

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

Solution 1: The `shutil.copy()` function will copy a single file, while `shutil.copytree()` will copy an entire folder, along with all its contents.

2. What function is used to rename files??

Solution 2: We use the `rename()` method of the `os` module.

- `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.

Return Type: This method does not return any value.

Syntax: `os.rename(source, destination, *, src_dir_fd = None, dst_dir_fd = None)`

Parameters:

- **source:** A path-like object representing the file system path. This is the source file path which is to be renamed.
- **destination:** A path-like object representing the file system path.
- **src_dir_fd (optional):** A file descriptor referring to a directory.
- **dst_dir_fd (optional):** A file descriptor referring to a directory.

```
import os
source = 'File1/file.txt'           # Source file path
dest = 'Mydocuments/newfile.txt'    # destination file path
os.rename(source, dest)
print("Source path renamed to destination path successfully.")
```

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

Solution 3: The `send2trash` functions will move a file or folder to the recycle bin, while `shutil` functions will permanently delete files and folders.

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

Solution 4: 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).

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.

Solution 5: Making the function accept a destination parameter as a second argument, instead of hardcoding `<destination>`, would make it a lot more useful for the future.

```
def moveFileType(folder):
    for folderName, subfolders, filenames in os.walk(folder):
        for filename in filenames:
            if filename.endswith('.jpg'):
                shutil.copy(os.path.join(folderName, filename), '<destination>')
```