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OMR, CHENNAI - 119



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

Automating repetitive tasks, such as file copying, offers significant benefits by saving time, minimizing errors, and enhancing overall efficiency. This is particularly valuable in scenarios like managing backups, organizing files, or synchronizing data across directories. This proof-of-concept (POC) script showcases a straightforward yet powerful method to automate the process of copying files from one folder to another, demonstrating its practical application in streamlining workflows.

Overview

The script is designed to automate the task of copying files from a source folder to a destination folder, ensuring an efficient and seamless transfer while preserving file integrity. It offers flexibility for customization, allowing users to tailor the process to specific requirements, such as filtering files by type, modification date, or size. The script can be implemented using various programming languages, including Python, Shell scripting, or PowerShell, making it adaptable to different operating environments and user preferences.

Objectives

The primary goals of this automation task are:

1. **Simplify File Management:** Minimize manual intervention by automating the movement or copying of files between folders.
2. **Enhance Efficiency:** Streamline the process to save time and boost overall productivity.
3. **Ensure Data Integrity:** Guarantee that files are copied accurately, without corruption or loss.
4. **Enable Customization:** Provide flexibility to adapt the workflow to specific needs, such as filtering files by type, date, or size.
5. **Scalability:** Design the script to efficiently handle large volumes of files, ensuring it remains effective as demands grow.

Importance

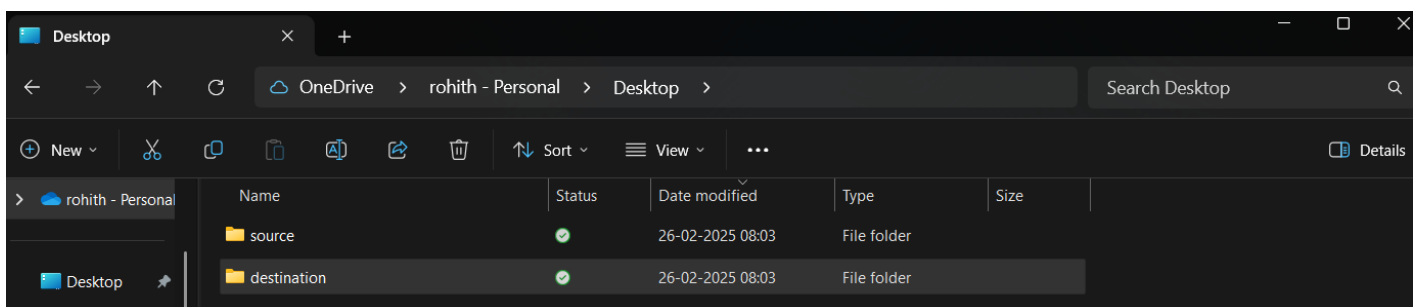
1. **Time-Saving:** Automation removes the need for manual intervention, significantly reducing the time spent on repetitive tasks.

2. **Error Reduction:** Minimizes the risk of human errors, such as missing files, accidental overwrites, or incomplete transfers.
3. **Improved Organization:** Ensures a consistent and structured approach to file storage, backups, and data synchronization.
4. **Versatility:** This solution is highly beneficial for IT professionals, businesses, and individuals who regularly manage file transfers, backups, or data organization.
5. **Scalability and Reusability:** Once developed, the script can be easily adapted, reused, and scaled to handle larger or more complex file management tasks.

Step-by-step Overview

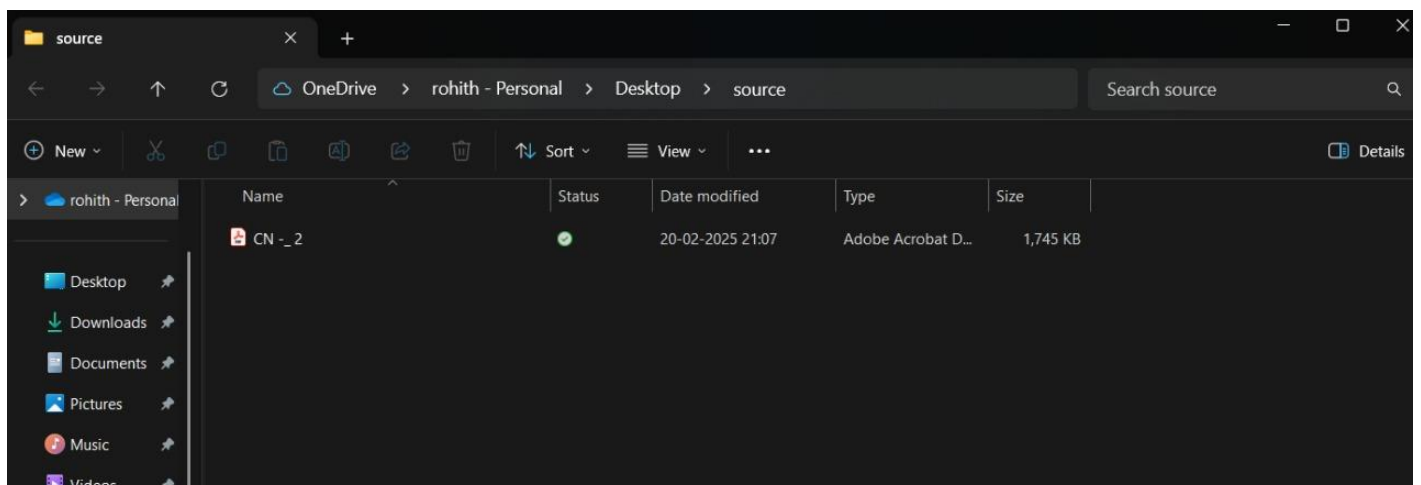
Step 1:

Create two folders named **Source** and **Destination** on your computer.



Step 2:

Place some files in the **Source** folder to use for automation.



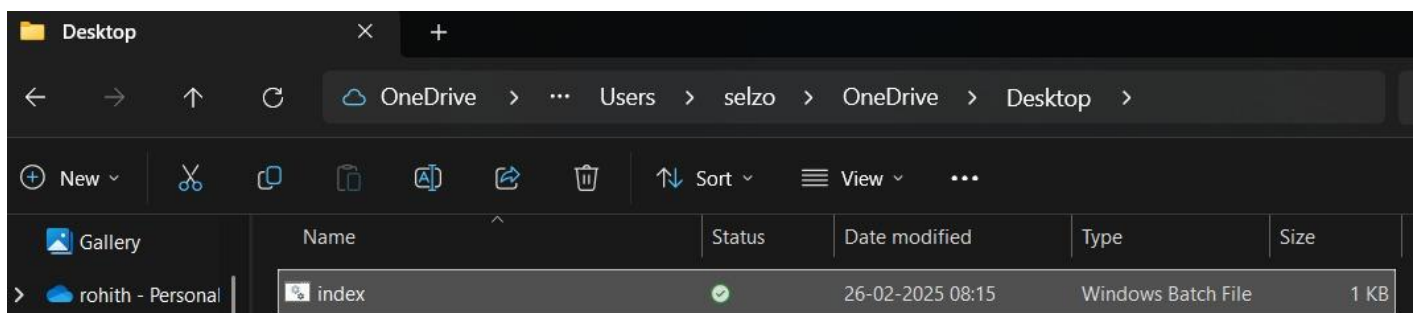
Step 3:

- Open Notepad and type the script.
- In the script, set the **SOURCE** variable to the path of your **Source** folder and the **DESTINATION** variable to the path of your **Destination** folder.

```
@echo off
rem Define source and destination folders
set SOURCE=C:\Users\seldo\OneDrive\Desktop\source
set DESTINATION=C:\Users\seldo\OneDrive\Desktop\destination
rem Copy files from source to destination
xcopy "%SOURCE%\*" "%DESTINATION%" /E/Y
echo Files copied successfully!
pause
```

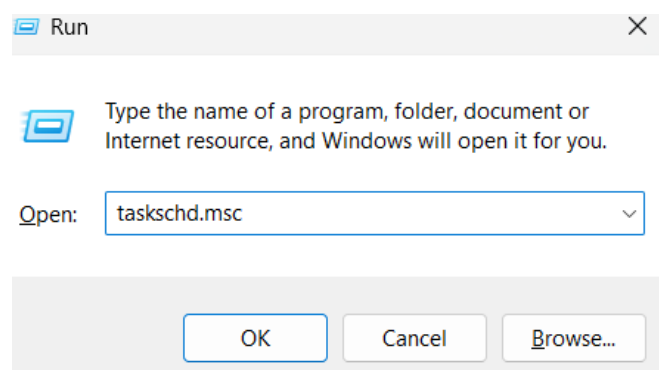
Step 4:

Save the file on your desktop with a **.bat** extension (e.g., **index.bat**).



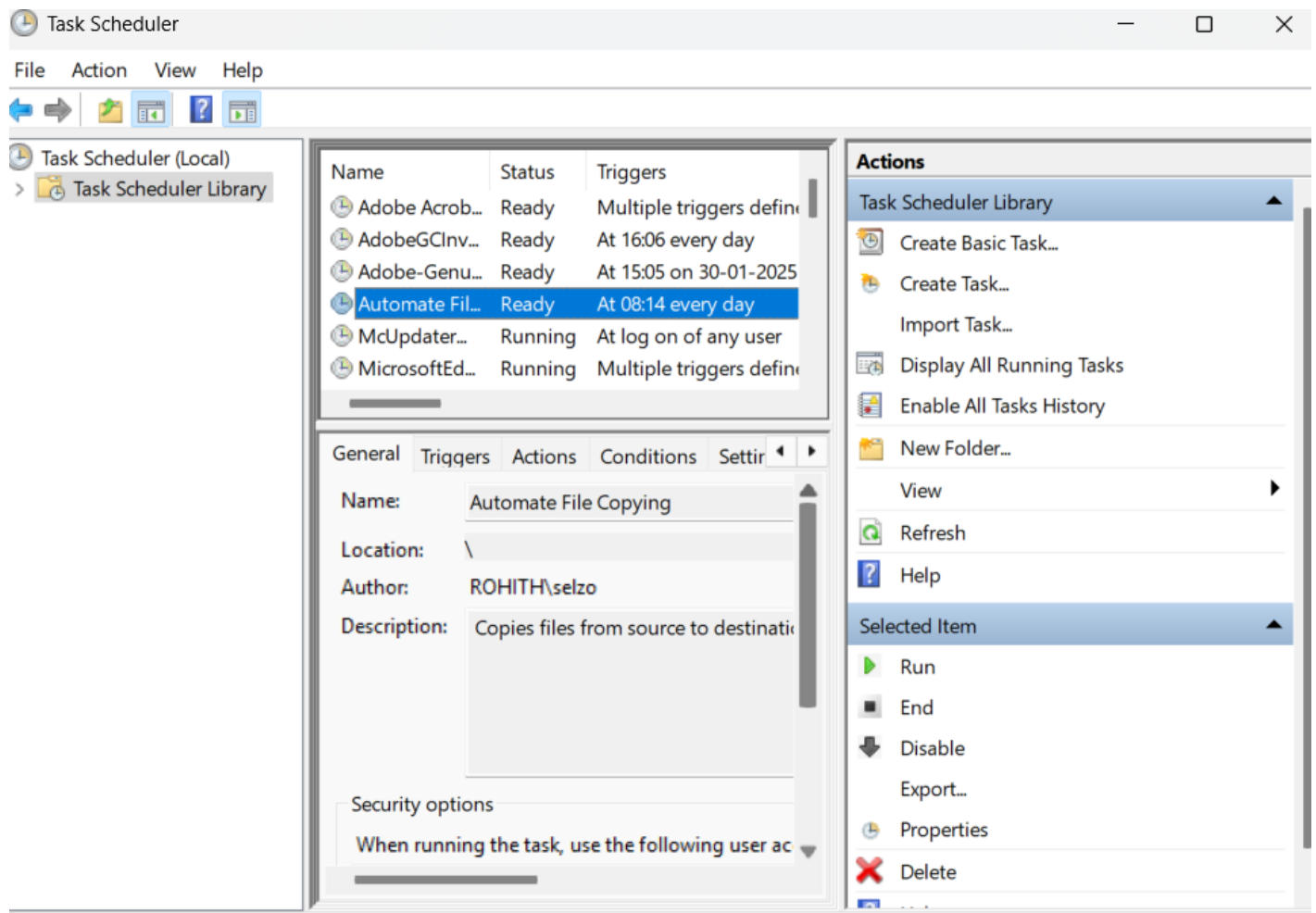
Step 5:

- Press **Win + R** to open the Run dialog box.
- Type **taskschd.msc** and press Enter to open the Task Scheduler.



Step 6:


- In the Task Scheduler window, click **Create Basic Task** on the right-hand side.
- Follow the wizard to set up the task.



Step 7:

- Enter a name for the task (e.g., "Automate File Copying").
- Optionally, add a description like "Copies files from Source to Destination."
- Click **Next**.

Create Basic Task Wizard

 Create a Basic Task

Create a Basic Task

Trigger

Action

Finish

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: Automate File Copying

Description: Copies files from source to destination

< Back


Next >

Cancel

Step 8:

- Choose how often the task should run (e.g., Daily, Weekly, or One Time).
- Click **Next**.

Create Basic Task Wizard

 Task Trigger

Create a Basic Task

Trigger

Action

Finish

When do you want the task to start?

☒ Daily

☐ Weekly

☐ Monthly

☐ One time

☐ When the computer starts

☐ When I log on

☐ When a specific event is logged

< Back


Next >

Cancel

Step 9:

- Specify the start date and time (e.g., 10:00 AM).
- Click **Next**.

Create Basic Task Wizard

 Daily

Create a Basic Task

Trigger Start: 07-02-2025 11.00.00 AM ☐ Synchronize across time zones

Daily Recur every: 1 days

Action


Finish

< Back Next > Cancel

Step 10:

- Select **Start a Program** and click **Next**.

Create Basic Task Wizard

 Action

Create a Basic Task

Trigger Trigger: Daily

Action What action do you want the task to perform?

Start a program (selected)

Send an e-mail (deprecated)

Display a message (deprecated)


Finish

< Back Next > Cancel

Step 11:

- In the **Program/script** field, click **Browse** and select your **.bat** file (e.g., **index.bat**).
- Click **Next**.

Create Basic Task Wizard ×

 Start a Program

Create a Basic Task

Trigger	Program/script:
Daily	C:\Users\selzo\OneDrive\Desktop\index.bat Browse...
Action	Add arguments (optional):
Start a Program	
Finish	Start in (optional):

< Back Next > Cancel

Step 12:

- Review the settings and click **Finish** to save the task.



Summary

Create a Basic Task

Trigger

Daily

Action

Start a Program

Finish

Name:

Automate File Copying

Description:

Copies files from source to destination

Trigger:

Daily; At 08:14 every day

Action:

Start a program; C:\Users\selzo\OneDrive\Desktop\index.bat

☐ Open the Properties dialog for this task when I click Finish

When you click Finish, the new task will be created and added to your Windows schedule.

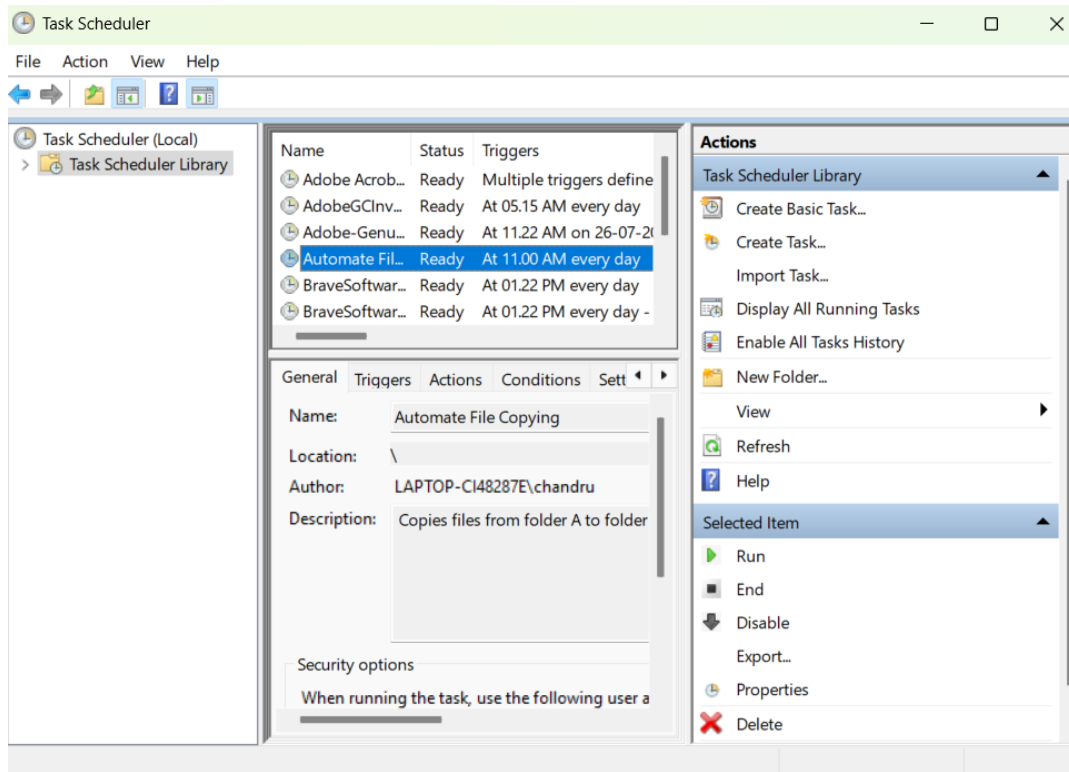
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Finish

Cancel

Step 13:

- In the Task Scheduler Library, locate your task (e.g., "Automate File Copying").

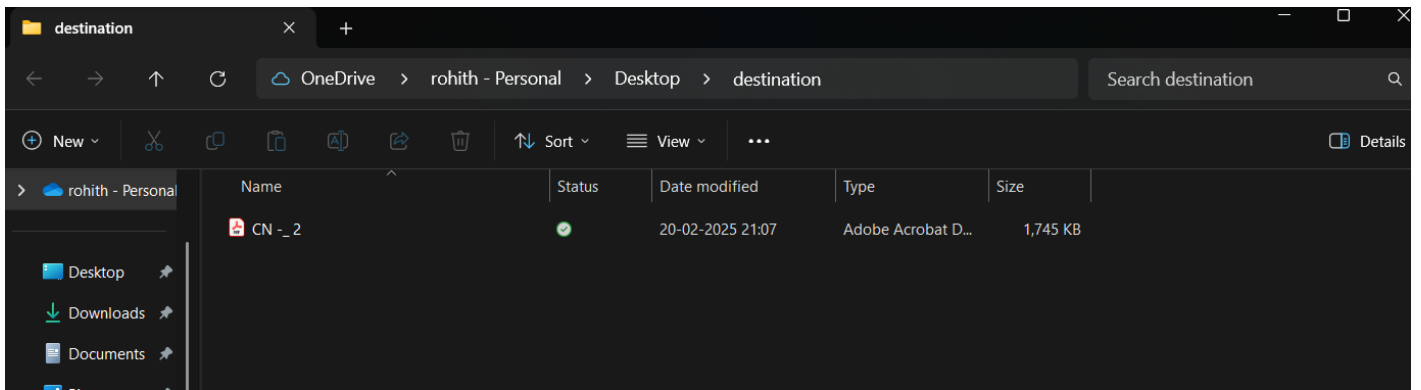


- Right-click the task and select **Run** to execute it immediately.

```
C:\WINDOWS\SYSTEM32\cmd
C:\Users\selszo\OneDrive\Desktop\source\CN -_ 2.pdf
1 File(s) copied
Files copied successfully!
Press any key to continue . . . |
```

Step 14:

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



Outcome

By completing this Proof of Concept (PoC) for task automation using Task Scheduler, you will:

1. Successfully configure an automated task that runs on a predefined schedule or can be triggered manually.
2. Execute a batch script to automatically copy files from a source folder to a destination folder.
3. Develop a clear understanding of how to leverage Task Scheduler to automate repetitive tasks in a Windows environment.
4. Gain hands-on experience with task triggers, actions, and conditions within Task Scheduler.
5. Save time and ensure consistent, error-free execution of file operations without the need for manual intervention.
6. Build practical skills in workflow automation, empowering you to streamline similar tasks in the future.