Placement Empowerment Program

Cloud Computing and DevOps Centre

Create a Simple Backup Script: Create a script that backs up your entire Git repository to a local folder daily

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Introduction

Backing up your Git repositories is a crucial part of version control management. It ensures that your work remains safe and accessible even in the event of unforeseen data loss, such as accidental deletions, hardware failures, or repository corruption. Automating this process saves time, reduces manual intervention, and guarantees regular updates.

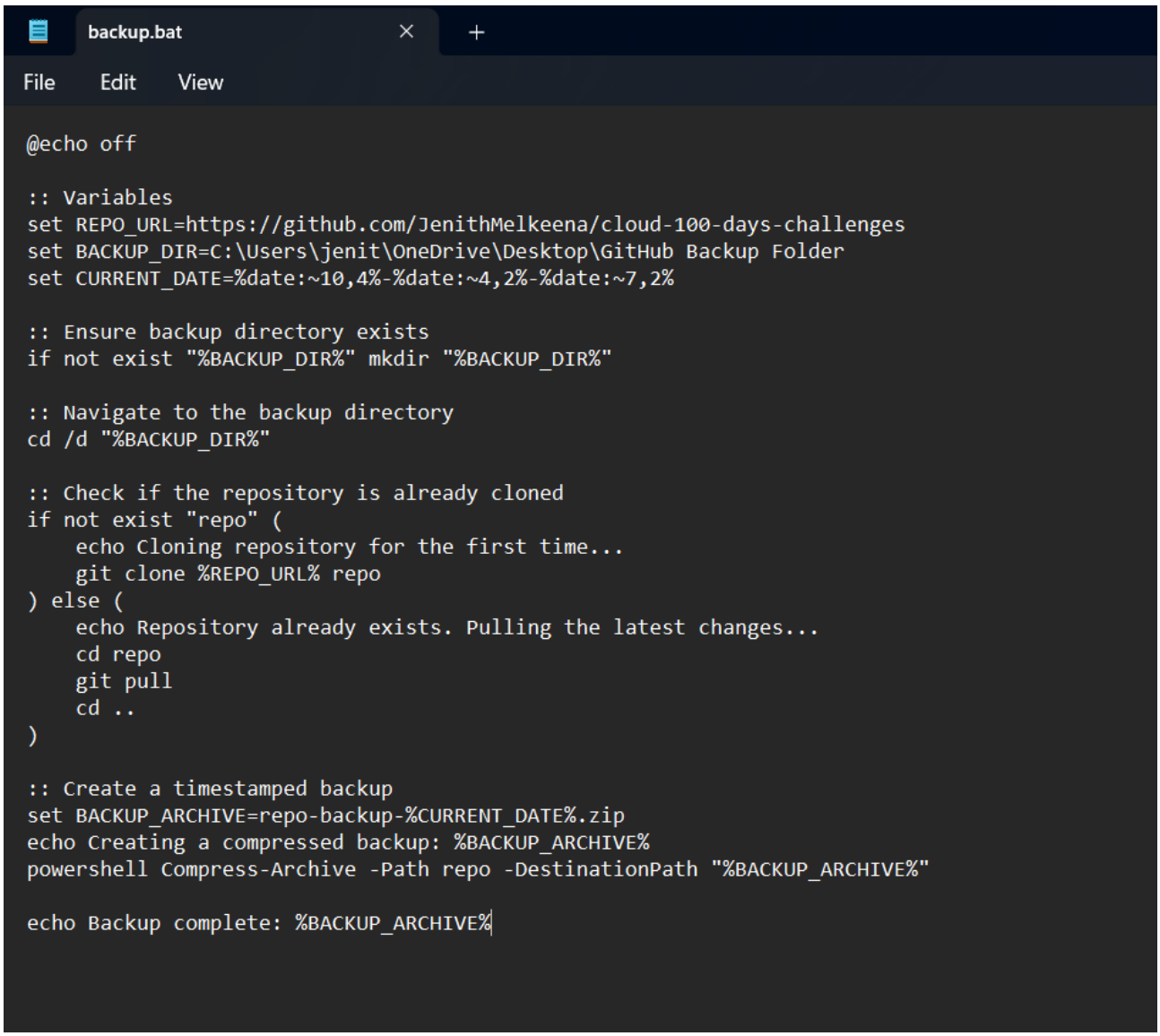
Step-by-Step Overview

Step 1:

Create a folder named GitHub Backup Folder to store your Backup files

Step 2:

Open Notepad and type this script . Make sure that in set REPO_URL give the URL of the repository you want to backup and in set BACK_DIR give the file path of the folder which you created in first step . Then save it as **.bat format** (eg:backup.bat) in Desktop



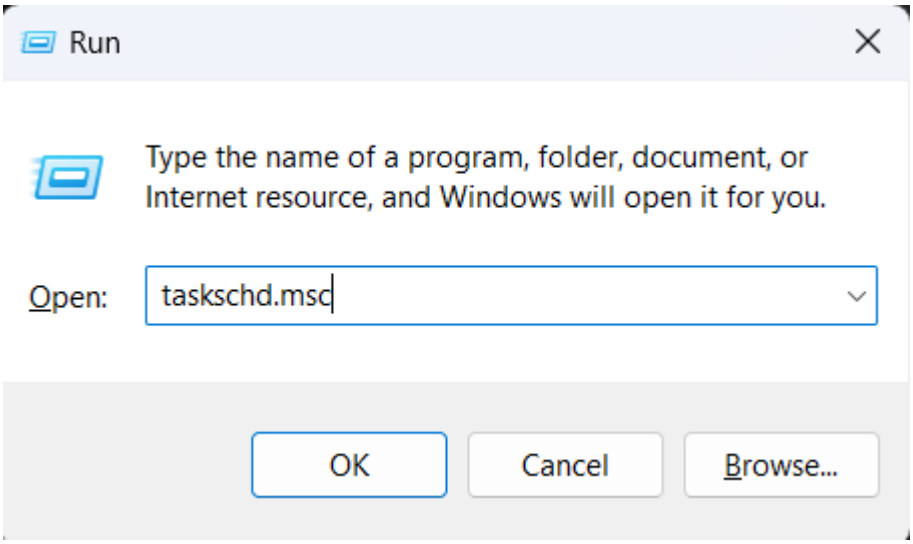
Step 3:

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

A small "Run" dialog box will pop up.

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

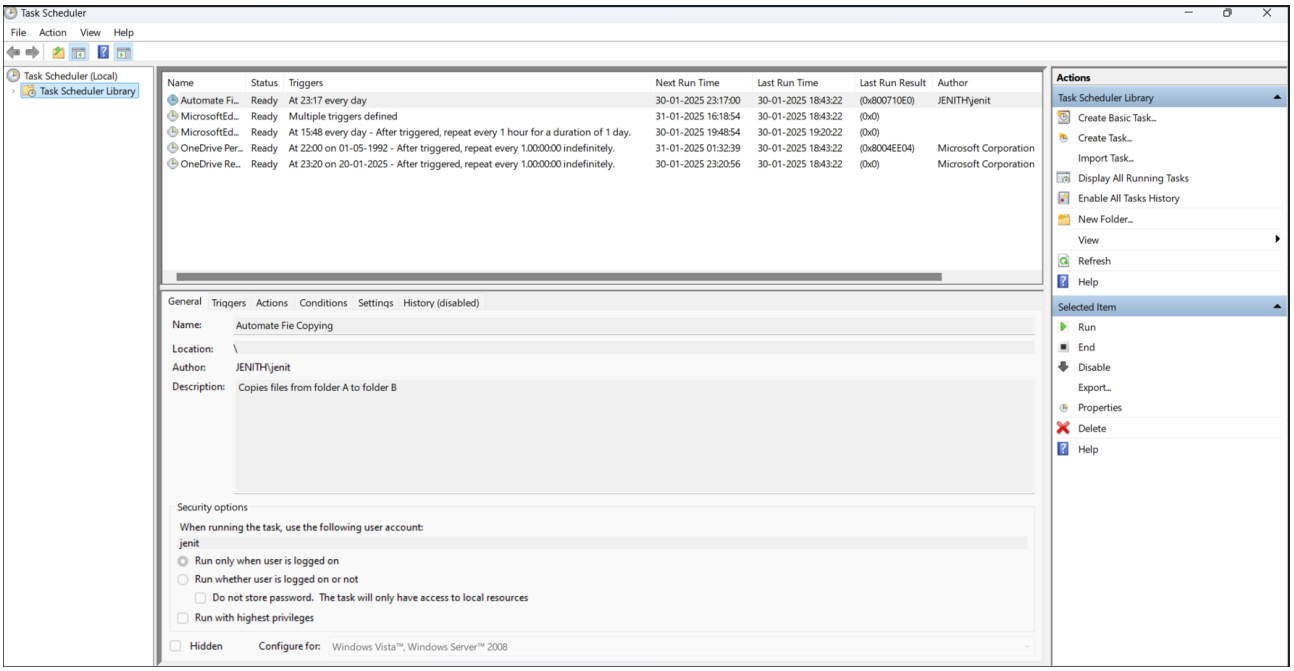
Press Enter or click OK.This will open the Task Scheduler window.



Step 4:

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

Click it.



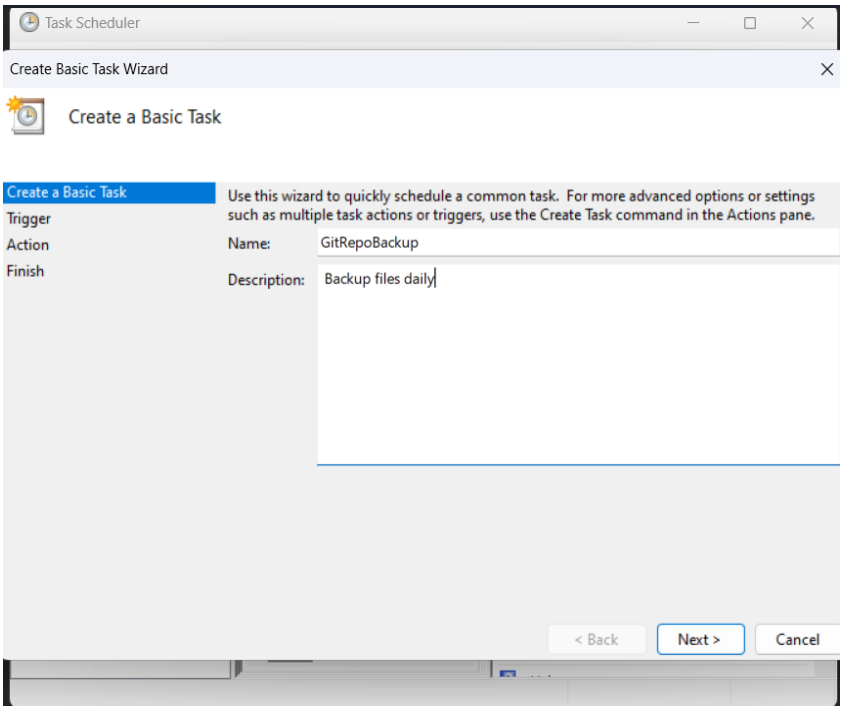
A wizard will open to guide you through the setup.

Step 5:

1. Enter a Name for the Task:

   For example: "GitRepoBackup".(This can be anything that helps you remember what the task does.)

Optionally, you can add a description like "Backsup files daily".

2. 

   Click Next to continue.

Step 6:

Choose a Schedule:

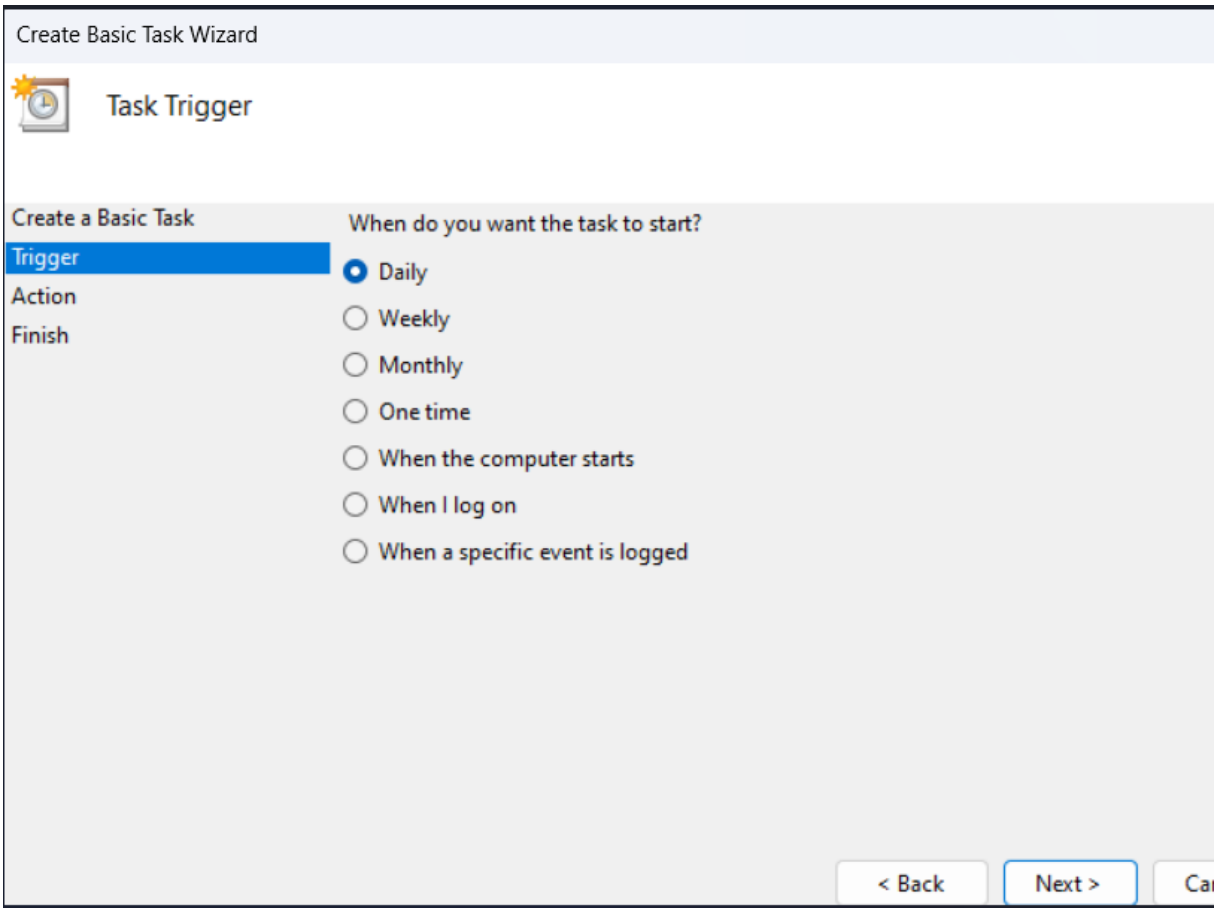
You will see options like:

Daily (runs every day).

Weekly (runs once a week).

One time (runs only once at a specific time).

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



Step 7:

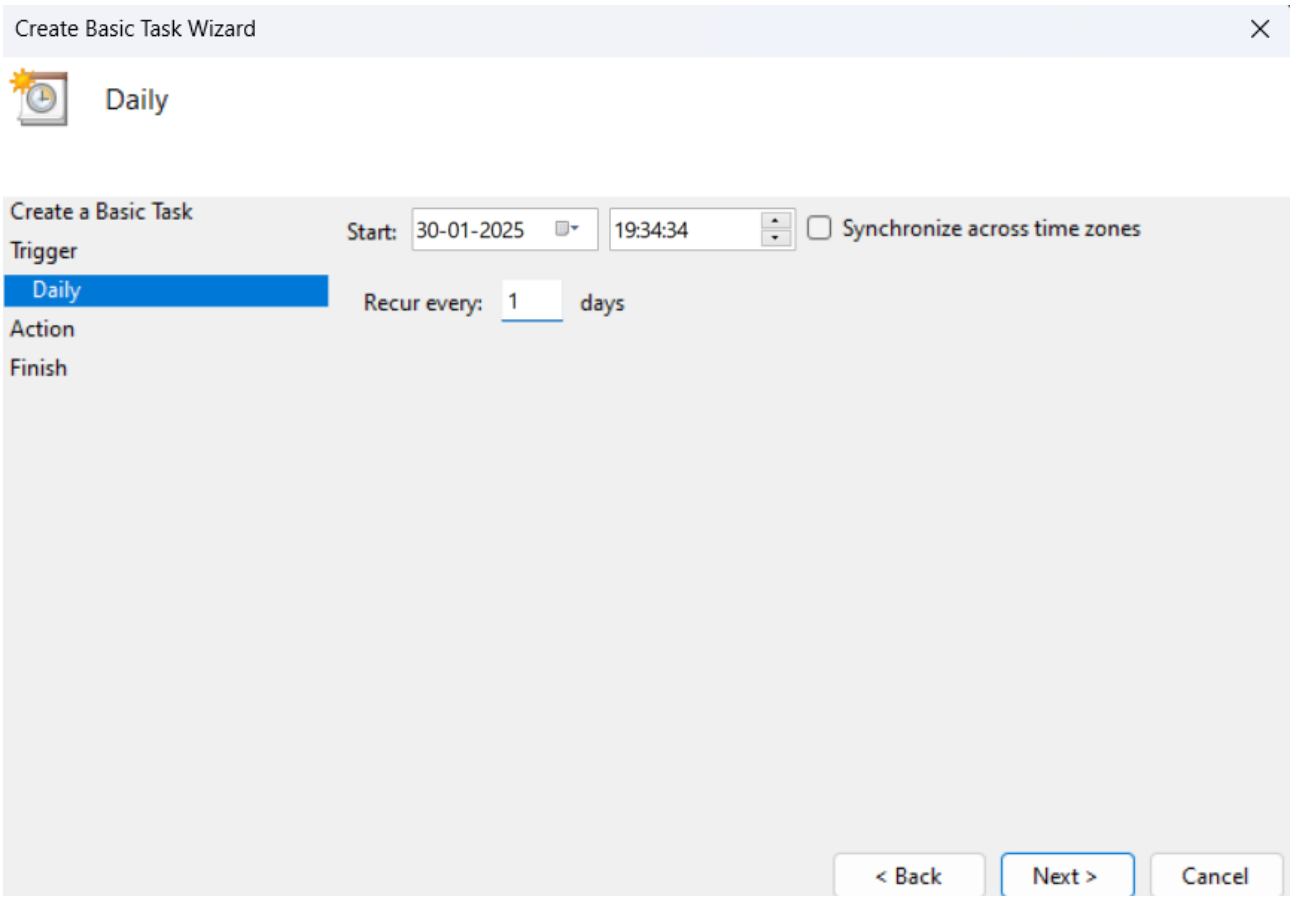
Set the Time and Frequency:

If you chose Daily, specify:

The start date (it defaults to today).

The time (e.g., 06:20 PM).

Click Next to move on.

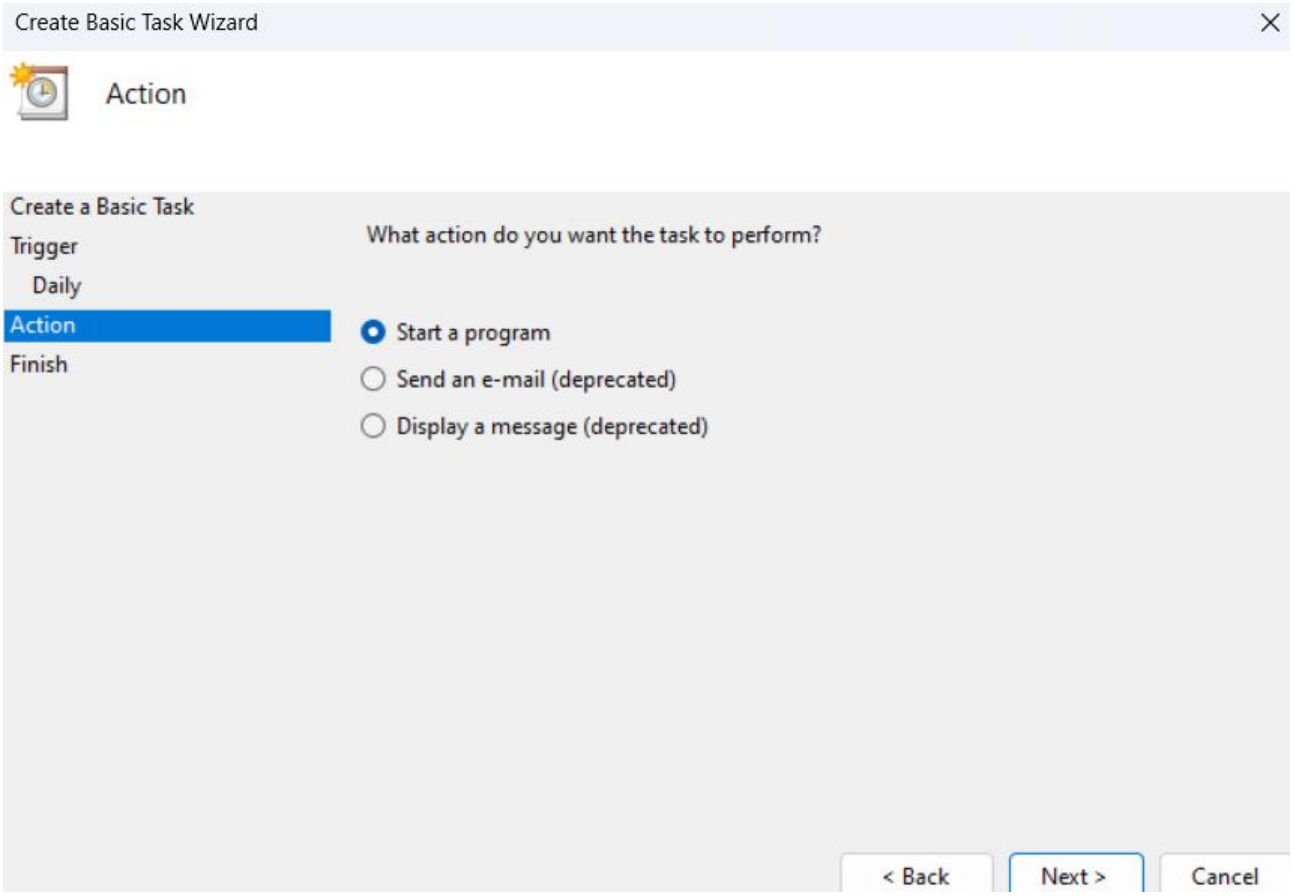

Create Basic Task Wizard
Daily
Create a Basic Task
Trigger
Daily
Action
Finish
Start:
30-01-2025
19:34:34
Synchronize across time zones
Recur every:
1
days
< Back
Next >
Cancel

Step 8:

Set the Action

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

Select "Start a Program":



On the "Action" screen, select the option "Start a Program" and click Next.

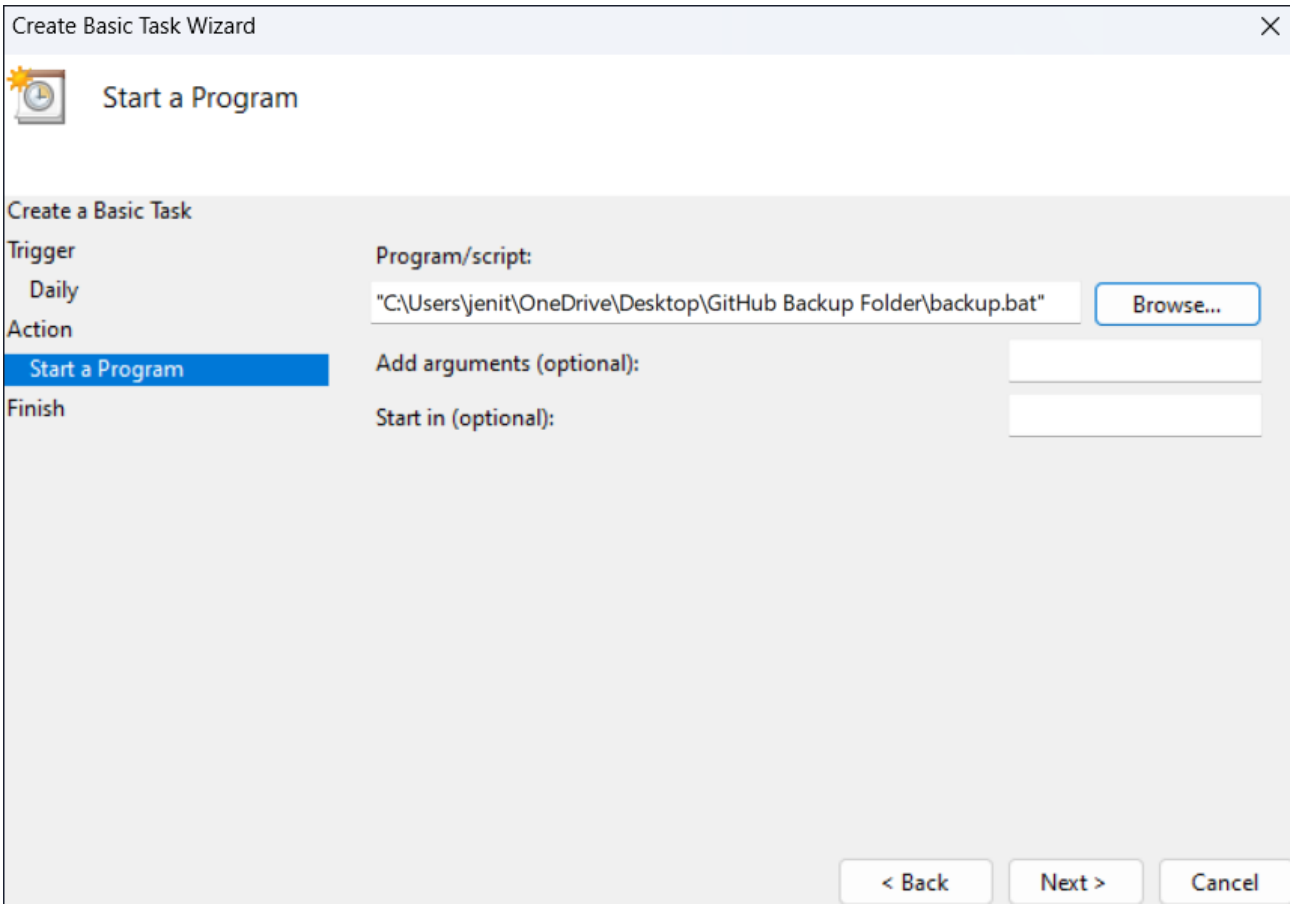
Step 9:

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 backup.bat and saved on the desktop, navigate to that file and select it.

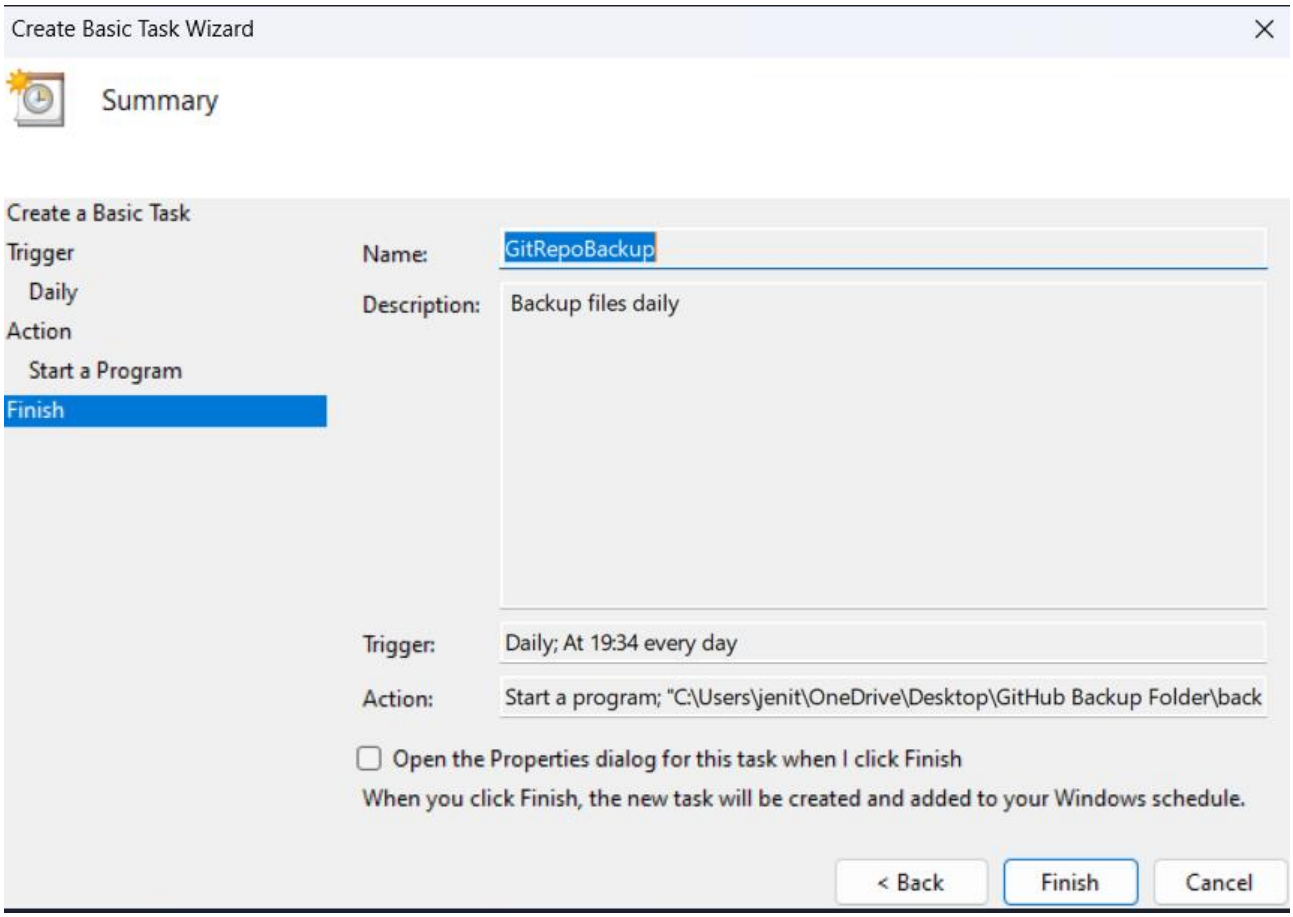
Click Next.



Step 10:

Review and Finish

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


Create Basic Task Wizard
Summary
Create a Basic Task
Trigger
Daily
Action
Start a Program
Finish
Name:
GitRepoBackup
Description:
Backup files daily
Trigger:
Daily; At 19:34 every day
Action:
Start a program; "C:\Users\jenit\OneDrive\Desktop\GitHub Backup Folder\back
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.
< Back
Finish
Cancel

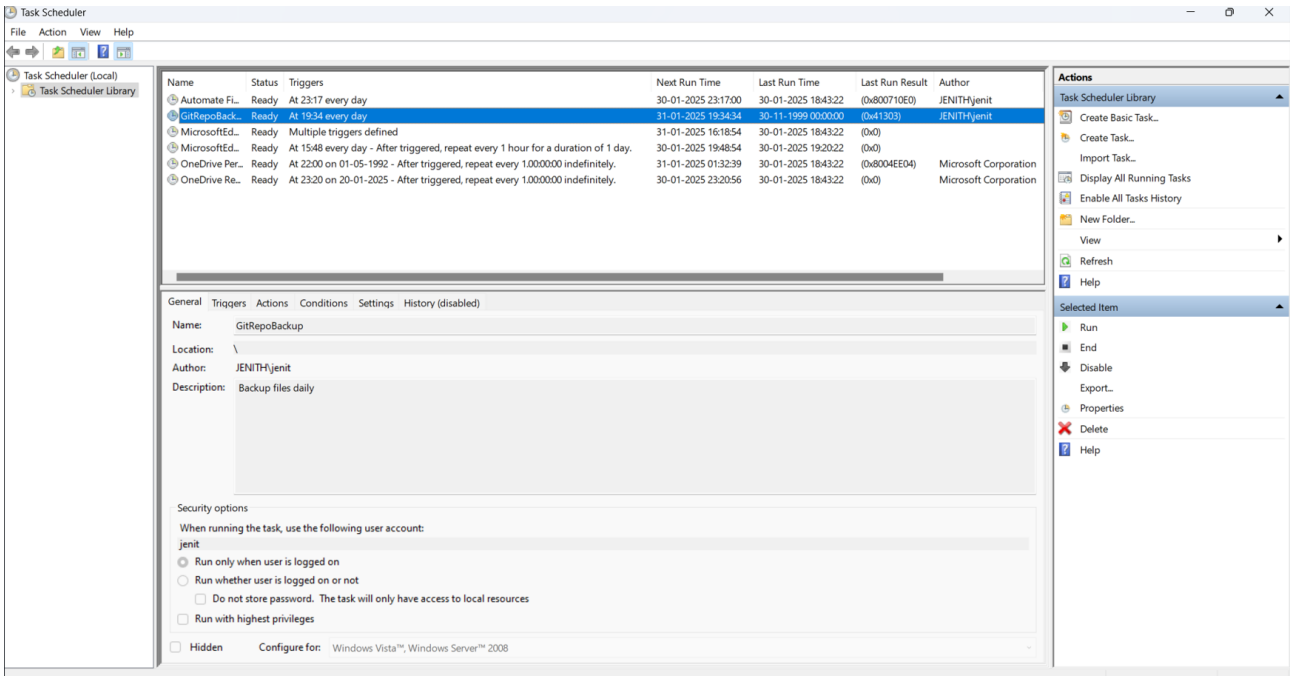
Step 11:

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., "GitRepoBackup").

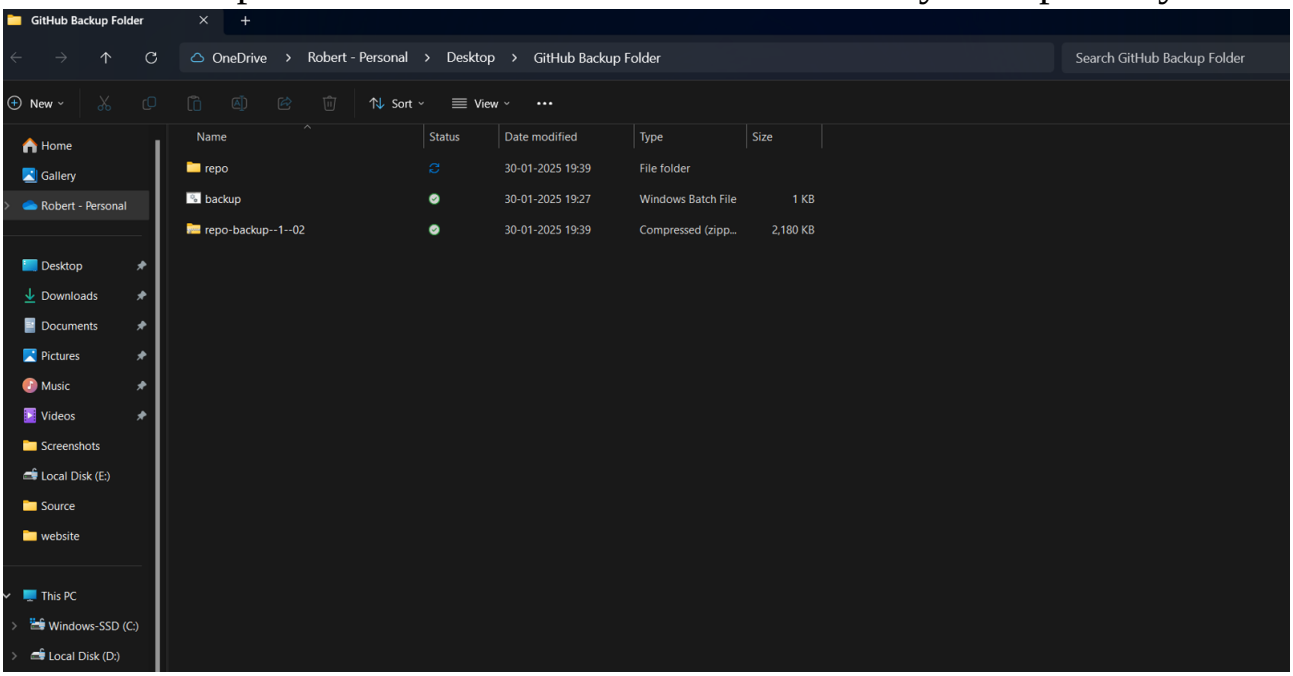
Right-click the task and select **Run**.

This will manually trigger the task immediately



Step 12:

Now u can see the folder which you created (GitHub Backup Folder) in the first step will now contains the files which is in your repository.



Outcomes

By completing this Proof of Concept (PoC) of automating Git repository backups, you will:

Successfully implement a backup system for Git repositories: Automate the process of creating daily backups for your Git repositories, ensuring that all updates and changes are securely stored in a local folder.

Master the use of batch scripting for task automation: Learn to create and execute a .bat script that clones, pulls updates, and compresses a Git repository into timestamped backup archives.

Understand Task Scheduler's automation capabilities: Gain practical experience with Task Scheduler, learning how to set triggers, define actions, and configure conditions to automate repetitive tasks seamlessly on a Windows system.