Python Mini Project – File Sort

**Title:** File Sort

**Packages used:** OS, shutil

**OS Package -** This module provides a portable way of using operating system dependent functionality. If you just want to read or write a file see open(), if you want to manipulate paths, see the os.path module, and if you want to read all the lines in all the files on the command line see the fileinput module. For creating temporary files and directories see the tempfile module, and for high-level file and directory handling see the shutil module.

**Shutil Package -** Python shutil module enables us to operate with file objects easily and without diving into file objects a lot. It takes care of low-level semantics like creating file objects, closing the files once they are copied and allows us to focus on the business logic of our program. Let’s see shutil module in action here.

**Concepts used:** Lists, directory functions, for loops

**Lists -** In Python, list is a type of container in Data Structures, which is used to store multiple data at the same time. Unlike Sets, the list in Python are ordered and have a definite count. The elements in a list are indexed according to a definite sequence and the indexing of a list is done with 0 being the first index.

**Directory Functions -**

* os.path.dirname returns current directory name and
* os.path.realpath returns the canonical path of the specified filename, eliminating any symbolic links encountered in the path.
* os.path.exists returns a boolean value after checking if the specified file path exists.
* os.makedirs creates a directory with the specified name.

**For loops -** A for loop is used for iterating over a sequence (that is either a list, a tuple, a dictionary, a set, or a string). This is less like the for keyword in other programming language and works more like an iterator method as found in other object-orientated programming languages.

**Code:**

import os

import shutil

path = ((os.path.dirname(os.path.realpath(\_\_file\_\_)))+"/")

print(path)

names = os.listdir(path)

print(names)

folder = ['Images', 'Documents', 'Videos', 'Audio']

for i in range(0, 4):

if not os.path.exists(path+folder[i]):

os.makedirs(path+folder[i])

images = ['.png', '.jpg', '.bmp', ' .gif', '.tiff', '.dng', '.bmp']

documents = ['.txt', '.pdf', '.doc', '.xls', '.ppt', '.xml', '.odt', '.ods', '.odp']

videos = ['.avi', '.mp4', '.wmv', '.flv', '.mov']

audio = ['.mp3', '.ogg', '.aac', '.flac', '.wav', '.3gp']

for files in names:

for i in images:

if i in files.lower() and not os.path.exists(path+'Images/'+files):

shutil.move(path+files, path+'Images/'+files)

for i in documents:

if i in files and not os.path.exists(path+'Documents/'+files):

shutil.move(path+files, path+'Documents/'+files)

for i in videos:

if i in files and not os.path.exists(path+'Videos/'+files):

shutil.move(path+files, path+'Videos/'+files)

for i in audio:

if i in files and not os.path.exists(path+'Audio/'+files):

shutil.move(path+files, path+'Audio/'+files)

**Output:**

D:/Desktop/py/

['bell.mp3', 'birb.mp4', 'filesort.py', 'filesort.pyc', 'flood.png', 'IMG\_20161210\_231104.jpg', 'prims.doc', 'small-bell-ring-01a.wav', 'SNARF000.BMP']

