

Windows Fundamentals



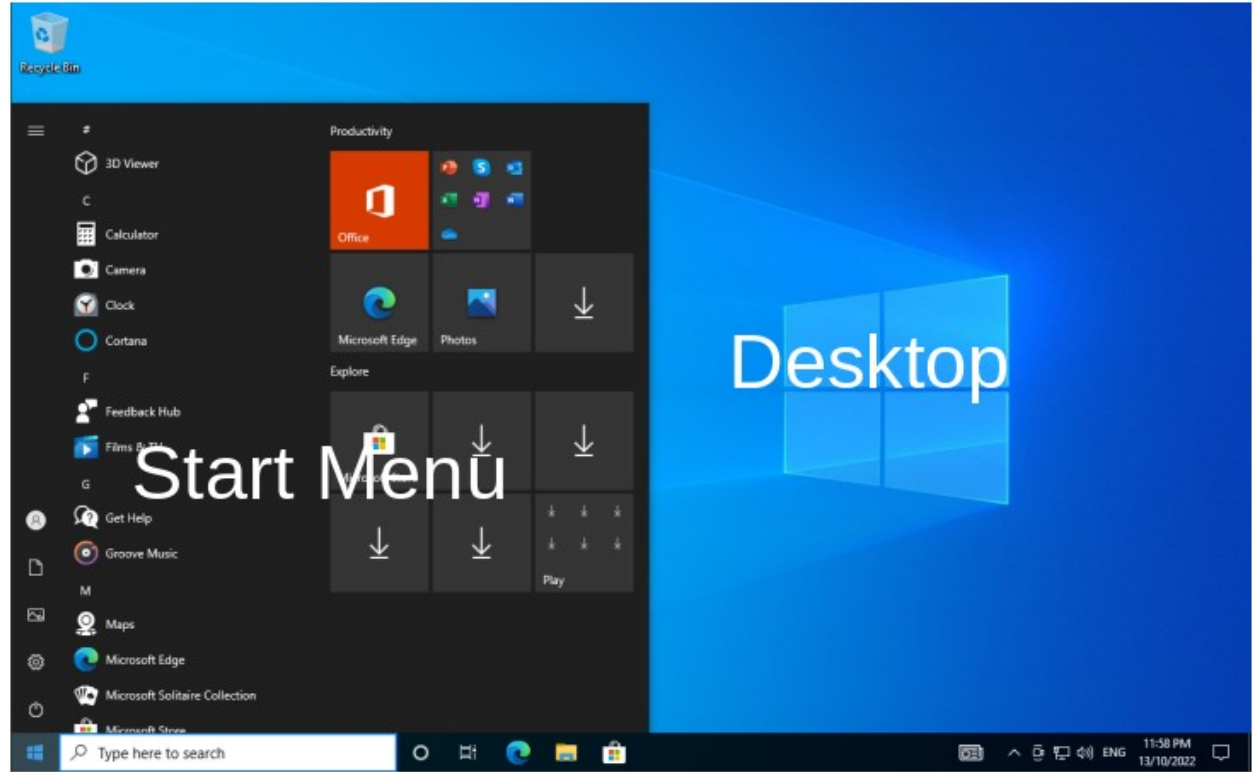
Windows Desktop



- Desktop
- Start Button
- Start Menu
- Task Bar



Windows Key



Start Button

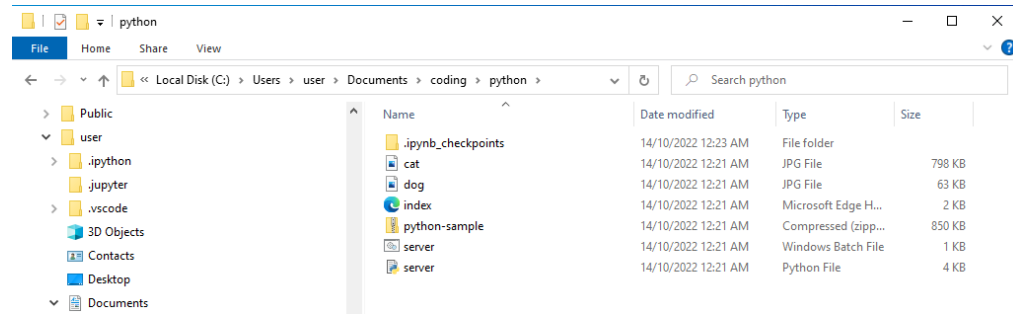
Task Bar

Windows File Explorer

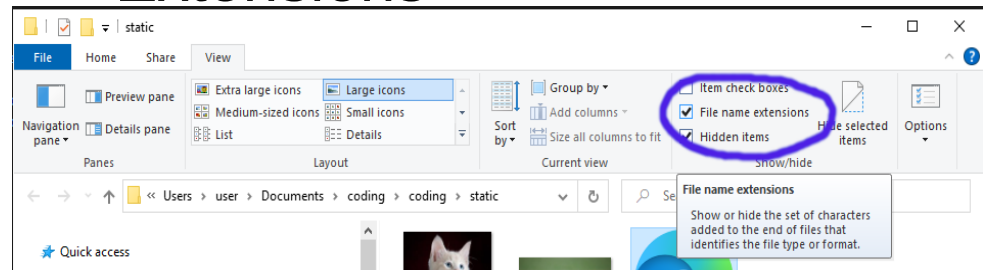


- What is a File?
 - A file is an image, a document, a text file, etc
 - A file also has some characters after a dot at the end, which is known as the file extension. Windows Hides these by default but we want to see them!
- What is a Folder?
 - A folder is a collection of files
- What is a C:\ Drive?
 - The C drive is the 'hard drive' inside your computer. It stores all your files and folders

- File Explorer allows you to Navigate your C:\ drive.



- Enable View File Name Extensions



Files



- There are many types of files including:
 - Text files – these are simple files that have characters you can read, like letters, numbers and symbols
 - ZIP Files – more on those next
 - Images – PNG, JPEG, etc
 - Documents – like word, excel documents. These are files only the related application can read and understand
- Examples of text files include:
 - HTML files – for the internet
 - Javascript
 - Python
- To edit text files we use a Text Editor like Notepad++ or Visual Studio Code.

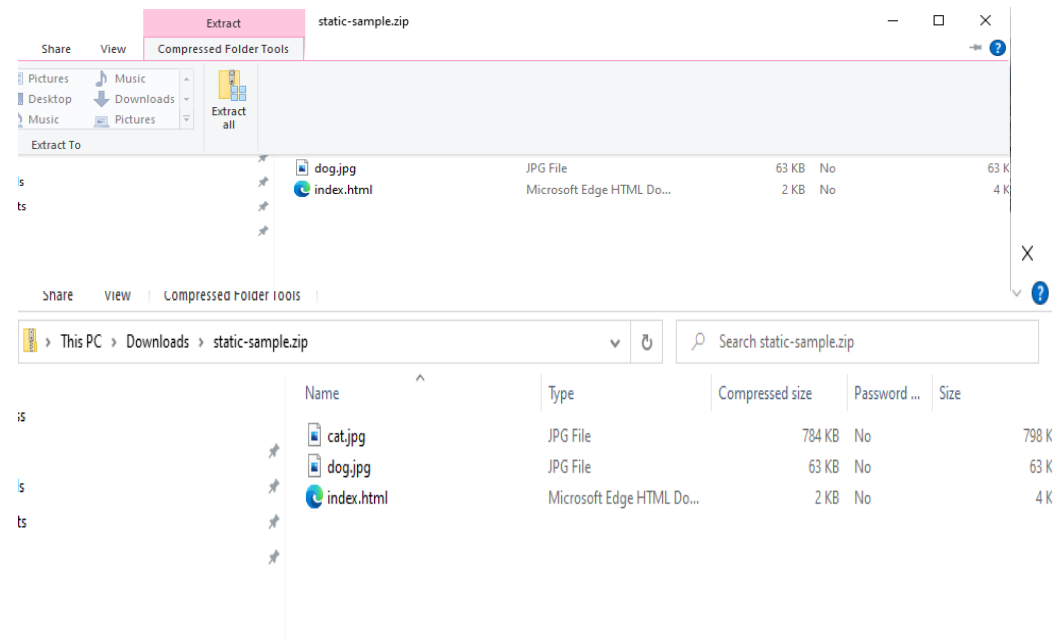
Zip Files



Imagine a ZIP file is a box with books in it, you need to unpack that box to get the books out.

- A zip file is like that, you need to unpack it to get the files out.
- The static-sample.zip from last week is an example of a zip file.

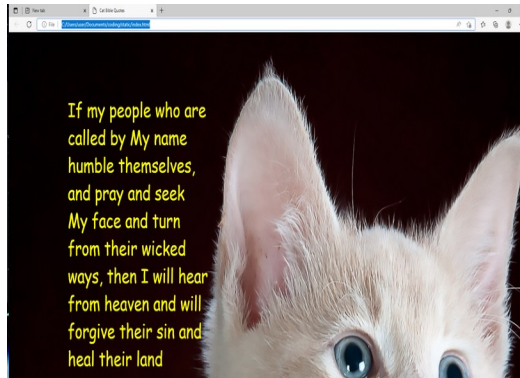
- Windows calls this Unpacking **Extract All**



Web Browser



- A Web Browser is an application to browse the internet
- Popular browsers include:
 - Firefox
 - Chrome
 - Chromium
 - Edge
 - Safari



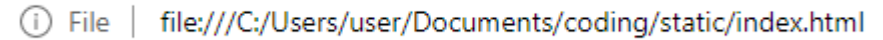
- All websites use a type of file called a HTML file
- In addition web sites are constructed using some additional files such as:
 - Images
 - JavaScript
 - CSS
- I won't go into these here today though!

File Paths and File URLs



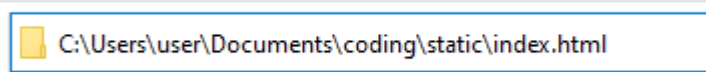
- File Explorer and Browsers have different ways of referencing local files and folders.
- A browser uses a File URL
- File Explorer uses a File path

- A File URL looks a lot like a File Path, except the slashes are different!
- The File URL:



File | file:///C:/Users/user/Documents/coding/static/index.html

- The File Path:



C:\Users\user\Documents\coding\static\index.html

Browser URLs



- Browsers use URLs for the internet too
- They look a bit different to File URLs though.
- There are few important parts to a URL:
 - The Domain Name
 - The Path
 - Query Parameters

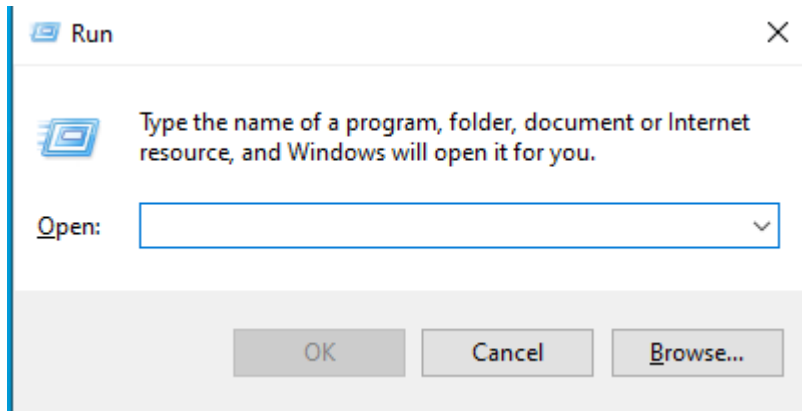
<https://gbc.pellcorp.com/installers/?type=vege&name=carrot>

- The important parts are:
 - **gbc.pellcorp.com** is the domain name
 - **/installers** is the path
 - **type=vege&name=carrot** is the query string, and its everything past the ? Of the URL.
- Urls can have ports too:
 - <http://localhost:8080/quote?type=vege&name=carrot>
 - **localhost** is the domain
 - **8080** is the port
 - **/quote** is the path

Windows Run Command



- Remember the Windows Key?
- Windows Key and the R key give you a Run Command window
- You can use it to run applications if you know their name.
- Lets start Notepad using the Run Command.
- Type 'notepad' into the Run window and hit the Enter / Return key to start notepad



Windows Terminal



- The CMD terminal is where you can run applications by typing their name
- Use the Run Command window, type 'cmd' and hit enter.
- With Terminal you can navigate your C:\ drive just like with File Explorer
- Some common commands include:
 - dir – to display folder contents (give it a try, type 'dir' by itself)
 - cd <folder name> to change to a different folder
 - type <filename> - to display what is inside a file

```
Command Prompt
C:\Users\user>dir
Volume in drive C has no label.
Volume Serial Number is 2005-35ED

Directory of C:\Users\user

14/10/2022  02:23 AM  <DIR>          .
14/10/2022  02:23 AM  <DIR>          ..
14/10/2022  02:23 AM  <DIR>          .vscode
13/10/2022  11:55 PM  <DIR>          3D Objects
13/10/2022  11:55 PM  <DIR>          Contacts
14/10/2022  02:21 AM  <DIR>          Desktop
14/10/2022  02:53 AM  <DIR>          Documents
14/10/2022  01:47 AM  <DIR>          Downloads
13/10/2022  11:55 PM  <DIR>          Favorites
13/10/2022  11:55 PM  <DIR>          Links
13/10/2022  11:55 PM  <DIR>          Music
13/10/2022  11:56 PM  <DIR>          OneDrive
13/10/2022  11:55 PM  <DIR>          Pictures
13/10/2022  11:55 PM  <DIR>          Saved Games
13/10/2022  11:55 PM  <DIR>          Searches
14/10/2022  12:05 AM  <DIR>          Videos
               0 File(s)                0 bytes
               16 Dir(s) 22,318,632,960 bytes free

C:\Users\user>
```

Windows Terminal Cont.

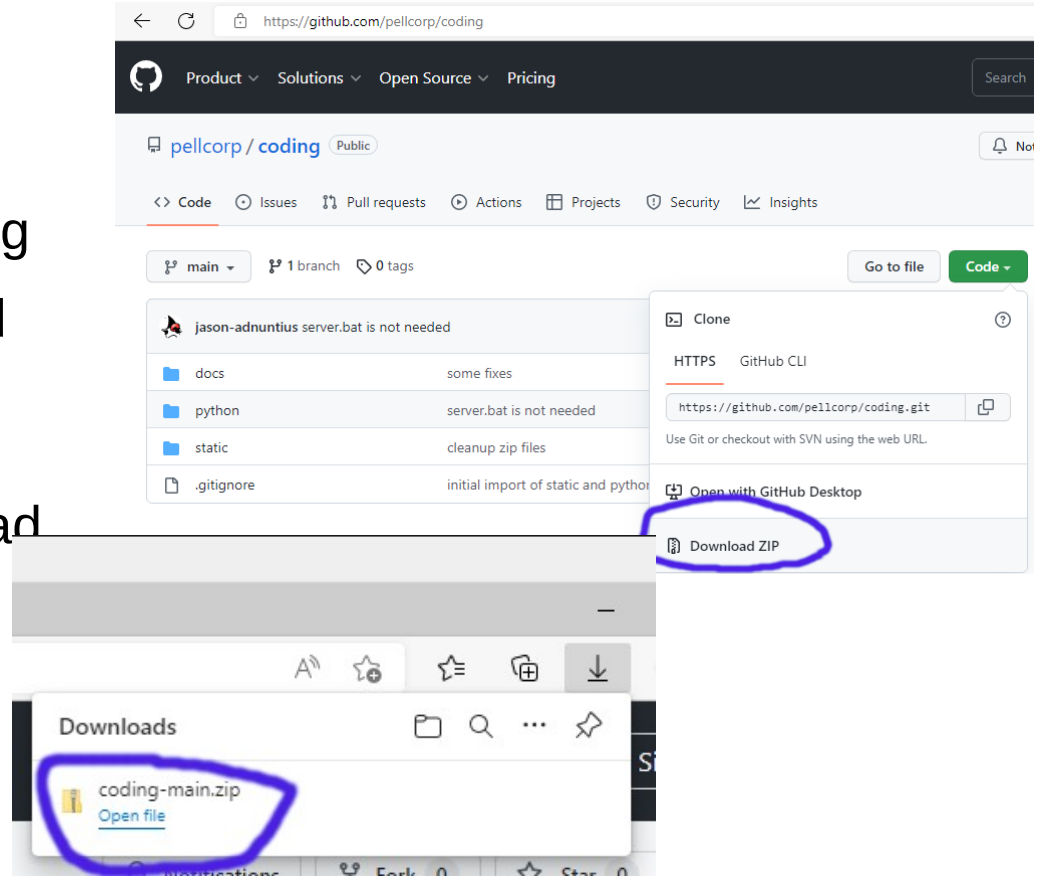


- Exercises
 - change to `c:\windows`
 - Display a list of the files in the `c:\windows` folder
 - List all files in `c:\windows` that have a .exe extension (this might be tricky for some of you, google might help)
 - Display the contents of the win.ini file
 - Change to your home folder
 - Display a list of all files in your home folder

Getting the Sample Code



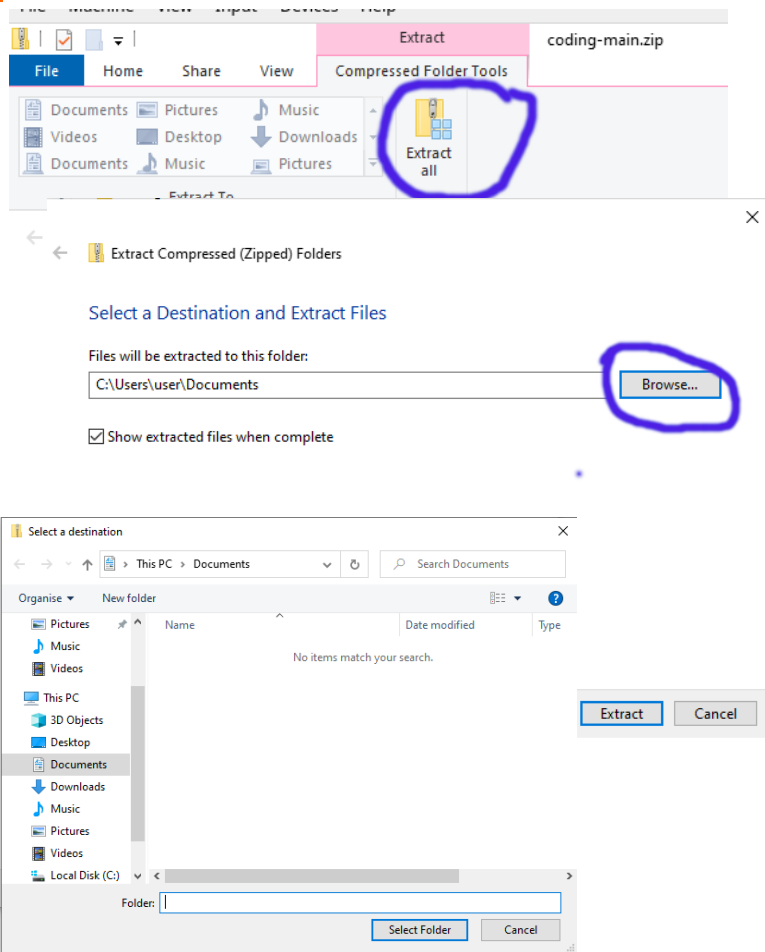
- Open Chrome or Edge and navigate to:
<https://github.com/pellcorp/coding>
- Click the *green* **Code** button and then the **Download ZIP** button
- Click **open file** for **coding-main.zip** in the browser download window.



Getting the Sample Code Cont.



- Click the Extract all button
- When Prompted to **Select a Destination and Extract Files**, click the **Browse...** button
- And choose your *School Drive* Folder
- Click Extract



Visual Studio Code (VSC)

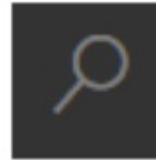


- Visual Studio Code is also a text editor
- But it also makes it easy to run our python scripts directly.
- There a few important parts of Visual Studio Code you should familiarise yourself with.

- Important buttons:



Explorer – Like File Explorer



Search – Search in Files




Extensions – Install Extensions

- Don't worry too much about the others for now

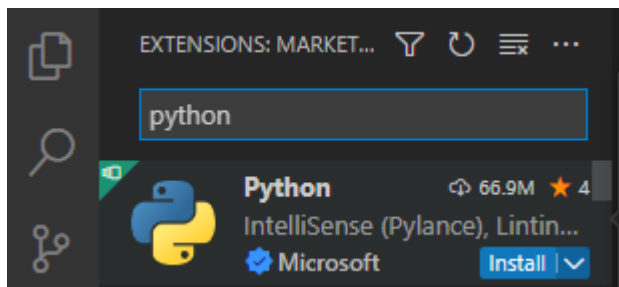
VSC: Add the Python Extension



- Start up Visual Studio Code
- Click the Extensions  button
- Search for **python** and click the install button


And then Wait for it to finish *installing*

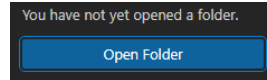
And that is it, once its done we will be able to do some python coding!



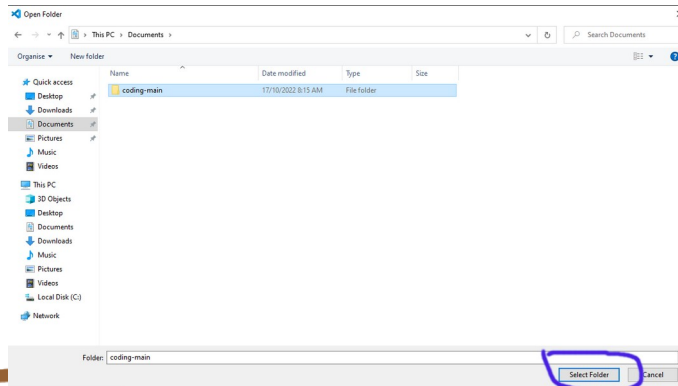
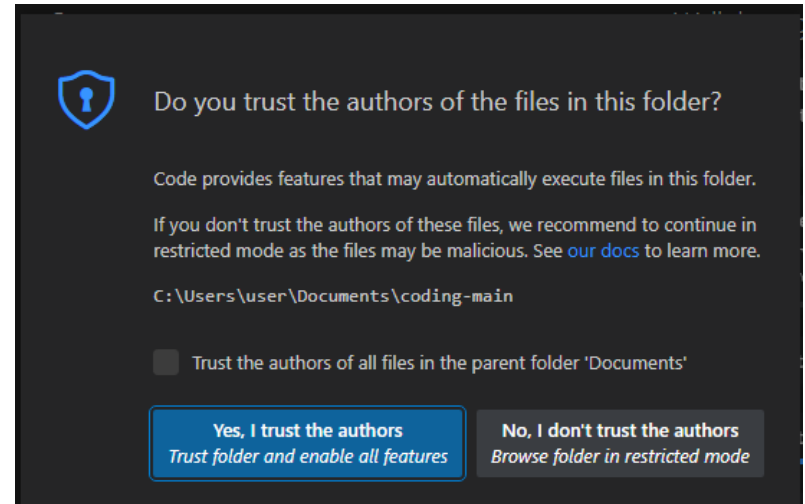
VSC: The Sample Code



- Click the Explorer  button
- Click the Open Folder button
- Navigate to the **coding-main** folder you extracted earlier into your *School Drive* Folder
- Click **Select Folder**



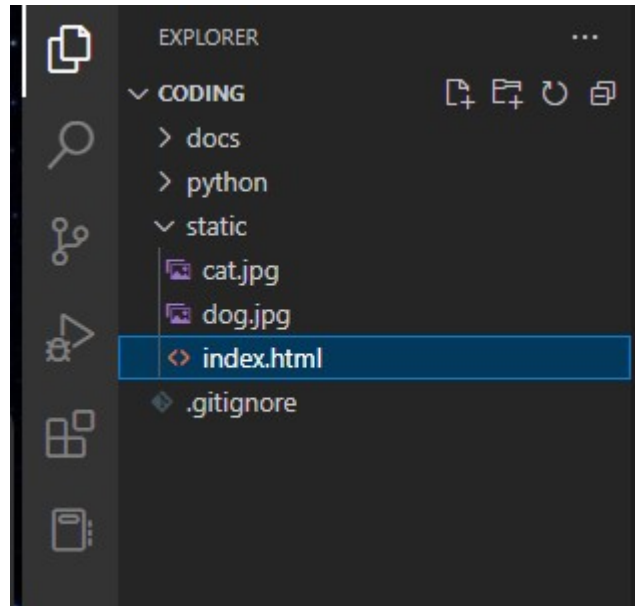
- In the next window, Click the Yes, I trust the authors button.



VSC: The Sample Code Cont.



- You should see this now:



- A handy feature of VSC is to Reveal in File Explorer.
- Right click on the static index.html and click **Reveal in File Explorer**

