**ADITYA AMIN ASSIGN : 10**

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

shutil.copy() is used to copy a single file from a source path to a destination path. It takes two arguments: the source file path and the destination file path. Example usage:

import shutil

# Copy a file

shutil.copy('source\_file.txt', 'destination\_file.txt')

shutil.copytree() is used to recursively copy an entire directory tree from a source directory to a destination directory. It takes two arguments: the source directory path and the destination directory path. Example usage:

import shutil

# Copy a directory tree

shutil.copytree('source\_directory', 'destination\_directory')

1. What function is used to rename files??

In Python, the os.rename() function is used to rename files or directories.

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

Send2Trash module: The send2trash module is a third-party module that provides a cross-platform way to send files and directories to the trash or recycle bin, instead of permanently deleting them. It is not a part of the Python standard library and needs to be installed separately.

shutil module: The shutil module, on the other hand, is a part of the Python standard library and provides functions for performing various file and directory operations, including copying, moving, and deleting files and directories.

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

The equivalent method to File objects' open() method for ZipFile objects is the ZipFile() constructor, which is used to open and create zip files. The ZipFile() constructor creates a new ZipFile object, which represents a zip file that you can interact with using various methods provided by the ZipFile class.

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

# Function to search for files with a given extension and copy them to a new folder

def search\_and\_copy\_files(src\_folder, dest\_folder, file\_extension):

# Walk through the source folder and its subdirectories

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

for filename in filenames:

# Check if the file has the desired file extension

if filename.endswith(file\_extension):

# Create the destination folder if it doesn't exist

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

os.makedirs(dest\_folder)

# Generate source and destination file paths

src\_file = os.path.join(foldername, filename)

dest\_file = os.path.join(dest\_folder, filename)

# Copy the file to the destination folder

shutil.copy2(src\_file, dest\_file)

print(f"Copied: {src\_file} -> {dest\_file}")

# Example usage

src\_folder = r'C:\path\to\source\folder' # Replace with the path to your source folder

dest\_folder = r'C:\path\to\destination\folder' # Replace with the path to your destination folder

file\_extension = '.pdf' # Replace with the desired file extension

# Call the function to search for and copy files

search\_and\_copy\_files(src\_folder, dest\_folder, file\_extension)