# Git and GitHub for Developers - Course Outline

## Git/GitHub Basics

### Introduction to Git and Version Control

* 1. What is Version Control?
  2. Why Use Version Control?
  3. What is Git?

### Introduction to GitHub

* 1. What is GitHub?
  2. Benefits for Developers
  3. GitHub vs. Other Services

### How Git and GitHub Work Together

* 1. Local Development
  2. Commit Changes
  3. Push to GitHub
  4. Pull from GitHub
  5. GitHub Features

## Getting Started with Git and GitHub

### Git Installation

* 1. Windows Installation
  2. macOS Installation
  3. Git Configuration

### Creating a GitHub Account

* 1. Account Setup
  2. Profile Setup
  3. Authentication Options

## Git/GitHub Basic Workflow

### Creating a Repository

* 1. Creating a Repository on GitHub
  2. Repository Options and Settings

### Setting up the Local Repository

* 1. Cloning the Repository
  2. Repository Structure

### Your First Push

* 1. Creating Your First File
  2. Committing and Pushing Changes

## Key Parts of a Repository

### README File

* 1. Purpose and Best Practices
  2. Markdown Formatting
  3. Examples

### .gitignore

* 1. Purpose
  2. Common Patterns
  3. Templates

### Code Folders

* 1. Organization Strategies
  2. Standard Structures

### .gitkeep

* 1. Tracking Empty Directories

## Collaborating with Git/GitHub

### How to Clone a Repository

* 1. HTTPS Cloning
  2. Authentication

### How to Push Changes

* 1. Staging Files
  2. Commit Messages
  3. Push Operations

### Pulling Other People's Changes

* 1. Pull Operations
  2. Keeping Up-to-Date

### Resolving Merge Conflicts

* 1. Understanding Conflicts
  2. Conflict Resolution Process
  3. Conflict Prevention

## Part II: Project Management with Git

### GitHub Project Tools Overview

* 1. Planning Board
  2. Roadmaps
  3. Issues
  4. Development Branches
  5. Pull Requests
  6. Reviewers and Merges
  7. Closing Issues, PRs, and Branches

### GitHub Project Walkthrough

* 1. Creating an Issue
  2. Creating a Branch
  3. Developing Code
  4. Committing and Pushing Changes
  5. Creating a Pull Request
  6. Code Review Process
  7. Merging the Pull Request
  8. Clean Up
  9. Updating the Project Board