



GIT & GITHUB

COMMITTS . BRANCHES . MERGE
PULL REQUESTS . REVIEWS
REBASE . CONFLICTS . RECOVER

DURATION

25 Hours

LEVEL

**Beginner to
Intermediate**

MODULES

8

MODE

**Classroom ·
Online · Hybrid**

01 COURSE OVERVIEW

A version control course covering Git internals, day-to-day workflows and GitHub collaboration. The course explains what Git actually stores, so that branching, rebasing and conflict resolution stop being guesswork. Team workflows, pull request review practice and GitHub Actions automation follow.

Learners work in pairs on a shared repository, including deliberate conflict and recovery exercises.

WHO IT IS FOR

Developers at any level

QA and data teams sharing code

Technical writers and analysts

Teams standardising a branching model

PREREQUISITES

Basic command line familiarity.

02 LEARNING OUTCOMES

01 Explain commits, trees, refs and HEAD.

03 Resolve conflicts without losing work.

05 Review code and respond to review comments.

07 Automate checks with GitHub Actions.

02 Branch, merge and rebase with confidence.

04 Write useful commits and pull requests.

06 Recover from mistakes with reflog and reset.

01 GIT FUNDAMENTALS

Repositories

Commits

HEAD

Staging area

Objects and refs

Configuration

LAB

FIRST REPOSITORY

02 BRANCHING AND MERGING

Branches

Merge strategies

Cherry-pick

Fast-forward vs merge commits

Tags

LAB

FEATURE BRANCH WORKFLOW

03 REBASE AND HISTORY

Interactive rebase

Amend

reset vs revert

Squashing

Reflog

Bisect

LAB

CLEAN A MESSY BRANCH

04 REMOTES AND GITHUB

Clone, fetch, pull, push

Forks

Repository settings

Remotes

SSH keys

Protected branches

05 COLLABORATION

Pull requests

Draft PRs

Issues and projects

Code review practice

CODEOWNERS

Conventional commits

LAB

PAIRED REVIEW EXERCISE

06 CONFLICTS AND RECOVERY

Conflict anatomy

Rerere

Worktrees

Merge tools

Stash

Recovering lost commits

LAB

CONFLICT DRILL

07 WORKFLOWS

Trunk-based development

Release branches

Monorepo notes

Git flow

Semantic versioning

08 GITHUB ACTIONS

Workflow syntax

Jobs and matrices

Caching

Triggers

Secrets

Publishing artifacts

PROJECT

REPOSITORY WITH AUTOMATED CHECKS

04 ASSESSMENT & CERTIFICATION

Module assignments and labs

25%

Mini projects

20%

Internal assessments

15%

Final project and review

40%

CERTIFICATION

Learners who complete all modules, submit the final project and clear the review receive a course completion certificate from Kaizen Infinities Private Limited. Project work is documented for the learner's portfolio, and interview preparation is included in the closing sessions.

05 CAREER OUTCOMES

ROLES THIS PROGRAMME PREPARES FOR

SOFTWARE DEVELOPER

DEVOPS ENGINEER

QA AUTOMATION ENGINEER

TECHNICAL LEAD

RELEASE COORDINATOR

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