**FSDS MAY BATCH 2022(Python Basics 10)**

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Q1. How do you distinguish between shutil.copy() and shutil.copytree()?

Ans: **shutil.copy()** is used to copy a single file to a target location, while **shutil.copytree()** is used to copy an entire directory and its subdirectories and files to a target location. The latter recursively creates the target directory structure and copies all files in it.

Q2. What function is used to rename files??

Ans: In Python, the **os** module provides the **rename()** function to rename files.

For example:

**import os**

**os.rename("old\_file\_name.txt", "new\_file\_name.txt")**

The rename() function can also be used to move a file from one directory to another, as long as both directories are on the same file system.

Q3. What is the difference between the delete functions in the send2trash and shutil modules?

Ans: The **send2trash** function in the **send2trash** module moves a file or folder to the trash or recycle bin, while the **rmtree** function in the **shutil** module permanently deletes a file or folder.

In other words, the **send2trash** function is a safer option that allows you to recover deleted files if necessary, while **rmtree** is a more powerful and irreversible option for deleting files and folders.

Q4 .ZipFile objects have a close() method just like File objects’ close() method. What ZipFile method is equivalent to File objects’ open() method?

Ans: In Python, the equivalent of the **open()** method for a **File** object in the **ZipFile** module is the **ZipFile** constructor. The **ZipFile** constructor creates a **ZipFile** object, which you can use to access the contents of a ZIP file.

For example:

**import zipfile**

**with zipfile.ZipFile("example.zip", "r") as zip\_file:**

# Access the contents of the ZIP file here

Q5. 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.

Ans:

**import os**

**import shutil**

**def search\_and\_copy(src\_folder, dst\_folder, ext):**

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

**for file in files:**

**if file.endswith(ext):**

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

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

**shutil.copy2(src\_path, dst\_path)**

**src\_folder = '/path/to/src/folder'**

**dst\_folder = '/path/to/dst/folder'**

**ext = '.pdf'**

**search\_and\_copy(src\_folder, dst\_folder, ext)**

This program takes in the source folder path, destination folder path, and the file extension you want to search for as inputs. The **os.walk** function is used to traverse the folder tree and the shutil.copy2 function is used to copy the files from the source to the destination folder. The program copies all files with the specified extension from the source folder and its subdirectories to the destination folder**.**