Assignment -10

1.How do you distinguish between shutil.copy() and shutil.copytree()?

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| shutil.copy() | shutil.copytree() |
| **shutil.copy()** is used to copy a single file from the source (**src**) to the destination (**dst**). | **shutil.copytree()** is used to recursively copy an entire directory and its contents (including subdirectories) from the source directory (**src**) to the destination directory (**dst**). |
| It creates a new file at the destination with the same content as the source file. | It creates a new directory at the destination with the same structure and content as the source directory. |

2. What function is used to rename files??

Ans2 – you can use os.rename() function in python to rename a file.

3. What is the difference between the delete functions in the send2trash and shutil modules?

Ans3- the key difference is that **send2trash** moves files and directories to the system's trash or recycle bin, providing a safety net for recovering deleted items, while **shutil** directly and permanently deletes files and directories from the file system. You should choose the module and function that best match your desired behavior: safe deletion with the possibility of recovery (**send2trash**) or permanent deletion (**shutil**).

4.ZipFile objects have a close() method just like File objects’ close() method. What ZipFile method is equivalent to File objects’ open() method?

Ans4- The equivalent method in the **ZipFile** class to the **open()** method for regular file objects is **ZipFile()** itself. You use the **ZipFile()** constructor to create a **ZipFile** object that represents a ZIP archive and allows you to work with the contents of the archive.

5. Create a programme that searches a folder tree for files with a certain file extension (such as .pdf or .jpg). Copy these files from whatever location they are in to a new folder.

import os

import shutil

def copy\_files\_with\_extension(source\_folder, destination\_folder, extension):

for foldername, subfolders, filenames in os.walk(source\_folder):

for filename in filenames:

if filename.endswith(extension):

source\_path = os.path.join(foldername, filename)

destination\_path = os.path.join(destination\_folder, filename)

os.makedirs(os.path.dirname(destination\_path), exist\_ok=True)

shutil.copy2(source\_path, destination\_path)

print(f"Copied: {source\_path} to {destination\_path}")

source\_folder = '/path/to/source/folder'

destination\_folder = '/path/to/destination/folder'

file\_extension = '.pdf'

copy\_files\_with\_extension(source\_folder, destination\_folder, file\_extension)