Course Title: Team Collaboration and Version Control

Course Description:

Software developers working on a project are continuously changing the project source code. They may add new files, modify existing ones, or delete files. Version Control Systems (VCS) help teams keep track of changes made by individual contributors, helping them manage conflicting changes. A VCS keeps the the change history of a project in an internal database, provides traceability, and helps a team revert changes where necessary.

This course will introduce you to Git - the most popular VCS in use today. It will ensure you are familiar with the basics of using Git, and some advanced concepts as well. The course will also introduce to Github, a web-based hosting service for git projects.

This course will also introduce you to 2 tools we will be using quite heavily for team communication - Trello and Slack.

An introduction to version control using git, and team collaboration using Github, Trello, and Slack. The following content will be covered in the course:
1. Introduction to Git
    a. Overview
    b. Making Commits
    c. Undoing and Editing Commits
    d. Branching
    e. Tracking Repositories
    f. Merging
    g. Viewing History
2. Introduction to Github
    a. Creating a Github repository
    b. Git push
    c. Git pull
    d. Git clone
    e. SSH and passwords
3. Introduction to Trello
4. Introduction to Slack

Main Course Textbook :

Pro Git book by Scott Chacon and Ben Straub. It is included in your module folder. You can also download the book here.

Essential reading :

1. Pro Git
    a. Chapter 1 - Getting Started
    b. Chapter 2 - Git Basics
    c. Chapter 3 - Git Branching
    d. Chapter 4 - Git on the Server (Sections 4.1 to 4.3 only)
    e. Chapter 6 - Github
        You may also want to look at the following:
        i. Github Guides - Hello World
        ii. Github Guides - Getting your Project on Github
    f. Chapter 7 - Git Tools
2. Trello Help docs
    a. Trello 101
    b. Create A Board
    c. Feature Deep Dive
    d. Collaboration
3. Slack Getting Started Guide

Further Reading:

1. Git Katas is a repository with a set of exercises to test your knowledge of Git. You can start working on the exercises on the overview page.
2. 'Pro Git Reedited' by Scott Chacon, edited by Jon Forrest. This is text is based of Scott Chacon's Pro Git, but re-edited by Jon Forrest. It is a good reference to consult for any sections in Pro-Git for which you may need clarification. It is included in your module folder

Assessment:

The assessment for this module will contain a series of objective questions to test your knowledge of the material.