

# Modern Frontend Web Development - Setup Guide

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## 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!**