Git workshop

A Practical Introduction

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Developer Community
Deloitte Consulting

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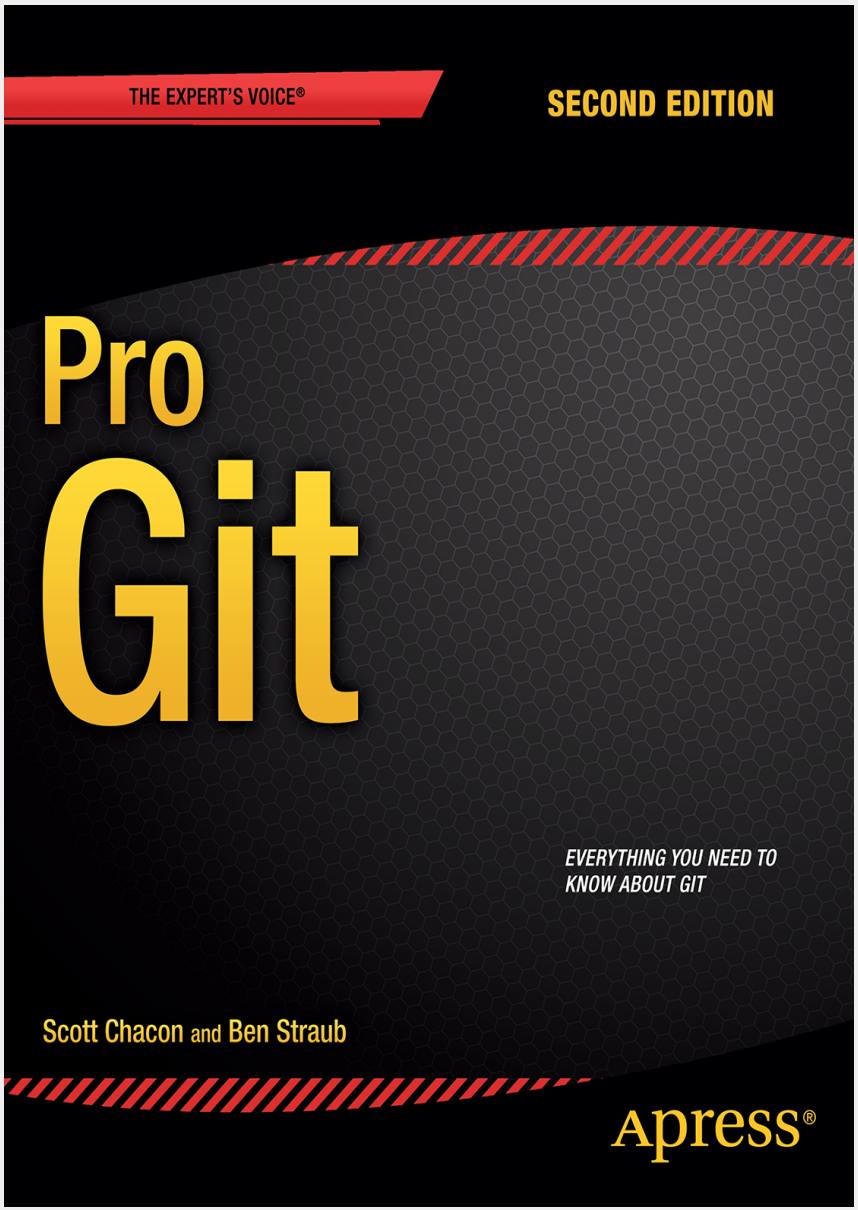
git

--distributed-is-the-new-centralized

GIT BOOK



Available as free ebook

https://git-scm.com/book/en/v2

Outline

1. Centralized vs. distributed version control
2. Deltas vs. snapshots
3. Commands
4. Template examples

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1 Centralized vs. distributed version control

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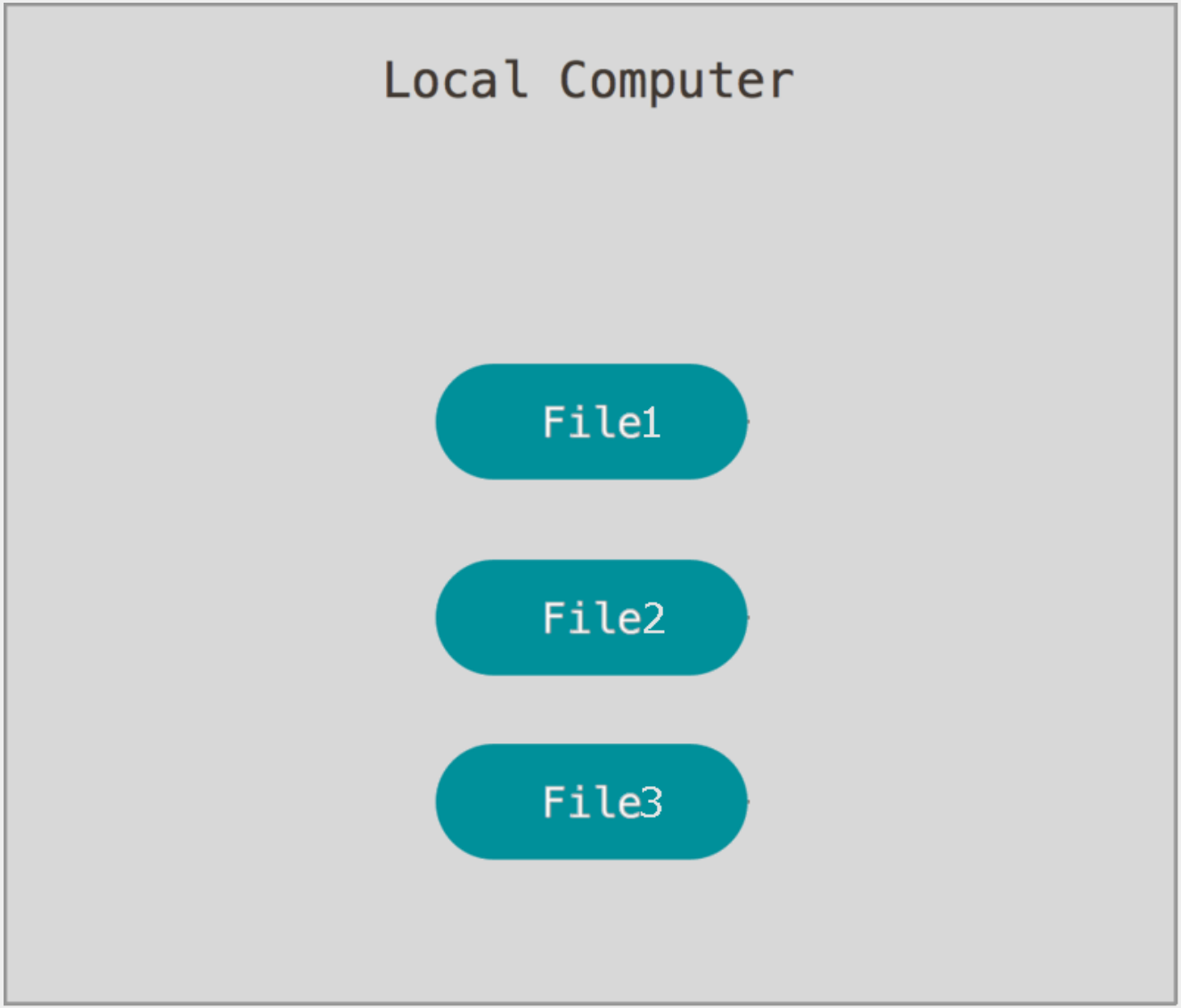
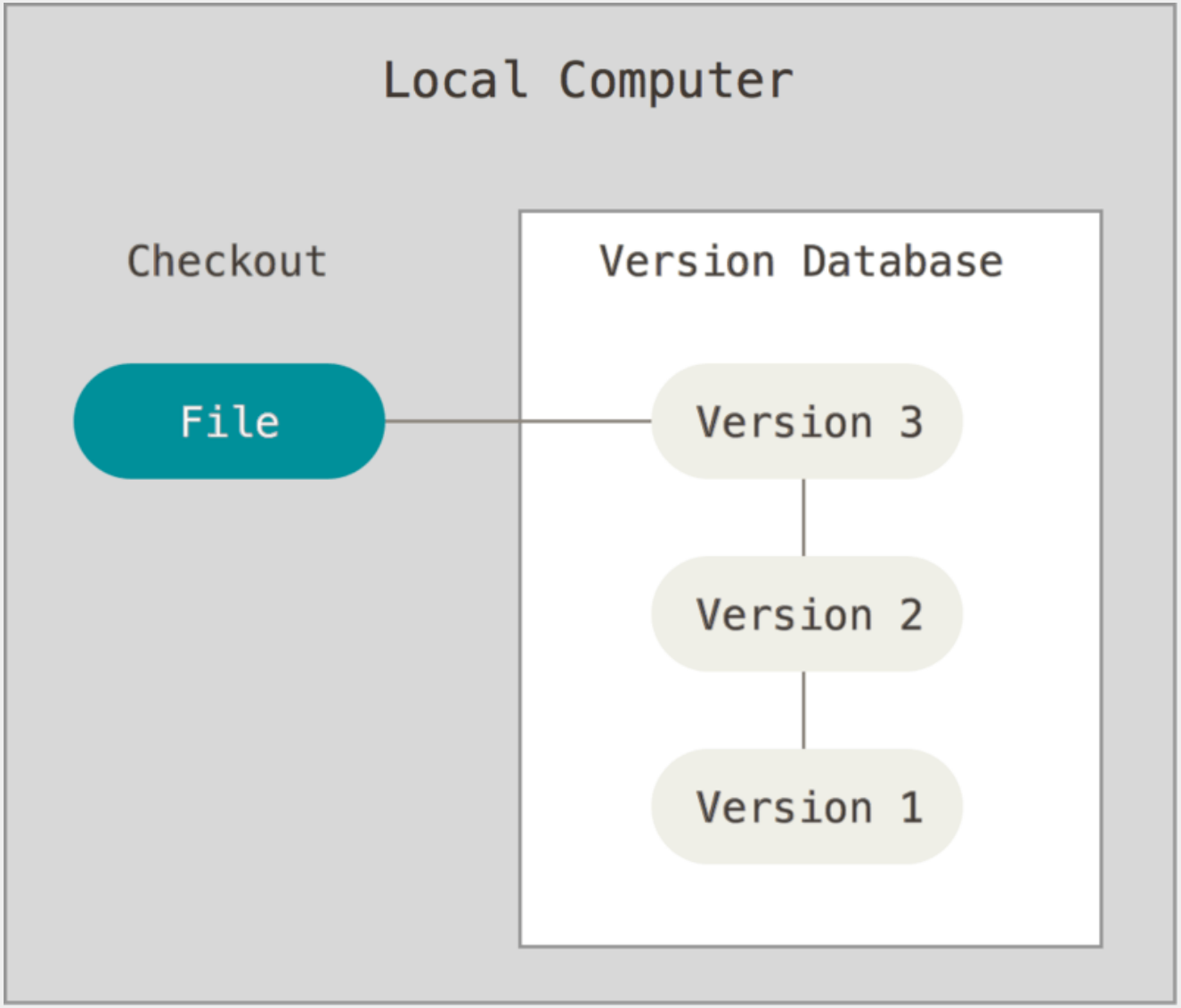
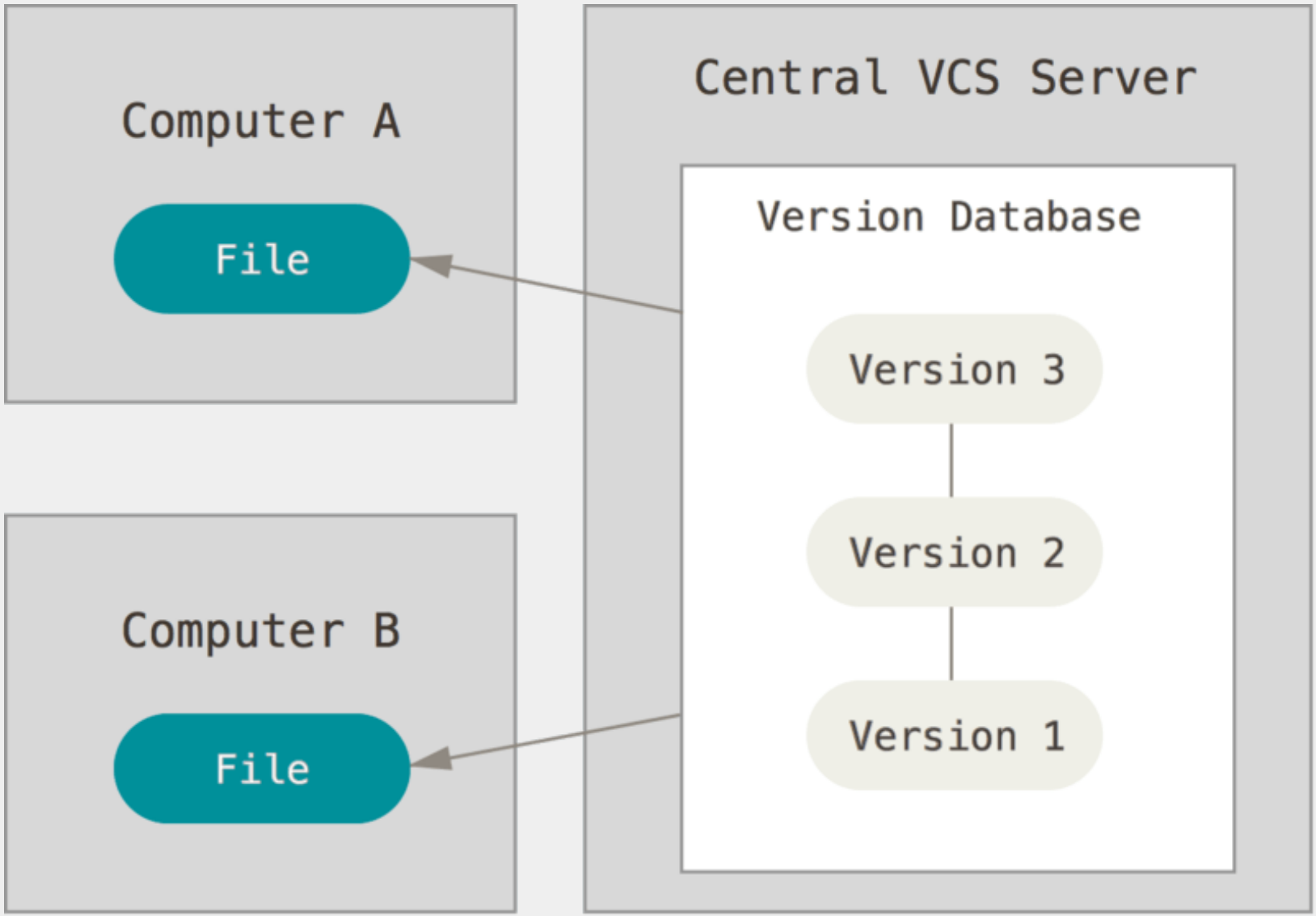
Simple Local Version Control



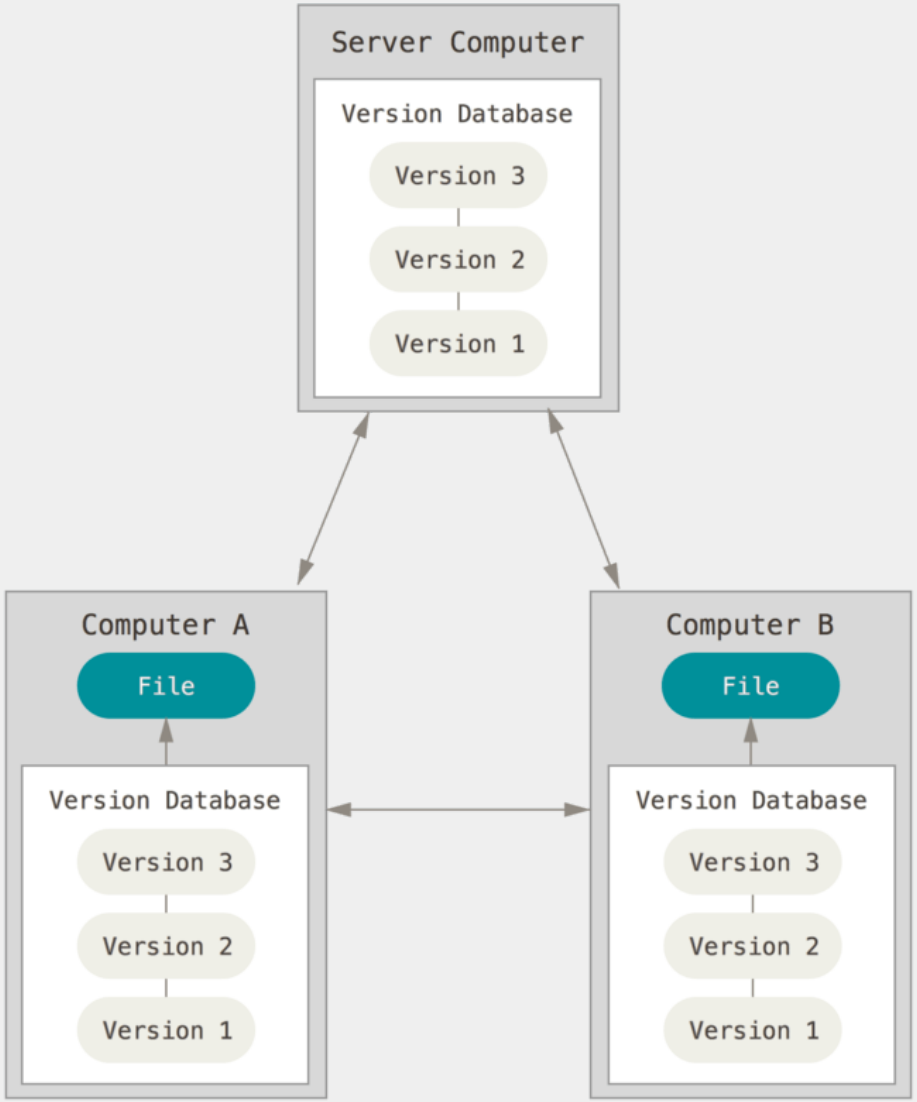
Local Version Control



Centralized Version Control



Distributed Version Control



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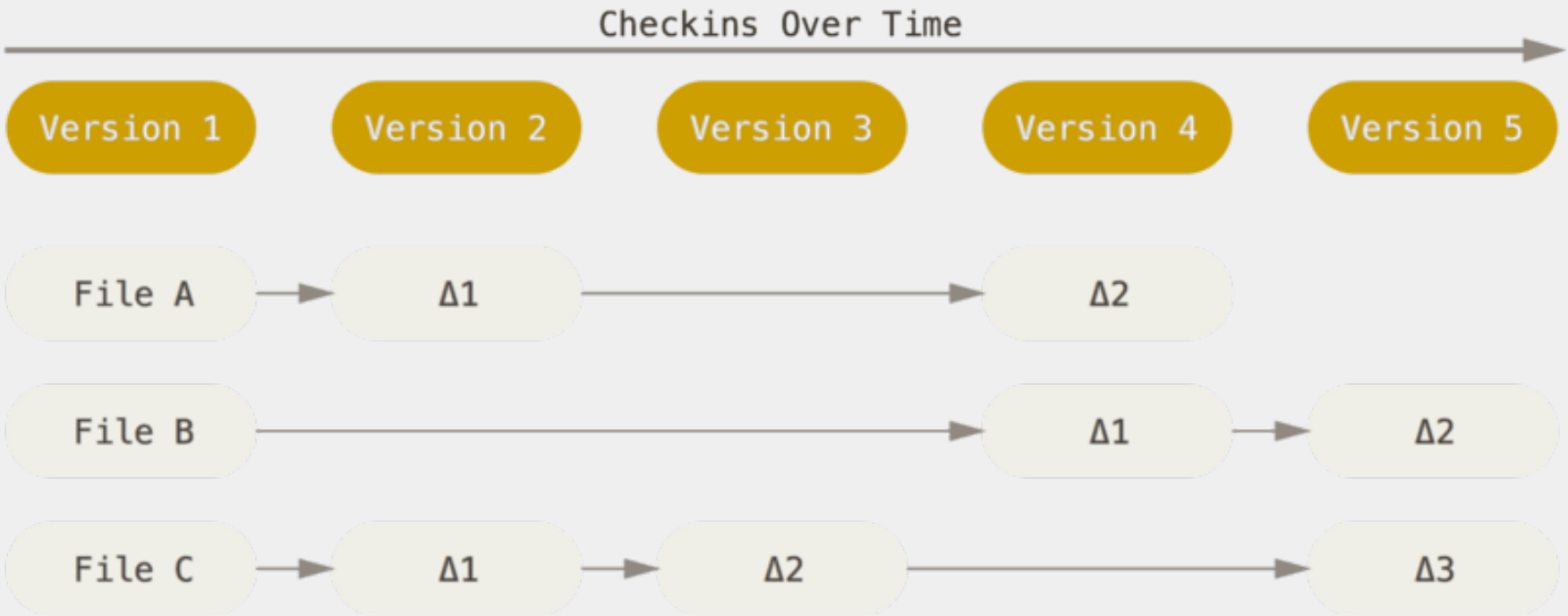
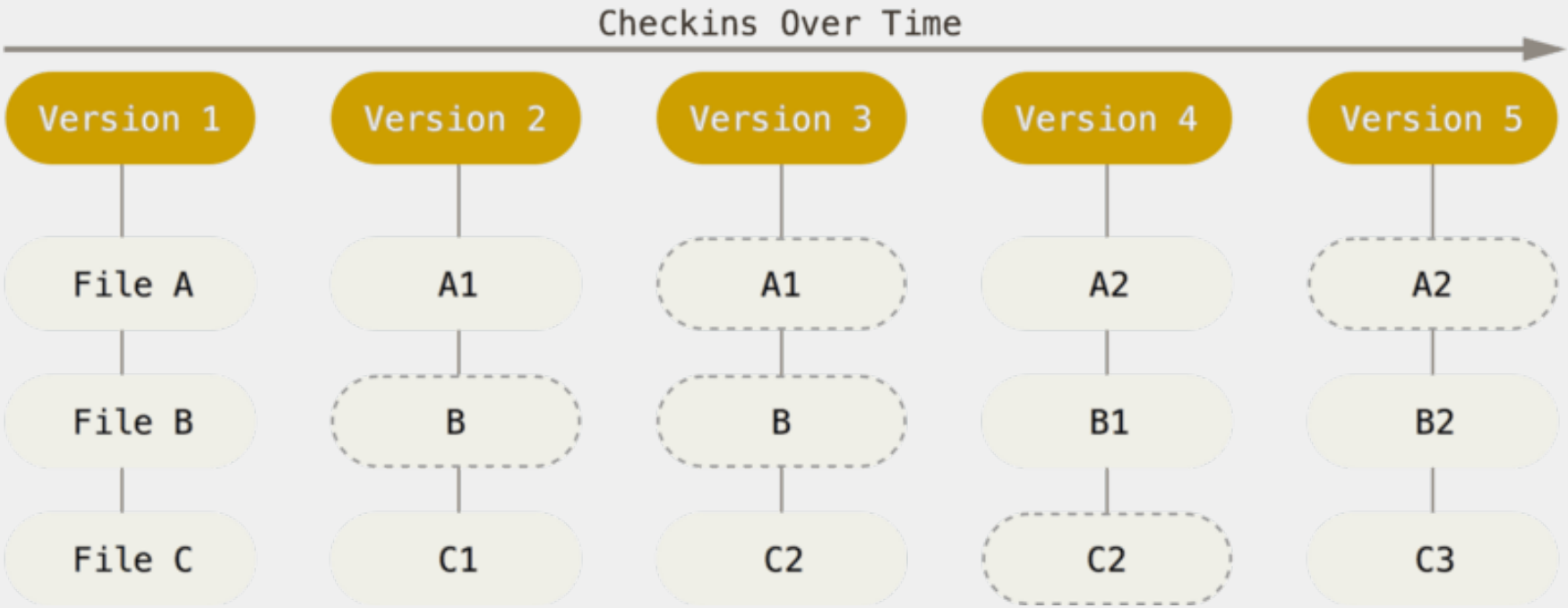
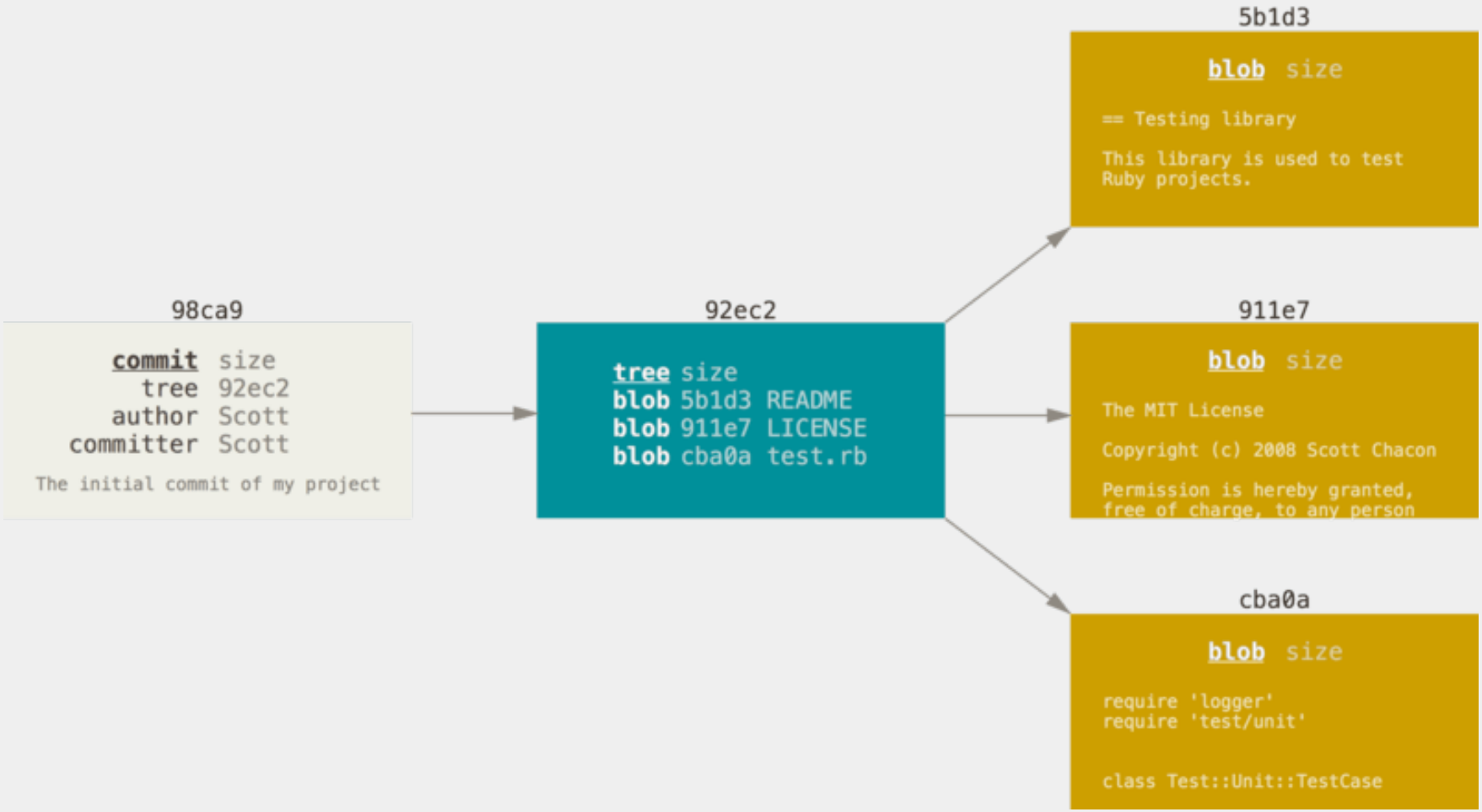
Deltas


Checkins Over Time
Version 1
Version 2
Version 3
Version 4
Version 5
File A
Δ1
Δ2
File B
Δ1
Δ2
File C
Δ1
Δ2
Δ3

Snapshots


Checkins Over Time
Version 1
Version 2
Version 3
Version 4
Version 5
File A
File B
File C
A1
B
C1
A1
B
C2
A2
B1
C2
A2
B2
C3

The Git object model



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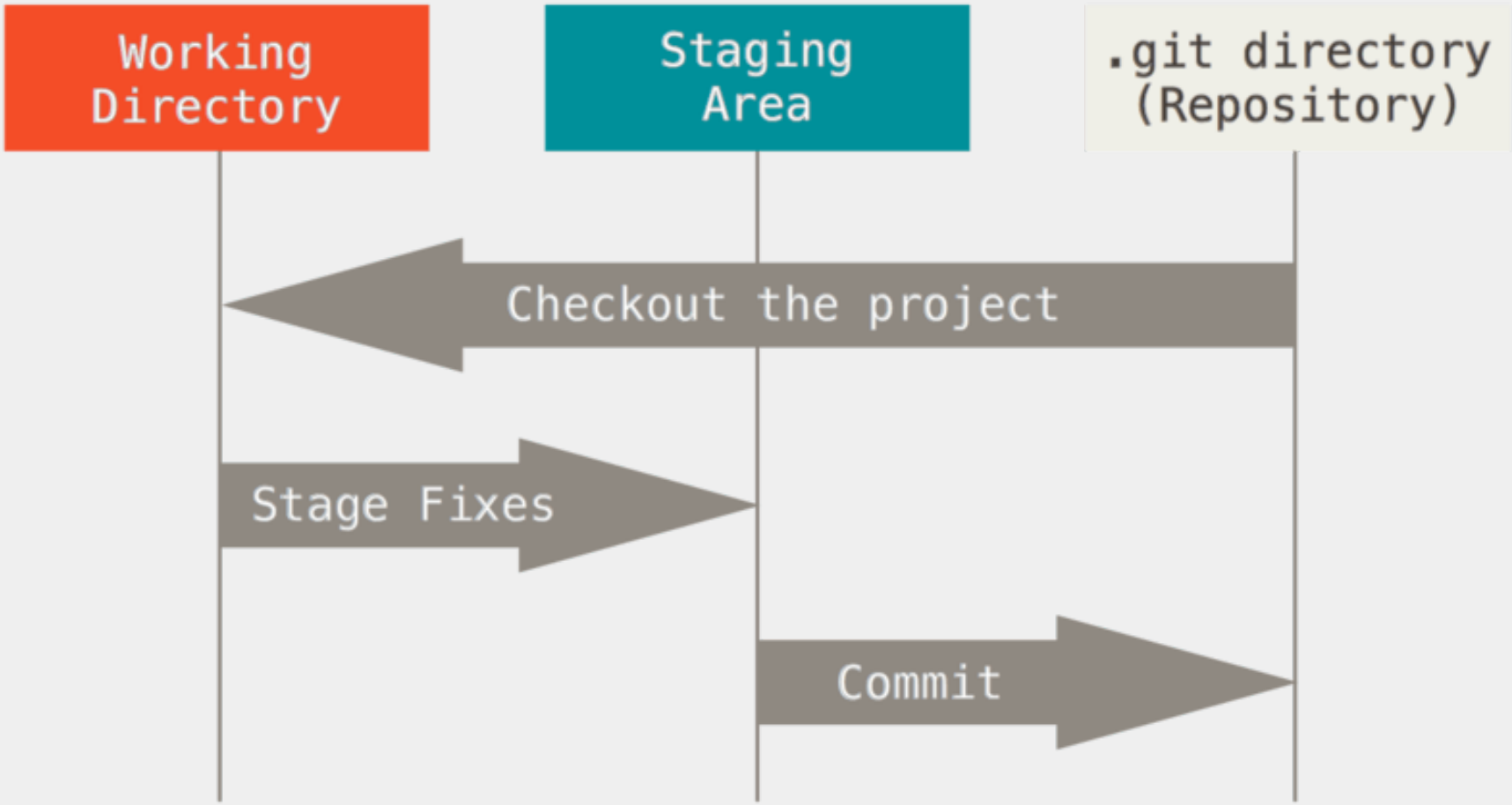
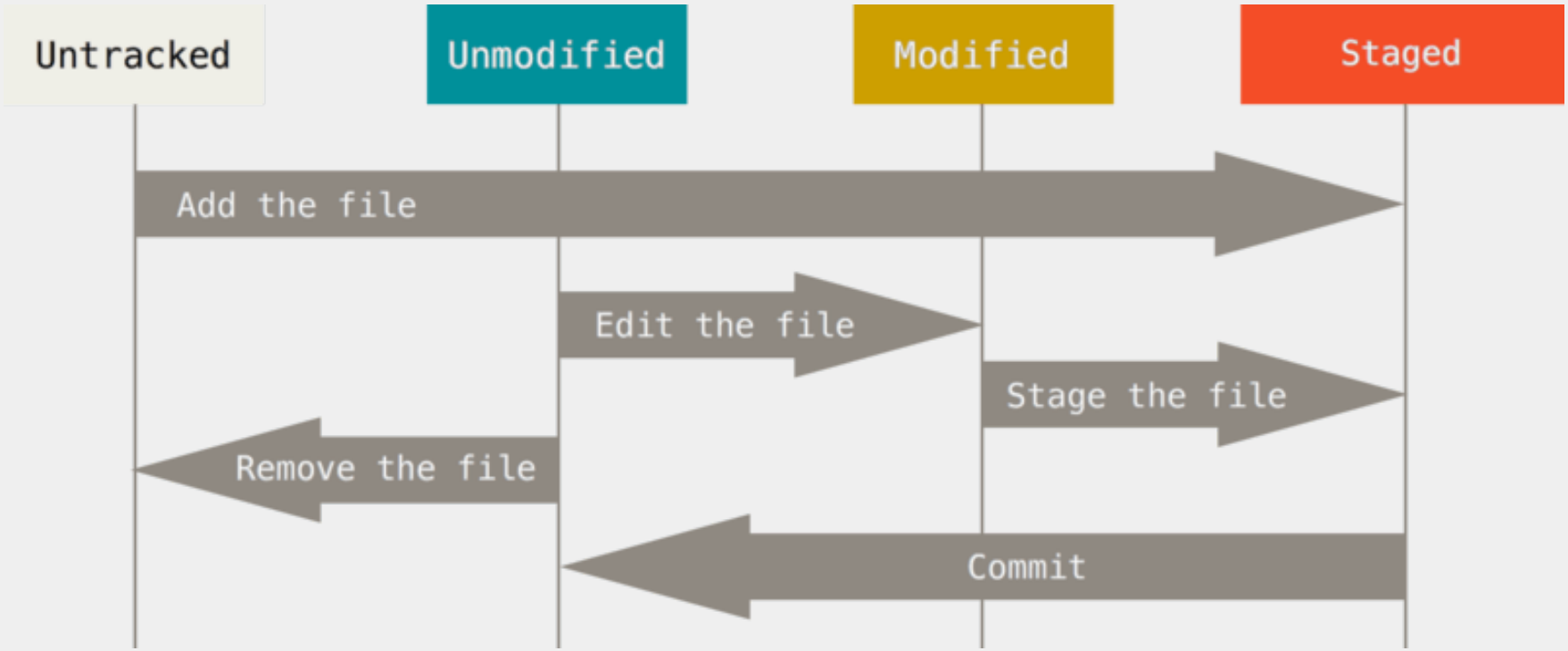
git init

git status

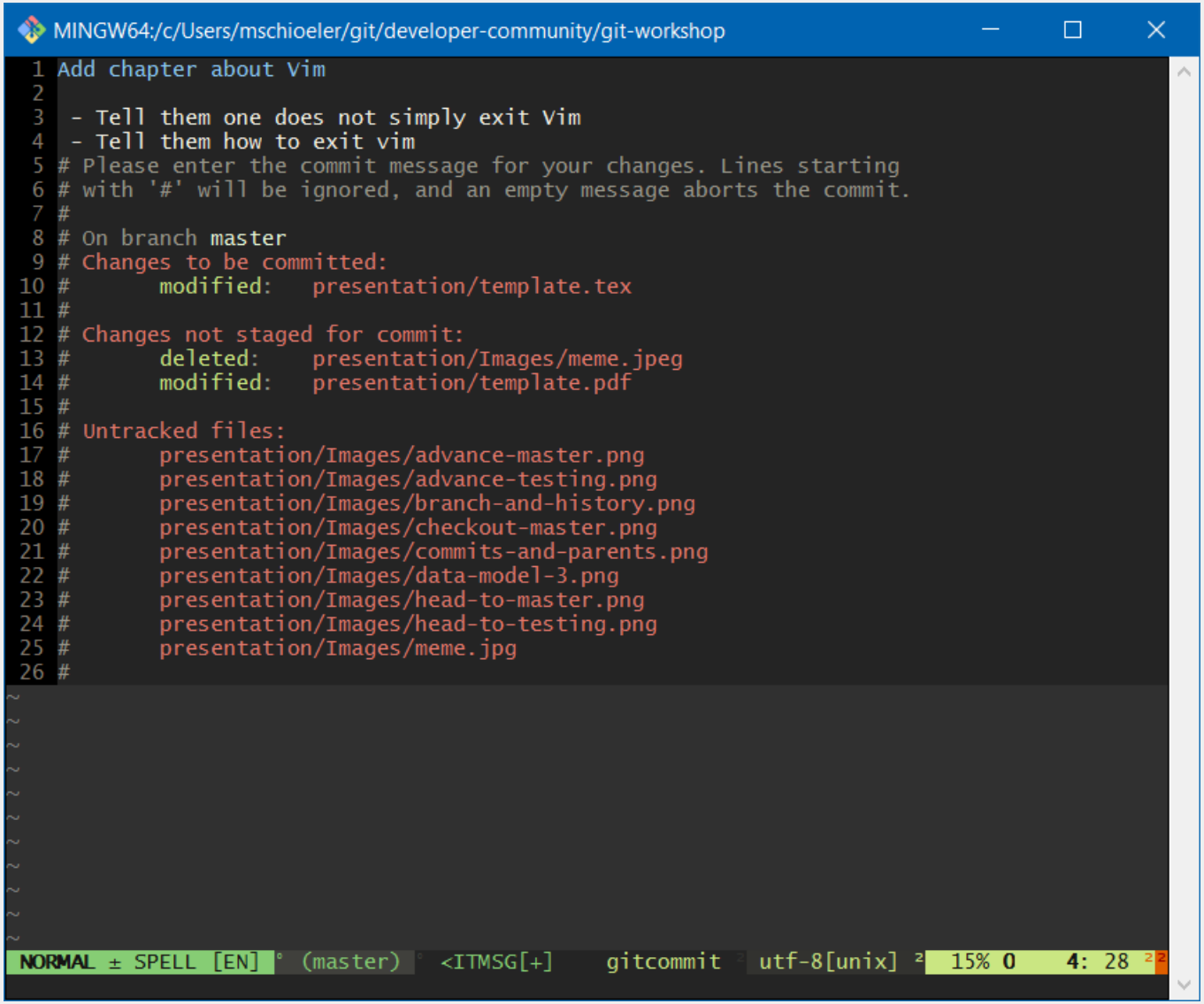
git add


Working Directory
Staging Area
.git directory (Repository)
Checkout the project
Stage Fixes
Commit

git commit


Untracked
Unmodified
Modified
Staged
Add the file
Edit the file
Stage the file
Remove the file
Commit

git commit: Vim



git commit: Vim

`git commit`: Vim

Normal mode

- h, j, k, l =
- `i` goes to insert mode
- `:wq` writes and quits
- `:q!` quits without saving

Insert mode

- Type like a normal text editor
- `Esc` goes back to Normal mode

git branch

git checkout

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This is a slide with the plain style and it is numbered.

This slide has an empty title and is aligned to top.

No Slide Numbering

This slide is not numbered and is citing reference [**?**].

Typesetting and Math

The packages `inputenc` and `FiraSans`[1,2] are used to properly set the main fonts.

This theme provides styling commands to typeset *emphasized*, alerted, **bold**, example text, ...

`FiraSans` also provides support for mathematical symbols:

$$e^{i\pi} + 1 = 0.$$

[1] https://fonts.google.com/specimen/Fira+Sans
[2] http://mozilla.github.io/Fira/

Blocks

These blocks are part of 1 slide, to be displayed consecutively.

Block

Text.

Blocks

These blocks are part of 1 slide, to be displayed consecutively.

Block

Text.

Alert block

Alert text.

Blocks

These blocks are part of 1 slide, to be displayed consecutively.

Block

Text.

Alert block

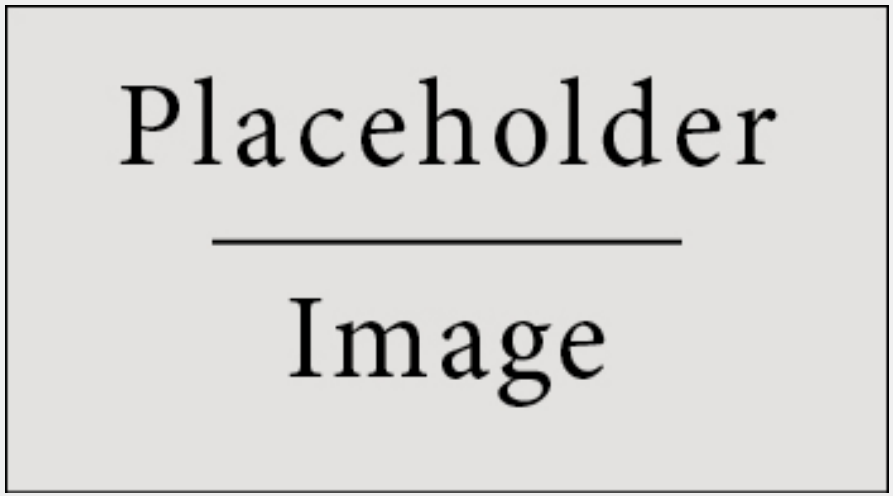
Alert text.

Example block

Example text.

Columns

This text appears in the left column and wraps neatly with a margin between columns.



Lists

Items:

- Item 1
  - Subitem 1.1
  - Subitem 1.2
- Item 2
- Item 3

Enumerations:

1. First
2. Second
   2.1 Sub-first
   2.2 Sub-second
3. Third

Descriptions:

First Yes.

Second No.

Table

Discipline	Avg. Salary
Engineering	**$66,521**
Computer Sciences	$60,005
Mathematics and Sciences	$61,867
Business	$56,720
Humanities & Social Sciences	$56,669
Agriculture and Natural Resources	$53,565
Communications	$51,448
Average for All Disciplines	**$58,114**

Table: Table caption

Thanks for using **Focus**!

References

Backup Slide

This is a backup slide, useful to include additional materials to answer questions from the audience.

The package `appendixnumberbeamer` is used to refrain from numbering appendix slides.