

Git Course: Introduction



In today's software-driven world, development and version control have become fundamental skills for anyone writing computer programs. Git, a powerful tool for accomplishing these tasks, has taken centre stage in every programmer's toolkit.

This introductory course will be guided by the GitHub.com interface, which encompasses both desktop and web portal applications.

Intended audience

This course adopts a practical, career-oriented approach. It is tailored for coders who regularly write and develop code but are new to git software, and for managers overseeing such teams. It is not suitable for those new to computer programming.



Course duration

1 session, 8 hours total



Time

9am - 5pm



Format

Face-to-face or Online in real-time



Dates

Browse available course dates

Prerequisites

The course uses the R Programming Language as a simple language to illustrate examples.

It is assumed you have completed the R Programming Course: Introduction or Python Programming Course: Level 1a or have equivalent programming knowledge.



Upon completion

Every participant receives a University of Sydney certificate of completion.



Aims

The aim of this course is to give you confidence using git version control software. By the end of this course, you should be able to comfortably work with code in Git repositories.



Outcomes

By the end of this course, you should be able to:

- explain what git version control is and its advantages
- comfortably use the github.com interface
- set-up a repository in github.com
- review changes in code history
- differentiate between local and remote repositories
- define and use git terms such as cloning, forking, commit, add, push, pull, merge
- create and work in new branches
- clone and push/pull data from remote to local repositories
- use both Command Line Interface (CLI) and Desktop Git interfaces.



Content

Software

- Github.com
- Command Line Interface (CLI)
- Desktop software

Theory/Concepts

- Repository
- Local vs remote (origin)
- Main vs branch

Git actions

- Clone/fork/new branches
- Add/stage/commit
- Push/pull (fetch and merge)

Review

- Commit history
- Diff
- Pull Requests (via github.com)
- Merge conflicts





Before the course

Please sign up for a free git account at www.github.com, and download the following software prior to class:

- Git for Windows (for Windows users only)
- Both R and Rstudio

Delivery style

This programming course is an interactive workshop which includes lectures and demonstrations, individual exercises and discussion.



Organisational training and development

This course can be delivered as a private session for groups, and tailored to meet the needs of your business. Contact us to discuss our range of organisational training solutions.

Learn more



We recognise and pay respect to the Elders and communities - past, present, and emerging - of the lands that the University of Sydney's campuses stand on. For thousands of years they have shared and exchanged knowledges across innumerable generations for the benefit of all.

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