**Getting Started with Git and GitHub**

[Getting Started with Git and GitHub | Coursera](https://www.coursera.org/learn/getting-started-with-git-and-github#syllabus)

## About this Course

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Collaboration and social coding are crucial parts of contemporary Software Engineering practices and the DevOps culture. In this course, you’ll be introduced to collaborative version control and popular Git platforms.

You will explore key Git concepts such as branching and repositories, as well as the use of Git commands. You will also learn and practice various Git concepts such as forking, cloning and merging workflows. You will learn to use GitHub to work effectively as a team, and perform common Git operations, such as Pull Requests, from both the Web UI and command line. Developed and taught by experienced IBM practitioners, in this course you’ll gain vital skills and hands-on experience using Git and GitHub. Each module contains hands-on labs for you to apply and practice what you learn. The course wraps up with a final project where you will start building your portfolio by creating and sharing a public/open-source GitHub project. All hands-on activities in this course can be performed using web-browser based tools and interfaces. Installation of any specialized software is NOT required on your own computer in order to complete the course.

### This course is part of multiple programs

This course can be applied to multiple Specializations or Professional Certificates programs. Completing this course will count towards your learning in any of the following programs:

* [Applied Software Engineering Fundamentals Specialization](https://www.coursera.org/specializations/software-engineering-fundamentals)
* [IBM Full Stack Software Developer Professional Certificate](https://www.coursera.org/specializations/ibm-full-stack-cloud-developer)
* [IBM DevOps and Software Engineering Professional Certificate](https://www.coursera.org/specializations/devops-and-software-engineering)

## WHAT YOU WILL LEARN

* Describe version control and its place in social and collaborative coding ​and in DevOps.
* Explain basic Git concepts such as repositoriesand branches used for distributed version control and social coding.
* Create GitHub repositories and branches, and perform pull requests (PRs) and merge operations, to collaborate on a team project.
* Build your portfolio by creating and sharing an open-source project on GitHub.

## SKILLS YOU WILL GAIN

* Distributed Version Control (DRCS)
* open source
* Version Control Systems
* Github
* Git (Software)

## Offered by

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## Syllabus - What you will learn from this course

WEEK

1

**1 hour to complete**

## Git and GitHub Fundamentals

Application developers rarely work alone. Large web/cloud/mobile development and data science projects will include many people – front-end developers, back-end developers, database administrators, repository administrators, and others. Every change by every contributor must be tracked and controlled to enable collaboration, accountability and version management. This type of distributed version control is extremely important when managing both small and large software projects. In this module you will learn about some of the popular version control tools, create a GitHub account and use the GitHub web interface to create a repository, add a file to it and commit your changes.

4 videos (Total 17 min), 2 readings, 2 quizzes

See Less

**4 videos**

[Overview of Version Control, Git, and GitHub](https://www.coursera.org/lecture/getting-started-with-git-and-github/overview-of-version-control-git-and-github-5PZSe)4m

Introduction to GitHub4m

GitHub Repositories4m

GitHub - Getting Started3m

**2 readings**

Course Introduction10m

Module Summary2m

**2 practice exercises**

Practice Quiz: Getting Started with Git and GitHub10m

Graded Quiz: Getting Started with Git and GitHub15m

WEEK

2

**4 hours to complete**

## Using Git Commands and Managing GitHub Projects

Branches are the heart of workflows in Git-based version control systems like GitHub. In this module you will become familiar with creating and using branches, and merging your changes to the main branch with Pull Requests. As you start working with GitHub repositories and automating workflows, using the web interface can be limiting and more time-consuming. This is where Git commands come in. You can use from your own desktop or a Cloud IDE - wherever you develop your code. In this module you will also become familiar with and utilize various Git commands to clone and fork repositories, as well as commit, push and pull your changes using the command line.

3 videos (Total 14 min), 2 readings, 4 quizzes

See Less

**3 videos**

[GitHub Branches and Pull Requests](https://www.coursera.org/lecture/getting-started-with-git-and-github/github-branches-and-pull-requests-EwhLD)5m

Cloning and Forking GitHub Projects6m

Managing GitHub Projects3m

**2 readings**

Module Summary 2m

Using Git Commands from your Desktop10m

**2 practice exercises**

Practice Quiz: GitHub Workflows with Branches and Git Commands10m

Graded Quiz: GitHub Workflows with Branches and Git Commands15m

WEEK

3

**3 hours to complete**

## Final Project

Now that you are familiar working with GitHub repositories, Branches, and Git commands, in this final project you will apply your knowledge and skills to create a GitHub Project, add few files to it such as an open-source license, and share it publicly.

1 reading

See Less

**1 reading**

Credits and Acknowledgments5m