1. How do you distinguish between shutil.copy() and shutil.copytree()?
   1. shutil.copy() is used for copying individual files, while shutil.copytree() is used for copying entire directories along with their contents.
   2. shutil.copytree("source\_directory", "destination\_directory")
   3. shutil.copy("source\_file.txt", "destination\_directory")
2. What function is used to rename files??
   1. import os
      1. current\_file\_name = "old\_file.txt"
      2. new\_file\_name = "new\_file.txt"
      3. os.rename(current\_file\_name, new\_file\_name)
3. What is the difference between the delete functions in the send2trash and shutil modules?
   1. send2trash moves files and directories to the recycle bin or trash, providing a safer approach for deleting files, while shutil deletes files and directories permanently from the file system.

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

1. The equivalent method in ZipFile objects to the open() method in File objects is the ZipFile() constructor.
2. 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, file\_extension):

if not os.path.exists(destination\_folder):

os.makedirs(destination\_folder)

# Walk through the source folder tree

for root, dirs, files in os.walk(source\_folder):

for file in files:

# Check if the file has the specified extension

if file.endswith(file\_extension):

source\_file\_path = os.path.join(root, file)

# Construct the destination file path

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

# Copy the file to the destination folder

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

print(f"Copied: {source\_file\_path} -> {destination\_file\_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)