DEVOPS INTERNSHIP

TASK 2: Git & GitHub Fundamentals

Objective

The objective of this task is to understand and practice **version control using Git and GitHub**. This task focuses on learning real-world workflows such as repository initialization, commit management, branching, merging, rollback techniques, and remote repository collaboration.
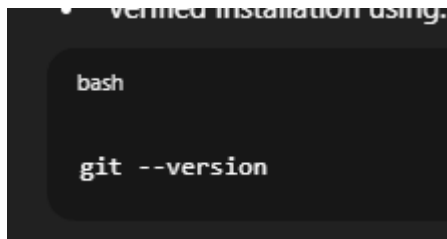
Tools Used

- **Primary Tools:** Git, GitHub

Task Activities Performed

1. Git Installation & Configuration

- Installed Git on the local system.

- Configured Git username and email globally using:

- git config --global user.name "Your Name"
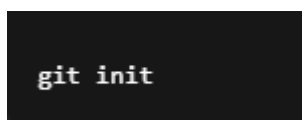- git config --global user.email your.email@example.com


```bash
git --version
```

2. Local Repository Initialization
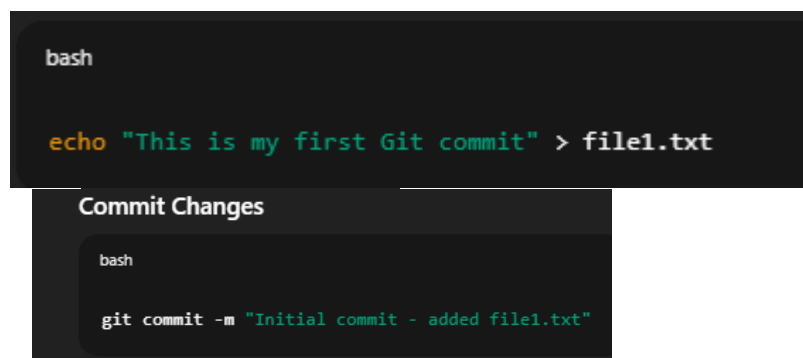
- Initialized a local Git repository using:

git init


```
git init
```

- Understood the purpose of the **.git** directory for tracking version history.

3. File Creation & Tracking

- Created files and monitored changes using:

- git status
- git add .
- git commit -m "Initial commit"


```bash
echo "This is my first Git commit" > file1.txt
```

Commit Changes

```bash
git commit -m "Initial commit - added file1.txt"
```

4. GitHub Repository Creation & Linking

- Created a new repository on GitHub.

- Linked the local repository to GitHub using HTTPS/SSH:

git remote add origin <repository-url>

5. Pushing Code to GitHub

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git remote add origin <repository-url>

5. Pushing Code to GitHub

- Pushed local commits to the remote repository using:

git push -u origin main

git push -u origin main

6. Branching & Merging

- Created a new branch and switched to it:

- git branch feature-branch
- git checkout feature-branch

Made changes and merged the branch back to main:

git checkout main

git merge feature-branch

7. Rollback & Version Control Practice

- Viewed commit history using:

git log

Practiced rollback operations using:

git reset

git checkout