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

2. What function is used to rename files??

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

4.ZipFile objects have a close() method just like File objects' close() method. What ZipFile method is

equivalent to File objects' open() method?

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.

1. The shutil.copy() function is used to copy a single file from one location to another. The shutil.copytree() function is used to copy an entire directory tree from one location to another.
2. The os.rename() function is used to rename files in Python.
3. The send2trash module moves files and folders to the system trash or recycle bin, while the shutil module's rmtree() function permanently deletes files and folders. The send2trash module provides a way to recover the deleted files, whereas shutil does not.
4. The ZipFile method equivalent to the open() method of a File object is ZipFile() itself. To open a ZIP file, you can use the ZipFile constructor and pass in the path to the ZIP file.
5. Here's an example program that searches for all files with the ".txt" extension in a directory tree and copies them to a new folder:

scss

```
import os

import shutil


def search_and_copy_files(source_dir, target_dir, extension):

    for foldername, subfolders, filenames in os.walk(source_dir):

        for filename in filenames:

            if filename.endswith(extension):

                source_file = os.path.join(foldername, filename)
```

```python
            target_file = os.path.join(target_dir, filename)

            shutil.copy(source_file, target_file)

            print(f'Copied {source_file} to {target_file}')


# Example usage:

source_dir = '/path/to/source/folder'

target_dir = '/path/to/target/folder'

extension = '.txt'

search_and_copy_files(source_dir, target_dir, extension)
```

This program will recursively search for all files with the ".txt" extension in the `source_dir` and copy them to the `target_dir`.

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