Assignment 10:

## Q1

The shutil.copy() and shutil.copytree() functions in Python's shutil module are used for copying files and directories, respectively.

shutil.copy(src, dst): This function is used to copy a single file from the source location to the destination location. It takes two arguments: the path of the source file (src) and the destination path (dst) where the file will be copied.

shutil.copytree(src, dst): This function is used to copy an entire directory tree from the source location to the destination location. It takes two arguments: the path of the source directory (src) and the destination path (dst) where the directory tree will be copied.

## Q2

The os.rename() function is used to rename files in Python. The os.rename() function takes two arguments: the current name of the file (including the path) and the new name we want to assign to the file (including the path if desired). It renames the file to the new name specified.

## Q3

send2trash: This function from the send2trash module moves a file or directory to the system's trash or recycle bin instead of permanently deleting it.

shutil.rmtree: This function from the shutil module is used to remove a directory and its contents. It permanently deletes the specified directory.

## Q4

The ZipFile method equivalent to File objects' open() method is ZipFile.open(). The ZipFile.open() method takes two arguments: the name of the file to open and the mode in which to open it. The mode can be "r" for read, "w" for write, "a" for append.

## Q5

import os

import shutil

def search\_and\_copy\_files(source\_folder, target\_folder, file\_extension):

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

for file in files:

if file.endswith(file\_extension):

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

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

shutil.copy2(source\_path, target\_path)

print(f"Copied {file} to {target\_folder}")

# Example usage

source\_folder = "/path/to/source/folder"

target\_folder = "/path/to/target/folder"

file\_extension = ".pdf"

search\_and\_copy\_files(source\_folder, target\_folder, file\_extension)