

DAY 5 REPORT

Date: 13.06.2025

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DAY 3

Date : 11.06.2025

Understanding Git and GitHub (Basics)

What is Git?

Git is a distributed version control system that allows developers to:

- Track changes made to files
- Collaborate on code with others
- Revert to previous versions of files
- Work on different features using branches

What is GitHub?

GitHub is a web-based platform that hosts Git repositories. It allows you to:

- Store and manage code online
 - Collaborate with teammates
 - Create and review pull requests
 - Showcase projects publicly or privately
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Git Commands Practiced on Day 1

1. Initialize a Git Repository

```
mkdir gitlearning
```

```
cd gitlearning
```

```
git init
```

This creates a new Git repository in the folder.

2. Configure Git

```
git config --global user.name "Pavithra"
```

```
git config --global user.email "you@example.com"
```

Sets the name and email to be used for commits.

3. Check File Status

```
git status
```

Displays the current state of the working directory and staging area.

4. Add Files to Staging

```
echo "Hello Git" > example.txt
```

```
git add example.txt
```

Adds the file to the staging area in preparation for a commit.

5. Commit Changes

```
git commit -m "Add example.txt"
```

Creates a commit with a message.

6. View Commit History

```
git log
```

Displays the history of commits.

7. Create and Switch to a New Branch

```
git checkout -b new-branch
```

Creates a new branch and switches to it.

DAY 4

Date : 12.06.2025

GitHub Integration and Advanced Commands

Connecting to GitHub

1. Add Remote Repository

```
git remote add origin https://github.com/PavithraGanapathi/Git_Learn.git
```

Adds a remote named 'origin' that points to the GitHub repository.

2. Rename Current Branch to Main

```
git branch -M main
```

Renames the current branch to 'main'.

3. Push Code to GitHub

```
git push -u origin main
```

Pushes the local repository to GitHub and sets the upstream branch.

4. Create and Push a New Branch

```
git checkout -b feature-1
```

```
git push -u origin feature-1
```

Creates a new branch and pushes it to GitHub.

5. Merge a Branch into Main

```
git checkout main
```

```
git merge feature-1
```

Merges the feature branch into the main branch.

6. Pull Latest Changes from GitHub

```
git pull origin main
```

Fetches and integrates the latest changes from the remote repository into the current branch.

7. See All Branches

```
git branch
```

Lists all local branches.

8. Unstage a File

```
git restore --staged example.txt
```

Removes a file from the staging area without deleting it.

9. Check Remote URLs

```
git remote -v
```

Shows the URLs for the remote repositories.
