

Placement Empowerment Program

Cloud Computing and DevOps Centre

Automate File Copying with a Script

Create a script to copy files from one folder to another automatically.

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Introduction

In many workflows, the need to transfer files from one directory to another arises frequently. Automating this process can save time and reduce the risk of human error. This proof of concept (PoC) showcases a simple script that copies files from a designated source folder to a destination folder. By utilizing Python for the file copying task and Windows Task Scheduler for automation, this solution ensures that file transfers occur at specified intervals or times.

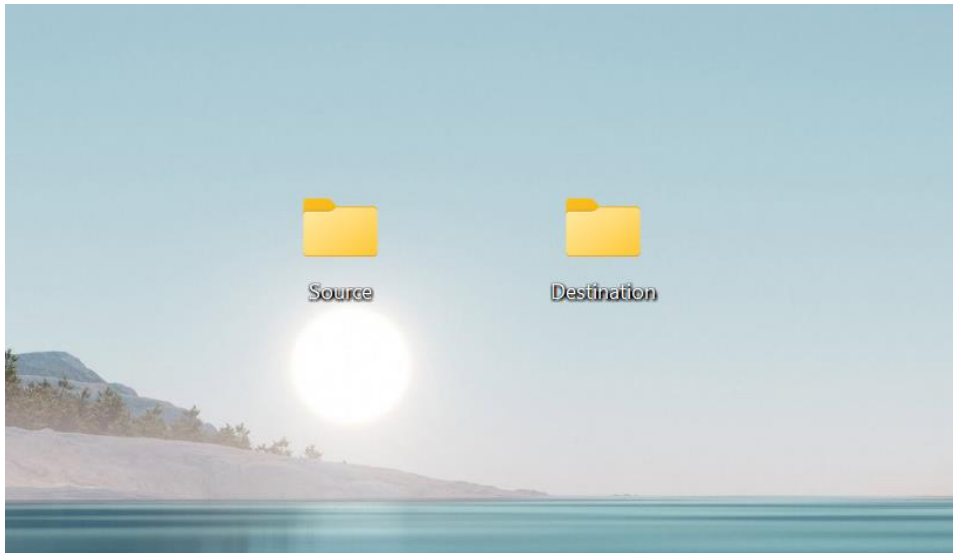
Objectives

1. **Automate File Transfer:** Implement a Python script that copies files from a source directory to a destination directory.
2. **Schedule the Task:** Use Windows Task Scheduler to run the script automatically at user-defined intervals.
3. **Verify Outcomes:** Ensure that the files are copied successfully and check for any errors during the transfer.

Step-by-Step Overview

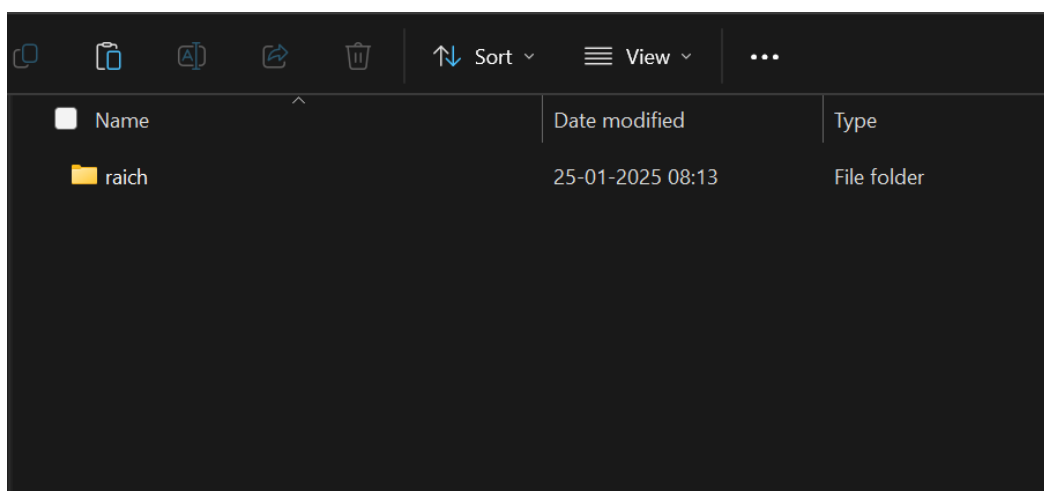
Step 1

Create two folders named Source and Destination



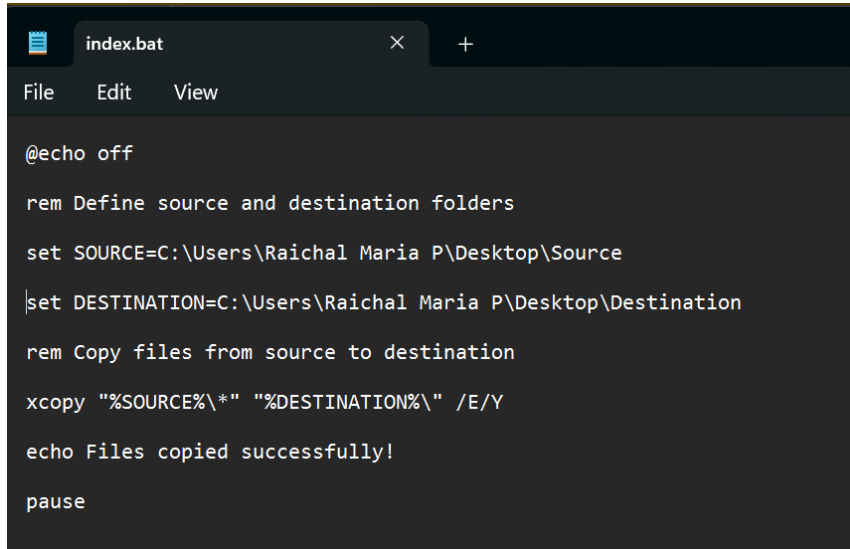
Step 2

Store some files inside it to automate it



Step 3

Open the note pad and type the code and fill the source folder 's path in set source and fill destination folder's path in set destination



```
@echo off

rem Define source and destination folders
set SOURCE=C:\Users\Raichal Maria P\Desktop\Source
set DESTINATION=C:\Users\Raichal Maria P\Desktop\Destination

rem Copy files from source to destination
xcopy "%SOURCE%\*" "%DESTINATION%" /E/Y

echo Files copied successfully!

pause
```

Step 4

Then save the file in desktop with .bat extension (eg : index.bat) so the file looks like this

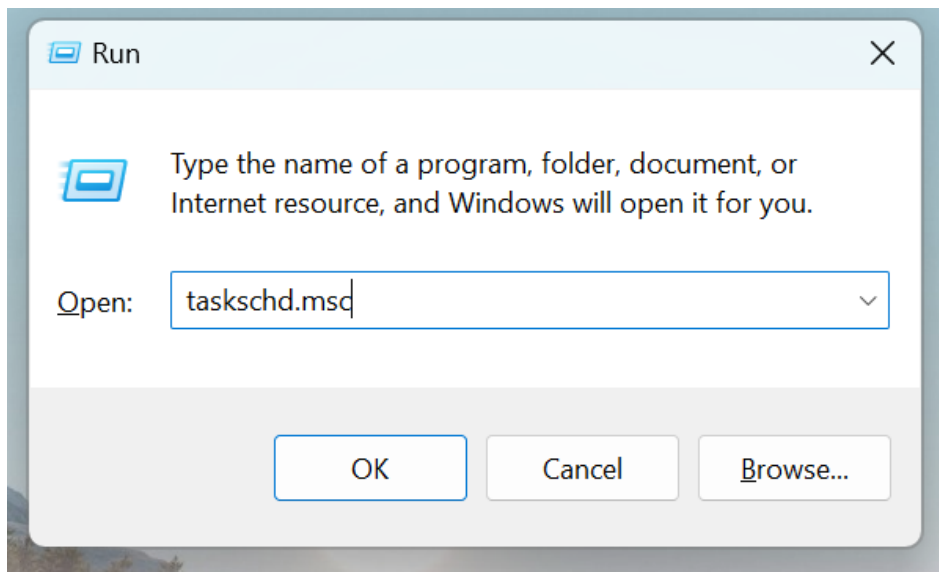
Step 5

Press **Win + R** on your keyboard.

A small "Run" dialog box will pop up.

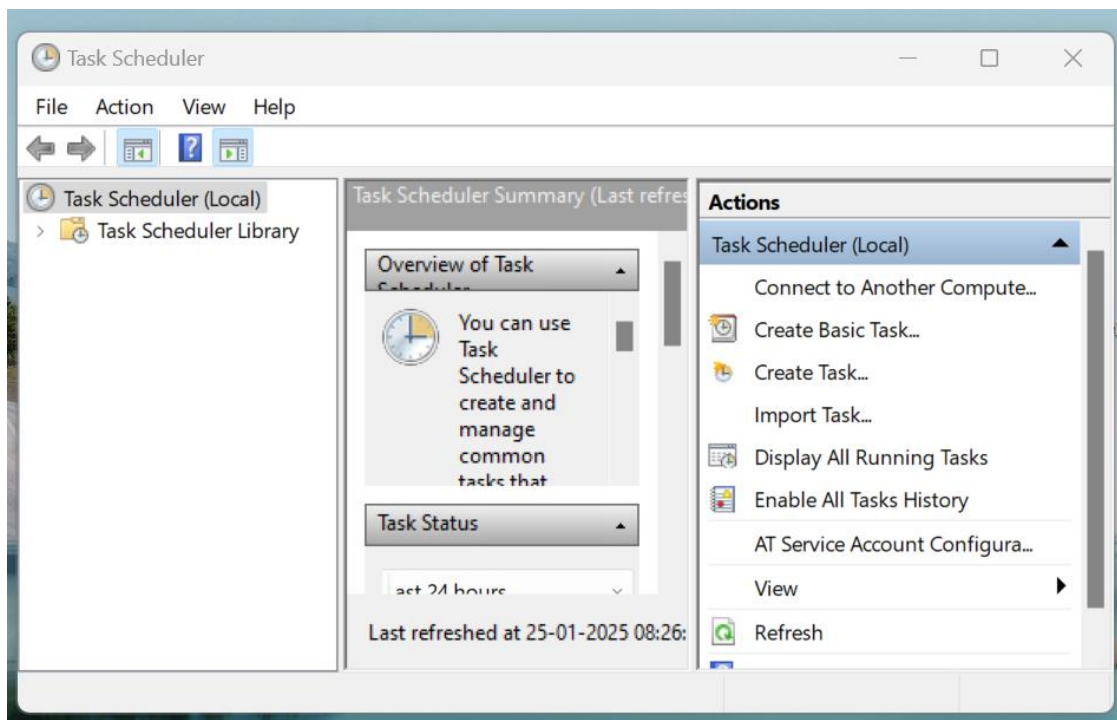
Type **taskschd.msc** (without quotes) in the Run box.

Press Enter or click OK. This will open the Task Scheduler window.



Step 6

In the Task Scheduler window, look to the right-hand side for a button called "Create Basic Task", Click it.



Step 7

1. Enter a Name for the Task:
2. Click Next to continue.

Use this wizard to quickly schedule a common task. For more advanced options or settings such as multiple task actions or triggers, use the Create Task command in the Actions pane.

Name: Copying file

Description: Copy a file from A folder to B folder

< Back Next > Cancel

Step 8

Choose a Schedule:

Choose what works for you (e.g., Daily) and click Next.

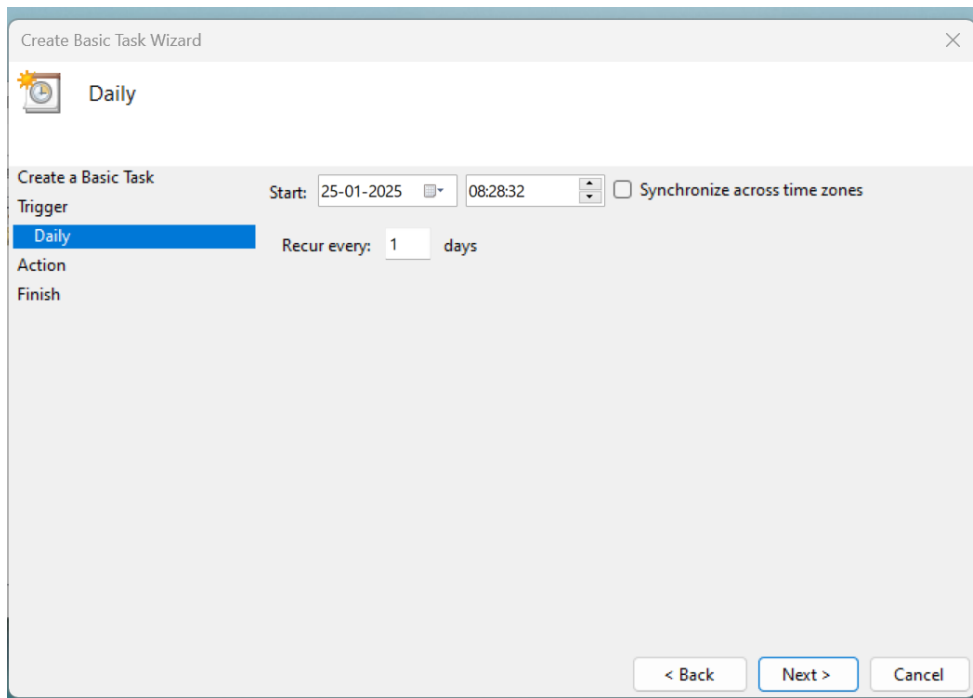
Step 9

Set the Time and Frequency:

If you chose Daily, specify:

The start date (it defaults to today).

Click Next to move on.



Step 10

Set the Action

Now, we tell Task Scheduler what to do when it runs.

Select "Start a Program":

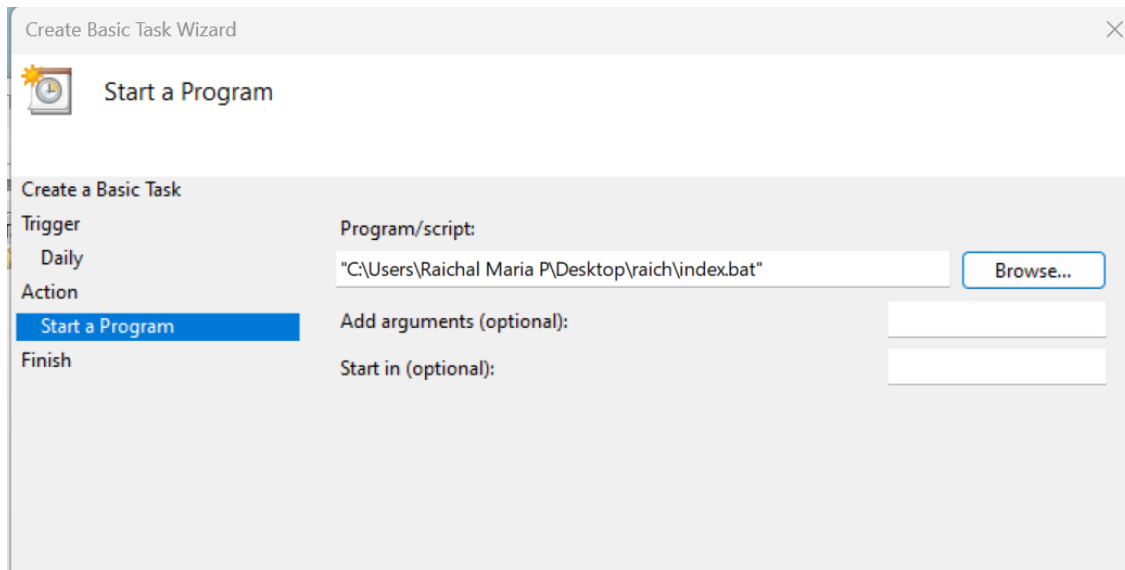
Step 11

Point to the Program or Script:

In the Program/script field, click **Browse** and navigate to the location of your .bat file.

Example: If your script is named index.bat and saved on the desktop, navigate to that file and select it.

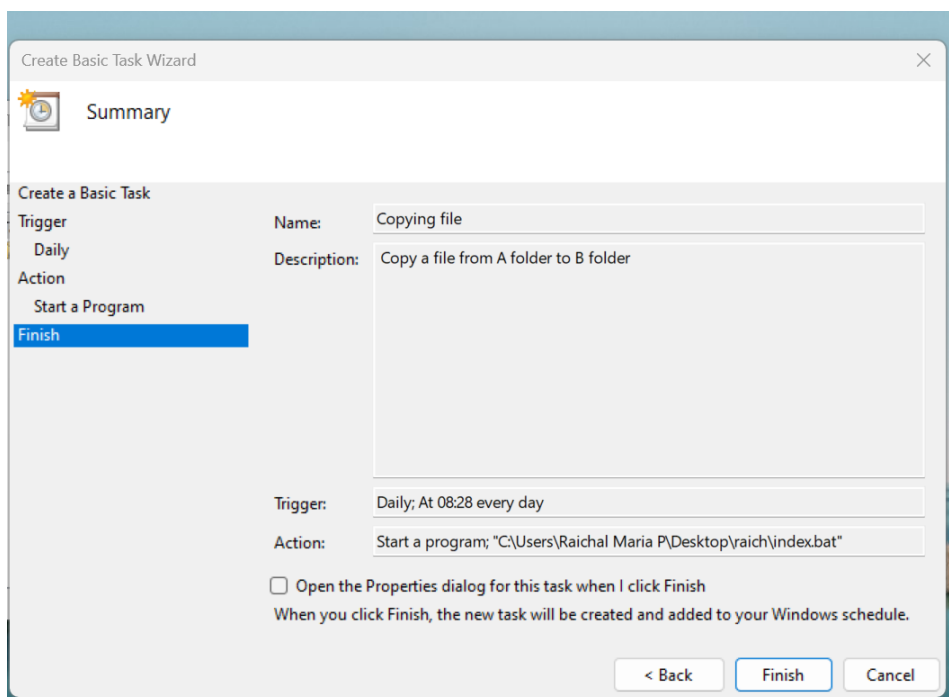
Click Next.



Step 12

Review and Finish

Click **Finish** to save and schedule the task.



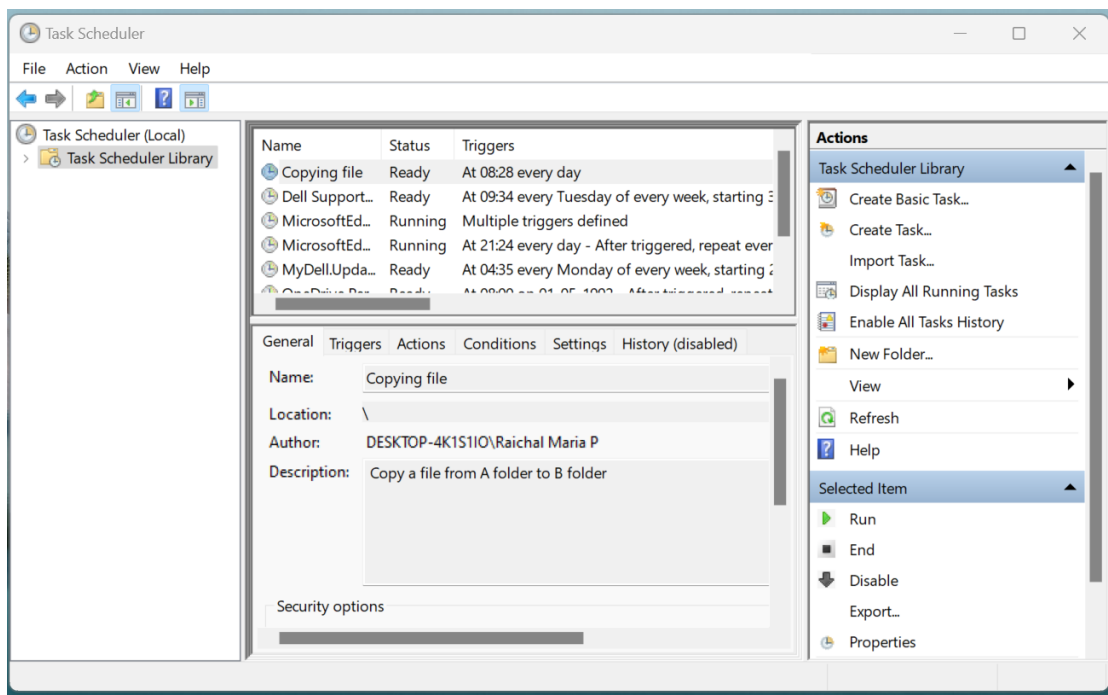
Step 13

In Task Scheduler, go to the **Task Scheduler Library** (on the left-hand side).

Find your task (it should have the name you gave it, e.g., "Automate File Copying").

Right-click the task and select **Run**.

This will manually trigger the task immediately.



Step 14

If your task was set up to copy files, go to the destination folder and confirm that the files have been copied.

```
C:\Windows\SYSTEM32\cmd.exe
C:\Users\Raichal Maria P\Desktop\Source\raich\clf exm .pdf
C:\Users\Raichal Maria P\Desktop\Source\raich\git cmd.txt
C:\Users\Raichal Maria P\Desktop\Source\raich\RAICHALENGLISHLAB.docx
C:\Users\Raichal Maria P\Desktop\Source\raich\cetrificates\networking-basics.png
C:\Users\Raichal Maria P\Desktop\Source\raich\cetrificates\Networking_Basics_Badge20241228-27-g3475i.pdf
C:\Users\Raichal Maria P\Desktop\Source\raich\poster\Untitled.png
C:\Users\Raichal Maria P\Desktop\Source\raich\vm\Webserver\Webserver.vbox
C:\Users\Raichal Maria P\Desktop\Source\raich\vm\Webserver\Webserver.vbox-prev
C:\Users\Raichal Maria P\Desktop\Source\raich\vm\Webserver\Webserver.vdi
C:\Users\Raichal Maria P\Desktop\Source\raich\vm\Webserver\Logs\VBox.log
C:\Users\Raichal Maria P\Desktop\Source\raich\vm\Webserver\Logs\VBox.log.1
C:\Users\Raichal Maria P\Desktop\Source\raich\vm\Webserver\Logs\VBoxHardening.log
C:\Users\Raichal Maria P\Desktop\Source\raich\vm\Webserver\Snapshots\2025-01-16T12-31-49-777820700Z.sav
13 File(s) copied
Files copied successfully!
Press any key to continue . . . |
```

Expected Outcome

Upon successful setup and execution:

- The Python script will run at the scheduled times, copying files from the source folder to the destination folder.
- You will see console output indicating which files were copied and any errors that occurred.
- This automation will ensure that the specified files are always kept up to date in the destination folder without manual intervention.

Testing and Verification

After the scheduled task runs:

- Check the destination folder to confirm that the files have been copied successfully.

- Review the Task Scheduler history for any errors or issues encountered during execution.

This comprehensive approach provides an efficient method to automate file transfers, ensuring timely and accurate file management.