Modern Frontend Web Development - Setup Guide

Course Requirements

To complete the labs in this course, you will need:

- A computer with **macOS**, **Windows**, or **Linux**
- Access to the **Internet**
- A **modern web browser** (Chrome recommended)
- **Administrator privileges** to install software globally

Setup Instructions

Follow these steps to set up your development environment:

✅ Step 1: Install Visual Studio Code

Install the free Visual Studio Code editor:

- **Download:** https://code.visualstudio.com
- **Installation:** Run the installer and follow the default options
- **Platform Notes:** Available for Windows, macOS, and Linux

✅ Step 2: Install Google Chrome

Ensure Google Chrome is installed and set as your default browser:

- **Download:** https://www.google.com/chrome/
- **Set as Default:** Make Chrome your default browser for consistent development experience

✅ Step 3: Install Git

Install Git version control system:

macOS:

- Git comes pre-installed on macOS
- Verify installation: Open Terminal and run `git --version`

Windows:

- **Download:** http://git-scm.com
- **Installation:** Select all default options during installation
- **Verify:** Open Command Prompt and run `git --version`

Linux:

```
sudo apt update
sudo apt install git
```

✅ Step 4: Install Node.js

Install Node.js version 20 or newer:

- **Download:** https://nodejs.org/en/download
- **Version:** Choose the **LTS (Long Term Support)** version
- **Installation:** Run the installer and select all default options
- **Verify:** Open terminal/command prompt and run:

```
node --version
npm --version
```

✅ Step 5: Download Course Files

Open a terminal/command prompt in your home directory and clone the course repository:

```
git clone https://github.com/chrisminnick/modern-frontend-web-dev
```

Platform-specific instructions:

- **Windows:** Open Command Prompt or PowerShell
- **macOS/Linux:** Open Terminal

✅ Step 6: Open Project in VSCode

1. **Launch VSCode**

2. Select **File > Open Folder** from the menu

3. Navigate to and open the `modern-frontend-web-dev` folder you downloaded in Step 5

✅ Step 7: Install Recommended Extensions

When you open the project, VSCode should display a popup asking to install recommended extensions:

- **If popup appears:** Click **"Install All"**

- **If no popup:**

1. Click the **Extensions** icon in the left sidebar (📦)

2. Look for the **"Recommended"** section

3. Install all recommended extensions

Key Extensions Include:

- Live Server

- Prettier - Code formatter

- ESLint

- Auto Rename Tag

✅ Step 8: Test Your Setup

1. **Open Terminal in VSCode:**

- Select **Terminal > New Terminal** from the menu

- Or use keyboard shortcut: `Ctrl+` `(Windows/Linux) or` Cmd+` (macOS)

2. **Navigate to test directory and run setup test:**

```
cd setup-test
npm install
npm run dev
```

3. **Verify Success:**

- You should see output similar to:

```
 →  Local:   http://localhost:5173/
 →  Network: use --host to expose
```

- **Click the link** or copy `http://localhost:5173` into your browser

- You should see a **"Success!"** message with a functional button

✅ Step 9: Stop the Development Server

When finished testing, stop the server:

- Press `Ctrl+C` (Windows/Linux) or `Cmd+C` (macOS) in the terminal

Troubleshooting

Common Issues and Solutions

Problem: `git` command not found

- **Solution:** Restart terminal/command prompt after Git installation
- **Windows:** Ensure Git was added to PATH during installation

Problem: `node` or `npm` command not found

- **Solution:** Restart terminal/command prompt after Node.js installation
- **Verify PATH:** Node.js should be added to system PATH automatically

Problem: Permission errors during `npm install`

- **Solution:** Ensure you have administrator/sudo privileges
- **macOS/Linux:** Try `sudo npm install` if needed

Problem: Port 5173 already in use

- **Solution:** Kill existing processes or use different port:

```
 npm run dev -- --port 3000
```

Problem: Extensions not installing

- **Solution:**

1. Check internet connection

2. Manually search and install extensions from VSCode marketplace

3. Restart VSCode after installation

Getting Help

- **Course Repository:** https://github.com/chrisminnick/modern-frontend-web-dev
- **VSCode Documentation:** https://code.visualstudio.com/docs
- **Node.js Documentation:** https://nodejs.org/en/docs/

Next Steps

Once your setup is complete:

1. **Explore the Project Structure:** Familiarize yourself with the course files

2. **Start Lab 01:** Working with the Command Line in VSCode

3. **Join Course Communications:** Connect with your instructor and classmates

🎉 **Congratulations! Your development environment is ready for modern frontend web development!**