

Introduction And Instructions

Introduction to GitHub, Testing, and the DOM, you will learn about GitHub workflows, which will allow you to collaborate on code from public repositories. You will get started with unit testing and the test-driven development process in order to validate that your code functions as intended. Finally, you will work with the Document Object Model to ensure that JavaScript and HTML interact with the browser to make your web page functional.

Learning Outcomes

Course Learning Outcomes Addressed

- Explain the key web programming concepts
- Build web applications using JavaScript, HTML, and CSS
- Design and code user interactions on web pages
- Define and break down modern software development life cycle processes
- Set up code management tools, such as GitHub

By the end of this week, you will be able to:

1. Construct tests that validate the functionality of your code
2. List the steps of the test-driven development process
3. Explain the test-driven development methodology and process
4. Interpret unit tests and assess desired outcomes
5. Write unit tests
6. Manage code by using GitHub
7. Explain how HTML pages interpret a JavaScript code
8. Explain how a browser interprets HTML and JavaScript code
9. Use JavaScript to dynamically display data on a web page

Activities

Key Activities

- Knowledge Checks 6.1, 6.2, and 6.3
- Discussions
 - Thinking Through a Unit Test
 - When Should You Use Fetch?
 - Explaining the DOM
- Coding Activities
 - DOM Manipulation Activity
 - Insert into the DOM Activity
 - Unit Testing Exercise
- Coding Assignments
 - PacMen Factory Assignment

Self-Study Activities

- Hello World Exercise
- MIT Facts Exercise
- Inject JavaScript into HTML Exercise
- Inject Posts into Div Exercise
- PacMen Exercise