Assignment #7: jQuery

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Objective

The goal of this assignment is to practice jQuery — a powerful JavaScript library that simplifies DOM manipulation, event handling, and animations.
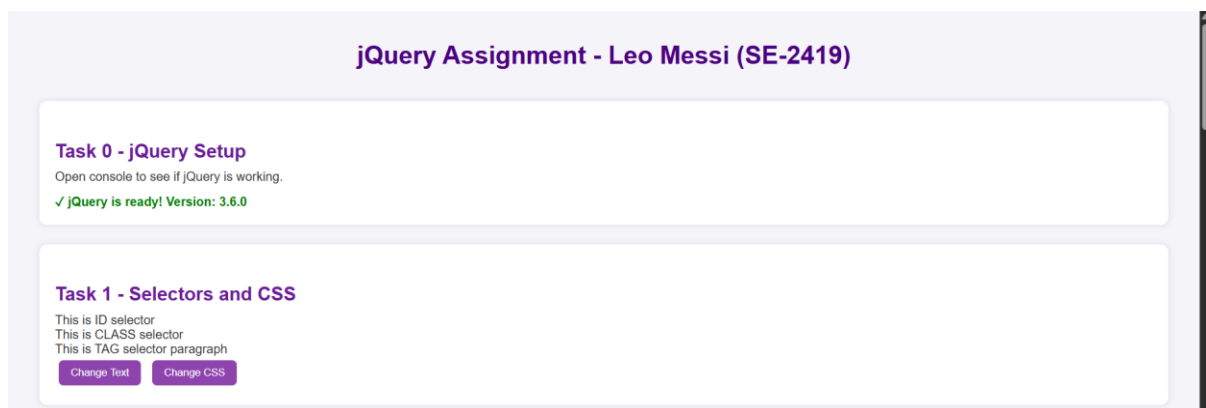 By completing this project, the student will:

- Select and manipulate elements using jQuery selectors
- Apply visibility, fade, and slide effects
- Dynamically modify attributes and handle user input
- Create and control animations
- Develop a small interactive mini project

Part 1: Getting Started with jQuery

Explanation:
 In this part, jQuery was included from a CDN and initialized using the `$(document).ready()` function.
 A test message *"✓ jQuery is ready! Version: 3.6.0"* is displayed to confirm that the library works correctly.
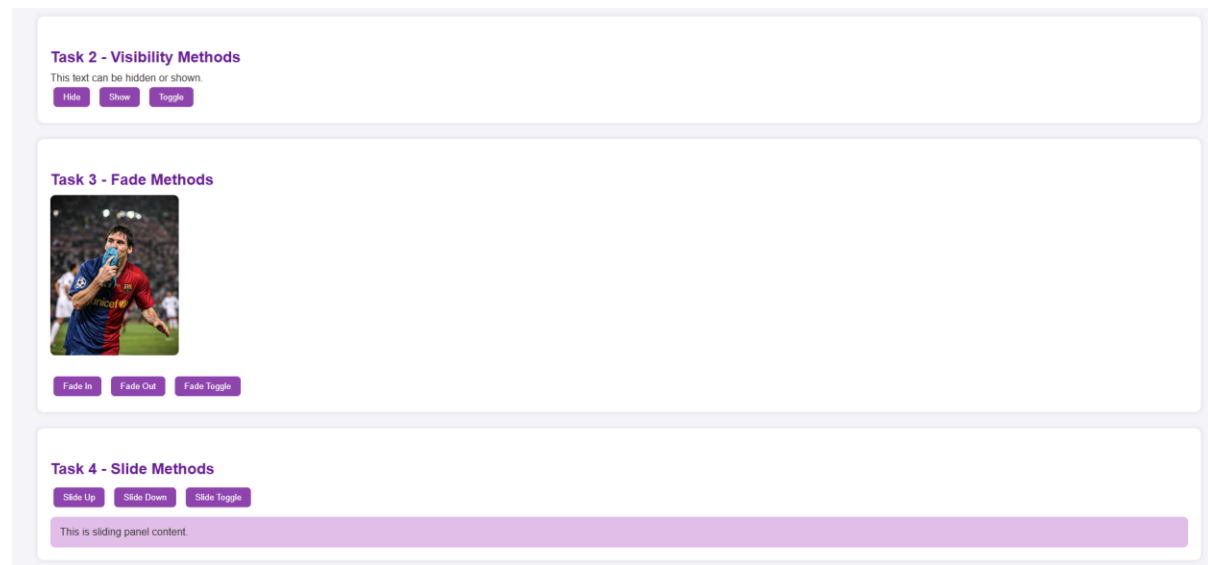

Part 2: jQuery Selectors & Effects

Explanation:

This section demonstrates selecting elements by **ID**, **class**, and **tag**.

Their content is changed with `.text()` and `.html()`, and styles are dynamically updated with `.css()`.

Then visibility, fade, and slide methods (`.hide()`, `.show()`, `.toggle()`, `.fadeIn()`, `.fadeOut()`, `.slideUp()`, `.slideDown()`) are applied to make elements interactive and visually responsive.

Part 3: DOM Manipulation

Explanation:

Here, DOM elements are added and removed using `.append()`, `.prepend()`, and `.remove()`.

Image attributes are modified dynamically using `.attr()`, and the link's `href` changes on button click.

In addition, form inputs display the user's name and email live below the form with `.val()` and `.text()` methods.

Task 5 - Add & Remove Elements

New Item (prepend)

New Item (prepend)

Item 1

New Item (append)

[Add Item (append)] [Add Item (prepend)] [Remove Last Item]

Task 6 - Modify Attributes

[Change Image]

Go to Google

[Change Link]

Task 7 - Form Interaction

[Leo] [Messi@gmail.com]

Name: Leo
Email: Messi@gmail.com

Part 4: Animations

Explanation:
 Basic animations are implemented with `.animate()`, moving and resizing a box smoothly.
 Sequential animations are chained step-by-step — moving right, down, shrinking, and returning to the start position.
 The combined animation merges multiple properties (position, size, opacity) into one smooth animated transition.

Task 8 - Basic Animation

[Animate Box] [Reset]

Task 9 - Sequential Animation

[Start Sequence] [Reset]

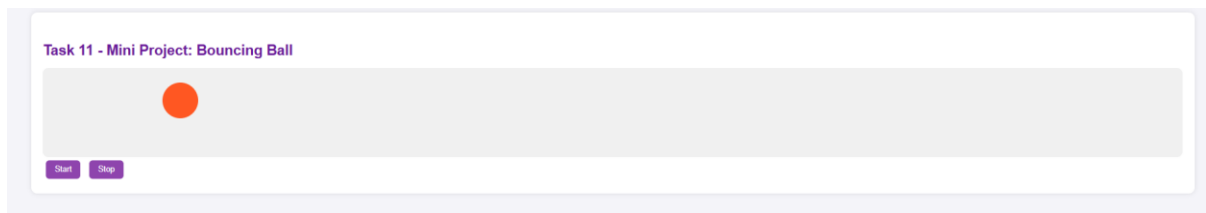**Task 10 - Combined Animation**

[Start Combined Animation] [Reset]

Part 5: Mini Project — Bouncing Ball

Explanation:
 For the mini project, an interactive **Bouncing Ball** was created using repeated `.animate()` calls.
 The ball moves left and right while bouncing up and down, simulating real motion.
 Buttons allow the user to start and stop the animation. The project demonstrates continuous animation control using `setInterval()` and `clearInterval()`.

Summary

Throughout this assignment, I successfully implemented all 11 tasks using jQuery.
 I learned how to:

- Use jQuery selectors effectively
- Apply effects and animations
- Dynamically change HTML and CSS
- Interact with user input
- Build a fun and functional mini project

This assignment improved my understanding of how jQuery simplifies complex JavaScript operations and helps create interactive, dynamic web pages.