Course Introduction

Welcome to this course on Git and GitHub!

**Distributed Version Control Systems (DVCS) have become critical tools in software development,** and key enablers for **social and collaborative coding**. They are not only being used by Software Engineers and DevOps professionals but also by many other technology practitioners such as Data Scientists and Data Engineers.

However their usage is not limited to coding professions only. They are useful anywhere tracking changes/versions and/or collaboration between multiple users is required. At IBM Skills Network, the course instructors and authors use Git repositories extensively even for developing course content such as lab instructions. You will also find usecases in technical documentation, legal document management, and even collaborative development of recipes, books, etc.

While there are many distributed versioning systems, Git is amongst the most popular ones. And **GitHub is a highly popular Git-based hosted version control platform**, and is seeing incredible growth. When some of the videos for this course were developed couple of years earlier, there were over 100 million GitHub repositories, whereas at the time of writing, January 2022, they have grown to over 200 million repositories. These include both public and private repositories for both open source and closed source projects.

The popularity of **Git and GitHub** make their use **an essential skill for coding-related professionals** like Software Engineers, Application Developers, Mobile Developers, DevOps & Site Reliability Engineers, Data Scientists, and Data Engineers. When you try to get a software-related job or switch to a different one, employers expect you to provide links to your GitHub profile on your resume.

In this course you will **develop the essential conceptual and hands-on skills to work with Git and GitHub**. We will start with an overview of Git and GitHub, followed by **creation of a GitHub account and a project repository**, adding files to it, and committing your changes using the web interface.

Next, you will become familiar with **Git workflows involving branches and pull requests (PRs) and merges**. You will learn to **fork and clone** public repositories, use **pull and push** to synchronize your codebase between local and remote repositories, and **practice working with Git commands** for use in collaborative development workflows. You will also **complete a project** at the end to apply and demonstrate your newly acquired skills.

If you require any clarifications or help, feel free to post on the course discussion forums to interact with your peers and get assistance from the course team.

Have fun and best wishes!

Your course instructors,

Rav Ahuja and Upkar Lidder