Introduction to Git

A SIMPLE OVERVIEW

Overview

- Version Control System (VCS)
- Git as a VCS
- Basic Git terminology and workflow
- Common Git commands

Version Control System (VCS)

- Keeps history of changes
- Helps avoid losing work
- Makes collaboration easier
- Allows rollback to previous versions
- Used for code, documents, designs, and reports

What is Git?

- Git is a version control system (a software)
- Works locally on your computer
- Tracks changes in files over time
- Created by Linus Torvalds
- Very fast and widely used

Fig: Git logo

Basic Git Terminology

- *Repository (repo)* – project folder tracked by Git
- *Commit* – snapshot of changes
- *Branch* – parallel version of code
- *Main / Master* – default branch
- *Clone* – copy a repo
- *Push / Pull* – send or receive changes

Basic Git Workflow

- Edit files
- Stage changes
- Commit changes
- Push to remote server (for example GitHub)
- Pull updates from others

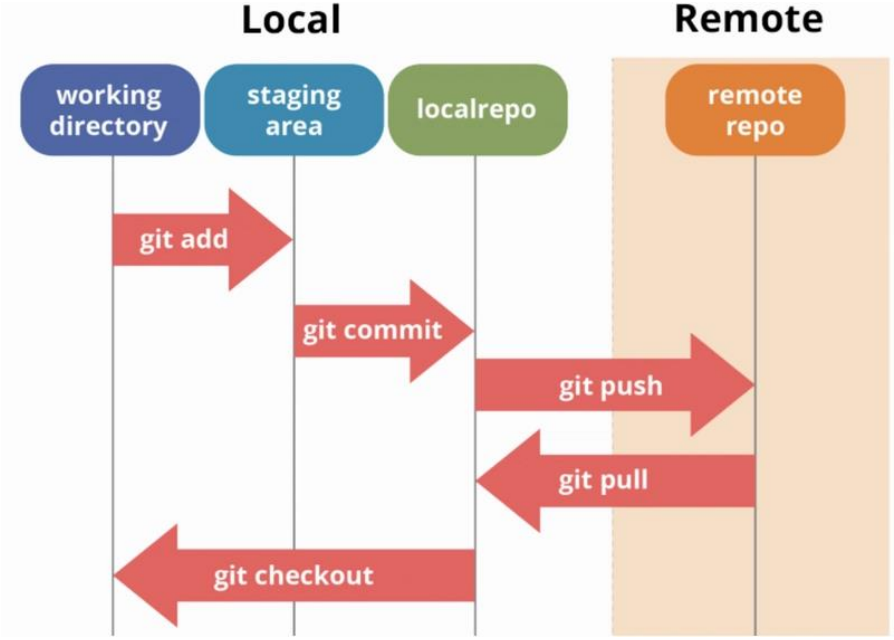

Fig: Simple git workflow

Common Git Commands

- *git init* – start a repository
- *git status* – check status
- *git add* – stage changes
- *git commit* – save changes
- *git push* – upload changes
- *git pull* – download changes

Branching Concept

- Branch = independent line of development
- Main branch stays stable
- New features developed in separate branches
- Multiple people can work simultaneously

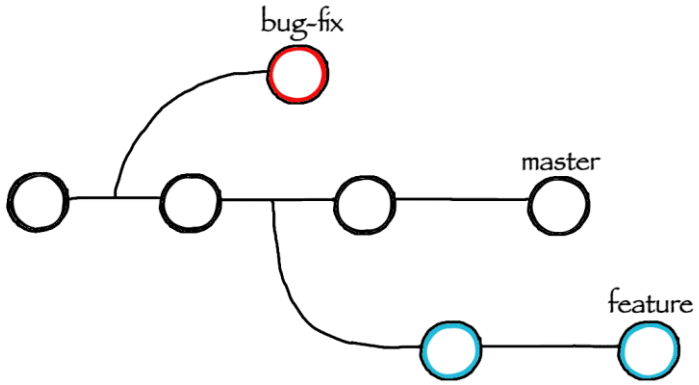

Fig: git branch concept

Thank You

Any Questions?