GitHub for Developers

Course Outline

Getting Started With Collaboration

What is GitHub?

The GitHub Ecosystem

What is Git?

Exploring a GitHub Repository

Using GitHub Issues

Activity: Creating A GitHub Issue Using Markdown

Understanding the GitHub

The Essential GitHub Workflow

Branching with Git

Branching Defined

Activity: Creating A Branch with GitHub

Local Git Configuration

Checking Your Git Version

Git Configuration Levels

Viewing Your Configurations

Configuring Your User Name and Email

Configuring autocrlf

Working Locally with Git

Creating a Local Copy of the repo

Our Favorite Git command: git status

Using Branches locally

Switching Branches

Activity: Creating a New File The Two Stage Commit

Collaborating on Your Code

Pushing Your Changes to GitHub

Activity: Creating a Pull Request

Exploring a Pull Request

Activity: Code Review

Editing Files on GitHub

Editing a File on GitHub

Committing Changes on GitHub

Merging Pull Requests

Merge Explained

Merging Your Pull Request

Updating Your Local Repository

Cleaning Up the Unneeded Branches

Viewing Local Project History

Using Git Log

Streamlining Your Workflow with Aliases

Creating Custom Aliases

Workflow Review Project: GitHub Games

User Accounts vs. Organization Accounts

Introduction to GitHub Pages

What is a Fork?

Creating a Fork

Workflow Review: Updating the README.md

Resolving Merge Conflicts

Local Merge Conflicts

Working with Multiple Remotes

Remote Merge Conflicts

Exploring

Searching for Events in Your Code

What is git bisect?

Finding the Bug in Our Project

Reverting Commits

How Commits Are Made

Safe Operations

Reverting Commits

Helpful Git Commands

Moving and Renaming Files with Git

Staging Hunks of Changes

Viewing Local Changes

Comparing Changes within the Repository

Creating a New Local Repository

Initializing a New Local Repository

Fixing Commit Mistakes

Revising Your Last Commit

Rewriting History with Git Reset

Understanding Reset

Reset Modes

Reset Soft

Reset Mixed

Reset Hard

Does Gone Really Mean Gone?

Getting it Back

You Just Want That One Commit

Oops, I Didn’t Mean to Reset

Merge Strategies: Rebase

About Git rebase

Understanding Git Merge Strategies

Creating a Linear History