Working With OS Based Operations

=> In Python, "os" is one pre-defined module.

=> The purpose of os module is that "To perform some os related operations"

=> The Os based operations are

1) Creating Folder / Directory. (mkdir() )

2) Creating Folders Hierarchy. (makedirs() )

3) Removing Folder / Directory. (rmdir() )

4) Removing Folders Hierarchy. (removedirs() )

5) Removing File Name from Folder( remove() )

6) Renaming a Folder/File Name. (rename())

7) List the file names in folder ( listdir() )

1) Creating Folder / Directory

=> For Creating a Folder / Directory, we use mkdir().

=> Syntax: os.mkdir("Folder Name")

=> if the folder name already exists then we get FileExistsError

=> mkdir() can create only one folder at a time and if we try to create folders hierarchy then we get FileNotFoundError.

=> in mkdir(), if we specify any folder name with escape sequence ( \n \u \digits,\t..etc) then we get OSError.

Examples:

#Program for Creating Folder / Directory

#mkdirex.py

import os

try:

os.mkdir("D:\suraj\python\7am")

print("Folder Created Successfully-verify")

except FileNotFoundError:

print("mkdir() can create only one folder at a time")

except FileExistsError:

print("The specified folder already exist")

except OSError:

print("Check ur path of folder names")

2) Creating Folders Hierarchy.

=> For Creating Folders Hierarchy, we use makedirs().

=> Syntax: os.makedirs("Folders Hierarchy")

=> Here Folders Hierarchy represent Root Folder\sub folder\sub-sub folder so on...

=> if the folder name already exists then we get FileExistsError

=> if we specify any folder name with escape sequence ( \n \u \digits,\t..etc) then we get OSError.

Examples:

#Program for Creating Folders Hierarchy

#makedirsex.py

import os

try:

os.makedirs("D:\\India\\Hyd\\ampt\\python\\python")

print("Folder Created Successfully-verify")

except FileExistsError:

print("The specified folder already exist")

except OSError:

print("Check ur path of folder names")

3) Removing Folder / Directory.

=> For Removing Folder / Directory, we use rmdir()

=> syntax: os.rmdir("folder name")

=> rmdir() can remove folder name provided folder name is empty.

=> if we specify any folder name with escape sequence ( \n \u \digits,\t..etc) then we get OSError.

#Program for Removing Folder / Directory

#rmdirex.py

import os

try:

os.rmdir("D:\KVR")

print("Folder removed Successfully-verify")

except FileNotFoundError:

print("folder name does not exist")

except OSError:

print("rmdir() can remove those foilder which are empty--check ur path")

4) Removing Folders Hierarchy. (removedirs() )

=> For Removing Removing Folders Hierarchy, we use removedirs()

=> Syntax: os.removedirs("Folders Hierarchy")

=> Here Folders Hierarchy represent Root Folder\sub folder\sub-sub folder so on...

=>if the folder name not exist then we get FileNotFoundError

=> if we specify any folder name with escape sequence ( \n \u \digits,\t..etc) then

we get OSError.

Examples

#Program for Removing Folders Hierarchy

#removedirsex.py

import os

try:

os.removedirs("D:\\India\\Hyd\\ampt\\python\\python")

print("Folders Hierarchy Removed Successfully-verify")

except FileNotFoundError:

print("The specified folders hierachy does exist")

except OSError:

print("remove those folder which are empty-Check ur path of folder names")

5) Removing File Name from Folder.

=> To remove the file name from folder, we use remove()

=> Syntax: os.remove("Absolute Path of File Name")

=> If the file name does not exist then we get FileNotFoundError

Examples

#Program for removing the file name from folder

#RemoveFileEx.py

import os

try:

os.remove("E:\KVR-PYTHON-7AM\MODULES\SE3.py")

print("File Name removed Sucessfully")

except FileNotFoundError:

print("File does not exist")

6) Renaming a Folder/File Name.

=> To rename a folder, we use rename()

=> Syntax: os.rename("Old Folder Name","New Folder Name")

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=> If the Old Folder Name does not exist then we get FileNotFoundError.

Examples

#Program for renaming a folder name

#RenameFolderEx.py

import os

try:

os.rename("D:\KVR","D:\PYTHON")

print("Folder Name renamed")

except FileNotFoundError:

print("File does not exist")

7) List the file names in folder.

=> To list the file names in folder, we use listdir()

=> Syntax: os.listdir("Absolute Path of Folder Name")

=> If the Folder Name does not exist then we get FileNotFoundError.

Examples:

#Program for Listing files ijn folder

#ListFileFolderEx.py

import os

try:

FolderName=input("Enter Folder name to list files:")

fileslist=os.listdir(FolderName)

print("-"\*50)

print("List of Files:")

print("-"\*50)

for filename in fileslist:

print("\t{}".format(filename))

print("-"\*50)

except FileNotFoundError:

print("Folder does not exist")