FIT3179 DATA VISUALISATION

Week 4 Lab Activity: Introduction to HTML and GitHub

1. Installing Visual Studio Code 2

2. Installing Add-ons for Visual Studio Code 6

    2.1 Live Server Add-on 6

    2.2 Vega Preview Add-on 7

    2.3 Vega Viewer Add-on 7

3. Introduction to HTML 8

    3.1 Understanding the structure of HTML 9

    3.2 Creating an HTML project in Visual Studio Code 10

    3.3 Understanding some basic HTML elements 12

    3.4 Additional Resources for other HTML elements. 15

4. Introduction to GitHub 16

    4.1 Setting up a GitHub account 16

    4.2 Updating a GitHub Project 18

    4.3 Using GitHub Pages to make the webpage publicly accessible. 20

1. Installing Visual Studio Code

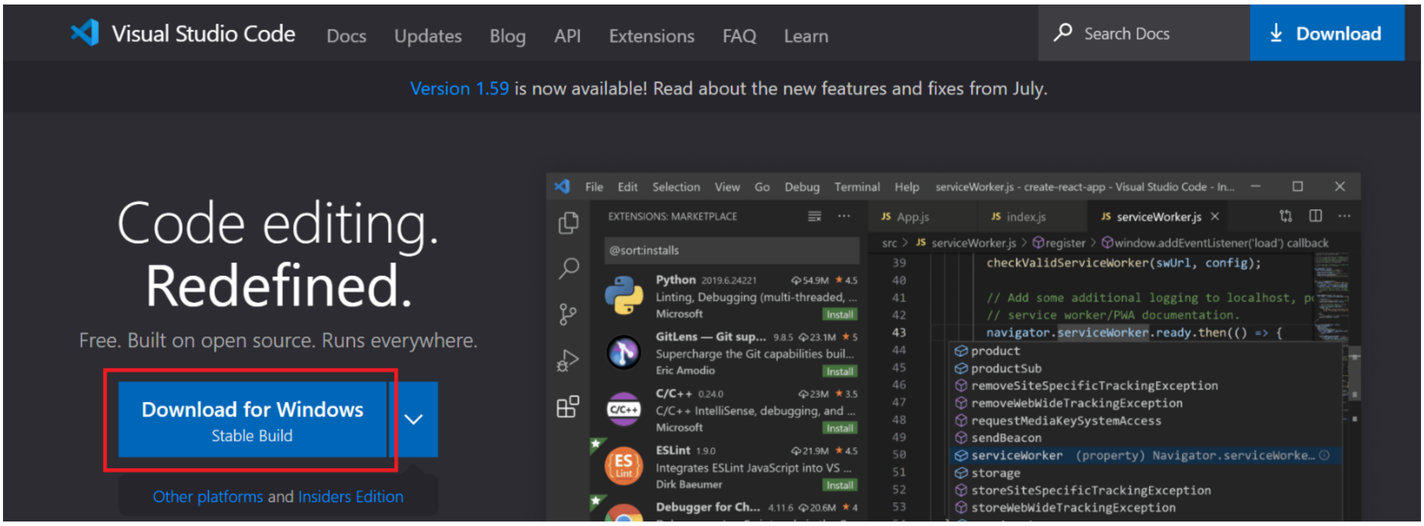
Visual Studio Code is a code editor which is optimised for creating and debugging modern websites and cloud applications. There are many benefits of using a code editor for HTML programming:

- Syntax Highlighting: highlights content when you make syntax errors
- Auto-completion: suggests elements based on what is being typed
- Sensible formatting: easy formatting so all nested code is clearly understood

To download Visual Studio Code on your local machine, visit https://code.visualstudio.com.

For **Windows users,**

1. Click on the button mentioning “Download for Windows – Stable build” (Figure 1). If you have a 32-bit Windows Operating System, click on the arrow next to it and select “other downloads” option (Figure 2).



Version 1.59 is now available! Read about the new features and fixes from July.

Code editing.
Redefined.

Free. Built on open source. Runs everywhere.

```
checkValidServiceWorker(swUrl, config);

// Add some additional logging to localhost, p
// service worker/PWA documentation.
navigator.serviceWorker.ready.then(() => {
```

Visual Studio Code
Docs
Updates
Blog
API
Extensions
FAQ
Learn
Search Docs
Download
Download for Windows
Stable Build
Other platforms and Insiders Edition
File Edit Selection View Go Debug Terminal Help
serviceWorker.js - create-react-app - Visual Studio Code - In...
EXTENSIONS: MARKETPLACE
@sort:installs
Python 2019.6.24221 54.9M 4.5
Linting, Debugging (multi-threaded, ...
Microsoft
Install
GitLens — Git sup... 9.8.5 23.1M 5
Supercharge the Git capabilities buil...
Eric Amodio
Install
C/C++ 0.24.0 23M 3.5
C/C++ IntelliSense, debugging, and ...
Microsoft
Install
ESLint 1.9.0 21.9M 4.5
Integrates ESLint JavaScript into VS ...
Dirk Baeumer
Install
Debugger for Ch... 4.11.6 20.6M 4
App.js
index.js
serviceWorker.js
src > serviceWorker.js > register > window.addEventListener('load') callback
product
productSub
removeSiteSpecificTrackingException
removeWebWideTrackingException
requestMediaKeySystemAccess
sendBeacon
serviceWorker (property) Navigator.serviceWorke...
storage
storeSiteSpecificTrackingException
storeWebWideTrackingException

Figure 1. Download for Windows 64-bit OS

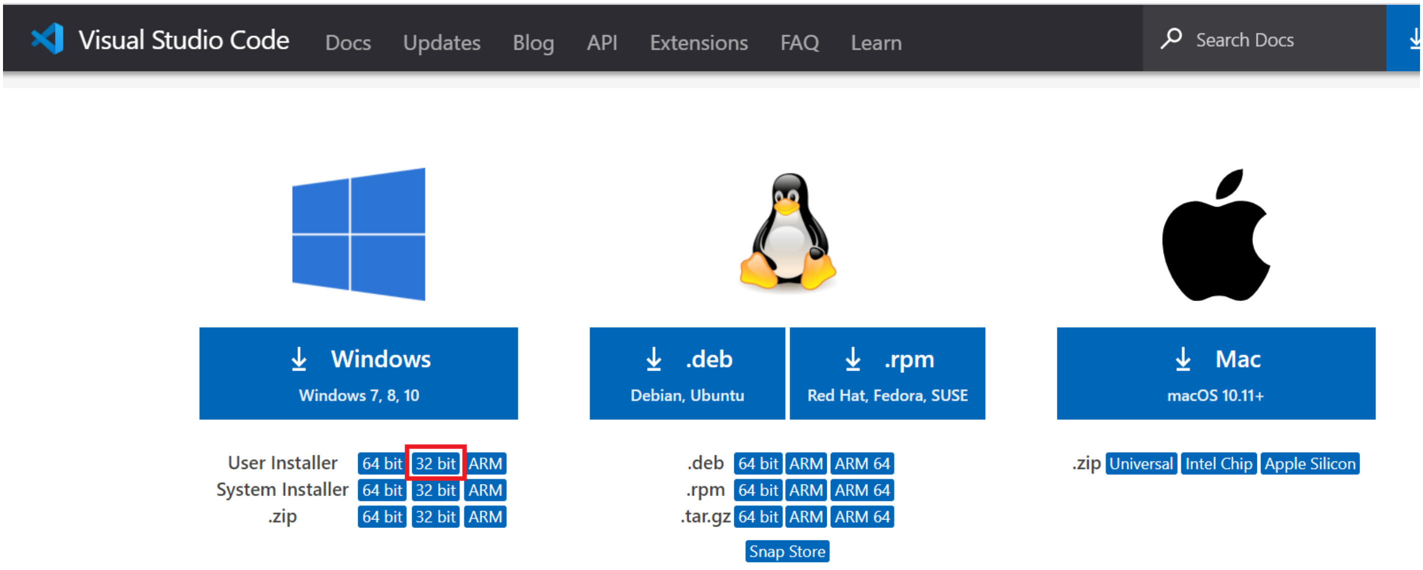
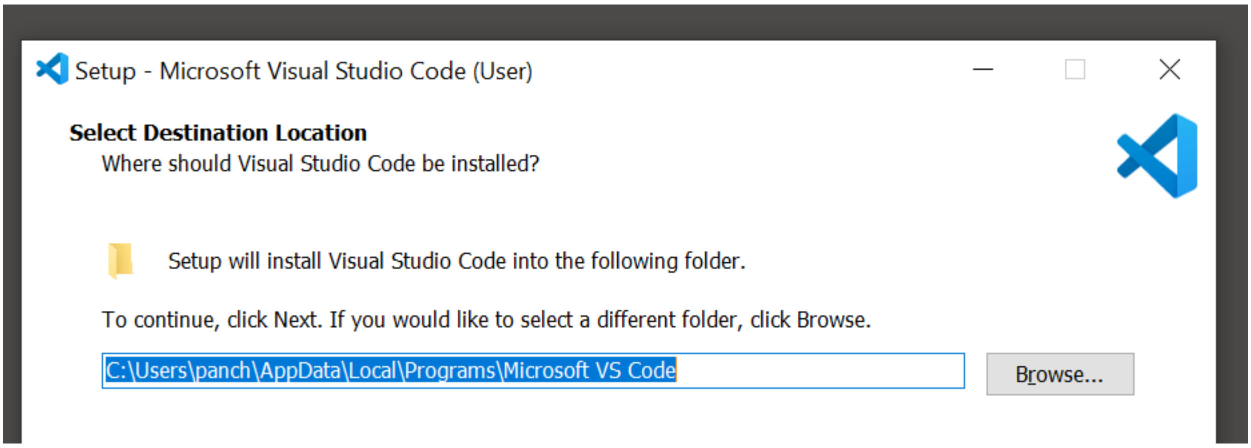


Figure 2. VS code download for Windows 32-bit OS

2. Open the downloaded **VSUserSetup[version].exe** file and setup the configuration as following:

   a. Accept the agreement and click Next.

   b. In the **Select Destination Location** panel, keep the folder structure as it is and click Next. This will be the location where your Visual Studio Code will be installed.



Setup - Microsoft Visual Studio Code (User)

Select Destination Location

Where should Visual Studio Code be installed?

Setup will install Visual Studio Code into the following folder.

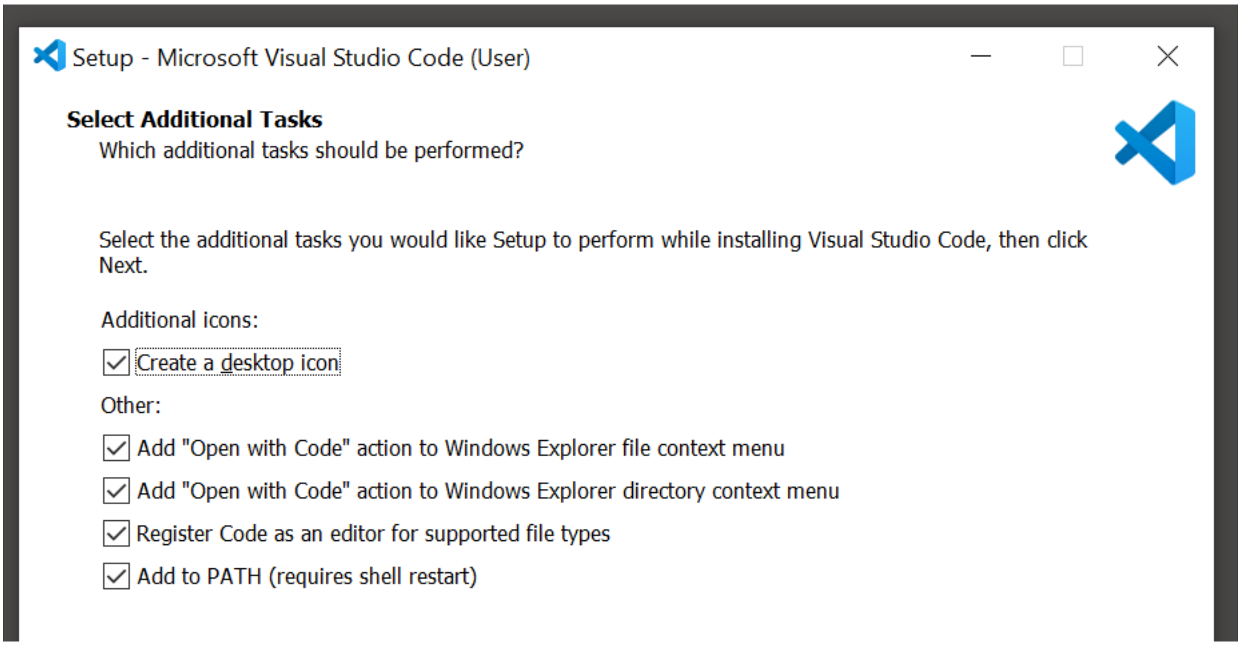
To continue, click Next. If you would like to select a different folder, click Browse.

C:\Users\panch\AppData\Local\Programs\Microsoft VS Code

Figure 3. Selecting Location to install Visual Studio Code

   c. No changes are to be made in the **Select Start Menu Folder** panel. Click Next.

   d. In the **Select Additional Tasks** panel, check on all the options and click Next. If you do not want a shortcut icon for the application to be created on your desktop, uncheck the “Create a desktop icon.”



Setup - Microsoft Visual Studio Code (User)

Select Additional Tasks

Which additional tasks should be performed?

Select the additional tasks you would like Setup to perform while installing Visual Studio Code, then click Next.

Additional icons:

☑ Create a desktop icon

Other:

☑ Add "Open with Code" action to Windows Explorer file context menu

☑ Add "Open with Code" action to Windows Explorer directory context menu

☑ Register Code as an editor for supported file types

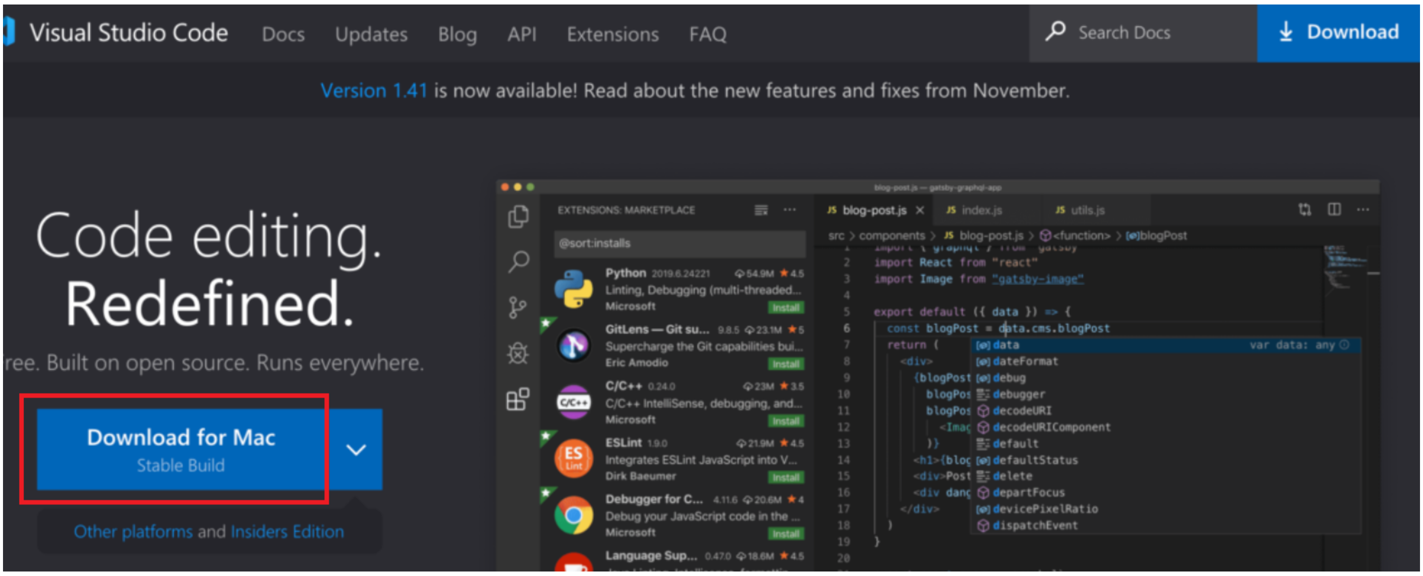
☑ Add to PATH (requires shell restart)

Figure 4. Options to perform additional tasks during installation

e. Click on Install. This will now install the Visual Studio Code on your machine.

For **Mac** users,

1. Click on the button mentioning “Download for Mac – Stable build”. If the option is not available visit https://code.visualstudio.com/#alt-downloads. Then click on Mac download as shown in (Figure 5).



Version 1.41 is now available! Read about the new features and fixes from November.

Code editing. Redefined.

ree. Built on open source. Runs everywhere.

```
import React from "react"
import Image from "gatsby-image"

export default ({ data }) => {
  const blogPost = data.cms.blogPost
  return (
```

Figure 5. Universal download for Mac

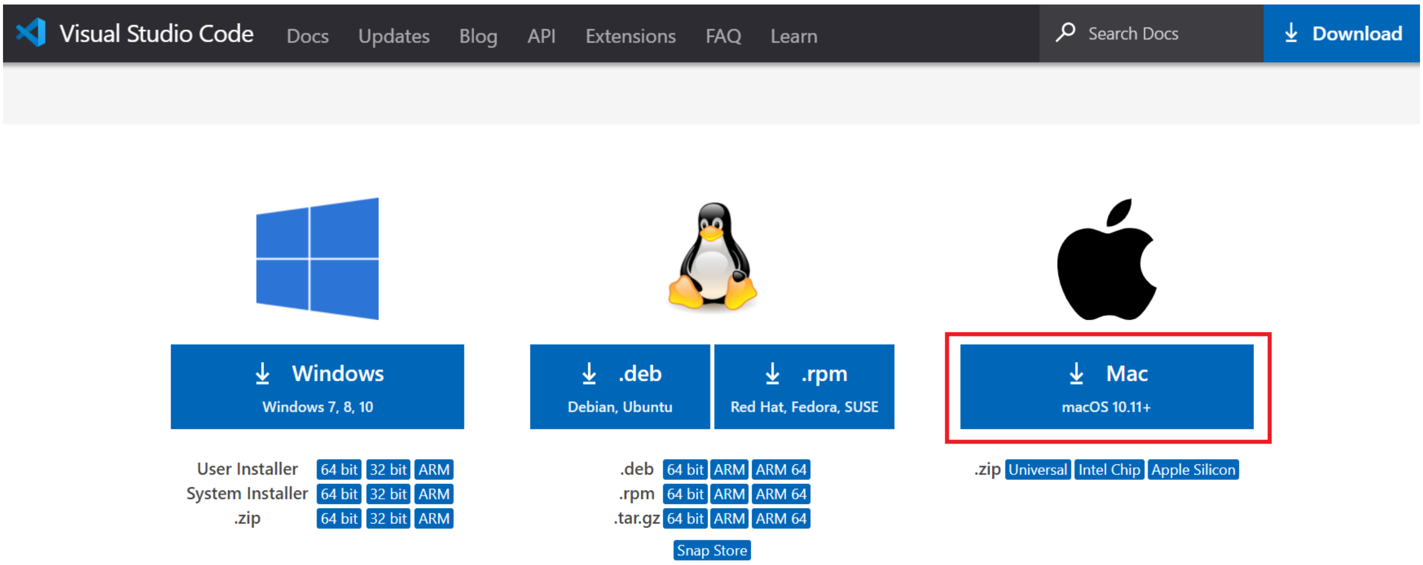
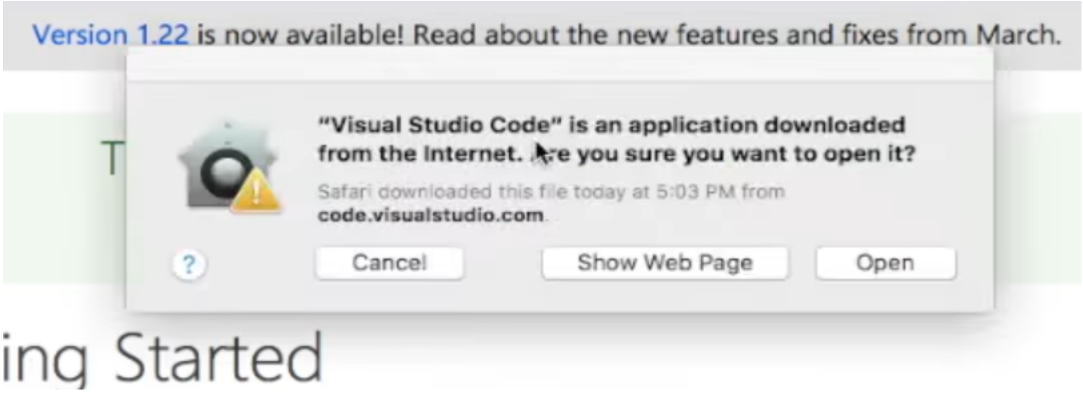


Figure 6. Alternative download for Mac

2. Once the zip file is downloaded, click to open it. It will give a prompt as shown in (Figure 7). Click on Open and it will open the application on your machine.



Version 1.22 is now available! Read about the new features and fixes from March.

"Visual Studio Code" is an application downloaded from the Internet. Are you sure you want to open it?

Safari downloaded this file today at 5:03 PM from code.visualstudio.com.

Figure 7. Prompt after clicking on the extracted application

3. The application might still not be visible on your launchpad. To view it in your launchpad, go to your Downloads folder and drag and drop the application into your Applications folder (Figure 8).

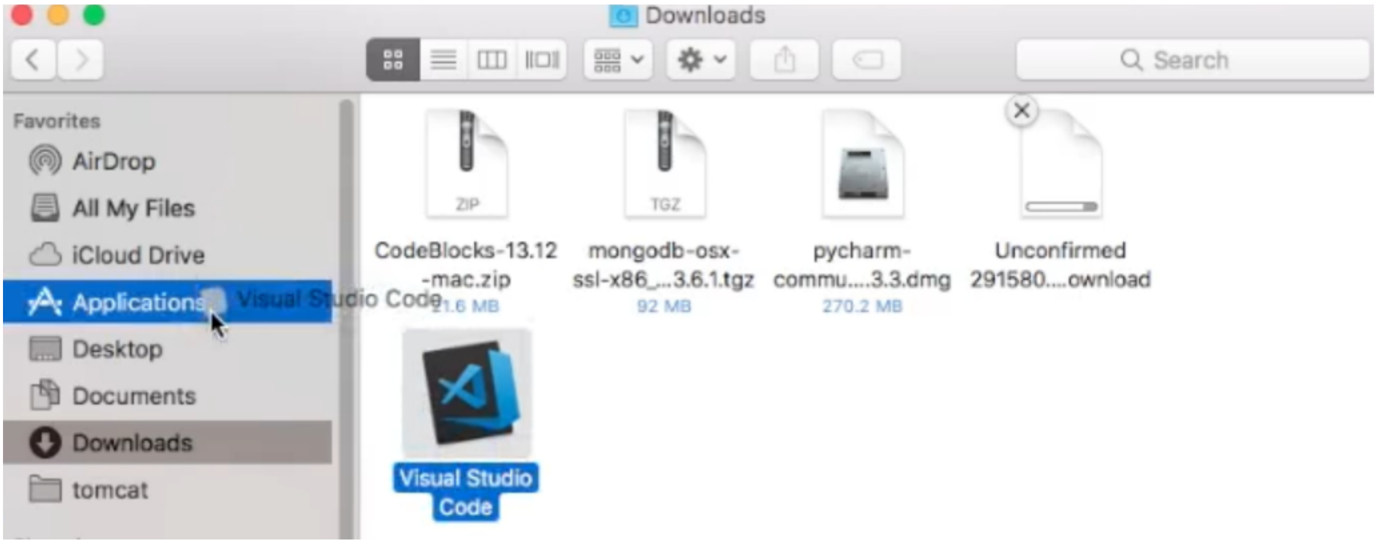


Figure 8. Dragging and dropping the application to the Applications folder

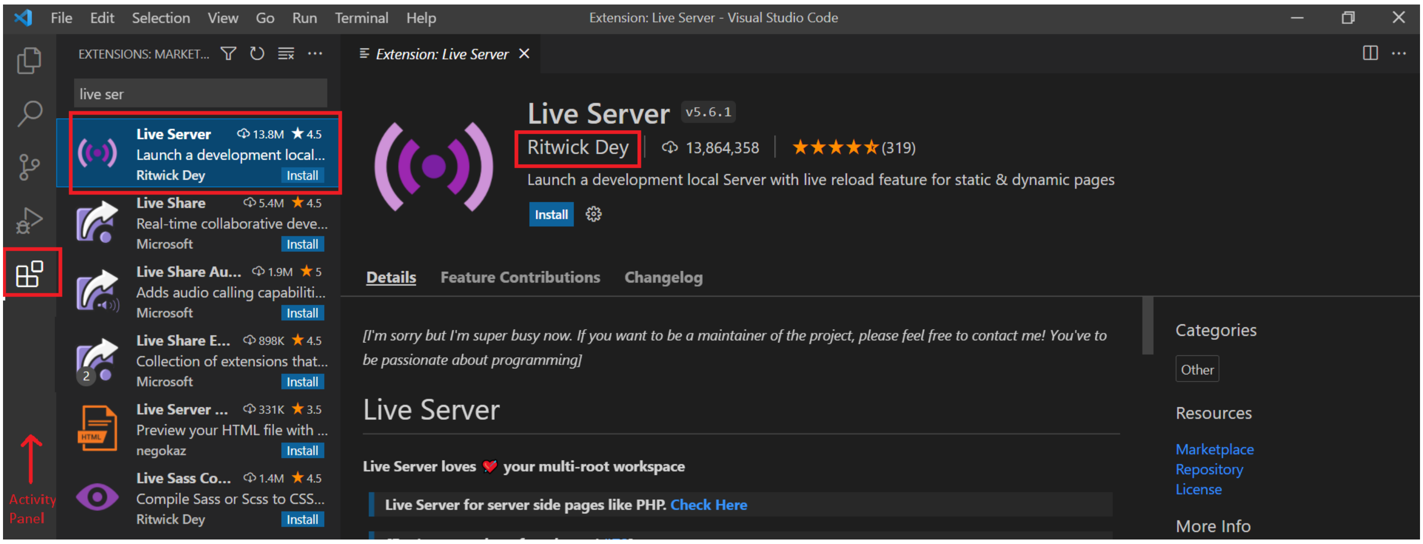
2. Installing Add-ons for Visual Studio Code

A. Live Server Add-on

This add-on is available in Visual Studio code and will make it easy for you to see the reflected code on a web page for the changes made in HTML code.

i. Open your Visual Studio Code application.

ii. In your Activity panel on the left-hand side, click on the **extensions** ⊞ button as shown in (Figure 9).



Live Server 13.8M ★4.5
Launch a development local...
Ritwick Dey

Live Share 5.4M ★4.5
Real-time collaborative deve...
Microsoft

Live Share Au... 1.9M ★5
Adds audio calling capabiliti...
Microsoft

Live Share E... 898K ★4.5
Collection of extensions that...
Microsoft

Live Server ... 331K ★3.5
Preview your HTML file with ...
negokaz

Live Sass Co... 1.4M ★4.5
Compile Sass or Scss to CSS...
Ritwick Dey

Live Server v5.6.1

Ritwick Dey | 13,864,358 | ★★★★★(319)

Launch a development local Server with live reload feature for static & dynamic pages

[I'm sorry but I'm super busy now. If you want to be a maintainer of the project, please feel free to contact me! You've to be passionate about programming]

Live Server

Live Server loves ❤ your multi-root workspace

Live Server for server side pages like PHP. Check Here

Figure 9. Downloading Live Server Extension on Visual Studio Code.

iii. Select the extension as highlighted in Figure 9. And click on Install.

iv. After the installation is complete, if the extension has not been enabled, click on the "Enable" button.

v. We will see how to run this extension in Activity 2.

B. Vega Preview Add-on

This **Vega Preview** extension is available on Visual Studio code and can be utilised to see a preview of your Vega and Vega-Lite JSON files.

i. Open your Visual Studio Code application.

ii. In your Activity Panel on the left side, click on the extensions button as shown in (Figure 10).

iii. Select the extension as highlighted in Figure 10. Click Install.

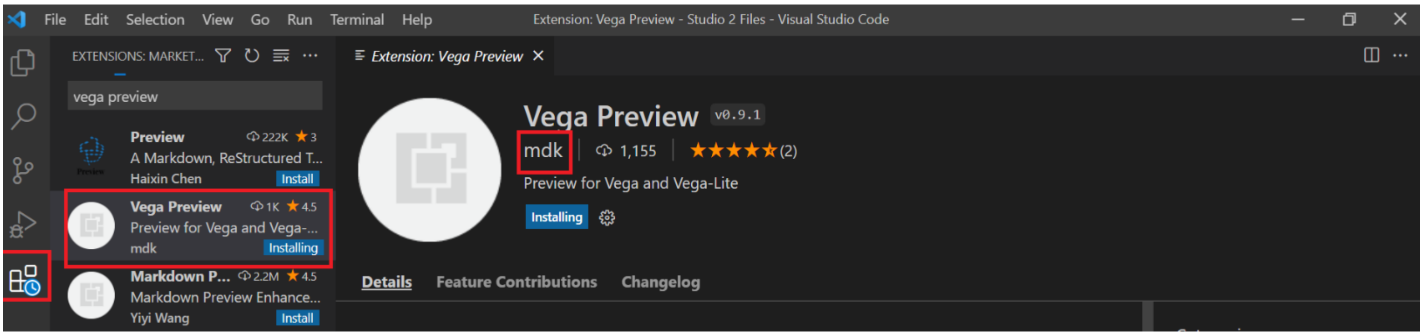


Figure 10. Installing Vega Preview add-on

B. Vega Viewer Add-on

This extension can be used to view graphs based on the Vega and Vega-Lite JSON files. It also allows exporting the graphs in SVG and PNG formats.

i. Follow the same process as 2.1 and 2.2.

ii. Click on the extensions button and search for Vega Viewer by the author Random Fractals inc.

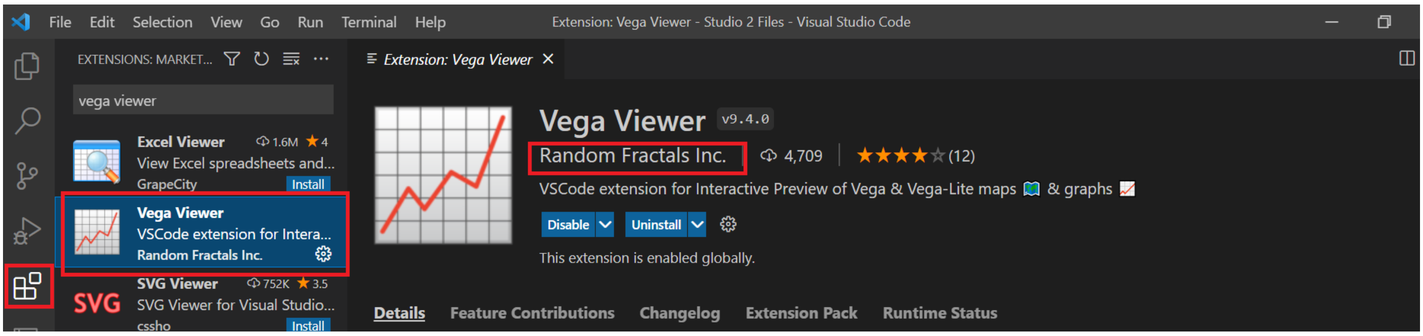

File Edit Selection View Go Run Terminal Help
Extension: Vega Viewer - Studio 2 Files - Visual Studio Code
EXTENSIONS: MARKET...
vega viewer
Excel Viewer 1.6M ★4
View Excel spreadsheets and...
GrapeCity
Install
Vega Viewer
VSCode extension for Intera...
Random Fractals Inc.
SVG Viewer 752K ★3.5
SVG Viewer for Visual Studio...
cssho
Install
Extension: Vega Viewer
Vega Viewer v9.4.0
Random Fractals Inc.
4,709
★★★★☆(12)
VSCode extension for Interactive Preview of Vega & Vega-Lite maps & graphs
Disable
Uninstall
This extension is enabled globally.
Details
Feature Contributions
Changelog
Extension Pack
Runtime Status

Figure 11. Installing the Vega Viewer add-on

3. Introduction to HTML

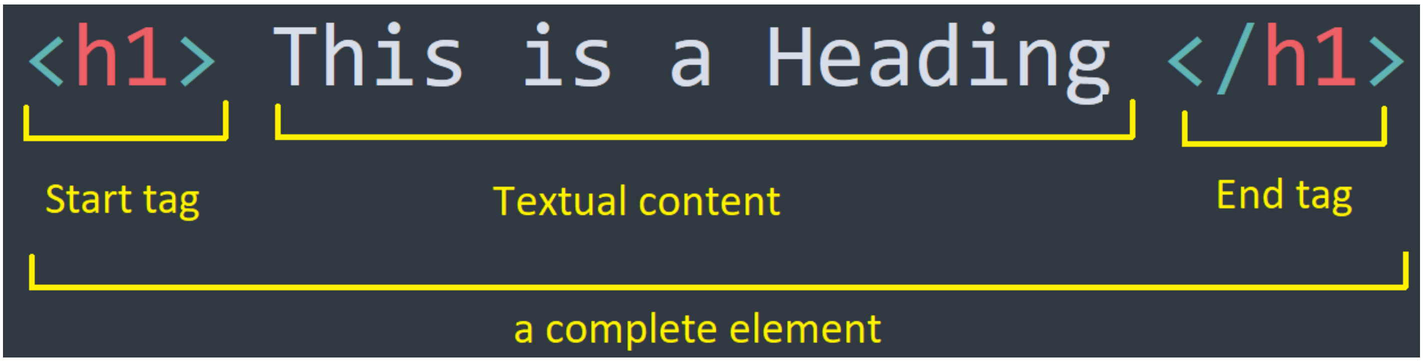
HTML (Hyper Text Markup Language) is a markup language used for creating web pages. It is considered as the skeleton of web pages. It provides a structure for the content appearing on web pages, such as textual content, images or videos.

This activity will help you to understand the structure of HTML and create your first web page using some basic HTML elements. A limitation with creating web pages using HTML is that it only allows you to create basic elements but does not allow you to style your content or make it interactive.

A. Understanding the structure of HTML

HTML code is written by creating a series of HTML elements. An HTML element tells the browser the format in which the content should be displayed. The element can be defined by the following:

- A start tag
- Some textual content (optional)
- An end tag

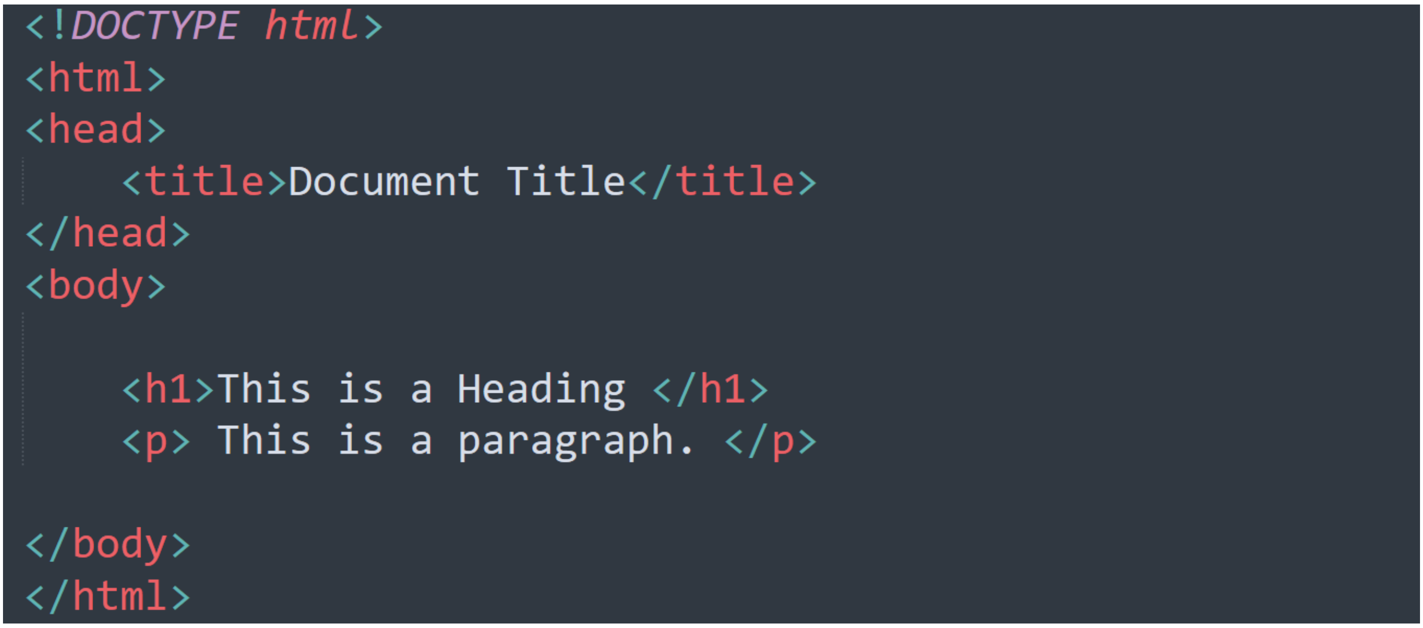


```
<h1> This is a Heading </h1>
```

Figure 12. Example of an HTML element

The start tag and the end tag are written in **< >** notation to make it easy for the browser to understand where an element begins and ends when an HTML document is processed. You will have multiple elements of the same type in an HTML document. For this reason, it is important to add a "**/**" in the end tag before the element name.

A simple HTML document can be created by using the format as shown in (Figure 13):



```html
<!DOCTYPE html>
<html>
<head>
    <title>Document Title</title>
</head>
<body>

    <h1>This is a Heading </h1>
    <p> This is a paragraph. </p>

</body>
</html>
```

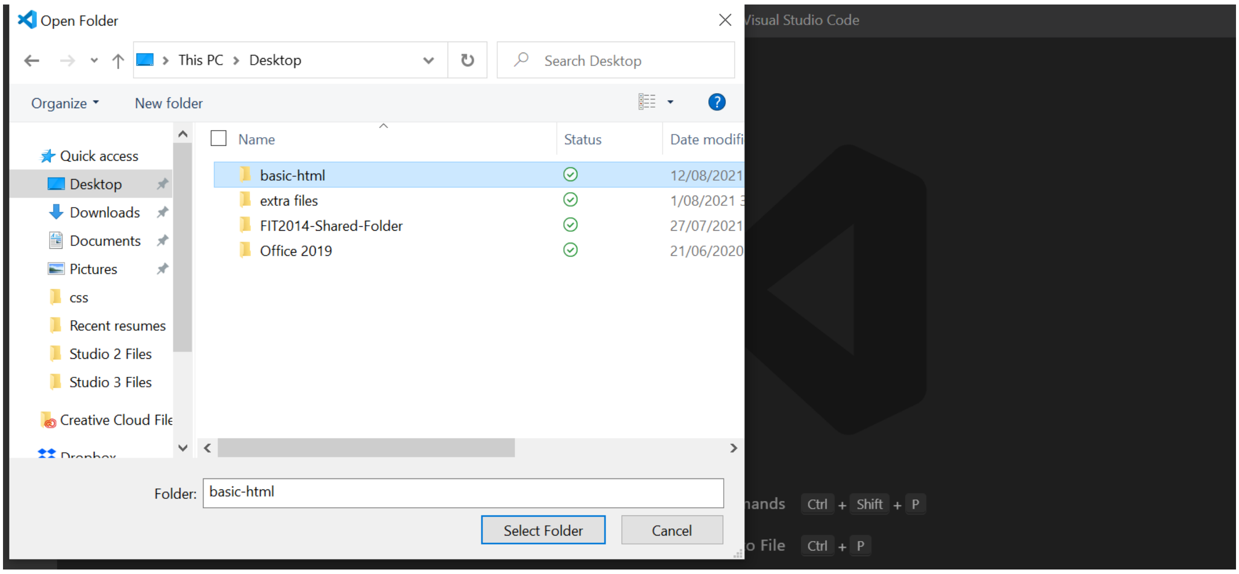
Figure 13. Basic HTML structure

- **!Doctype element** lets the browser know that this document should be processed as an HTML document.
- **Html element** is the root of an HTML document. It will have two children elements nested in it (head and body element)
- **Head element** will be used to link your CSS and JS files to the HTML document and to give a title for this web page.
- **Body element** is the container for all your visible content, such as images, videos or textual content.

B. Creating an HTML project in Visual Studio Code

1. Create a new folder on your Desktop (alternatively, you can create it anywhere you would like to create your HTML project). Name it appropriately without any spaces.

2. Open your Visual Studio Code application. Go to File -> Open Folder. Browse the locations where you have created your folder and click Select folder.



Name	Status	Date modifi
basic-html	✓	12/08/2021
extra files	✓	1/08/2021
FIT2014-Shared-Folder	✓	27/07/2021
Office 2019	✓	21/06/2020

Folder: basic-html

Figure 14. Open a folder

3. In your Explorer Panel, click on the “New file” button to create a new file. All HTML files are saved with the extension .html otherwise, the document will not be processed as an HTML document. Save this new file as index.html and press enter.

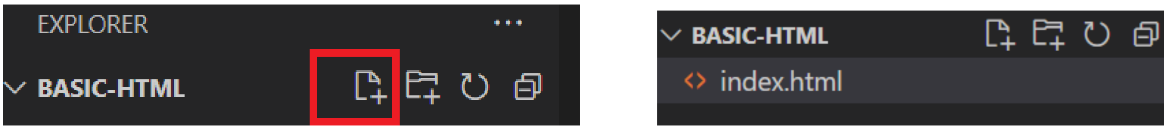
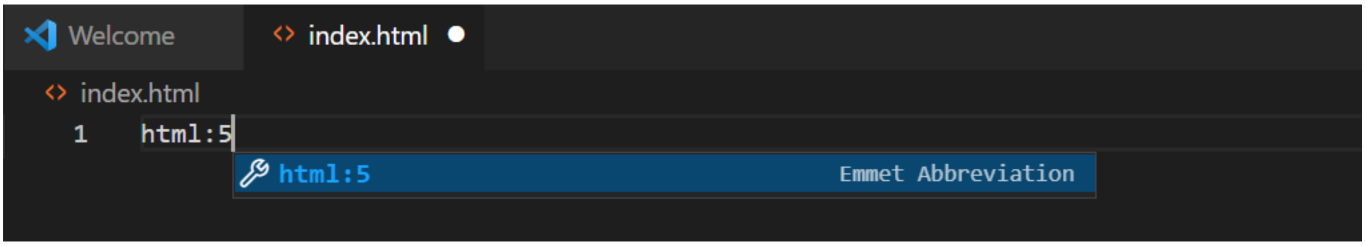


Figure 15. Creating a new HTML file

4. In this HTML file, create the structure as shown in Figure 13. A shortcut to creating the basic structure of an HTML document is to type html:5 and select the suggestion, as shown in Figure 16. Remove the meta elements as they are not required for this unit.

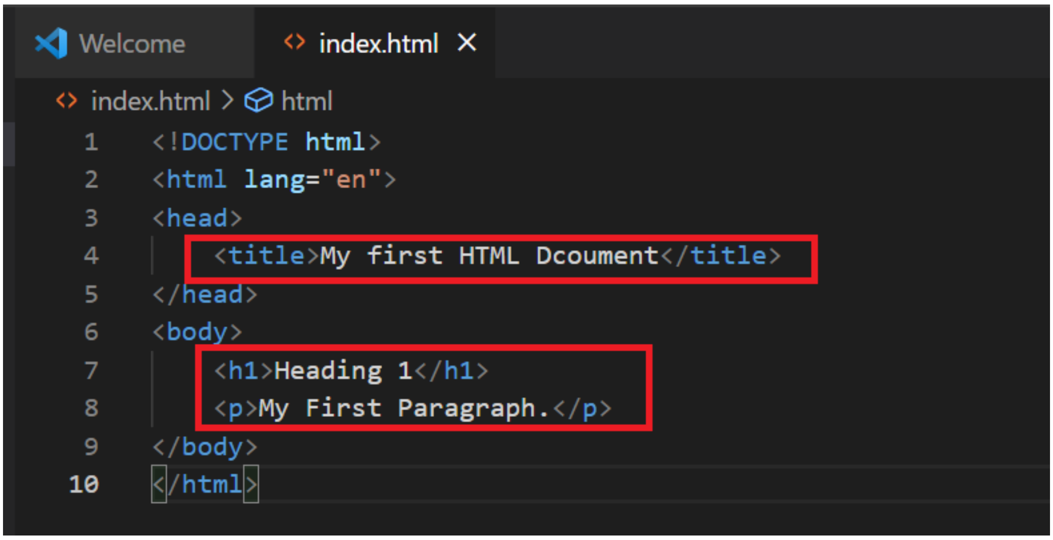


```
html:5
```

Figure 16. HTML shortcut to create basic HTML structure

5. Change the content in the <title> element to rename your webpage to something relevant.

6. Create a new HTML element inside the body element. We will be creating our first heading and first paragraph, as shown in Figure 17.



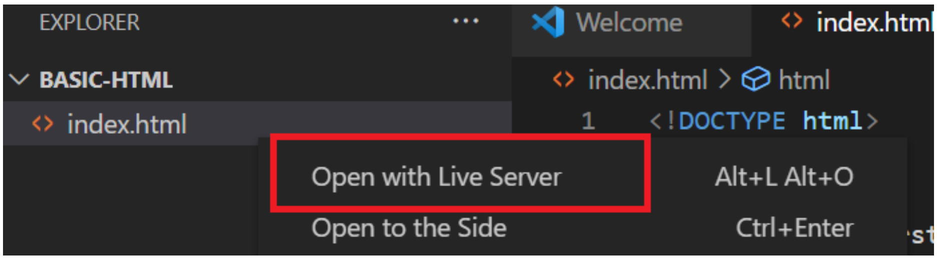
```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>My first HTML Dcoument</title>
</head>
<body>
    <h1>Heading 1</h1>
    <p>My First Paragraph.</p>
</body>
</html>
```

Figure 17. First HTML document

7. Every time a change is made in the HTML document, it needs to be saved in order for the change to be reflected on the web page.

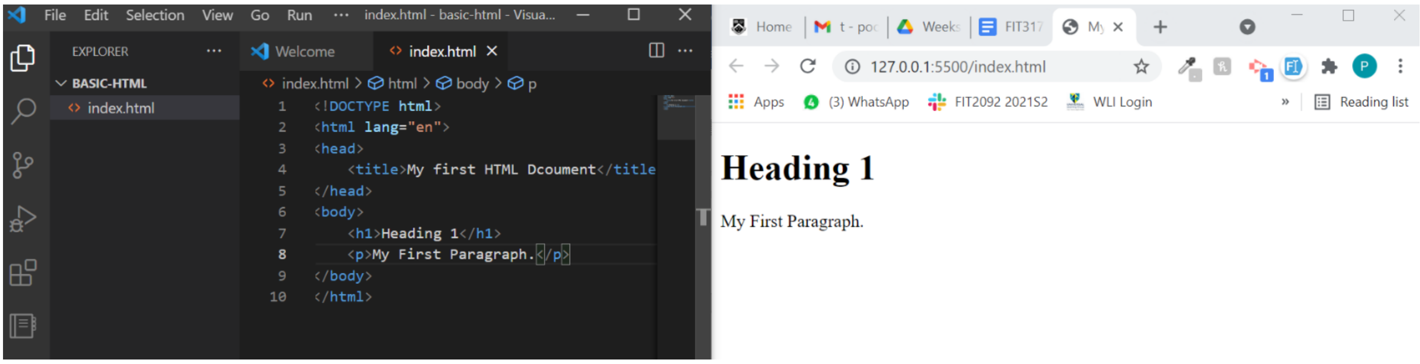
8. If you have installed and enabled the Live Server Add-on from the previous activity, right-click on the file name and click on "Open with Live Server". It will open the file in your browser. When a file is opened with the Live Server add-on, you can see your changes getting reflected automatically on the web page.

9. Alternatively, if Live Server has not been installed, go to Run -> Run Without Debugging.



```
<!DOCTYPE html>
```

Figure 18. Opening file with Live Server Add-on


File Edit Selection View Go Run ··· index.html - basic-html - Visua...
EXPLORER
BASIC-HTML
index.html
Welcome
index.html
index.html > html > body > p
Home
t - poc
Week
FIT317
My
127.0.0.1:5500/index.html
Apps
(3) WhatsApp
FIT2092 2021S2
WLI Login
Reading list

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>My first HTML Dcoument</title
</head>
<body>
    <h1>Heading 1</h1>
    <p>My First Paragraph.</p>
</body>
</html>
```

Heading 1

My First Paragraph.

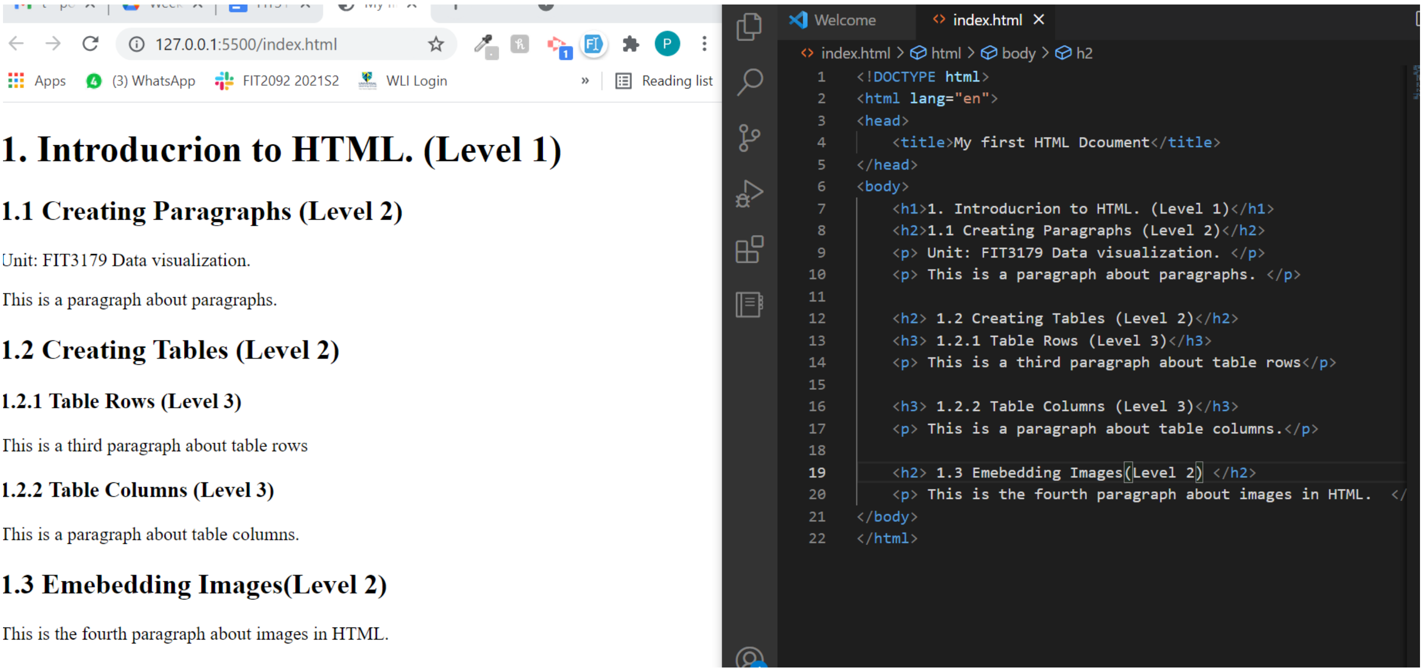
Figure 19. Saving and viewing the HTML document in the browser

C. Understanding some basic HTML elements

1. Creating Paragraphs and Headings in HTML

<p> elements is used to define paragraphs in HTML. For each paragraph that is added to the HTML document, a separate element needs to be created.

Six levels of headings could be used in an HTML document. <h1>, <h2>, <h3>, <h4>, <h5> and <h6>. The default styles of the headings vary in font size. The heading should be used to logically structure the content of your document.



1. Introducrion to HTML. (Level 1)

1.1 Creating Paragraphs (Level 2)

Unit: FIT3179 Data visualization.

This is a paragraph about paragraphs.

1.2 Creating Tables (Level 2)

1.2.1 Table Rows (Level 3)

This is a third paragraph about table rows

1.2.2 Table Columns (Level 3)

This is a paragraph about table columns.

1.3 Emebedding Images(Level 2)

This is the fourth paragraph about images in HTML.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>My first HTML Dcoument</title>
</head>
<body>
    <h1>1. Introducrion to HTML. (Level 1)</h1>
    <h2>1.1 Creating Paragraphs (Level 2)</h2>
    <p> Unit: FIT3179 Data visualization. </p>
    <p> This is a paragraph about paragraphs. </p>

    <h2> 1.2 Creating Tables (Level 2)</h2>
    <h3> 1.2.1 Table Rows (Level 3)</h3>
    <p> This is a third paragraph about table rows</p>

    <h3> 1.2.2 Table Columns (Level 3)</h3>
    <p> This is a paragraph about table columns.</p>

    <h2> 1.3 Emebedding Images(Level 2) </h2>
    <p> This is the fourth paragraph about images in HTML.  </
</body>
</html>
```

Figure 20. Example of Paragraphs and Headings in an HTML document.

2. Creating Tables in HTML

A table in HTML is a combination of 4 different elements.

- <table> element   represents the outer container for creating a table
- <th> element   represents the first heading row in a table
- <tr> element   represents a row
- <td> element   represent columns in a single row

The <table> element should be the outermost element in this hierarchy. <tr> element is used to create a single row in the table. In the example in the (Figure 21), <tr> element is the outer element and inside the <tr> element, <th> element is used to create the heading row. Each <th> element represents one column in a particular row. <td> element is used to create a single column that is not a table heading.

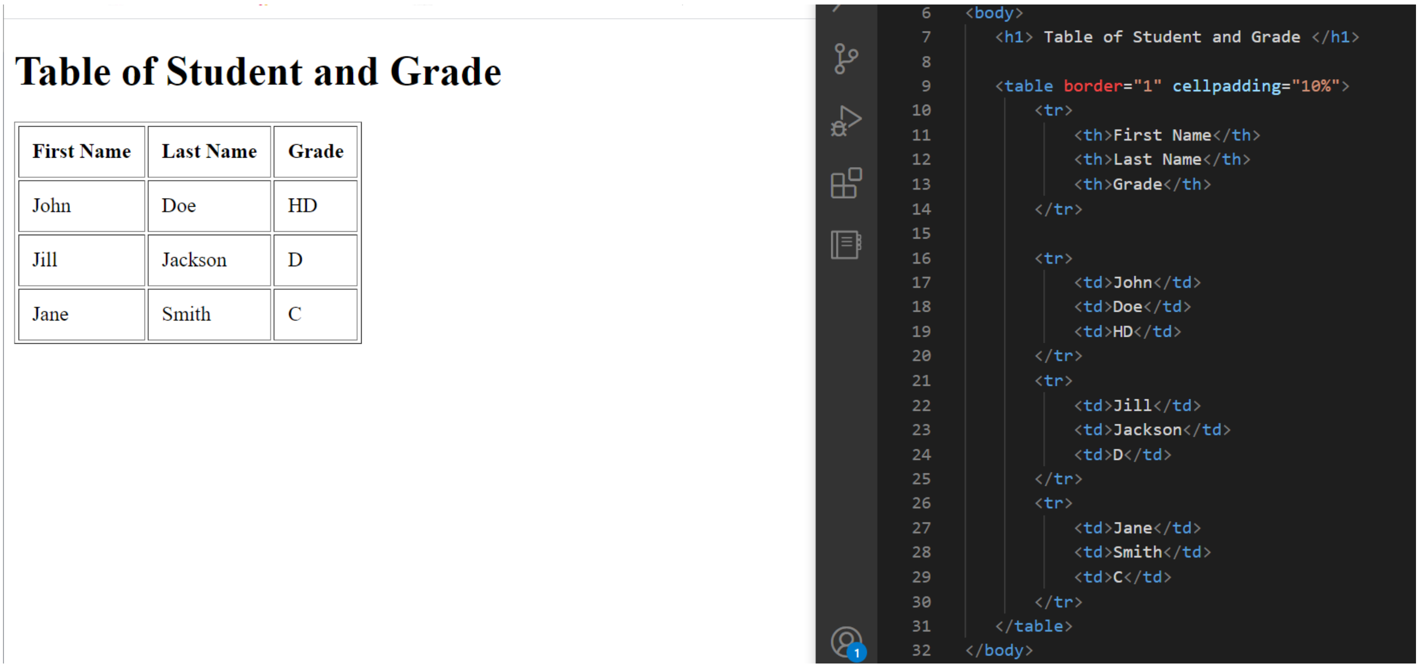


Table of Student and Grade

First Name	Last Name	Grade
John	Doe	HD
Jill	Jackson	D
Jane	Smith	C

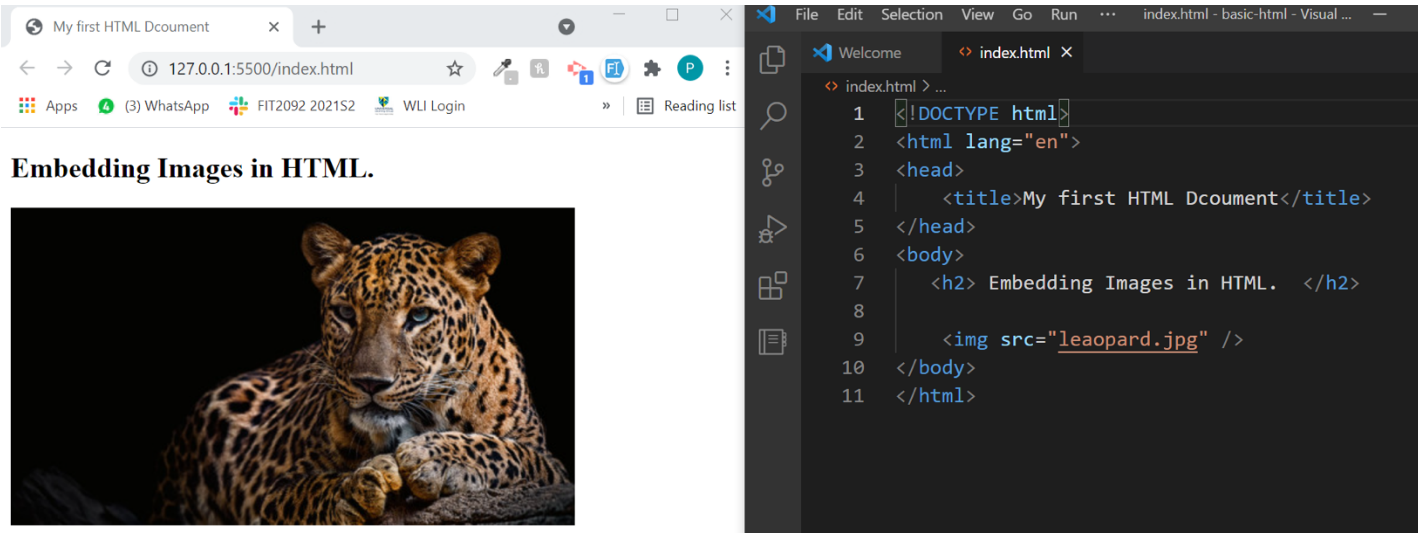
```
<body>
    <h1> Table of Student and Grade </h1>

    <table border="1" cellpadding="10%">
        <tr>
            <th>First Name</th>
            <th>Last Name</th>
            <th>Grade</th>
        </tr>

        <tr>
            <td>John</td>
            <td>Doe</td>
            <td>HD</td>
        </tr>
        <tr>
            <td>Jill</td>
            <td>Jackson</td>
            <td>D</td>
        </tr>
        <tr>
            <td>Jane</td>
            <td>Smith</td>
            <td>C</td>
        </tr>
    </table>
</body>
```

Figure 21. HTML code for tables and output on the browser

3. Embedding Images in HTML

Images can be embedded into a HTML document by using an <img> element. **Note:** This element is a self-closing element (an element that does not require an end tag.)

Some HTML elements require attributes to be added to the elements to modify their structure. For example, an image element can be created, but unless a path is given to the image file, it cannot be viewed. For example: <img src=”PATH_TO_YOUR_IMAGE_FILE” />. Src is the attribute that takes in the path to the image file.



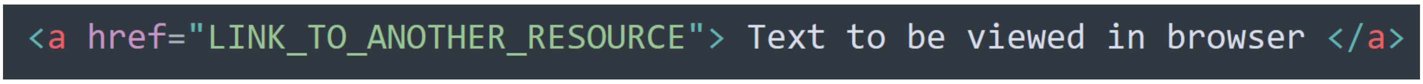
Embedding Images in HTML.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>My first HTML Dcoument</title>
</head>
<body>
   <h2> Embedding Images in HTML.  </h2>

    <img src="leaopard.jpg" />
</body>
</html>
```

Figure 22. Embedding images in an HTML document

4. Creating Hyperlinks in HTML

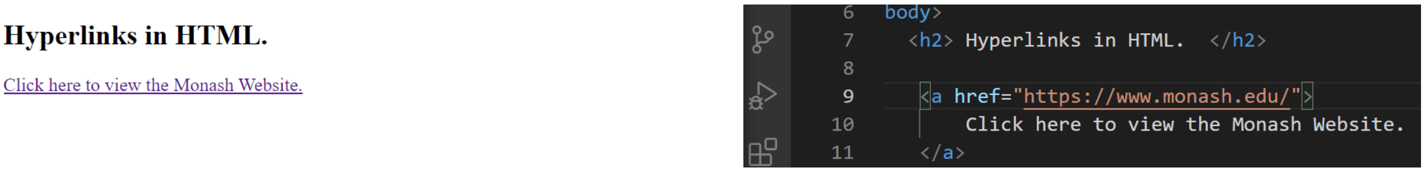
Hyperlinks are clickable links that redirect users to another HTML web page or another online resource. Hyperlinks can be created in HTML by using the <a> element. The basic structure of a hyperlink can be seen in the Figure below. The href attribute is used to define a path to an online resource.



```
<a href="LINK_TO_ANOTHER_RESOURCE"> Text to be viewed in browser </a>
```

Figure 23. Example of a hyperlink

Copy the link https://www.monash.edu/ and paste it in the href attribute of an <a> element. Modify the text between the start and end tags to “Click here to view the Monash website”.



Hyperlinks in HTML.

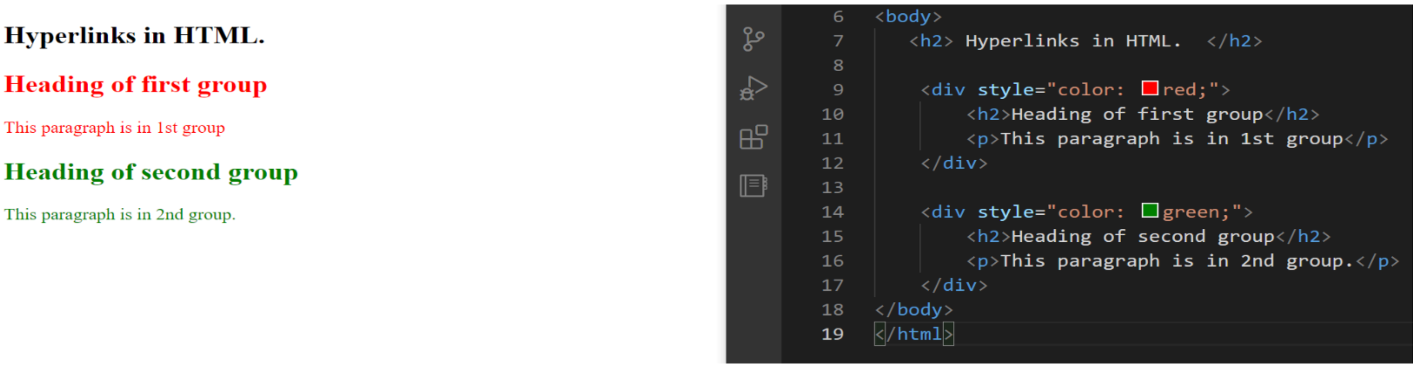
Click here to view the Monash Website.

```
body>
  <h2> Hyperlinks in HTML.  </h2>

   <a href="https://www.monash.edu/">
       Click here to view the Monash Website.
   </a>
```

Figure 24. Hyperlink in HTML document with output

5. Creating sections in HTML

A <div> element is used to define a section or division in a HTML document. It can be used to group multiple elements together. A <div> element does not represent any visible structure on the web page. It can be used to create complex layouts in an HTML document. Without CSS applied to the <div> element, there is no significant change visible in the structure on the HTML page. As shown in Figure 25, all elements in group 1 <div> elements had red coloured font (Done using CSS and will be covered in coming labs), and all the elements grouped in the second <div> element had green coloured font.



Hyperlinks in HTML.

Heading of first group

This paragraph is in 1st group

Heading of second group

This paragraph is in 2nd group.

```
<body>
   <h2> Hyperlinks in HTML.  </h2>

    <div style="color: 🟥red;">
        <h2>Heading of first group</h2>
        <p>This paragraph is in 1st group</p>
    </div>

    <div style="color: 🟩green;">
        <h2>Heading of second group</h2>
        <p>This paragraph is in 2nd group.</p>
    </div>
</body>
</html>
```

Figure 25. Use of <div> tag to group elements in 2 sections

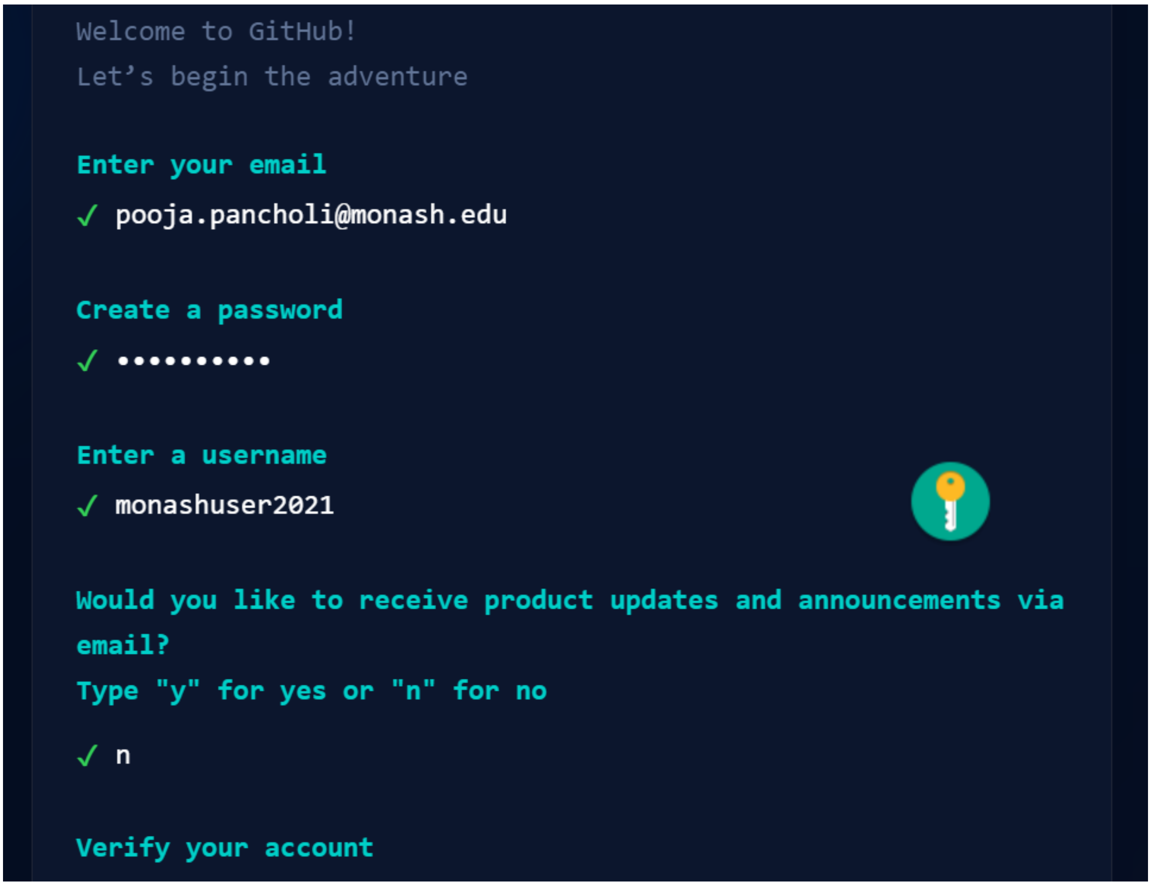
D. Additional Resources for other HTML elements.

1. Lists in HTML (https://www.w3schools.com/html/html_lists.asp)
2. Formatting Text in HTML (https://www.w3schools.com/html/html_formatting.asp)
3. Writing comments in HTML (https://www.w3schools.com/html/html_comments.asp)

4. Introduction to GitHub

1. Setting up a GitHub account

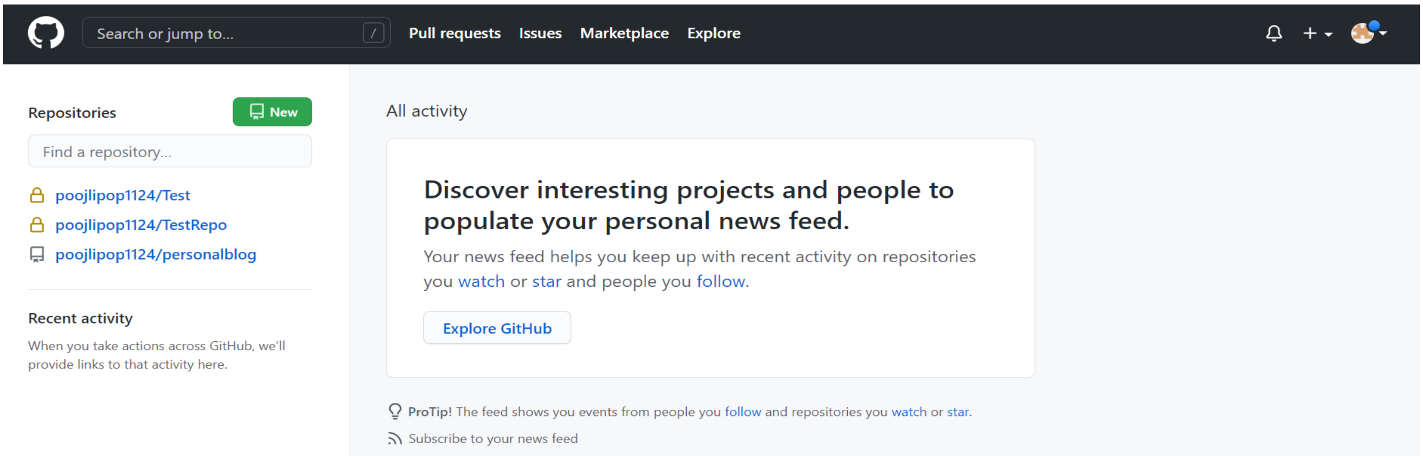
To create an account on GitHub, visit https://github.com/. Enter your Monash student email to create an account on GitHub. Choose a unique username. If the username already exists, GitHub will not allow you to proceed further.



```
Welcome to GitHub!
Let’s begin the adventure

Enter your email
✓ pooja.pancholi@monash.edu

Create a password
✓ ••••••••••

Enter a username
✓ monashuser2021

Would you like to receive product updates and announcements via
email?
Type "y" for yes or "n" for no

✓ n

Verify your account
```

Figure 26. Signing up for a GitHub account

Once the sign-up process is complete, GitHub will automatically log you in and redirect the user to the GitHub dashboard interface, as shown in (Figure 27).



When you take actions across GitHub, we'll provide links to that activity here.

Discover interesting projects and people to populate your personal news feed.

Your news feed helps you keep up with recent activity on repositories you watch or star and people you follow.

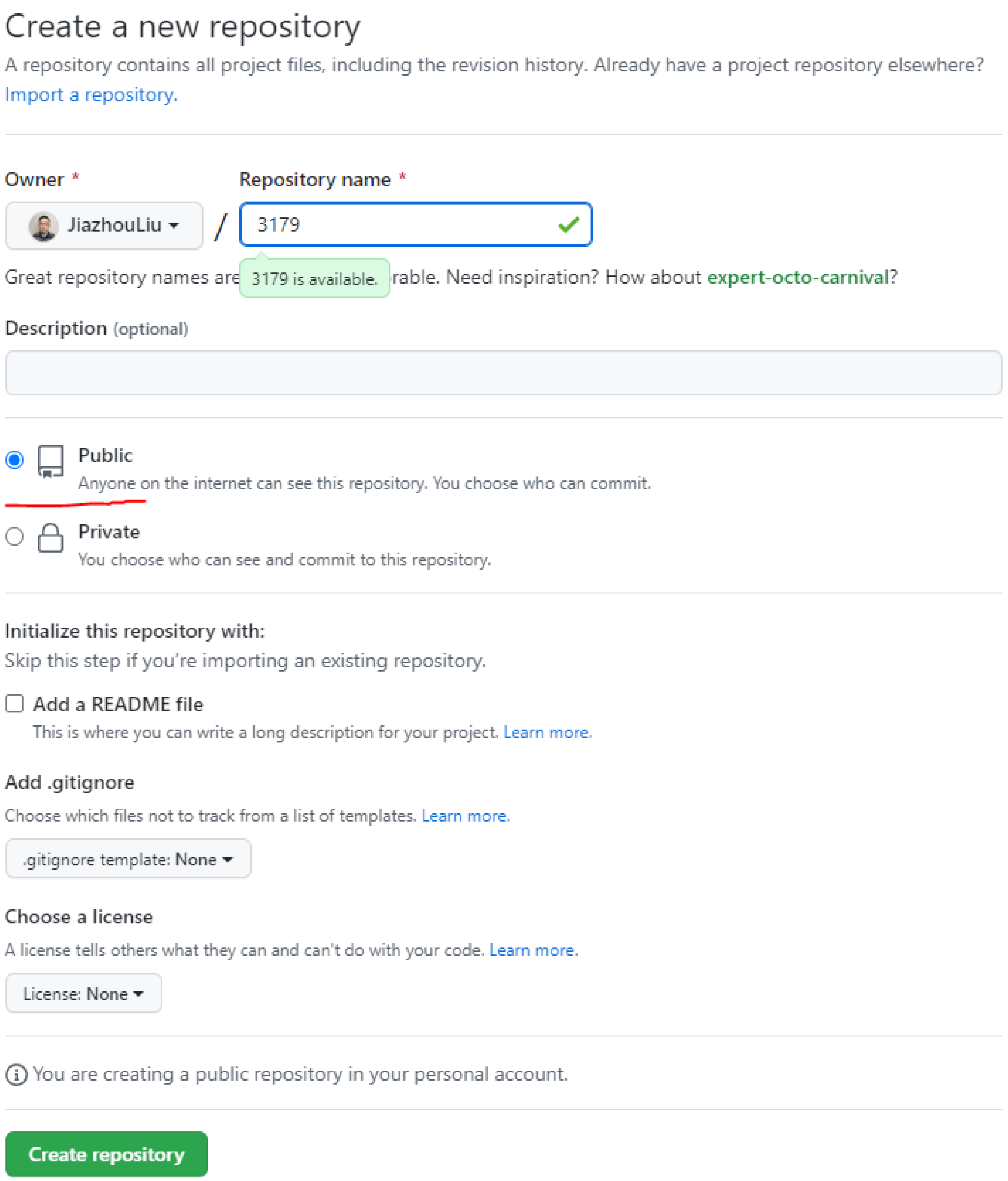
ProTip! The feed shows you events from people you follow and repositories you watch or star.

Figure 27. GitHub Interface

2. GitHub Repository

For working on a project, we can create repositories on GitHub which can be updated whenever there are changes in the project.

2.1. To create a GitHub repository, click on the New button on the side of the dashboard. Make sure that you select the **Public** option.



Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? Import a repository.

Owner * / Repository name *

JiazhouLiu ▾ / 3179 ✓

3179 is available.

Great repository names are ... rable. Need inspiration? How about expert-octo-carnival?

Description (optional)

● Public
Anyone on the internet can see this repository. You choose who can commit.

○ Private
You choose who can see and commit to this repository.

Initialize this repository with:
Skip this step if you're importing an existing repository.

□ Add a README file
This is where you can write a long description for your project. Learn more.

Add .gitignore
Choose which files not to track from a list of templates. Learn more.

.gitignore template: None ▾

Choose a license
A license tells others what they can and can't do with your code. Learn more.

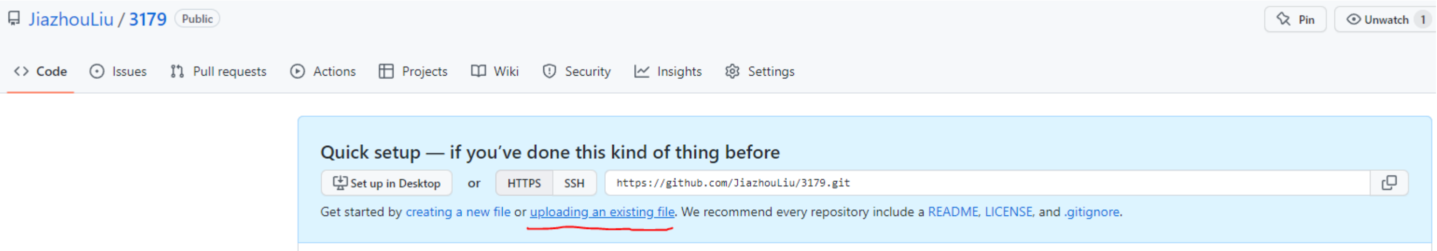
License: None ▾

ⓘ You are creating a public repository in your personal account.

Create repository

Figure 28. Creating a new repository on GitHub

2.2. To upload your existing project on GitHub, click on the "upload an existing file" hyperlink as shown in (Figure 29).



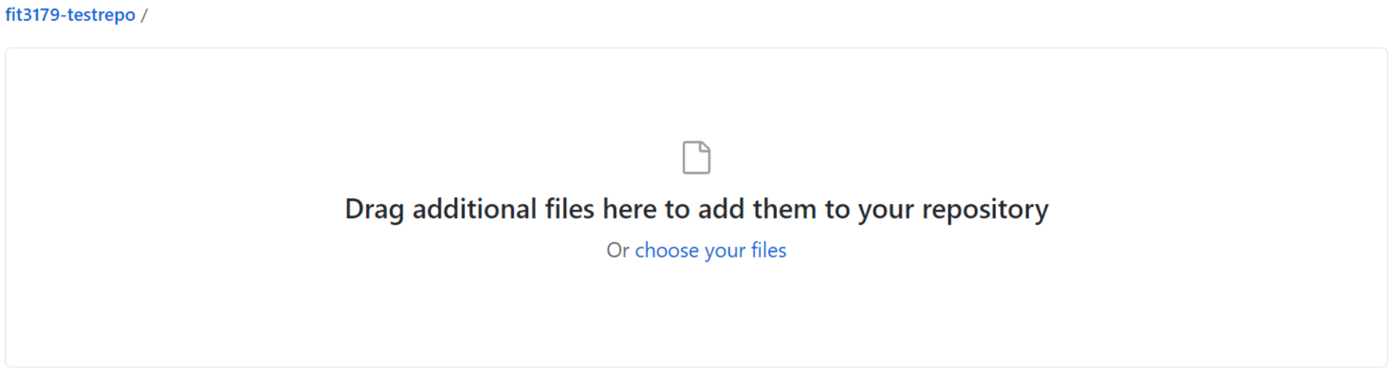
Quick setup — if you've done this kind of thing before

https://github.com/JiazhouLiu/3179.git

Get started by creating a new file or uploading an existing file. We recommend every repository include a README, LICENSE, and .gitignore.

Figure 29. Uploading an existing file to the GitHub repository

2.3. Drag the index.html from your local HTML folder and drop it into the drop box as shown in (Figure 30).



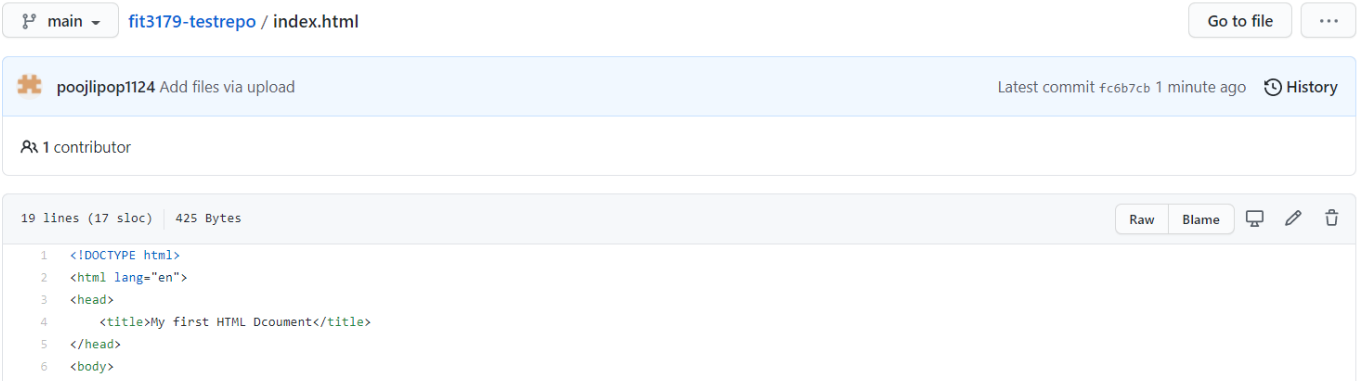
Drag additional files here to add them to your repository

Or choose your files

Figure 30. Dropbox to upload files on GitHub Repository

2.4. In the Commit Changes box, add an appropriate message to summarise the files that were uploaded. For example, database files uploaded, new images added, code changes updated and click on the Commit Changes button.

2.5. Your first file is now added to your repository. To view the contents of the uploaded file, click on the hyperlink with the file name on it, and it will show the contents of the file.



poojlipop1124 Add files via upload

Latest commit fc6b7cb 1 minute ago

1 contributor

19 lines (17 sloc) | 425 Bytes

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>My first HTML Dcoument</title>
</head>
<body>
```

Figure 31. Contents of index.html file

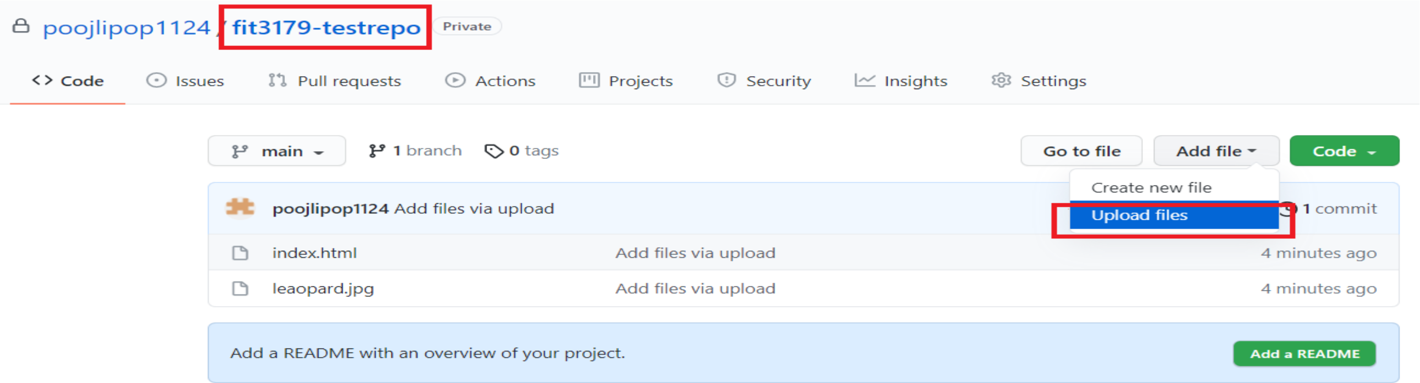
3. Updating a GitHub Project

A GitHub project can be updated in two ways:

3.1. Uploading the updated file and committing the changes.

Step 1: Add a new paragraph and heading to your index.html file on your local machine.

Step 2: Click on your repository name, as shown in (Figure 32) and click on Add file button. Click on the Upload files hyperlink to upload a new file and repeat the process as shown in 4.1.

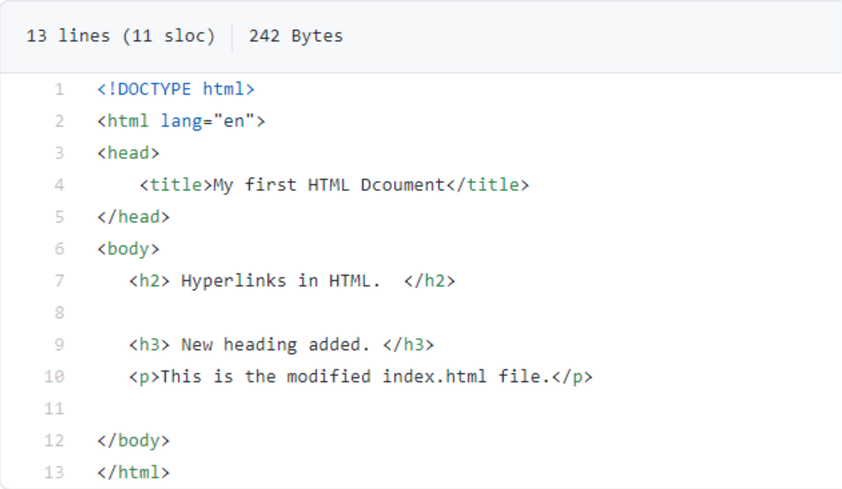


poojlipop1124 Add files via upload — 1 commit

index.html	Add files via upload	4 minutes ago
leaopard.jpg	Add files via upload	4 minutes ago

Add a README with an overview of your project.

Figure 32. Uploading updated files to GitHub.



13 lines (11 sloc) | 242 Bytes

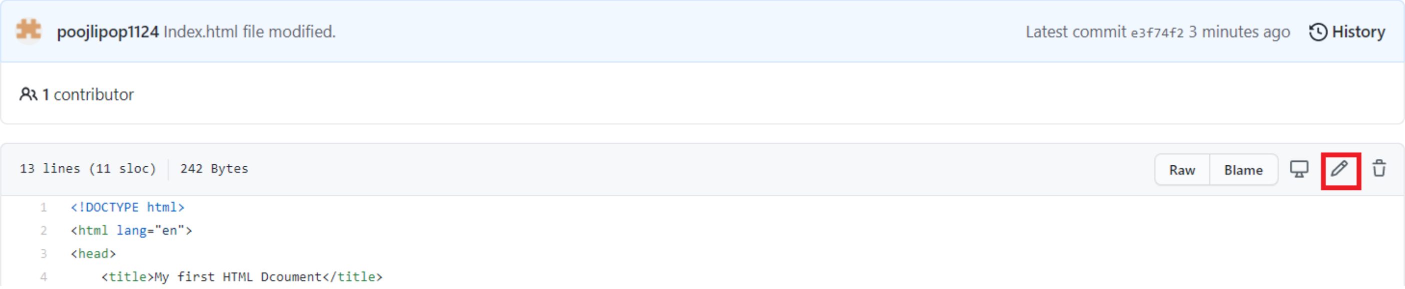
```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>My first HTML Dcoument</title>
</head>
<body>
   <h2> Hyperlinks in HTML.  </h2>

   <h3> New heading added. </h3>
   <p>This is the modified index.html file.</p>

</body>
</html>
```

Figure 33. The modified HTML file is reflected on GitHub

3.2. Make changes on GitHub directly.

Step 1: Click on the hyperlink of the file that you wish to modify. In this case, click on index.html.

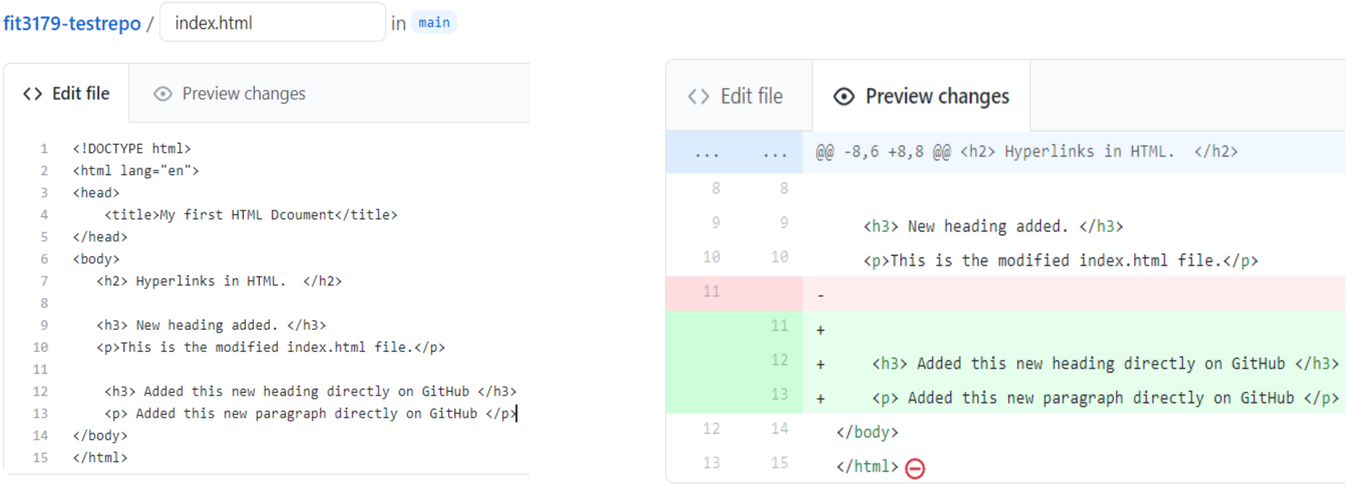
Step 2: Click on the button ✎ to edit the raw HTML code on GitHub.


poojlipop1124 Index.html file modified.
Latest commit e3f74f2 3 minutes ago
History
1 contributor
13 lines (11 sloc) | 242 Bytes
Raw
Blame

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>My first HTML Dcoument</title>
```

Figure 34. Opening GitHub file in Edit mode.

Step 3: GitHub will open the file in edit mode to add new lines of code to the HTML document. It will also show the preview of all the lines that have been modified (added or removed).



```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>My first HTML Dcoument</title>
</head>
<body>
   <h2> Hyperlinks in HTML.  </h2>

   <h3> New heading added. </h3>
   <p>This is the modified index.html file.</p>

    <h3> Added this new heading directly on GitHub </h3>
    <p> Added this new paragraph directly on GitHub </p>
</body>
</html>
```

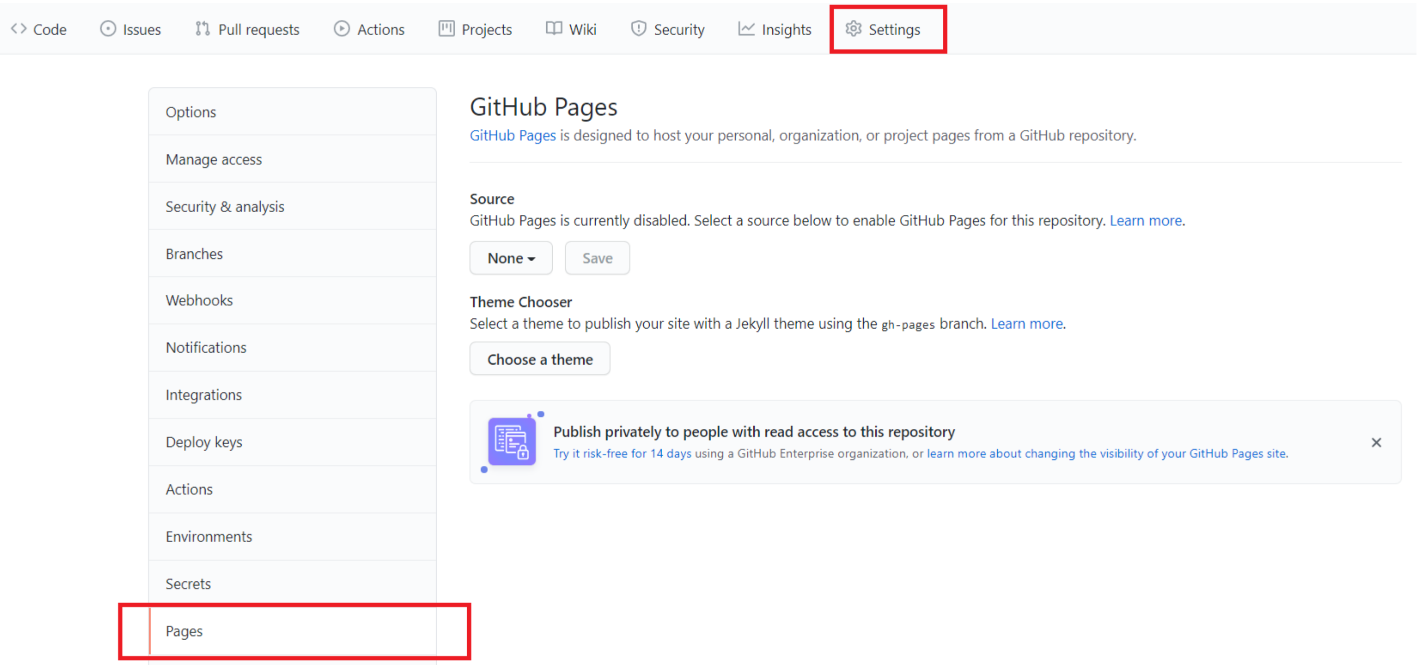
```
@@ -8,6 +8,8 @@ <h2> Hyperlinks in HTML.  </h2>

   <h3> New heading added. </h3>
   <p>This is the modified index.html file.</p>
-
+
+    <h3> Added this new heading directly on GitHub </h3>
+    <p> Added this new paragraph directly on GitHub </p>
 </body>
 </html>
```

Figure 35. Editing files directly on GitHub and previewing changes

Step 4: Commit the changes and click on the **Commit changes** button.

4. Using GitHub Pages to make the webpage publicly accessible.

Step 1: Click on **Settings** in the top bar in the repository. Select the **pages** button on the left panel in the settings menu.



GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.

Source

GitHub Pages is currently disabled. Select a source below to enable GitHub Pages for this repository. Learn more.

None ▾ Save

Theme Chooser

Select a theme to publish your site with a Jekyll theme using the `gh-pages` branch. Learn more.

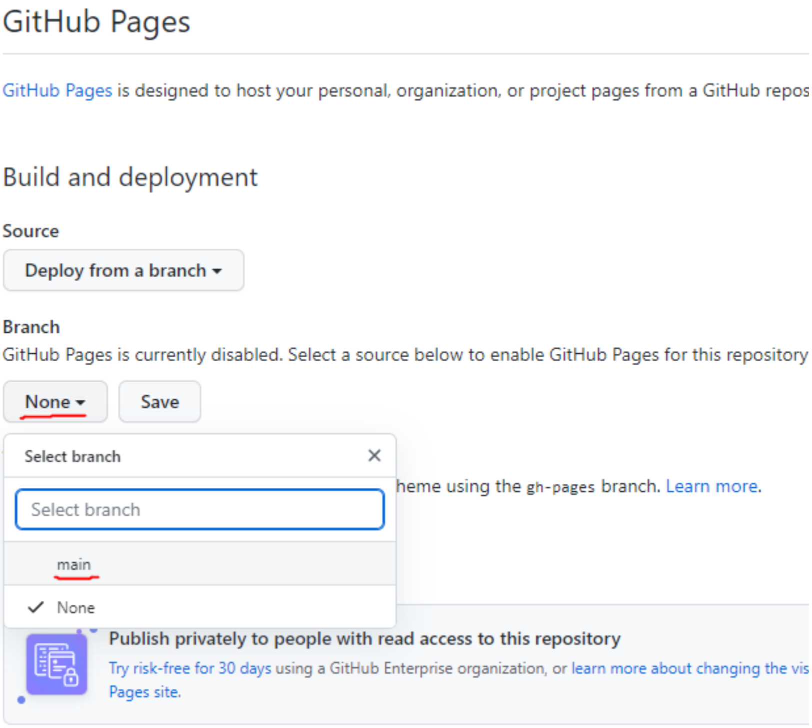
Choose a theme

Publish privately to people with read access to this repository

Try it risk-free for 14 days using a GitHub Enterprise organization, or learn more about changing the visibility of your GitHub Pages site.

Figure 36. Pages settings to make a web page publicly accessible

Step 2: In the Source section, click on the dropdown menu that says None and select the branch that your HTML file has been uploaded. In this case, select the ‘main’ branch. Keep the second dropdown menu as and click on Save.



GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repos

Build and deployment

Source

Deploy from a branch ▾

Branch

GitHub Pages is currently disabled. Select a source below to enable GitHub Pages for this repository

None ▾ Save

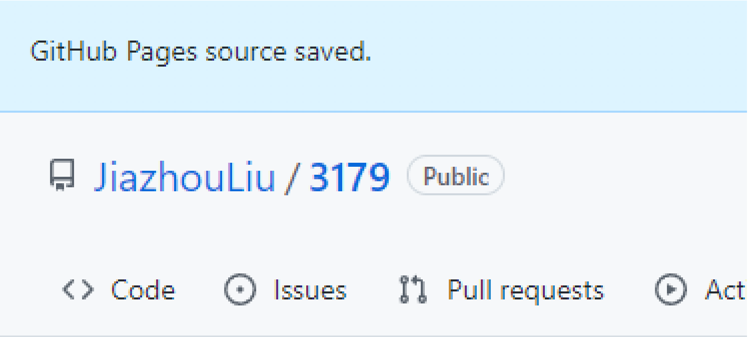
heme using the `gh-pages` branch. Learn more.

Publish privately to people with read access to this repository

Try risk-free for 30 days using a GitHub Enterprise organization, or learn more about changing the vis Pages site.

Figure 37. Select a Branch

Step 3: There will be either a green popup or a blue popup saying whether the site source has been saved or not.

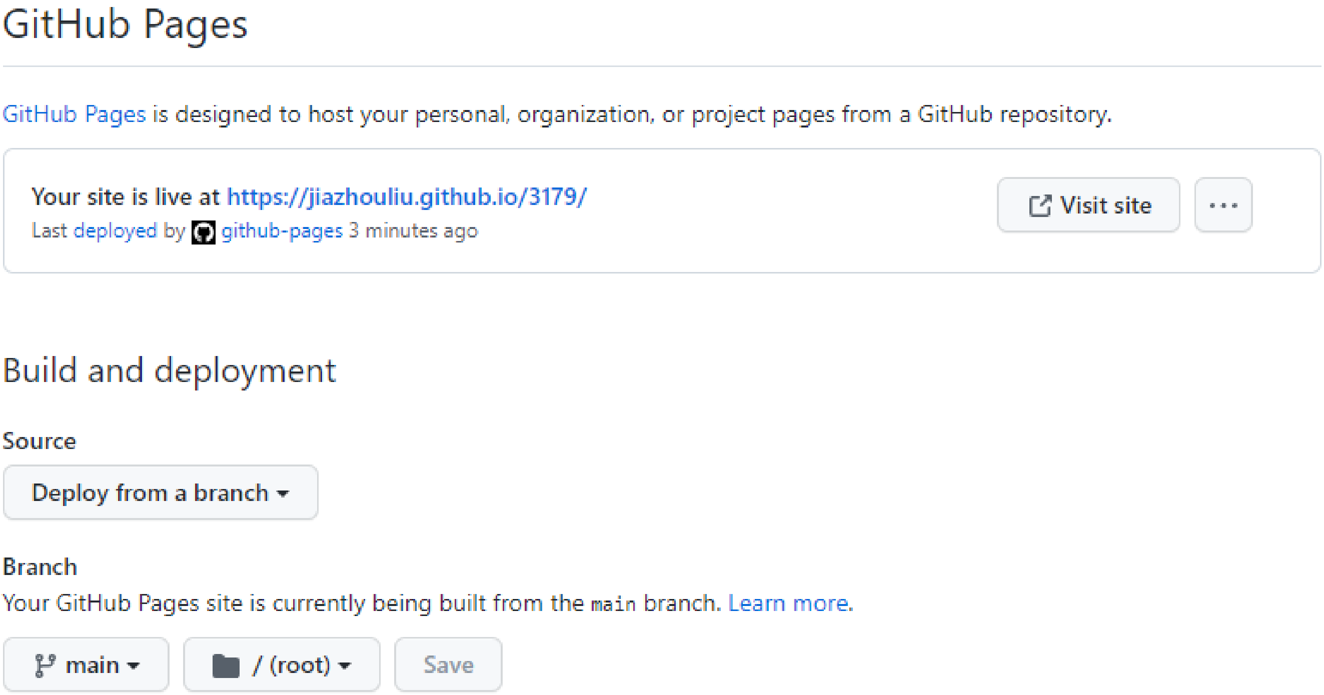


GitHub Pages source saved.

JiazhouLiu / 3179 Public

Figure 38. Blue popup – Site page source is saved

Step 4: **Wait for a couple of minutes**, then **refresh** the page; you should be able to see a notification like in Figure 39. Your repository is now public via this URL. You can click on the Visit site button to check your website. If you don't have an index.html file at the base of your repository, you will see your webpage like in figure 40.



GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.

Your site is live at https://jiazhouliu.github.io/3179/

Last deployed by github-pages 3 minutes ago

Build and deployment

Source

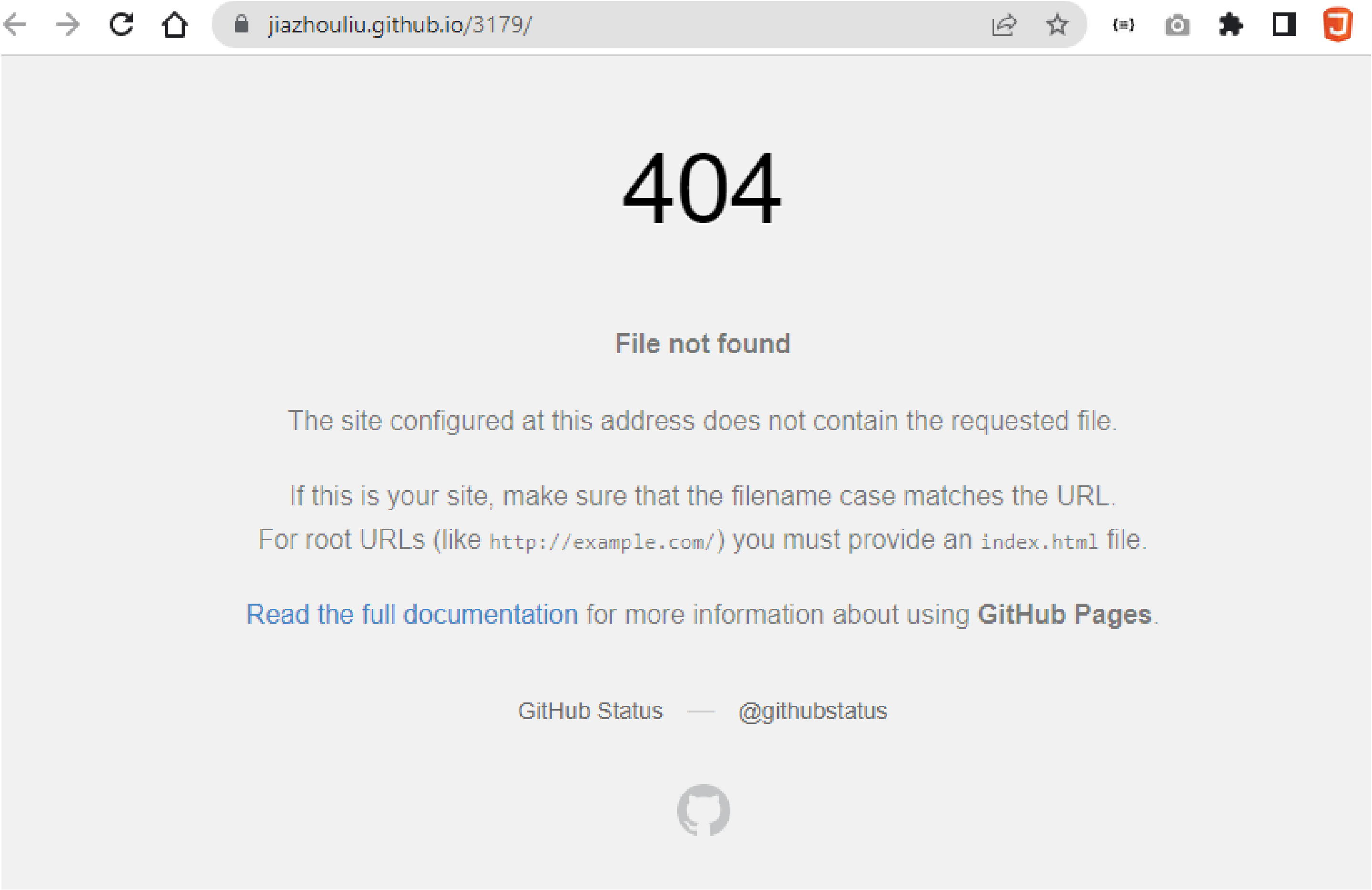
Deploy from a branch

Branch

Your GitHub Pages site is currently being built from the `main` branch. Learn more.

main / (root)

Figure 39. Site URL



jiazhouliu.github.io/3179/

404

File not found

The site configured at this address does not contain the requested file.

If this is your site, make sure that the filename case matches the URL.
For root URLs (like `http://example.com/`) you must provide an `index.html` file.

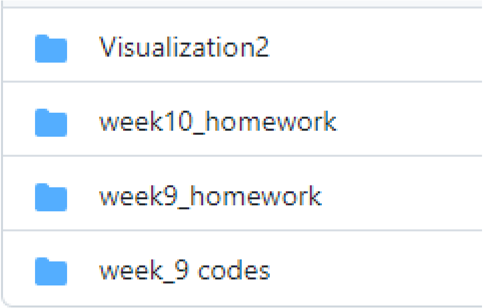
Read the full documentation for more information about using **GitHub Pages**.

GitHub Status — @githubstatus

Figure 40. A website without an index.html

Exercise: Now, try to upload an index.html file and see if your website works correctly.

Note: You will have other homework and studio activities that need to be published on your GitHub. One way to manage them is to create/upload folders in the same repository (see figure 41). The other way is to create different repositories for each activity.



Visualization2
week10_homework
week9_homework
week_9 codes

Figure 41. Different folders in the GitHub repository