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1 import os
2 import shutil
3
4 # Taking input folder path from User.
5 folder_path = input('Enter the folder path which you want to organize :')
6 checking_exist = os.path.exists(folder_path)
7
8 # Checking valid path.
9
10 if checking_exist == True:
11     print('Path is valid.')
12
13 else:
14     while checking_exist == False or checking_directory == False:
15         print()
16         print('enter valid path!')
17         print('"Ctrl + C if you want to exit loop."')
18         folder_path = input('Enter the folder path which you want to organize :')
19         checking_exist = os.path.exists(folder_path)
20         checking_directory = os.path.isdir(folder_path)
21
22 print(20*'-')
23
24 # Listing folder files.
25
26 listing_directory = os.listdir(folder_path)
27 print(listing_directory)
28
29 print(20*'-')
30
31 # File extensions.
32
33 file_extensions = {
34     "Text": [".txt", ".md", ".csv", ".log", ".json", ".xml"],
35     "Images": [".jpg", ".png", ".gif", ".bmp", ".svg", ".tiff"],
36     "Audio": [".mp3", ".wav", ".aac", ".ogg"],
37     "Video": [".mp4", ".avi", ".mkv", ".mov", ".wmv"],
38     "Documents": [".pdf", ".docx", ".xlsx", ".pptx", ".html", ".rtf"],
39     "Archives": [".zip", ".tar", ".rar", ".7z", ".gz"],
40     "Scripts": [".py", ".sh", ".bat", ".js", ".php"],
41     "Data": [".db", ".sql", ".sqlite", ".h5"],
42     "Executables": [".exe", ".dll", ".bin", ".apk"]
43 }
44
45 extensions_values = list(file_extensions.values())
46
47 # Creating a destination folder.
48 destination_path = input('Enter the destination path for organized folders:')
49
50 # Creating a new folder inside the specified directory
51 new_folder = 'Destination Folder'
52 destination_folder = os.path.join(destination_path, new_folder)
53 if not os.path.exists(destination_folder):
54     making_directory = os.makedirs(destination_folder)

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55     print(f'Destination {destination_folder} created successfully.')
56 else:
57     print(f'Directory {destination_folder} already exists.')
58
59 print(20*'-')
60
61 # Creating sub-folders with file_extension keys.
62 sub_folders = list(file_extensions.keys())
63 for subdir in sub_folders:
64     dir_path = os.path.join(destination_folder, subdir)
65     os.makedirs(dir_path, exist_ok= True)
66     print(f'Sub folders {sub_folders} created successfully.')
67
68 print(20*'-')
69
70 # Match the file based on its extension
71 for file_name in listing_directory:
72     file_path = os.path.join(folder_path, file_name)
73     if os.path.isfile(file_path):
74         file_ext = os.path.splitext(file_name)[1].lower()
75         for category, extensions in file_extensions.items():
76             if file_ext in extensions:
77                 dest_path = os.path.join(destination_folder, category, file_name)
78                 shutil.move(file_path, dest_path)
79                 print(f"Moved '{file_name}' to {dest_path}")
80                 break
```