Placement Empowerment Program

Cloud Computing and DevOps Centre

Create a Simple Backup Script

Create a script that backups up your entire Git repository to a local folder daily

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Introduction

Automating Git repository backups helps prevent data loss by regularly saving copies of your repositories. This guide will walk you through creating a simple script using tar (Linux/macOS) or robocopy (Windows) to back up your Git repositories to a local folder daily, with automation via cron or Task Scheduler.

Overview

This project involves creating an automated backup script for Git repositories using shell scripting (tar) on Linux/macOS or batch scripting (robocopy) on Windows. The script will copy repositories to a designated backup folder daily, ensuring data safety. Automation will be handled using cron jobs (Linux/macOS) or Task Scheduler (Windows), eliminating the need for manual backups.

Objectives

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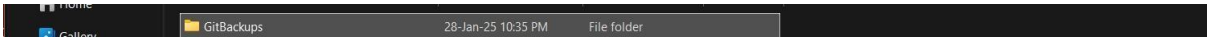
- Automate daily backups of Git repositories to a local folder.
- Use shell scripting (tar) for Linux/macOS and batch scripting (robocopy) for Windows.
- Ensure data safety by maintaining up-to-date repository copies.
- Implement task automation using cron (Linux/macOS) or Task Scheduler (Windows).
- Minimize manual effort while securing repository data efficiently.

Step-by-Step Overview Step 1

Choose Your Backup Location

Decide where you want to store your backup files.

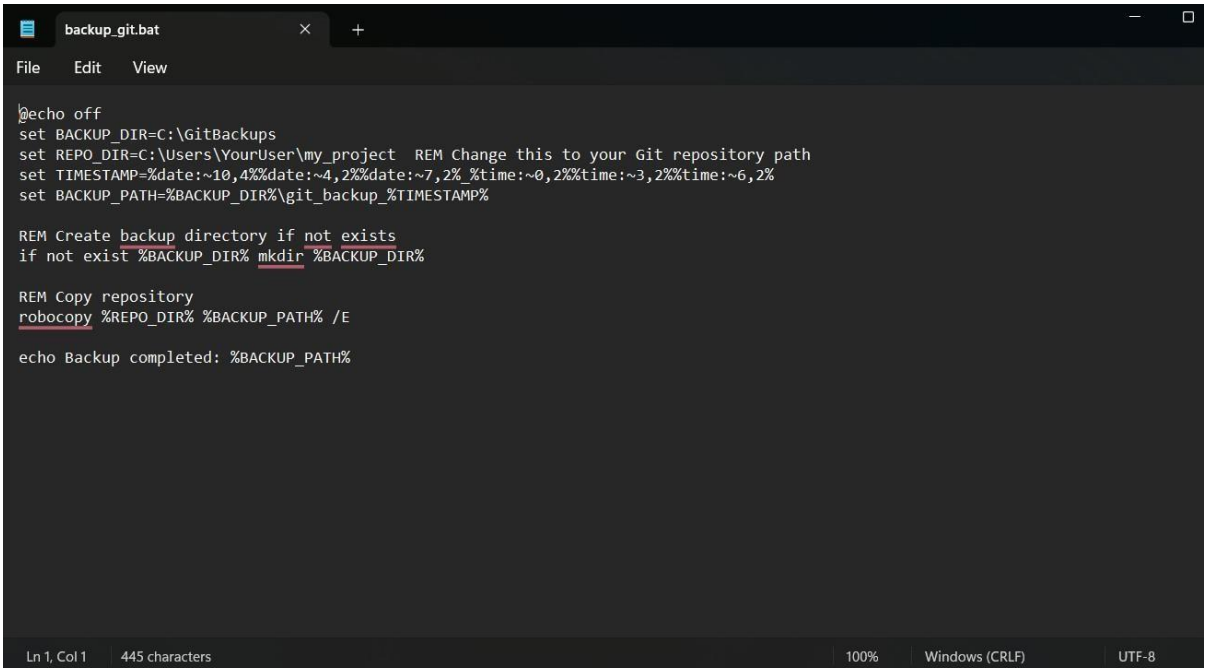
- Example for **Windows**: C:\GitBackups\



Step 2

Create the Backup Script

1. Open Notepad and paste the following script:



2. Save the file as backup_git.bat.

3. Double-click the script to test if it runs successfully.

Step 3

Automate the Backup

Open **Task Scheduler** (Win + R, then type taskschd.msc).

Click **Create Basic Task**.

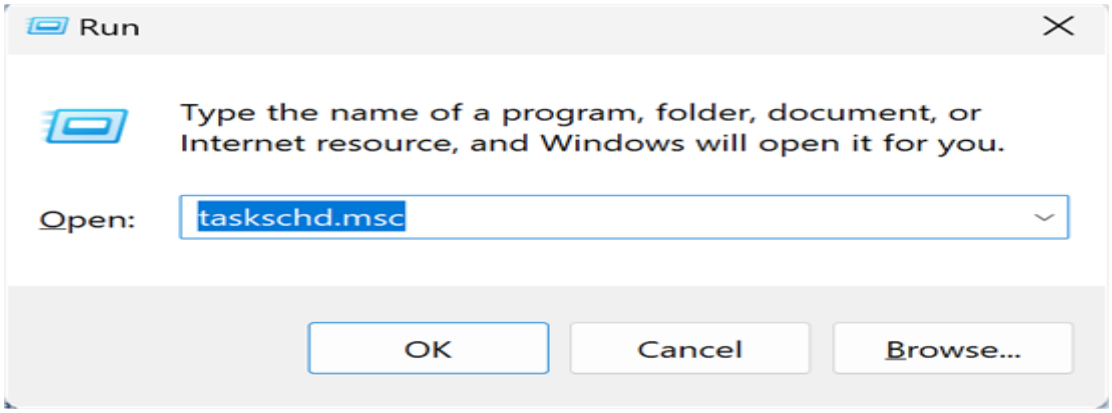
Name it **Git Backup** and click **Next**.

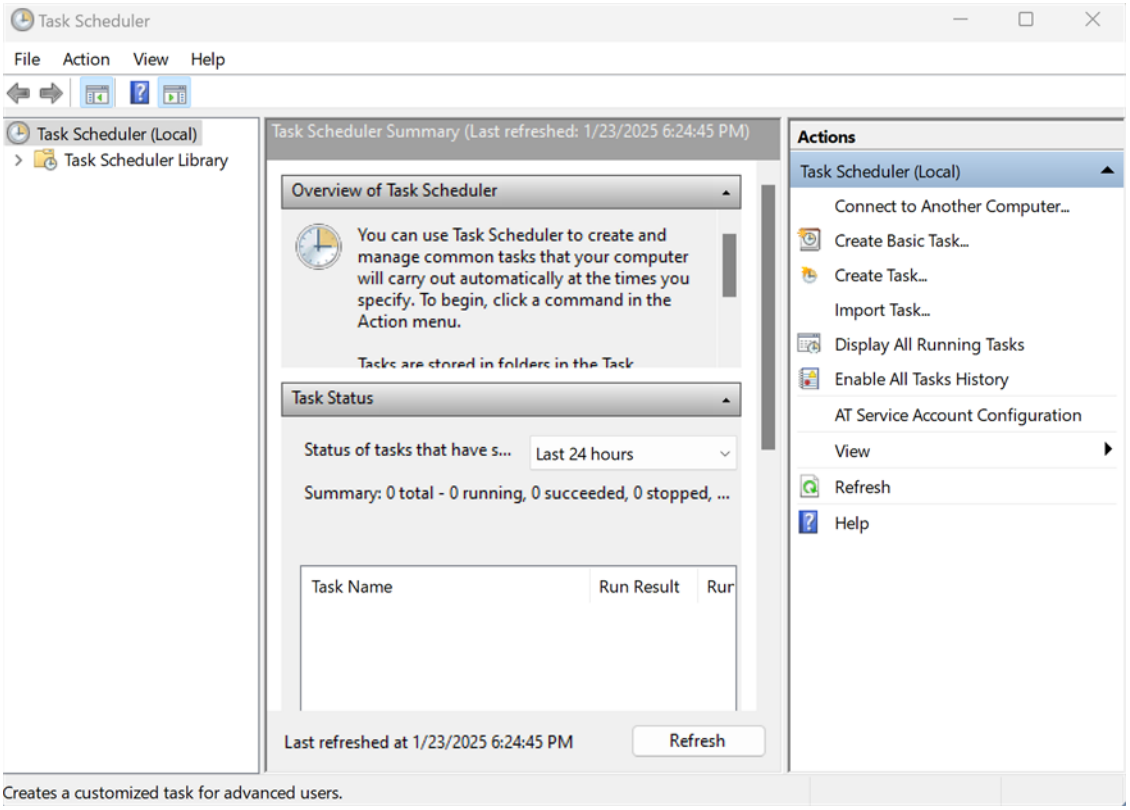
Choose **Daily**, then click **Next**.

Set the time you want the script to run (e.g., **2:00 AM**), then click **Next**.

Choose **Start a Program**, then **Browse** for backup_git.bat.

Click **Finish**.





Step 4

Step 4: Verify Your Backups

- Check the **backup directory** (~/git_backups on Linux/macOS or C:\GitBackups on Windows) to ensure backups are created.
- Open a backup file to confirm it contains your Git repository.