



**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.

## Overview

This task involves creating an automated backup system for your Git repository on a Windows machine using a batch script and Task Scheduler. The script pulls the latest changes from the repository daily and stores them in a backup directory. Additionally, it compresses the repository into a timestamped archive for easy organization. The process ensures that your codebase and its version history are safely stored in a local directory.

## Objectives

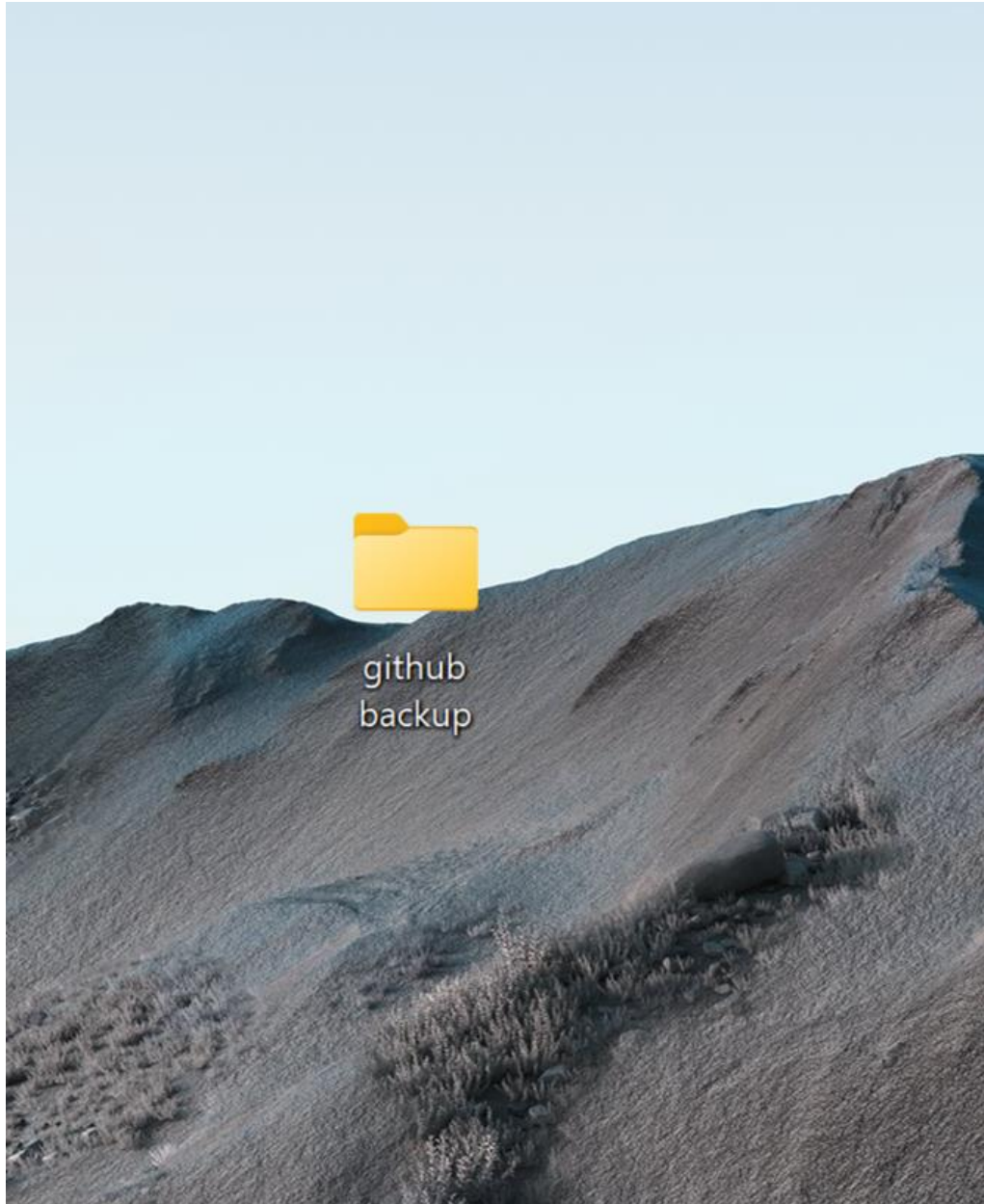
1. **Automate Backups:** Develop a script to back up the entire Git repository daily.

2. **Minimize Data Loss:** Safeguard the repository from accidental deletions or hardware failures.
3. **Ease of Management:** Create timestamped backups for quick identification and restoration.
4. **Hands-Free Automation:** Leverage Task Scheduler to eliminate the need for manual execution.

## Step-by-Step Overview

### Step 1:

Create a new folder in your desktop names “Github Backup”.



## Step 2

In Notepad and type the below 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

```
Command Prompt - git clone X + v
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\New User>@echo off
:: Variables
set REPO_URL=https://github.com/namratachoudhary/my-website
set BACKUP_DIR=C:\Users\nandh\OneDrive\Desktop\Github backup
set CURRENT_DATE=%date:~10,4%-~date:~4,2%-~date:~7,2%

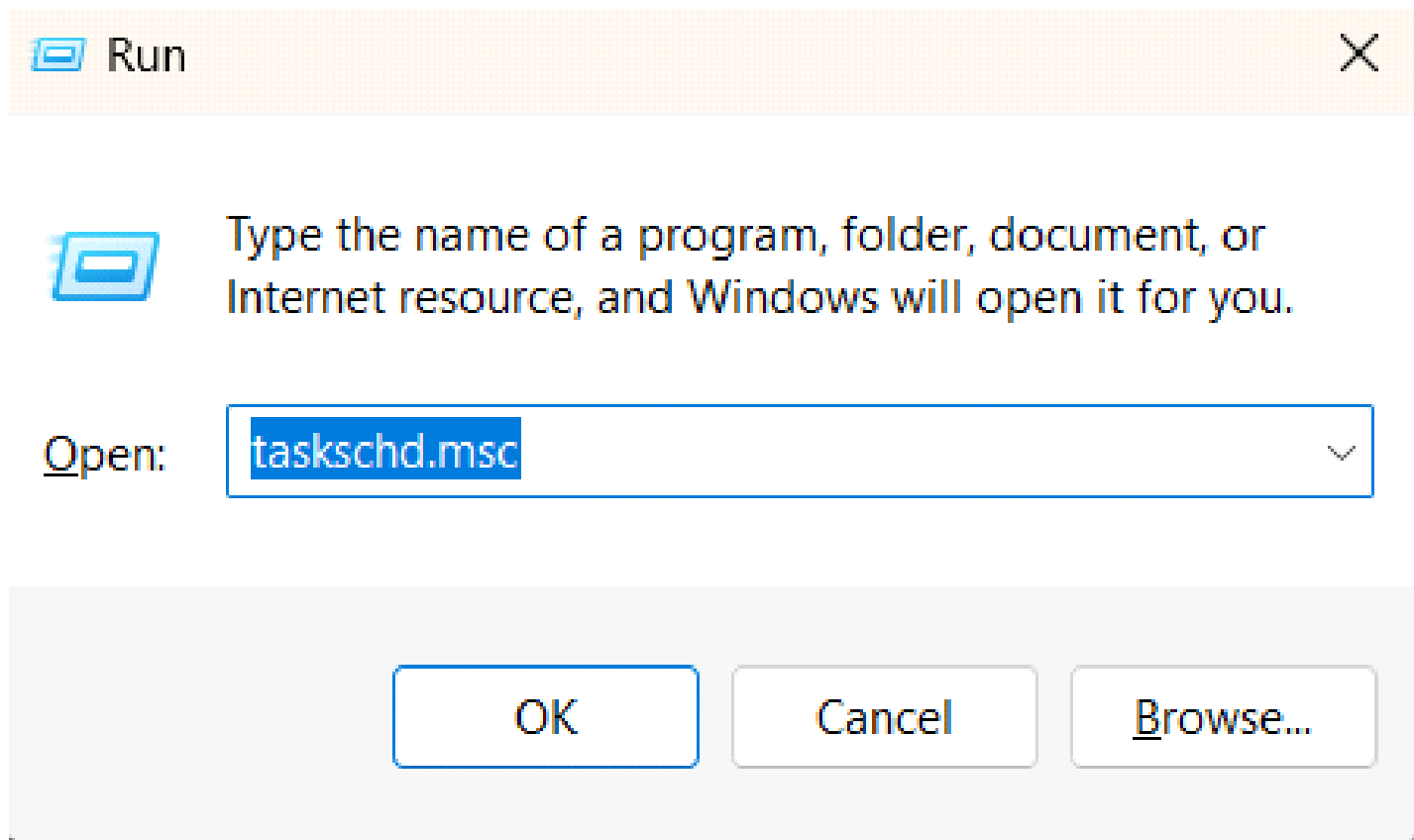
:: Ensure backup directory exists
if not exist "%BACKUP_DIR%" mkdir "%BACKUP_DIR%"
The directory or file cannot be created.

:: Navigate to the backup directory
cd /d "%BACKUP_DIR%"
The system cannot find the path specified.

:: Check if the repository is already cloned
if not exist "repo" (
More?     echo Cloning repository for the first time...
More?     git clone %REPO_URL% repo
More? ) else (
More?     echo Repository already exists. Pulling the latest changes...
More?     cd repo
More?     git pull
More?     cd ..
More? )
Cloning repository for the first time...
Cloning into 'repo'...
```

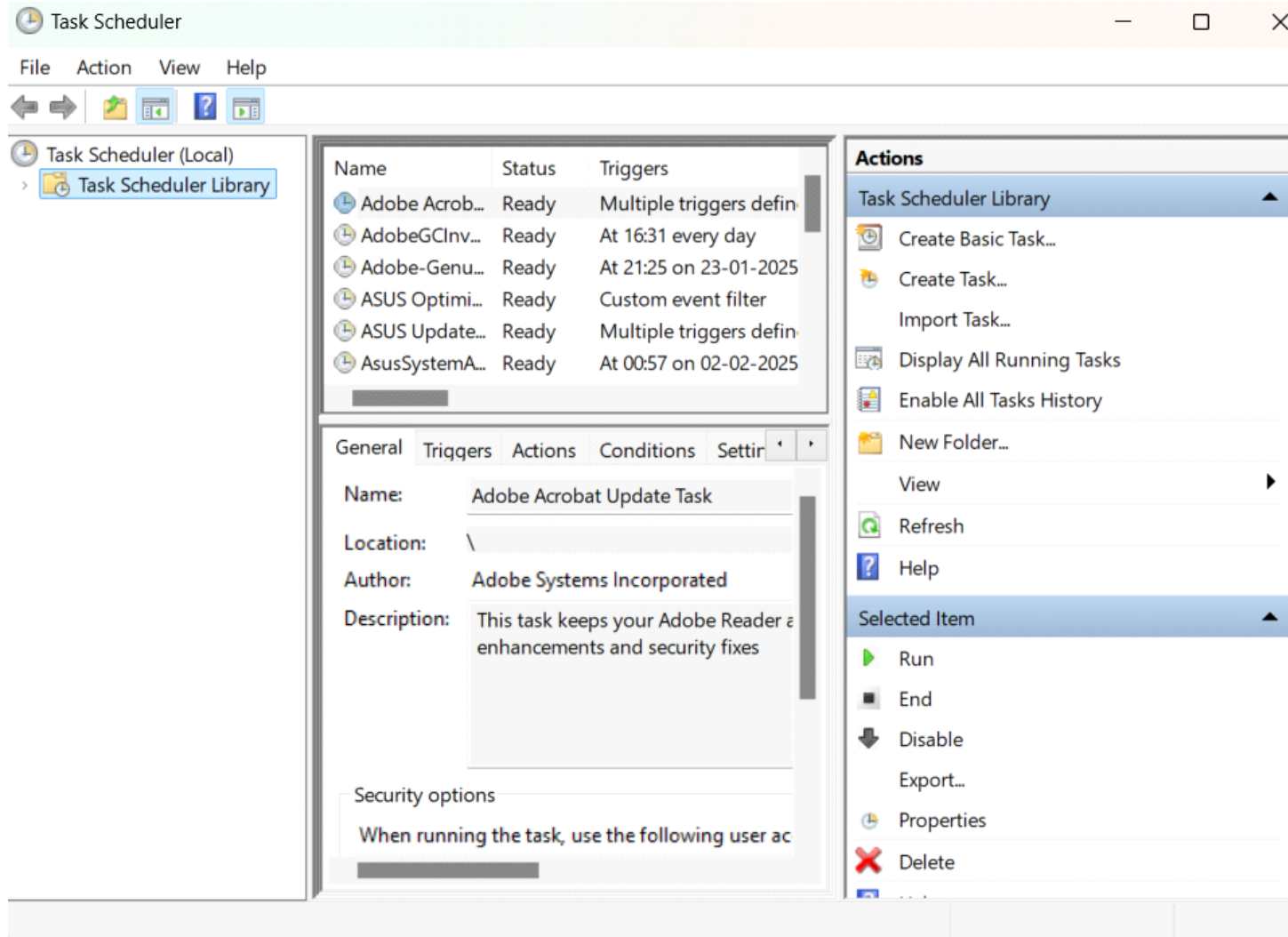
## Step 3

- 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 "Backup files daily".
2. Click Next to continue.
3. Choose a Schedule.

4. 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.

5. Click Finish to save and schedule the task.

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: GitRepoBackup

Description:

< Back

Next >

Cancel





## 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

## Create Basic Task Wizard



### Action

#### Create a Basic Task

Trigger

Daily

Action

Finish

What action do you want the task to perform?

- ☒ Start a program
- ☐ Send an e-mail (deprecated)
- ☐ Display a message (deprecated)

< Back

Next >

Cancel

## Create Basic Task Wizard



### Summary

#### Create a Basic Task

Trigger

Daily

Action

Start a Program

Finish

Name:

GitRepoBackup

Description:

|

Trigger:

Daily; At 21:44 every day

Action:

Start a program; C:\Users\nandh\OneDrive\Desktop\backup.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 scheduler

< Back

Finish

Can

## Step 6

In Task Scheduler, go to the Task Scheduler Library. Find your task. Right-click the task and select Run. This will manually trigger the task immediately

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.

Task Scheduler

FileActionViewHelp

Task Scheduler (Local)

Task Scheduler Library

Name	Status	Triggers
Adobe Acrob...	Ready	Multiple triggers defin
AdobeGCIInv...	Ready	At 16:31 every day
Adobe-Genu...	Ready	At 21:25 on 23-01-2025
ASUS Optimi...	Ready	Custom event filter
ASUS Update...	Ready	Multiple triggers defin
AsusSystemA...	Ready	At 00:57 on 02-02-2025

General

Triggers

Actions

Conditions

Settin

Name:

GitRepoBackup

Location:

\

Author:

NAN\nandh

Description:

Security options

When running the task, use the following user ac

Actions

Task Scheduler Library

Create Basic Task...

Create Task...

Import Task...

Display All Running Tasks

Enable All Tasks History

New Folder...

View

Refresh

Help

Selected Item

Run

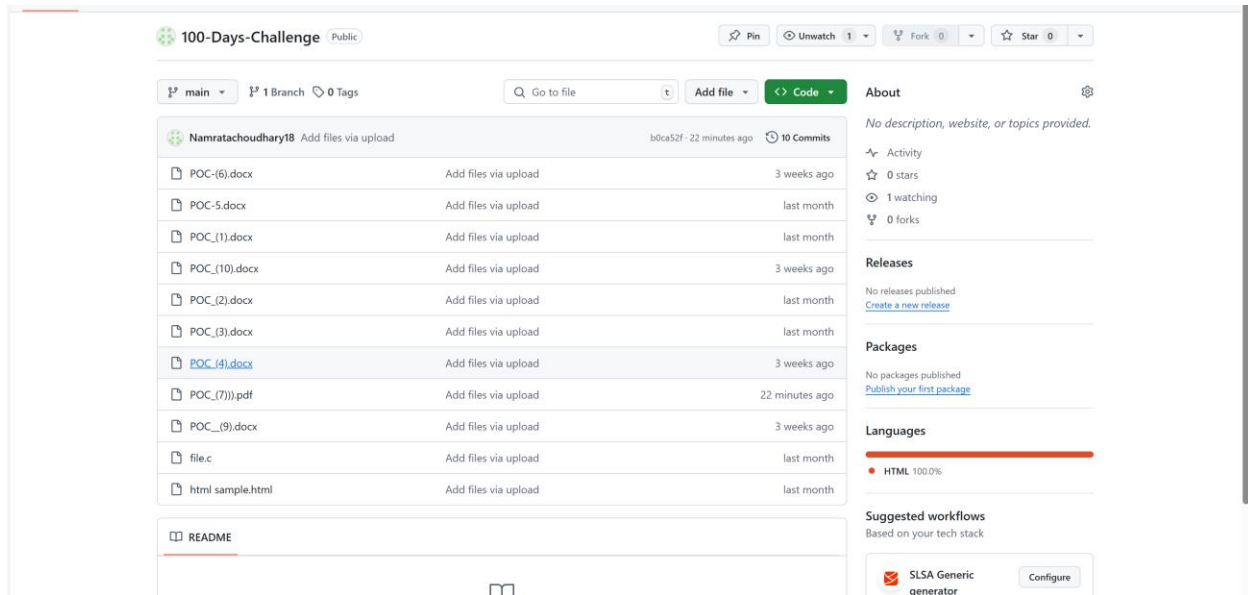
End

Disable

Export...

Properties

Delete



## Expected Outcome

By completing this PoC of setting up a local Git repository, 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.