Day1- with gib- Installing and pushing scripts

Step- 1

Install github for windows and login with credentials-

<https://git-scm.com/download/win>

Using vs code, create a new folder and create a new file in that name- hello.sh

**git –version** to check the version and if git is successfully installed on comp

**git init** to initialize git.

**git add hello.sh** to add the file to github.

**git commit -m "Day 1: Hello DevOps script"** to commit the changes

I got an error here where it could detect my identity-

How to resolve-

**git config user.name "Gunjan Patil"**

**git config user.email** [**gunjanpatil057@gmail.com**](mailto:gunjanpatil057@gmail.com)

**git config –list**  to verify

1. **You created a repo locally**
   * Folder: C:\Users\GunjanP\Desktop\Dev-Ops
   * Command: git init → this told Git “start tracking changes in this folder.”
   * Inside, Git created a hidden .git folder that stores history, configs, branches.
2. **You created a file (hello.sh)**
   * At first, Git knew the file existed but wasn’t tracking it.
   * git add hello.sh → told Git “track this file and prepare it for the next commit.”
3. **First commit**
4. git commit -m "Day 1: Hello DevOps script"
   * Snapshot #1 created.
   * Git stored the **exact contents** of hello.sh at that moment.
   * Commit is like a *save point* in a video game 🎮 → you can always go back.
5. **Connected local repo → GitHub repo**
   * git remote add origin https://github.com/gunjan-786/DevOps-Learning.git
   * You told Git: “this GitHub repo is my remote storage.”
6. **First push**
   * git push -u origin main
   * Uploaded commit history from local → GitHub.
   * GitHub now has your code as a **backup + collaboration point**.
7. **Second change (Day 2: Testing PAT push)**
   * You edited hello.sh and added one line.
   * git add hello.sh → staged the change.
   * git commit -m "Day 2: Testing PAT push" → created Snapshot #2.
8. **Second push**
   * git push origin main
   * Sent the new snapshot to GitHub.
   * Now your repo shows **two commits** with their full history.

**🔹 Why is Git used?**

Git is a **Version Control System (VCS)**. It solves the biggest problems in coding:

1. **Tracks history**
   * Every change (commit) is recorded.
   * You can always go back in time or compare versions.
2. **Collaboration**
   * Multiple developers can work on the same project without overwriting each other.
   * Git merges changes intelligently.
3. **Branches**
   * You can create separate workspaces (git branch) to test new features.
   * Merge back when ready.
4. **Backups**
   * Local + Remote (GitHub). If your laptop crashes, your code is safe.
5. **Industry standard**
   * DevOps, Cloud, Software Development → everyone uses Git.
   * Tools like Jenkins, Docker, Kubernetes pipelines integrate with Git to fetch code and deploy it.

📌 In short:

* **Git = saves + manages code history locally.**
* **GitHub = remote storage + collaboration platform.**