

Day 29 - Python OS Module

Python OS Module - File Creation & Rename Guide

Can We Create Files with os Module?

No. The os module handles directory and file system tasks (like moving, renaming, or deleting), but not creating or writing to files.

For Creating Files, Use:

You use Python's built-in open() function:

```
# Create a .txt file

with open("example.txt", "w") as f:

    f.write("Hello, this is a text file.")
```

```
# Create a .py file

with open("script.py", "w") as f:

    f.write("print('Hello from script.py')")
```

Combine with os (Best Practice):

You can combine os and open() to create files in specific directories.

```
import os
```

```
# Ensure directory exists
```

```
os.makedirs("my_folder", exist_ok=True)
```

Day 29 - Python OS Module

Create a file in that directory

```
file_path = os.path.join("my_folder", "example.txt")
```

with open(file_path, "w") as f:

```
    f.write("This file was created with open() and os module.")
```

Summary:

Task	Module
-----	-----
Navigate/create folders	os
Create/write files	open()
Combine folder + file	os + open()

Common os.rename() Errors & Fixes:

1. FileNotFoundError

Reason: old.txt does not exist in the current working directory.

Fix:

```
print(os.getcwd())
```

```
print(os.listdir())
```

2. Create the file first (correct way):

with open("old.txt", "w") as f:

```
    f.write("This is the original file.")
```

```
os.rename("old.txt", "new.txt")
```

Day 29 - Python OS Module

3. Use full paths (optional):

```
old_path = os.path.join(os.getcwd(), "old.txt")
```

```
new_path = os.path.join(os.getcwd(), "new.txt")
```

```
with open(old_path, "w") as f:
```

```
    f.write("Some content.")
```

```
os.rename(old_path, new_path)
```

Test Script:

```
import os
```

```
# Step 1: Create old.txt
```

```
with open("old.txt", "w") as f:
```

```
    f.write("Hello, world!")
```

```
# Step 2: Rename to new.txt
```

```
if os.path.exists("old.txt"):
```

```
    os.rename("old.txt", "new.txt")
```

```
    print("File renamed successfully.")
```

```
else:
```

```
    print("old.txt does not exist!")
```