PERSONAL ACCESS TOKEN-

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Step 1: First-Time Git Setup (On a New System)

Run these two commands to tell Git your name and email. You only need to do this **once** on any new computer.

```
git config --global user.name "srisaisohan29"
git config --global user.email "srisaisohan29@gmail.com"
```

Step 2: Get the Project from GitHub

Clone the repository to create a local copy and then navigate into the new project directory.

```
git clone https://github.com/srisaisohan29/lab-practice.git
cd lab-practice
```

Step 3: Create a New Branch for Your Work

Create a new branch so you don't work directly on the `master` branch.

```
git branch feature-update
git checkout feature-update
```

Step 4: Make Changes, Check Status, and Commit

Now, create a new file. Before you add and commit it, use **`git status`** to see that Git recognizes the new, "untracked" file.

```
# Create a new file named file3.txt with some text inside
git status
git add file3.txt
git commit -m "Add file3 for the new feature"
```

Step 5: Check the Commit History

Use `git log` to see your new commit. The `--oneline` flag makes it easy to read.

```
git log --oneline
```

Step 6: Keep Your `master` Branch Synced

Before you merge, make sure your local `master` branch has the latest updates from the remote repository using **`git pull`**.

```
git checkout master
git pull origin master
```

Step 7: Review Differences and Merge

Use **`git diff`** to see the changes between your branch and `master`, and then merge them.

```
git checkout feature-update
git diff master..feature-update
git checkout master
git merge feature-update
```

Step 8: Push Your Merged Changes

After merging, push the updated `master` branch to GitHub.

```
git push origin master
```

Step 9: Undo a Commit with `revert`

If you need to undo the last commit, use **`git revert`**. `HEAD` refers to the most recent commit.

```
git revert HEAD
# A text editor will open for the revert commit message, just save and close
it.
git push origin master
```