Diary –

First session:

Problems – Learning to set up venv with python, had to do a clean install and set everything up fresh, but got it to work (had a few different python versions for some reason so wanted to clean it up).

Researched appropriate libraries that exist for the problem, requests is a good library for scraping raw HTML from web pages, BeautifulSoup has good functions to parse that HTML, for this project I needed lines containing data-src, learned this after analysing the data returned for what I wanted (wallpaper images). Had to put this inside a try/except to ensure that I could handle any errors thrown by trying to append an item that didn’t contain item=’data-src’.

Using some simple string formatting (split etc) I constructed the direct image link from the webpage and made a list of all the ones of a given category.

Second session – Picking a random item from the list of image URLs using the random library. Learning how to download images to a local file and where they will be saved so that I can use ctypes to set the desktop wallpaper to this image. Also refactored to two separate files here, a util file containing my functions and a main file that calls these (cleaner for me, easier to read and debug if problems went wrong).

Managed to download file using requests and shutil setting the filename to the last part of the URL provided. Figuring out now where it is being saved, I assume somewhere in Local. (I was wrong, it saved directly to my user folder. Can I specify a different location? Also, pictures are too low quality to use as background.

Learned that the quality of the image link I was using was too low. Need to download from their page somehow. Webpage has a HD version I just wasn’t scraping from the right place, easy fix as their URLs are well standardised. Simply change the part of the URL from /images/high/ to /images/hd/.

After checking a few different images the quality is right, but some are in portrait orientation instead of landscape. Need to see if there is a way to rotate the image if the height is greater than the width.

Using os.path.join to set the place that files are saved to the picture directory. Checking to see if a wallpapers folder exists, if it does then save to it, if not then create it then save to it.

One line of ctypes sets the desktop wallpaper when I give it an absolute path, now I just need to get all the information to dynamically set the image I just downloaded as the desktop.

Got the path by feeding in the original wallpaper URL and getting the image name this way. Not a fan of this method because it couples the methods together a little more than I’d like but it will do for now.