   Download and install VS Code from Visual Studio Code.

2. **Web Browsers:**

   Use Google Chrome or Mozilla Firefox for viewing your webpage and utilizing their developer tools for debugging.

Tasks:

1. **Understanding and Using `:hover` (15 minutes):**
   - Apply the `:hover` pseudo-class to change the style of a button or link when the mouse hovers over it.
   - Experiment with changing colors, font sizes, or adding an underline on hover.
2. **Styling the First and Last Child Elements (15 minutes):**
   - Use the `:first-child` and `:last-child` pseudo-classes to style the first and last items of a list or a set of elements differently from others.
3. **Targeting Specific Elements with `:nth-child()` (30 minutes):**
   - Utilize the `:nth-child()` pseudo-class to style elements at specific positions in a list or a group.
   - Experiment with different patterns like `:nth-child(even)`, `:nth-child(odd)`, and `:nth-child(3n+1)`.

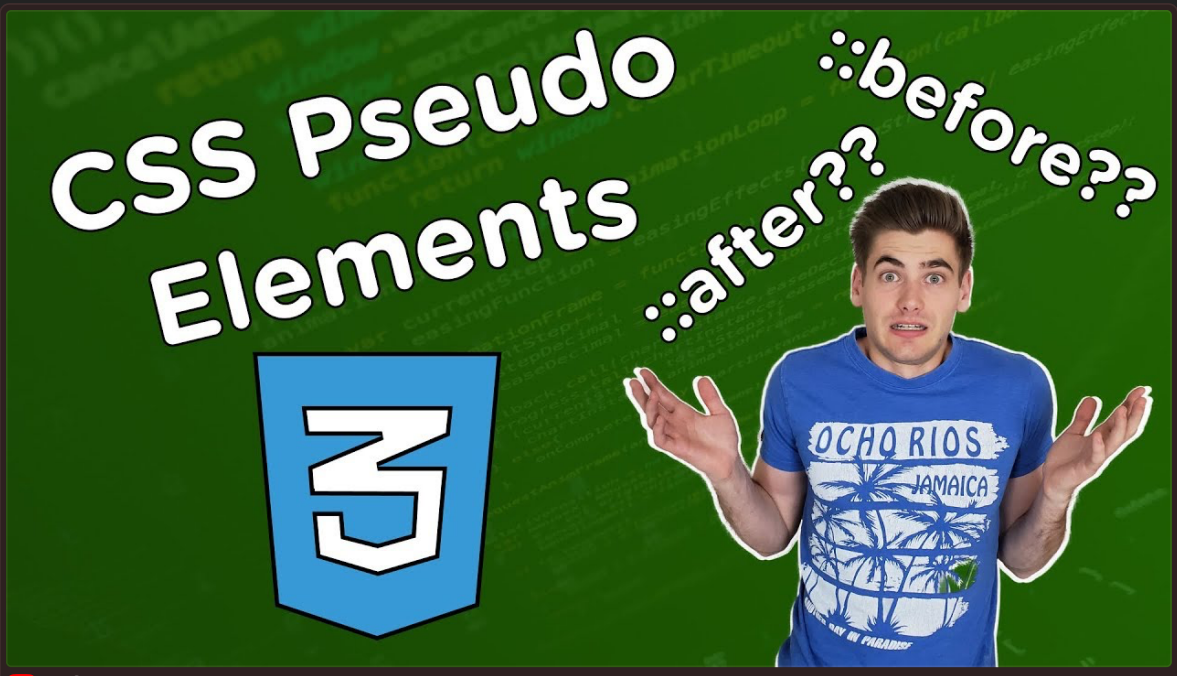
Instructions:

1. Write the required code in `index.html` and `styles.css`.
2. Open the `index.html` file in your web browser to ensure the code displays correctly.
3. Use the browser's developer tools to debug and inspect the elements.

Resources:

- **Pseudo-classes - CSS: Cascading Style Sheets | MDN**
  A CSS pseudo-class is a keyword added to a selector that specifies a special state of the s...
  https://developer.mozilla.org/en-US/docs/Web/CSS/Pseudo-classes
- **:hover - CSS: Cascading Style Sheets | MDN**
  The :hover CSS pseudo-class matches when the user interacts with an element with a poin...
  https://developer.mozilla.org/en-US/docs/Web/CSS/:hover
- **:first-child - CSS: Cascading Style Sheets | MDN**
  The :first-child CSS pseudo-class represents the first element among a group of sibling ele...
  https://developer.mozilla.org/en-US/docs/Web/CSS/:first-child
- **:last-child - CSS: Cascading Style Sheets | MDN**
  The :last-child CSS pseudo-class represents the last element among a group of sibling ele...
  https://developer.mozilla.org/en-US/docs/Web/CSS/:last-child
- **:nth-child() - CSS: Cascading Style Sheets | MDN**
  The :nth-child() CSS pseudo-class matches elements based on the indexes of the element...
  https://developer.mozilla.org/en-US/docs/Web/CSS/:nth-child
- **Documentation for Visual Studio Code**
  Find out how to set-up and get the most from Visual Studio Code. Optimized for building and d...
  https://code.visualstudio.com/docs

Videos:

- 

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GitHub Instructions:

1. **Open in Visual Studio Code:**

   After clicking on the "Open in Visual Studio Code" button from the GitHub Classroom confirmation page, VSCode will open the repository directly. If prompted, select "Open" or "Allow" to open the repository in VSCode.

2. **Open the Terminal in VSCode:**

   In VSCode, open a terminal by selecting Terminal > New Terminal from the top menu.

3. **Complete the Task:**

   In VSCode, write your solution in the `index.html` and `styles.css` files.

4. **Run and Test Your Code:**

   Open your `index.html` file in a web browser to ensure it works correctly. Use the following command:

   ```
   open index.html
   ```

5. **Commit Your Changes:**

   In the VSCode terminal, add your changes to git:

   ```
   git add index.html styles.css
   ```

   Commit your changes with a meaningful message:

   ```
   git commit –m "Completed task 7"
   ```

6. **Push Your Changes to Your Repository:**

   Push your changes to your forked repository:

   ```
   git push origin main
   ```

7. **Create a Pull Request:**

   Go to your repository on GitHub.

   Click on the "Pull Requests" tab.

   Click the "New Pull Request" button.

   Ensure the base repository is the original template repository and the base branch is `main`.

   Ensure the head repository is your forked repository and the compare branch is `main`.

   Click "Create Pull Request".

   Add a title and description for your pull request and submit it.

Summary of Commands:

```
# Open in Visual Studio Code

# Open terminal in VSCode

# Complete the task by editing index.html and styles.css

# Navigate to the directory containing index.html
cd path/to/your/index.html

# Run your code
open index.html

# Add, commit, and push your changes
git add index.html styles.css
git commit -m "Completed task 3"
git push origin main

# Create a pull request on GitHub
```