Placement Empowerment Program
Cloud Computing and DevOps Centre

Create a script that copies your Git repository to the backup location

aws

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<u>Introduction: Automated Git Repository Backup Script</u>

➢ In software development, version control is crucial for managing code changes, and Git is one of the most widely used tools for this purpose. However, even with Git, maintaining a separate backup of your repository is essential to protect against accidental deletions, data corruption, or server failures.

➢ This guide provides a step-by-step approach to creating an automated Git repository backup script that runs daily. The script ensures that a mirror copy of your repository is saved to a local backup folder, preserving all commit history and branches. By automating the backup process, developers can safeguard their work without manual intervention, reducing the risk of data loss.

➢ The script is designed to be simple yet effective, using standard shell scripting for Linux/macOS and batch scripting for Windows. Additionally, it integrates with Cron Jobs (Linux/macOS) or Task Scheduler (Windows) to run on a scheduled basis.

➢ With this setup, you can ensure that your Git repositories are securely backed up and always available for recovery in case of emergencies.

Step 1: Choose Your Backup Directory

➤ Decide where you want to store your backups.
➤ For example: C:\path\to\backup\ (Windows)
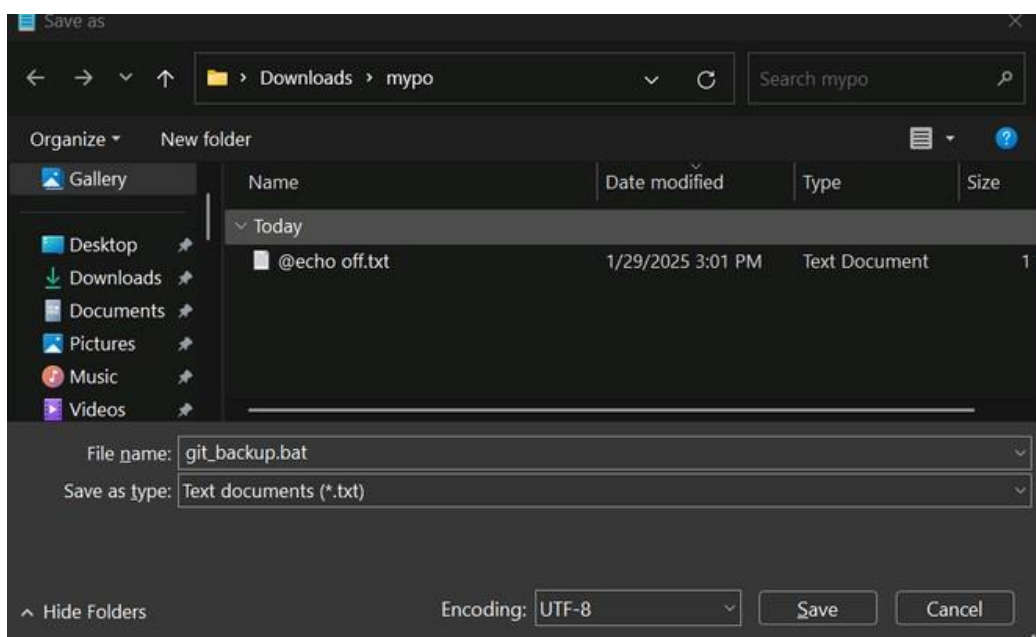
Step 2: Create the Backup Script

➤ Create a script that copies your Git repository to the backup location.
➤ For Windows (Batch Script) Open Notepad and paste the following:

```
@echo off
set REPO_PATH=C:\Users\ASUS\Downloads
set BACKUP_DIR=C:\Users\ASUS\Downloads
set TIMESTAMP=%date:~-4,4%-%date:~4,2%-%date:~7,2%_%time:~0,2%-%time:~3,2%-%time:~6,2%
set BACKUP_PATH=%BACKUP_DIR%\backup_%TIMESTAMP%

if not exist "%BACKUP_DIR%" mkdir "%BACKUP_DIR%"
git clone --mirror "%REPO_PATH%" "%BACKUP_PATH%"

echo Backup completed at %TIMESTAMP% >> "%BACKUP_DIR%\backup_log.txt"
```
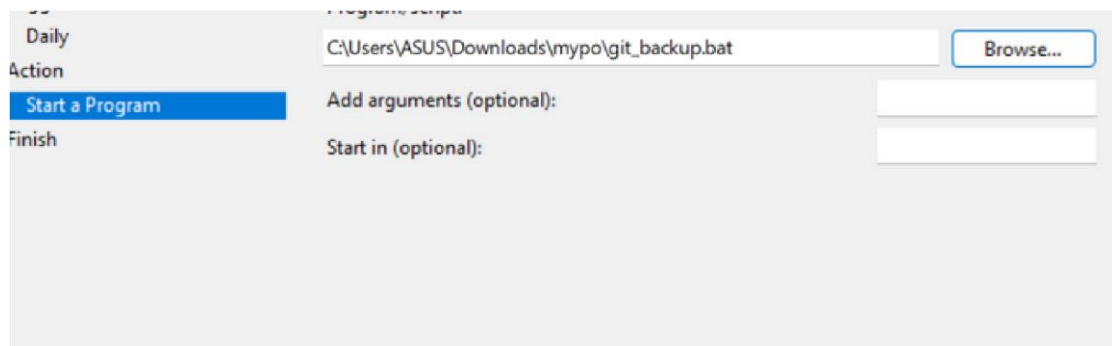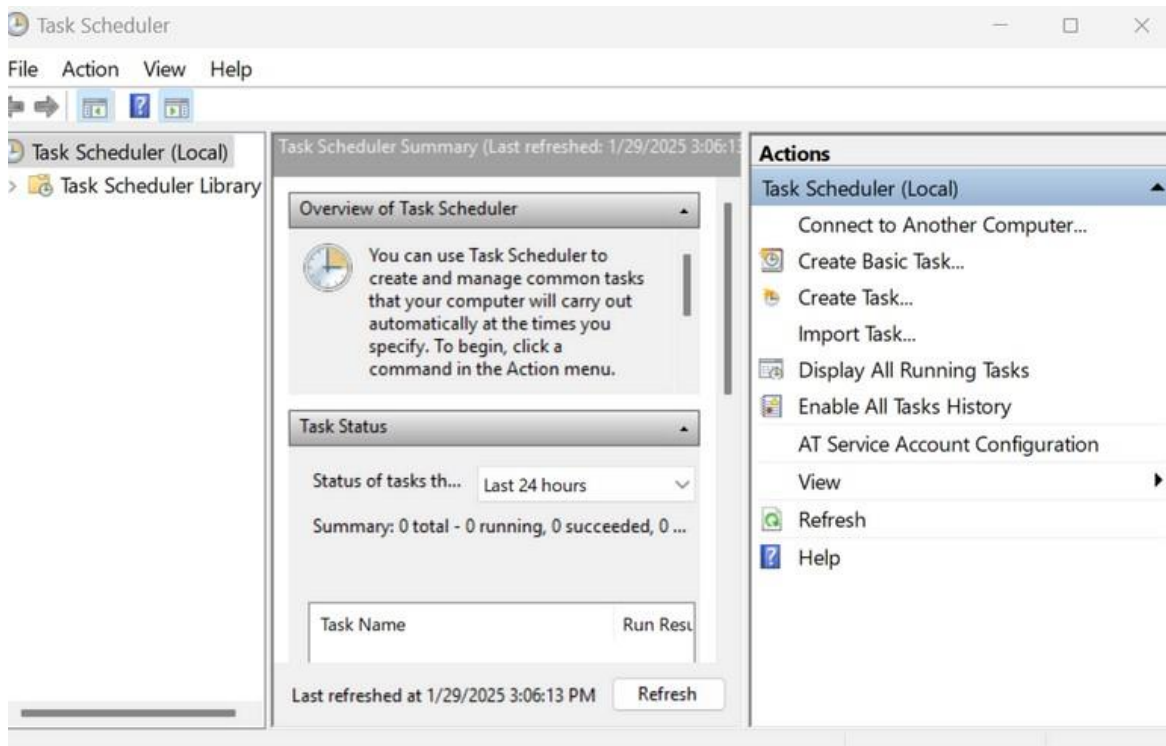
➤ Save as .bat file

Windows (Task Scheduler)

- ➢ Open Task Scheduler.
- ➢ Click Create Basic Task.
- ➢ Name it Git Backup and click Next.
- ➢ Choose Daily, set your preferred time, and click Next.
- ➢ Choose Start a Program and browse for git_backup.bat.
- ➢ Click Finish.

THANK YOU!