VIRTUAL ENVIRONMENT

- FOLDER MANAGEMENT
- FILE MANAGEMENT BY PYTHON
- FOLDER PRIORITY

OPERATING SYSTEM PROJECT

GROUP MEMBERS

FAIZAN MUNSAF (BCSM-F19-257)

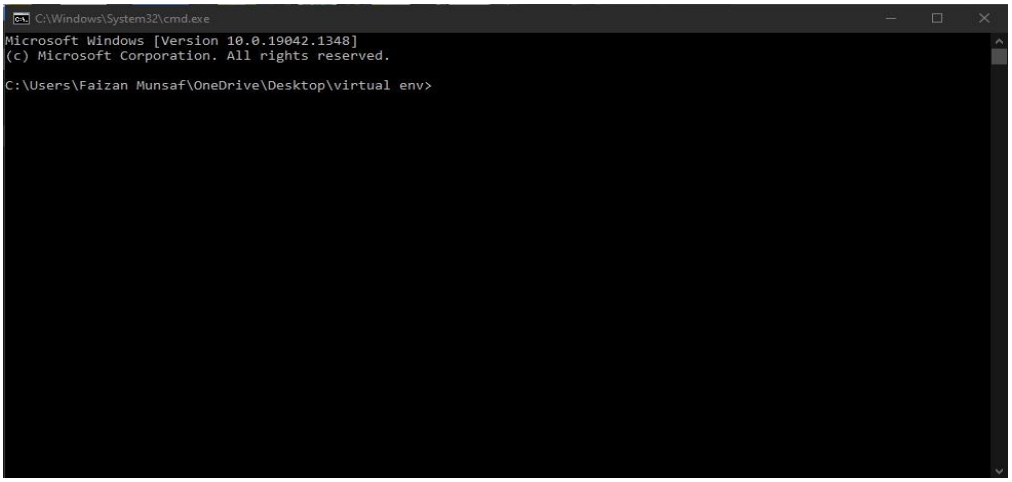
GHANIA IFTIKHAR (BCSM-F19-530)

VIRTUAL ENVIRONMENT

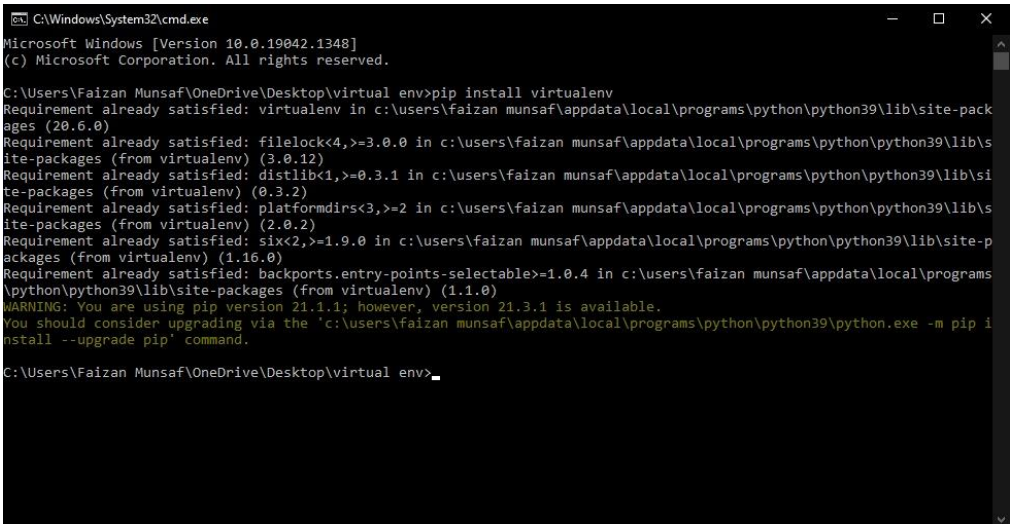
A virtual environment is an isolated Python environment where a project's dependencies are installed in a different directory from those installed in the system's default Python path and other virtual environments. Dependency managers are tools that enable easy management of a project's dependencies.

We are creating a virtual environment using cmd python

Lets open cmd through that folder



First of all we need to install virtualenv in our system which we did already download

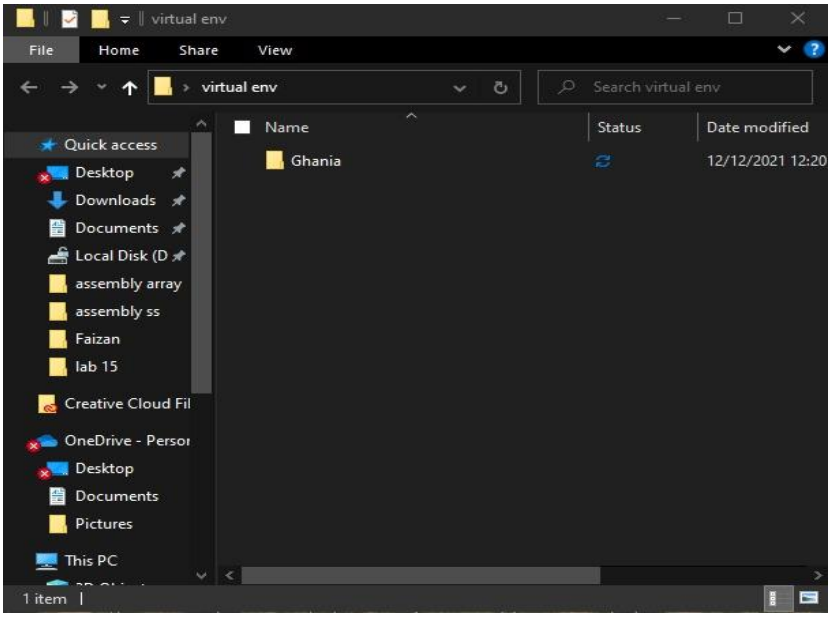


Through writing virtualenv filename the virtual environment create in our pc

```
C:\Users\Faizan Munsaf\OneDrive\Desktop\virtual env>virtualenv Ghania
created virtual environment CPython3.9.5.final.0-64 in 2659ms
  creator CPython3Windows(dest=C:\Users\Faizan Munsaf\OneDrive\Desktop\virtual env\Ghania, clear=False, no_vcs_ignore=Fa
lse, global=False)
  seeder FromAppData(download=False, pip=bundle, setuptools=bundle, wheel=bundle, via=copy, app_data_dir=C:\Users\Faizan
 Munsaf\AppData\Local\pypa\virtualenv)
    added seed packages: pip==21.3.1, setuptools==58.5.3, wheel==0.37.0
  activators BashActivator,BatchActivator,FishActivator,PowerShellActivator,PythonActivator,XonshActivator

C:\Users\Faizan Munsaf\OneDrive\Desktop\virtual env>
```

Check folder has been created

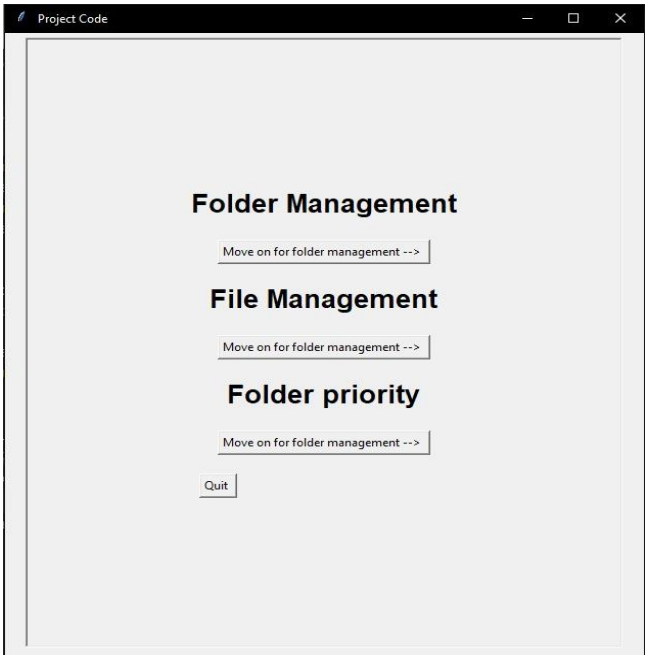


Now, we are working on virtual environment.

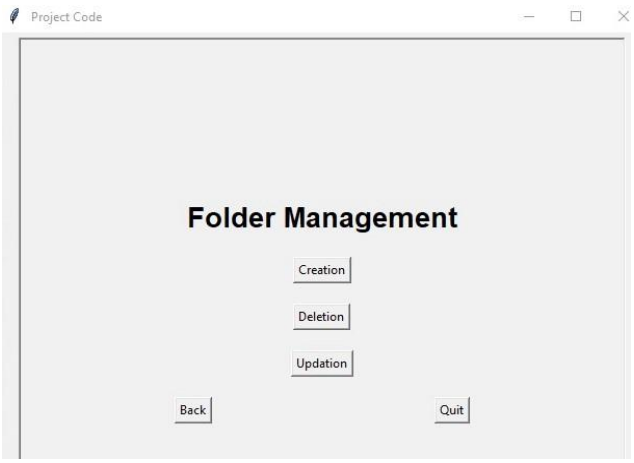
```
C:\Users\Faizan Munsaf\OneDrive\Desktop\virtual env>.\Ghania\Scripts\activate

(Ghania) C:\Users\Faizan Munsaf\OneDrive\Desktop\virtual env>
```

- Folder Management
- File Management
- Folder Priority



FOLDER MANAGEMENT

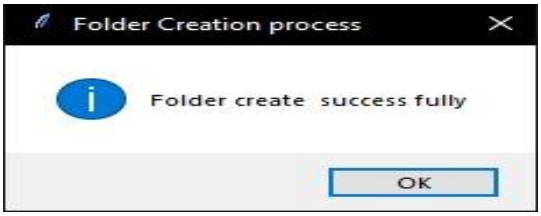


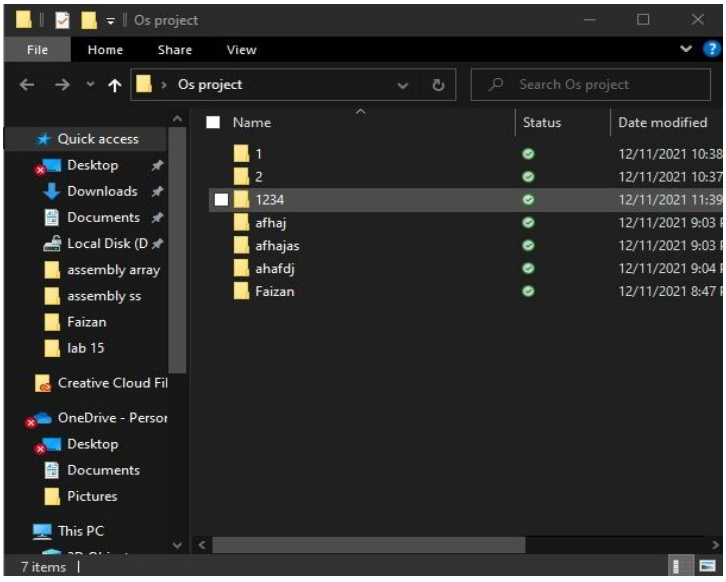
We are Managing folders by using **python**

- We are Installing Folders for Program Files
- We are Creating Folders in a Logical Hierarchy.
- We are adding Nest Folders Within Folders
- We are Following the Folder Naming Conventions.
- We are Updating the folders.

CREATION OF FOLDER :

We are creating a folder with the name 1234

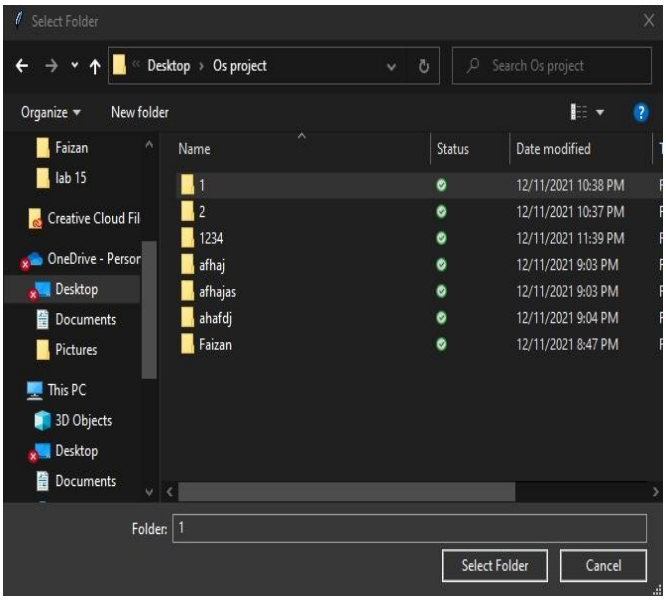


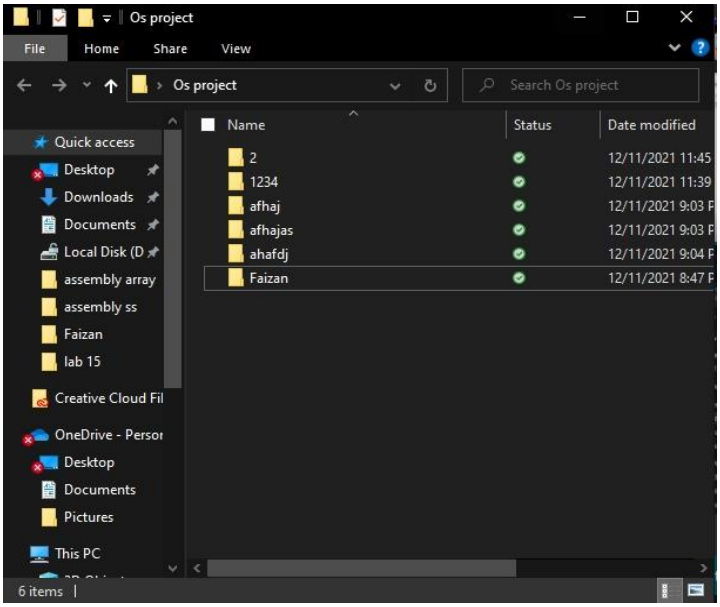


DELETION OF FOLDER :

First of all select the folder which is to be deleted. Here, we are selecting folder named as 1.Delete it.

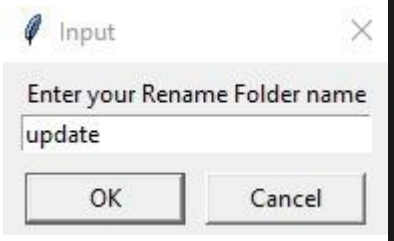
In the second picture folder(1) has been de

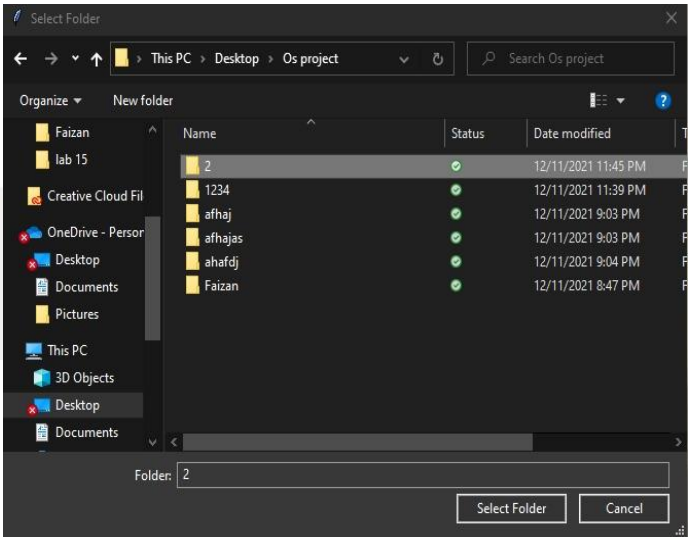


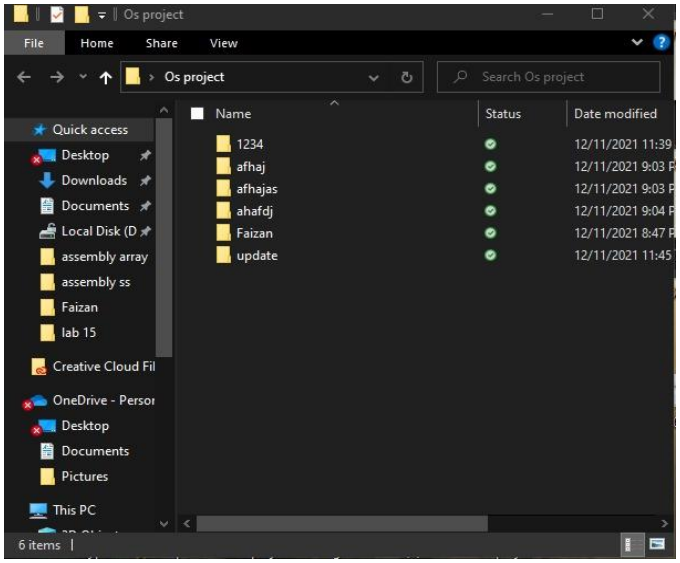


UPDATION OF FOLDER:

We have selected a folder named as 2. Now rename it.





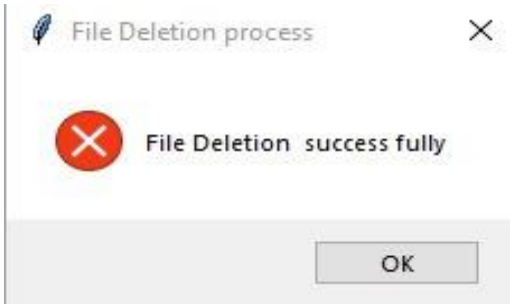


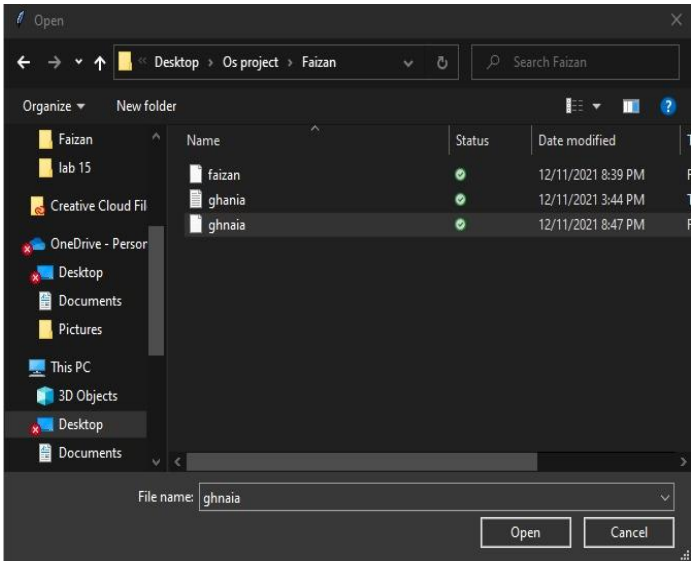
FILE MANAGEMENT

- We are Creating new files.
- We are Storing, arranging, or accessing files on a disk.
- We are Displaying the files.
- We are Adding and editing the data in files.
- We are Moving files from one location to another.
- We are Sorting files according to the priority scheduling.
- We are Updating files.

DELETION OF FILE :

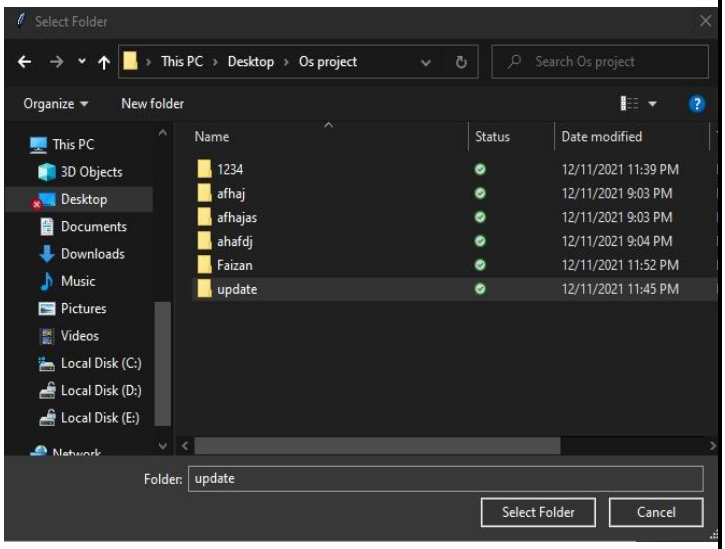
Select a file for deletion

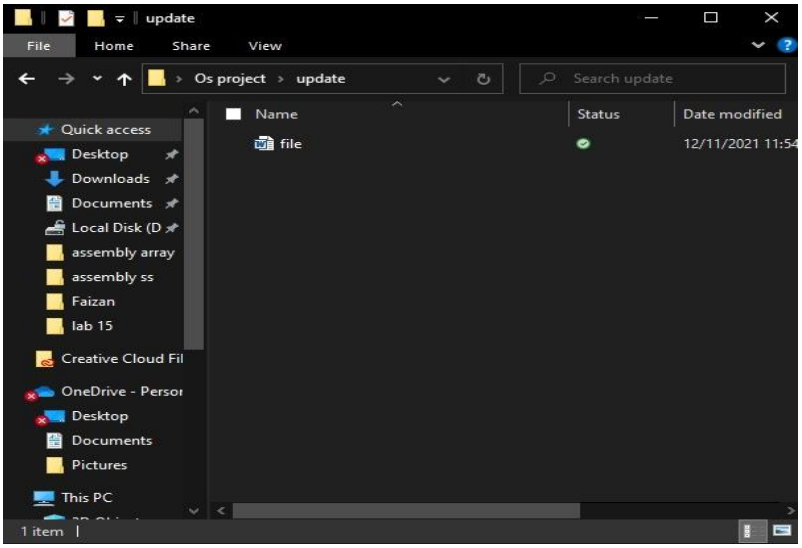




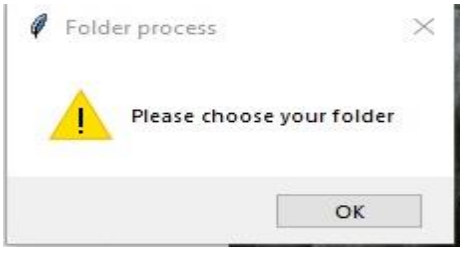
CREATION OF FILE :

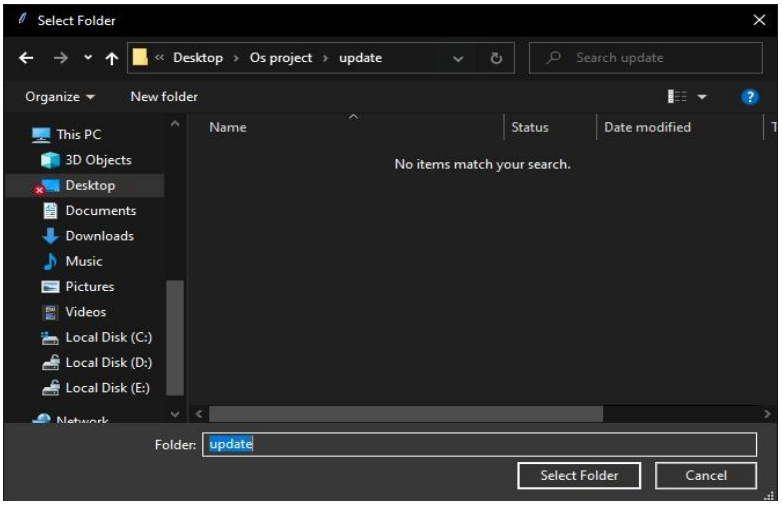
Select a folder for creating new file in it. Now, create a file in it. File named as file has been created in the folder.

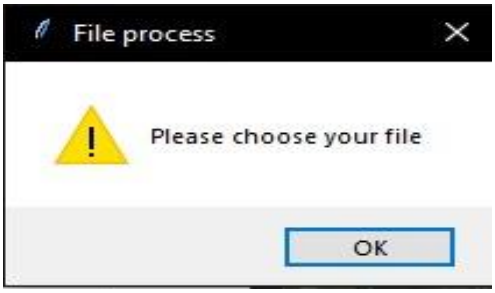


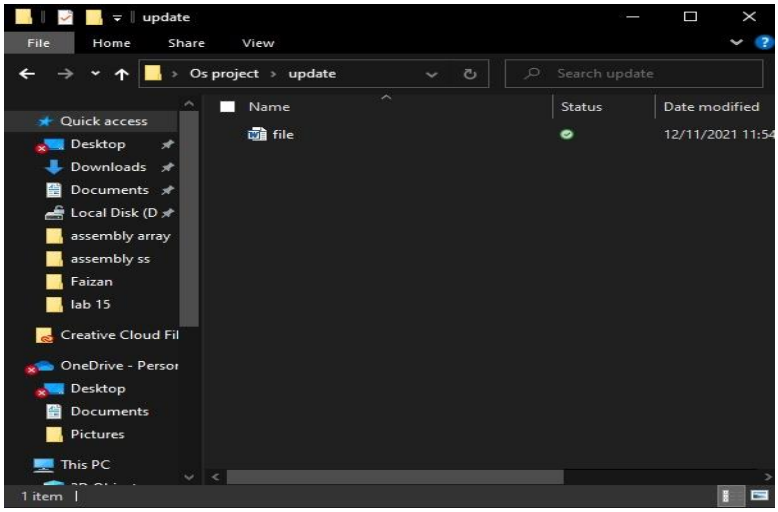


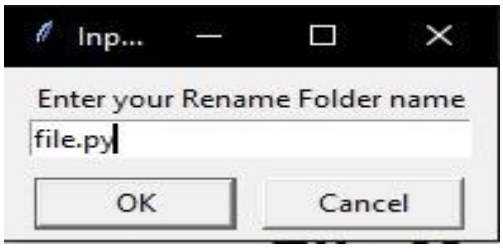
UPDATING A FILE :

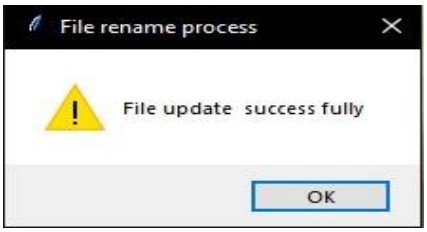




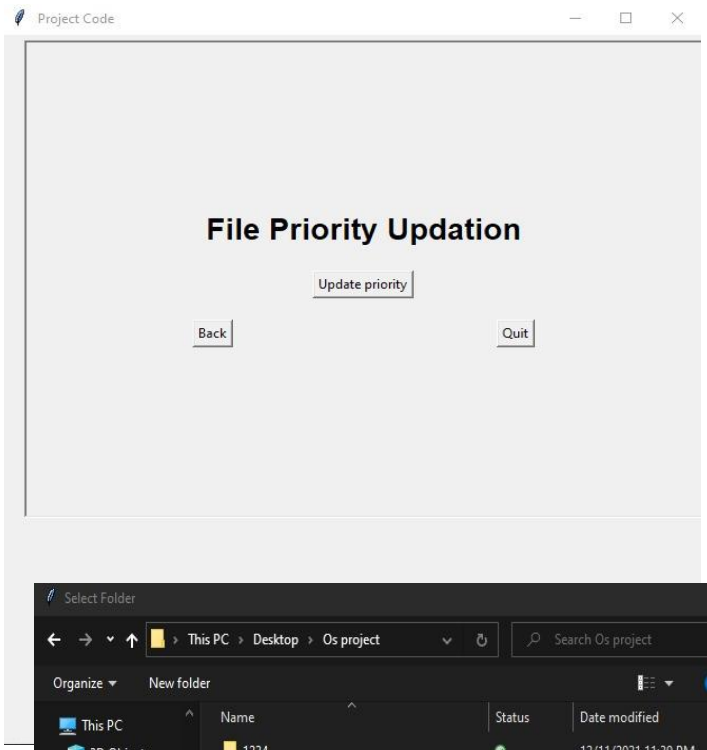






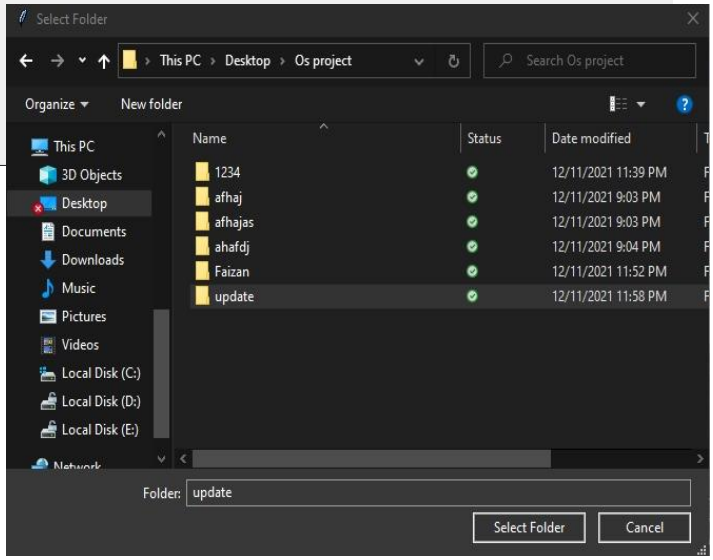


PRIORITY ALGORITHM



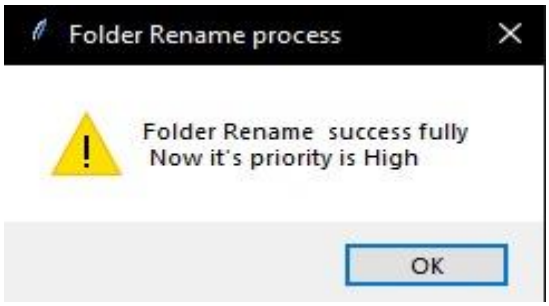
We are using priority scheduling algorithm, using condition **higher the number of files in a folder will have higher priority.** We are using auto rename system. The folder which will have higher priority will be on the top list.

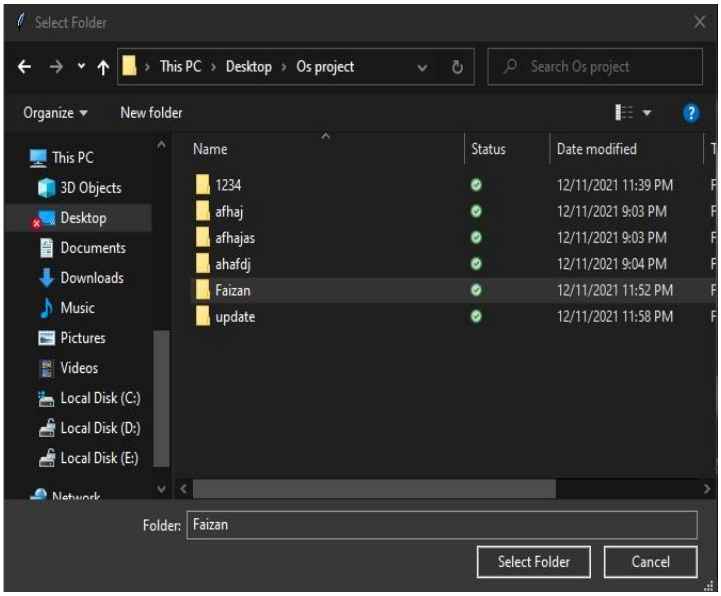
Lets, we choose first file who had a number of file. Like here we are choosing a folder named as update.



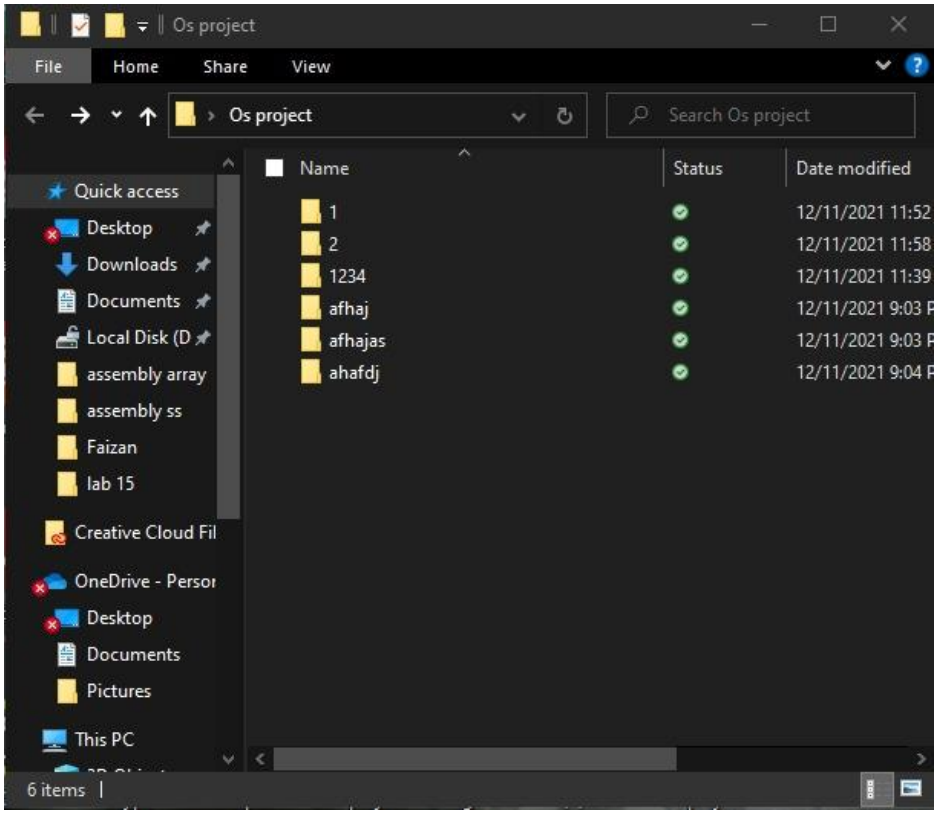
Now, we are choosing second folder.

Here we are going to check which folder have higher priority. It will count automatically the numbers of files in the folder. Now, we are applying priority algorithm on it. From both of them the folder which contain higher numbers of file will get higher priority.





Now it will tell the priority by renaming them. Like 1 is showing the higher priority folder.




```
def priority_algo():
    try:
        location = "C:\\Users\\Faizan Munsaf\\OneDrive\\Desktop\\Os project\\"
        path1 = fd.askdirectory()
        path = fd.askdirectory()
        count1 = count = 0
        inc = 0
        for f1 in os.listdir(path1):
            if os.path.isfile(os.path.join(path1, f1)):
                count1 += 1


        for f in os.listdir(path):
            if os.path.isfile(os.path.join(path, f)):
```

```
            count += 1
        print(f"{Path(path).stem} : {count} "
              f"\n{Path(path1).stem} : {count1}")
        if count >= count1:
            old_name = Path(path).stem
            old = os.path.join(location, old_name)
            inc += 1
            new_name = str(inc)
            new = os.path.join(location, new_name)


            os.renames(old, new)


            old_name1 = Path(path1).stem
            old1 = os.path.join(location, old_name1)
            inc += 1
            new_name1 = str(inc)
            new1 = os.path.join(location, new_name1)


            os.renames(old1, new1)
            tsmg.showwarning("Folder Rename process", "Folder Rename  success fully \n Now it's priority is
High")


        else:
            old_name1 = Path(path1).stem
            old1 = os.path.join(location, old_name1)
```

```
        inc += 1

        new_name1 = str(inc)

        new1 = os.path.join(location, new_name1)



        os.renames(old1, new1)



        old_name = Path(path).stem

        old = os.path.join(location, old_name)

        inc += 1

        new_name = str(inc)

        new = os.path.join(location, new_name)



        os.renames(old, new)

        tsmg.showwarning("Folder Rename process", "Folder Rename  success fully \n Now Folder priority is change")

    except:

        tsmg.showerror("Folder Rename process", "There is any where else")
```