

COMP 9782 Programming Fundamentals

Lab-1-1 - Web development tools setup and Network software / techniques practice. (4% of the course mark)

Name:

Student Number:

This lab is designed to give you practical, hands-on experience in installing tools required for web development. Throughout this lab, you are also going to be executing network software / techniques that the instructor has demonstrated in class.

Lab objectives:

1. Familiarize yourself with the tools and software related to Web development.
2. Apply theoretical knowledge to real-world scenarios.
3. Foster a deeper understanding of Web development through active participation and experimentation.

Lab Prerequisite:

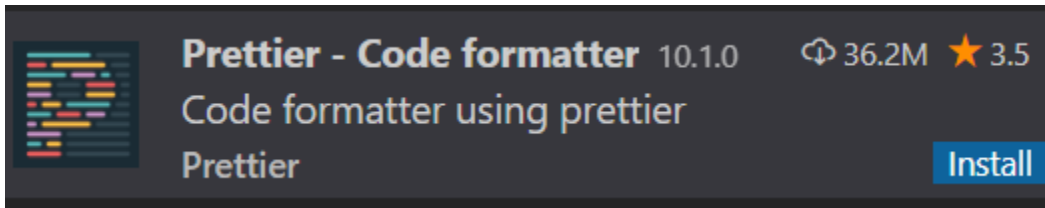
1. **Download** and **extract** the **Lab-1-1.zip** file from **D2L**.
2. **Navigate** to the **directory** where the **files** were **extracted**.
3. **Rename** the **HTML** file and **append** your **first name** and **last name** at the **beginning** of the file.

Visual Studio Code Installation:

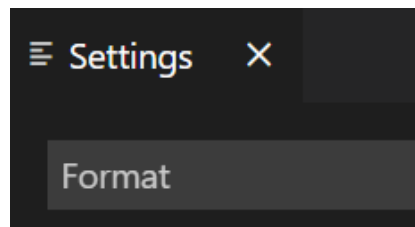
1. Navigate to: <https://code.visualstudio.com/#alt-downloads>
2. Download and install the version based on your **Operating System**.
3. Install the **Prettier** extension.



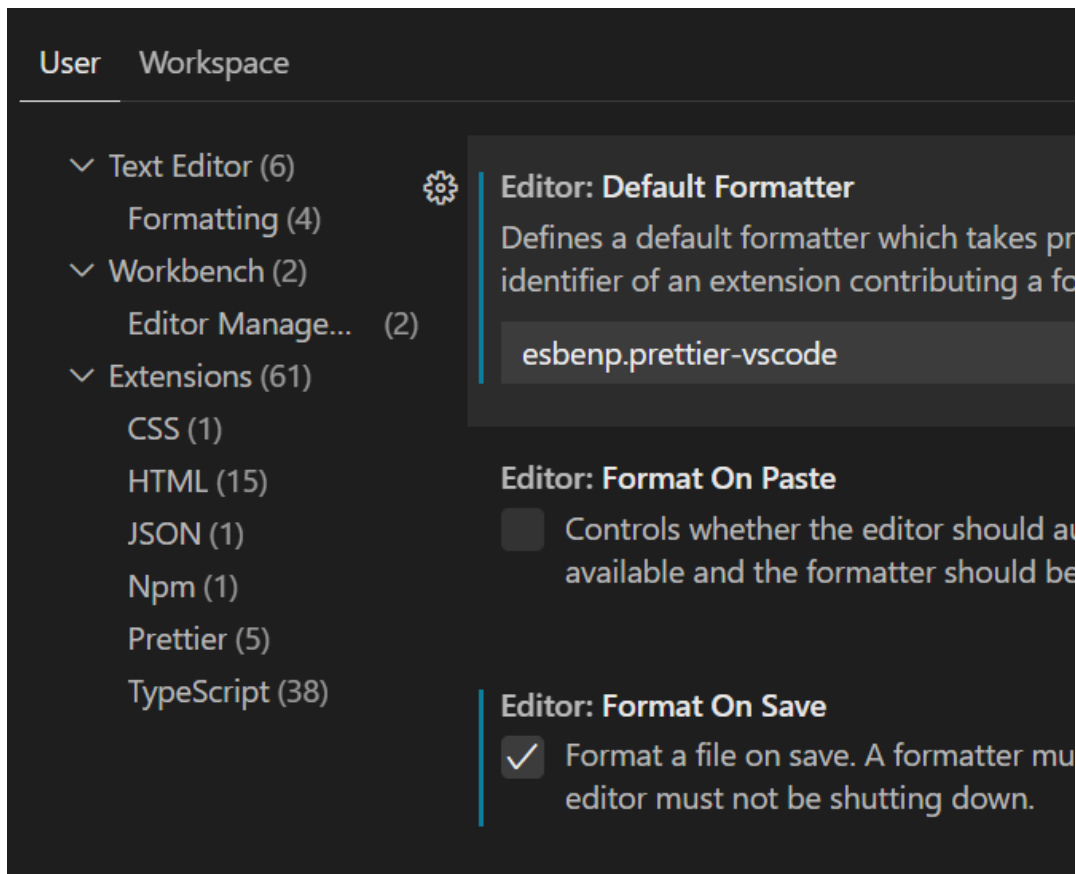
- a. Click on the extension icon.
- b. On the Extension Marketplace enter: **Prettier**.



- c. Click on **Install** to install the extension.
4. Configure the **Prettier** extension.
 - a. Click on **File > Preferences > Settings**.
 - b. Type **Format** and press enter.



- c. Set the **Default Formatter** to **Prettier**.
- d. Choose **Format On Save**.



5. Capture a screenshot showing the **version** of **Visual Studio Code** and save it with the name **VisualStudioCode01.png**
6. Capture a screenshot showing the **Prettier extension** was **installed** and save it with the name **VisualStudioCode02.png**
7. Capture a screenshot below showing that the **default formatter** is set to **Prettier** and **Format on Save** and save it with the name **VisualStudioCode03.png**

Using FileZilla as a document browser:

1. Navigate to: <https://filezilla-project.org/download.php?type=client>
2. **Download** the **free version** of **FileZilla**. Be careful when installing, make sure you **opt out** or **decline** to install other software bundles.
3. Create a new **FTP connection**.
 - a. Click on **File > Site Manager**.
 - b. Click on the **New site button**.
 - c. Press **enter** to accept the **default name**.
 - d. On the **General tab** set the following:
 - i. **Protocol: FTP - File Transfer Protocol**
 - ii. **Host: ftp.dlpctest.com**
 - iii. **Encryption: Use explicit FTP over TLS if available**
 - iv. **Logon Type: Normal**
 - v. **User: dlpuser**
 - vi. **Password: rNrKYTX9g7z3RgJRmxWuGHbeu**

General	Advanced	Transfer Settings	Charset
Protocol:	FTP - File Transfer Protocol ▼		
Host:	ftp.dlpctest.com		Port: <input type="text"/>
Encryption:	Use explicit FTP over TLS if available ▼		
Logon Type:	Normal ▼		
User:	<input type="text"/> dlpuser		
Password:	<input type="password"/>		

- Click on **Connect** to connect to the FTP server.
- Click on **OK** to continue.

NOTE: After a successful login, you should see a screen that is divided into **2 sides (Local and Remote)**. **Local** is your **local machine** while **Remote** is the **remote server**. **FileZilla** works similar to **File Explorer** on **Windows**, you can **create directories** and **files (Local and Remote)**. You can also drag and drop files from **Local to Remote and vice versa**. **This is a test server, do not download files that you did not create, it might have malicious payload.**

6. Capture screenshots below showing the following scenarios:
- a. Create a **directory** named: **FirstName_LastName_Remote_Directory** where **FirstName_LastName** is **your first and last name** on the **Remote server**. The captured screenshot should be named **FileZilla1.png**.
 - b. **Download** the **directory** created on **step a** to the **Local machine**. The captured screenshot should be named **FileZilla2.png**.
 - c. Create a **file** named: **FirstName_LastName_Remote_File.txt** where **FirstName_LastName** is **your first and last name** on the **Remote server**. The captured screenshot should be named **FileZilla3.png**.
 - d. **Download** the **file** created on **step c** to the **Local machine**. The captured screenshot should be named **FileZilla4.png**.
 - e. Create a **directory** named: **FirstName_LastName_Local_Directory** where **FirstName_LastName** is **your first and last name** on the **Local machine**. The captured screenshot should be named **FileZilla5.png**.
 - f. **Upload** the **directory** created on **step e** to the **Remote server**. The captured screenshot should be named **FileZilla6.png**.
 - g. Go to **File Explorer** and create a **file** named: **FirstName_LastName_Local_File.txt** where **FirstName_LastName** is **your first and last name** on the **Local machine**. The captured screenshot should be named **FileZilla7.png**.
 - h. **Upload** the **file** created on **step g** to the **Remote server**. The captured screenshot should be named **FileZilla8.png**.

IP Address Lookup:

1. **Navigate** to: <https://www.iplocation.net/ip-lookup>
2. Scroll down until “**Geolocation data from IP2Location**” is visible.
3. Check the **ISP information**, does it match your **ISP vendor**?
4. Capture a screenshot showing the “**Geolocation data from IP2Location**”. The captured screenshot should be named **IPAddressLookup.png**.

Domain Name Lookup:

1. **Navigate** to: <https://www.site24x7.com/tools/find-ip-address-of-web-site.html>
2. Enter a **domain name** of your choice and click on **Find IP**.
3. Capture a screenshot showing the IP address found. The captured screenshot should be named **DomainNameLookup.png**.

Online Traceroute:

1. Navigate to: <https://traceroute-online.com/>
2. Enter a **domain name** of your choice and click on **Traceroute!**
3. How many hops before it reached the destination? Capture a screenshot showing the number of hops. The captured screenshot should be named **OnlineTraceroute.png**.

HTML coding

1. **Copy all** saved **screenshots** to the **same folder** as the **renamed HTML file**.
2. Open the renamed HTML file via VSCode.
3. For **each screenshot** enter a **short description** using a **<p>** tag and an **** tag with the **src** equal to the **screenshot file name**.