# Department of Computing

**CS-344/ CS-313: Web Engineering**

**Class:** BESE-14 AB / BSDS-14

# Lab 01: Introduction to WSIWIG and Environment Setup

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# Lab 01: Introduction to WSIWIG and Environment Setup

### Introduction:

### Students will get introduced to the concept of WYSIWYG in web development and will practically learn how to set up their development environment by installing VS Code, Git, and Node.js. They will also create and deploy a simple HTML page as their first hands-on activity.

### Lab Objectives:

### Understand WYSIWYG in web development.

### Install and configure VS Code, Git, Node.js.

### Create a simple Hello World HTML page.

### Deploy the page locally and on GitHub Pages.

### Helping Material:

1. **WYSIWYG in Web Development**
   * https://www.techopedia.com/definition/5302/what-you-see-is-what-you-get-wysiwyg
2. **VS Code**
   * https://code.visualstudio.com/
   * https://code.visualstudio.com/docs/introvideos/basics
3. **Git**
   * [https://git-scm.com/](https://git-scm.com/?utm_source=chatgpt.com)
   * https://guides.github.com/introduction/git-handbook/
4. **Node.js**
   * https://nodejs.org/
   * https://nodejs.org/en/learn
5. **Live Server Extension for VS Code**
   * https://marketplace.visualstudio.com/items?itemName=ritwickdey.LiveServer
6. **GitHub Pages Deployment**
   * https://pages.github.com/

## ****Part A – WYSIWYG Introduction****

* **WYSIWYG** = "What You See Is What You Get."
* Allows developers to see results instantly while writing/editing code.
* **Examples**: WordPress, Wix, VS Code with Live Server.
* **Advantages**: Faster testing, easy debugging, visual feedback.

## ****Part B – Installing Tools****

1. **VS Code**
   * Download: https://code.visualstudio.com
   * Install and open.
2. **Git**
   * Download: [https://git-scm.com](https://git-scm.com?utm_source=chatgpt.com)
   * Install with default settings.
   * Verify:

git --version

1. **Node.js**
   * Download: https://nodejs.org (LTS version).
   * Verify:

node -v

npm -v

## ****Part C – Create "Hello World" Page****

1. Open **VS Code**.
2. Create a folder named lab1-hello-world.
3. Inside, create a file index.html.
4. Add this code:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Hello World</title>

</head>

<body>

<h1>Hello World!</h1>

<p>Welcome to Web Engineering Lab 1</p>

</body>

</html>

1. Install **Live Server extension** in VS Code.
2. Right-click index.html → **Open with Live Server**.
3. Page opens in browser showing "Hello World!".

## ****Part D – Deploy with GitHub Pages****

1. Initialize Git:

git init

git add .

git commit -m "Hello World page"

1. Create a new GitHub repository lab1-hello-world.
2. Connect and push code:

git remote add origin https://github.com/your-username/lab1-hello-world.git

git branch -M main

git push -u origin main

1. On GitHub → **Settings → Pages**.
   * Branch: main, Folder: /root.
2. Access your live page at:

https://your-username.github.io/lab1-hello-world/

**Answer:**

|  |
| --- |
| Solution |
| Screenshot of task |

### Deliverables

Students must submit the following by the end of the lab session:

1. **GitHub Repository Link** – containing the index.html file.
2. **Live GitHub Pages URL** – showing the deployed "Hello World" page.
3. A short **screenshot** of the page running in the browser (optional if deployment link works).

Compile a single word document by filling in the solution part and submit this Word file on LMS. You must include your name, ID, and class on first page. For some of the labs, students have to present their solutions in a viva session. In case of any problems with submissions on LMS, you should contact your lab engineer Ms. Ayesha Asif by email at [ayesha.asif@seecs.edu.pk](mailto:ayesha.asif@seecs.edu.pk)