

# Assignment: Creating an HTML Gradebook with JavaScript Stubs

## Objective:

In this assignment, you will design a simple HTML page with a table to house future grade data. This table will represent a gradebook with students as rows and assignments as columns. You will also create stubs (empty function definitions) for JavaScript functions that will populate the table with data from your PostgreSQL database in future assignments.

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## Instructions

### Step 1: Set Up Your HTML File

1. Open the repository directory where you saved lesson7.html (or create a new file if needed). Name the file YOURNAME\_gradebook.html.

2. Add the basic structure of an HTML page by including the following code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Gradebook</title>
  <style> ...
</style>
</head>
<body>
  <h1>Gradebook</h1>
  <table id="gradebook"> ...
</table>
  <script src="gradebook.js"></script>
</body>
</html>
```

3. Add the following CSS between the open and close <style> </style>:

```
table {
  width: 100%;
  border-collapse: collapse;
}
th, td {
  border: 1px solid #ddd;
  padding: 8px;
  text-align: left;
}
th {
  background-color: #f4f4f4;
}
```

You may add any additional CSS you want to.

4. Create the table by adding the following in between the open and close <table> </table>:

```

<thead>
  <tr>
    <th>Student Name</th>
    <th>Assignment 1</th>
    <th>Assignment 2</th>
    <th>Assignment 3</th>
    <!-- Add more assignment columns as needed -->
  </tr>
</thead>
<tbody>
  <!-- Rows will be populated dynamically with JavaScript -->
</tbody>

```

## Step 2: Create your JavaScript File

1. Create a new file named gradebook.js in the same directory as gradebook.html.
2. Add the following JavaScript stubs to gradebook.js:

```

// TODO: Fetch data from the PostgreSQL database (to be implemented later)
function fetchGradeData() {
  // This function will query the PostgreSQL database and return grade data
  console.log("Fetching grade data...");
}

// TODO: Populate the table with grade data
function populateGradebook(data) {
  // This function will take the fetched grade data and populate the table
  console.log("Populating gradebook with data:", data);
}

// TODO: REMOVE THIS
// Call the stubs to demonstrate the workflow
const gradeData = fetchGradeData();
populateGradebook(gradeData);
// END REMOVE

```

## Step 3: Test Your HTML Page

1. Open gradebook.html in a web browser.
2. Confirm that:

- The table structure is displayed with the headings: "Student Name", "Assignment 1", "Assignment 2", etc.
- No rows are present yet, as they will be populated dynamically in future assignments.
- The browser console logs messages when the JavaScript stubs are called.

## How to View the Browser Console

The browser console is a tool that lets you see messages logged by JavaScript, errors, and other debug information. Follow these steps to open the console in most popular browsers:

### *Google Chrome / Mozilla Firefox*

1. Right-click anywhere on the page and select **Inspect**.
2. In the Developer Tools panel that opens, click on the **Console** tab.

### *Safari (Mac)*

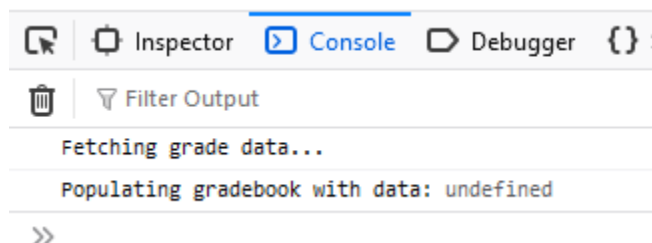
1. Open Safari and go to **Preferences > Advanced**.
2. Check **Show Develop menu in menu bar**.
3. From the top menu, click **Develop > Show JavaScript Console**.

## Shortcut Keys

For quicker access, you can use these keyboard shortcuts to open Developer Tools and switch to the Console tab:

- **Windows/Linux:** Ctrl + Shift + J
- **Mac:** Cmd + Option + J

Once the console is open, you can view messages logged by your JavaScript code or interact directly with your webpage using JavaScript commands. Make sure you are view Errors, Warnings, and Logs. You should see something similar to:



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## Submission

1. Submit both gradebook.html and gradebook.js files to your repository.
2. Push your changes to GitHub and submit the public link to your published gradebook file.
  1. [https://yourusername.github.io/yourname\\_gradebook.html](https://yourusername.github.io/yourname_gradebook.html)
  2. Be sure to test this link. It should load your gradebook table directly.

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## Grading Criteria

- **HTML Structure:** Correctly created an HTML page with a gradebook table and placeholder headings.
- **JavaScript Stubs:** Included fetchGradeData and populateGradebook stubs in gradebook.js.
- **File Organization:** Both files are named and saved correctly in your repository.
- **Testing:** HTML page displays the table structure, and the JavaScript stubs log messages to the console.