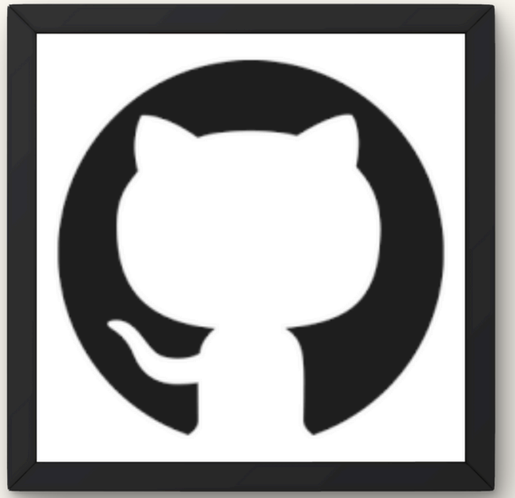
Introduction to Git



INTRODUCTION

- Git is a distributed version control system.
- It helps developers track changes in source code.
- Allows multiple people to work on the same project.
- Created by Linus Torvalds.

WHY GIT IS IMPORTANT

- Tracks complete history of a project.
- Enables teamwork without code conflicts.
- Provides backup and recovery.
- Supports branching and merging.

Basic Git Concepts

1. Repository

Project folder tracked by Git.

2. Commit

Saved snapshot of changes.

3. Branch

Parallel version of code.

4. Merge

Combine branches together.

Common Git Commands

1. git init

Initialize repository

2. git status

Check file status

3. git add

Stage changes

4. git commit

Save changes

SOURCE CONTROL

- Source Control manages changes in source code
- Tracks who changed what and when
- Maintains complete code history
- Prevents code loss and overwriting

TYPES & BENEFITS OF SOURCE CONTROL

Types of Source Control :-

- Local Version Control
- Centralized Version Control
- Distributed Version Control

Benefits:-

- Team collaboration
- Backup and recovery
- Error tracking
- Safe parallel development

CONCLUSION

- Git is essential for modern software development.
- Improves productivity and collaboration.
- Used in academics, startups, and enterprises.

The End