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

shutil.copy():

***shutil.copy()*** method in Python is used to copy the content of *source* file to *destination* file or directory

shutil.copytree():

shutil.copytree() method recursively copies an entire directory tree rooted at source (src) to the destination directory

these both functgion comes under shutil module.

1. What function is used to rename files??

**os.rename()** method in Python is used to rename a file or directory.  
This method renames a source file/ directory to specified destination file/directory.

import os

# Source file path

source = 'User/file.txt'

# destination file path

dest = 'User/newfile.txt'

# Now rename the source path

# to destination path

# using os.rename() method

os.rename(source, dest)

print("Source path renamed to destination path successfully.")

ouput:

Source path renamed to destination path successfully.

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

Shutil modules:

Shutil module provides a funciton called as shutil.rmtree() which deletes a directory and all its contents. The other functions with similar functionality are os.remove() -> removes a file, os.rmdir() removes a empty directory. The problem with these functions is once a file is deleted. it will be lost permanently, if a file is deleted accidentally using these methods there is no way we can recover the deleted file

Send2trash:

send2trash module provides a function called send2trash.send2trash() to delete a file/directory. these methods moves the files/directories to trash folder instead of permanently deleting them. hence if a file/folder is deleted accidentally it can be still recovered from trash folder, if is deleted using the send2trash.send2trash() function. send2trash is not included with python standard libary like os & shutil modules. it needs to be installed explicitly using the command “pip install send2trash.”

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

The **zipfile.** **ZipFile() function** is equivalent to the open() function; the first argument is the filename, and the second argument is the mode to open the ZIP file in (read, write, or append).

This is used for zip files.

1. 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(source,destination,extensions):

source **=** os**.**path**.**abspath(source)

destination **=** os**.**path**.**abspath(destination)

**for** foldername, subfolder, filenames **in** os**.**walk(source):

print(f'Folder Name ➞ {foldername}',end**=**'\n\n')

print(f'Sub Folders ➞ {subfolder}',end**=**'\n\n')

print(f'Files ➞ {filenames}',end**=**'\n\n')

**for** filename **in** filenames:

fileName,extension **=** os**.**path**.**splitext(filename)

**if** extension **in** extensions:

targetFile **=** foldername**+**os**.**path**.**sep**+**fileName**+**extension

shutil**.**copy(targetFile, destination)

print(f'Files copied successfully from {source} to {destination}')

extensions **=** ['.pdf','.jpg']

source **=** ‘ExampleSource'

destination **=** ' Example Destination'

Copy(source, destination, extensions)