

# Week 2: Version Control with Git & GitHub

## Overview

In Week 2, we will dive into version control using Git and GitHub. You'll learn how to manage your source code

effectively, work with branches, resolve merge conflicts, and collaborate with teams using pull requests.

## Learning Objectives

1. Understand Git fundamentals.
2. Learn how to create branches and merge code.
3. Master GitHub workflows: pull requests, issues, and forks.
4. Work with remote repositories and resolve conflicts.
5. Hands-on: Set up GitHub repository, work with branches, handle merges.

## Module Content

1. **What is Git?**: Overview of version control, Git basics, distributed version control.
2. **Branching and Merging**: Working with Git branches, understanding merges.
3. **GitHub Workflows**: Pull requests, code reviews, forks, and issues.
4. **Conflict Resolution**: Handling merge conflicts and keeping repositories clean.
5. **Hands-On Lab**:
  - Set up GitHub repository.
  - Create a feature branch and make changes.

- Open a pull request and merge changes back into the main branch.

## **Hands-On Lab**

This week, you'll practice creating and managing a repository on GitHub.

## **Conclusion**

By the end of this week, you will have a deeper understanding of Git and GitHub workflows.