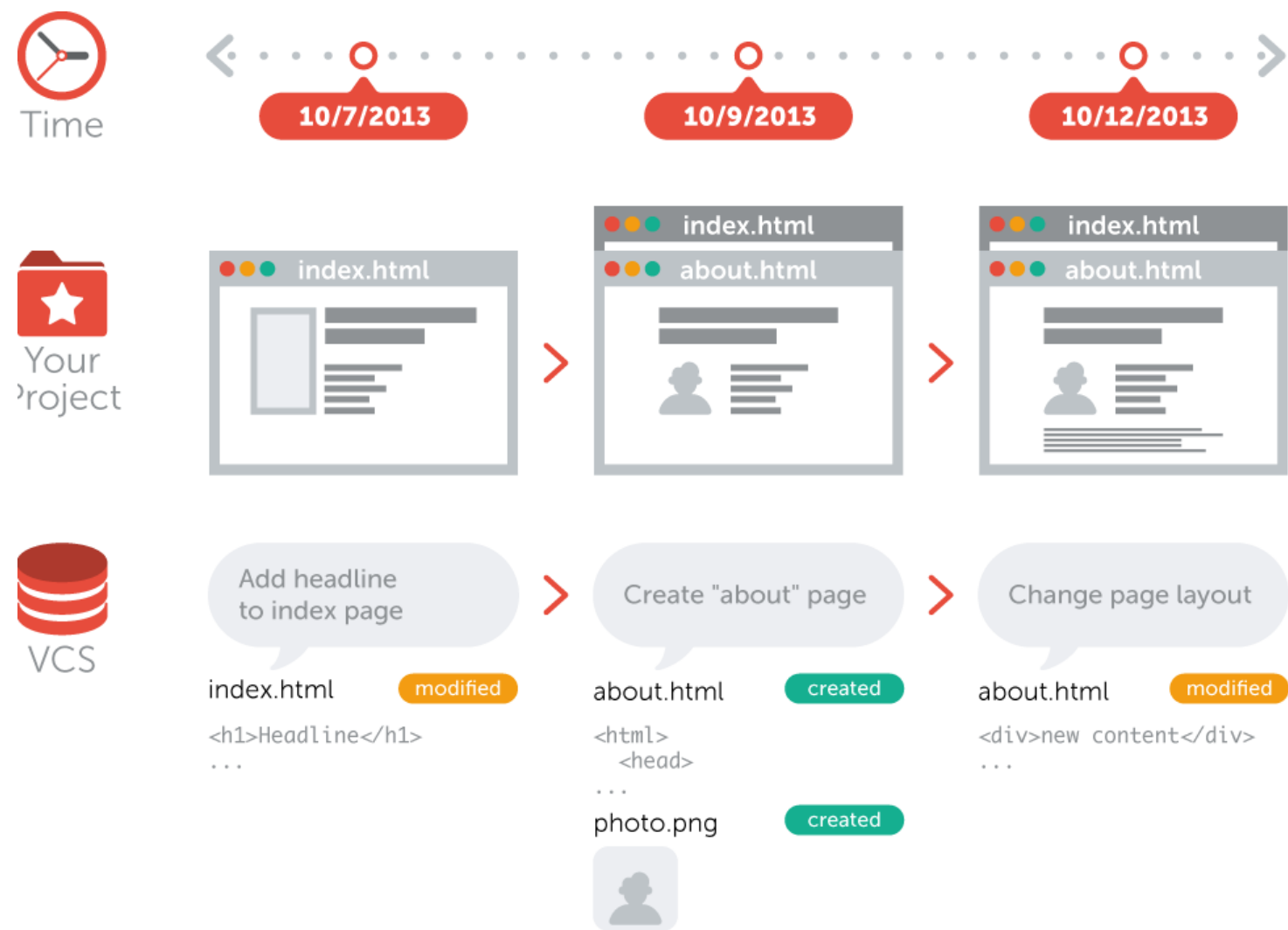


# Git, GitHub and Version Control

GitHub Basics

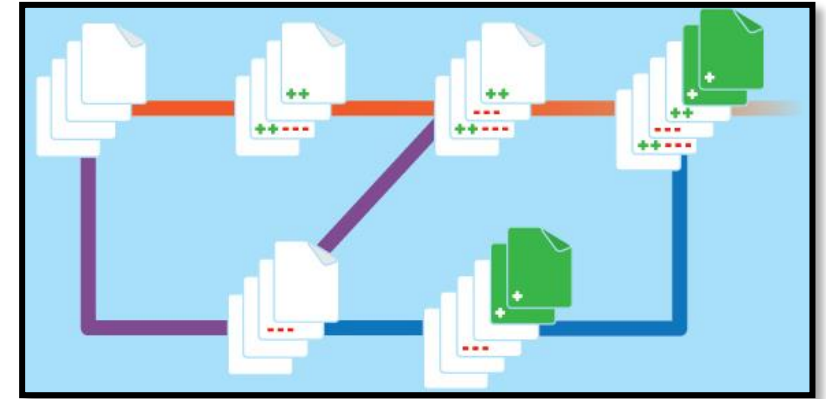
# What is Version Control?

# Development of a Webpage



# What is Version Control?

Think of **version control** as a **database** that stores information about the changes made to the different parts of a project. By storing that information, you can **track** all the changes made and **go back** to previous versions.



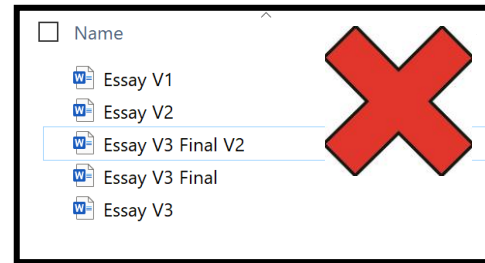
Version control is **independent** of the type of **project** and **technology**

# Why Version Control?

## Team Collaboration



## Correctly Storing Versions



## Technology Agnostic



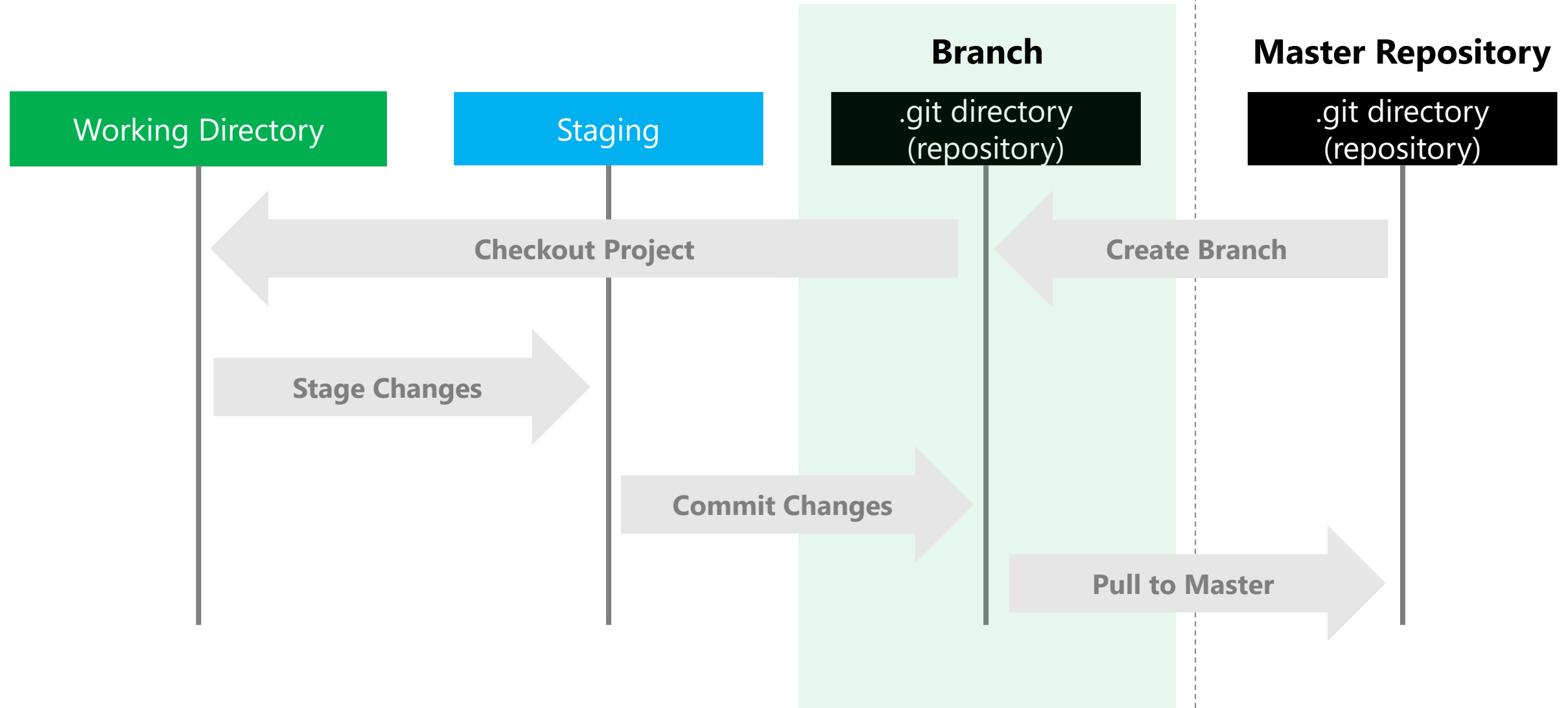
## Project Backup



# What is Git?

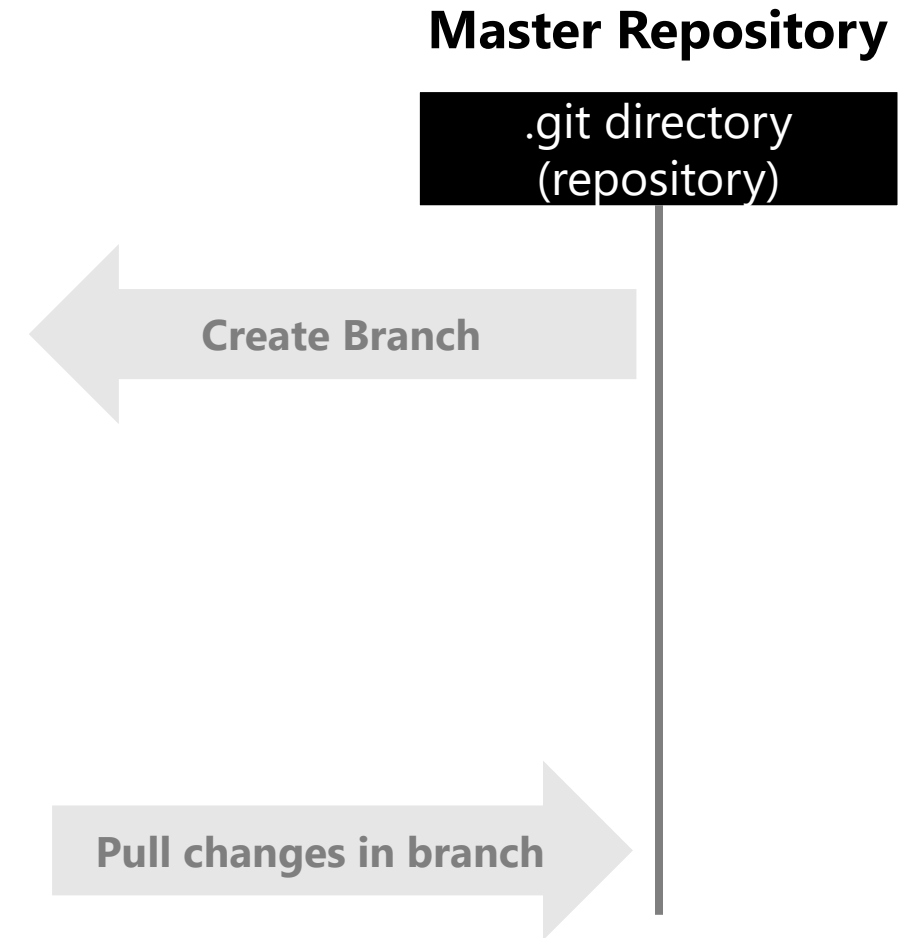


# The Git Workflow



# The Git Workflow | Master Repo

The **Master Repository** is the space where the information regarding the project is stored. That information can be anything from **metadata** to the **source code** for your application or webpage.



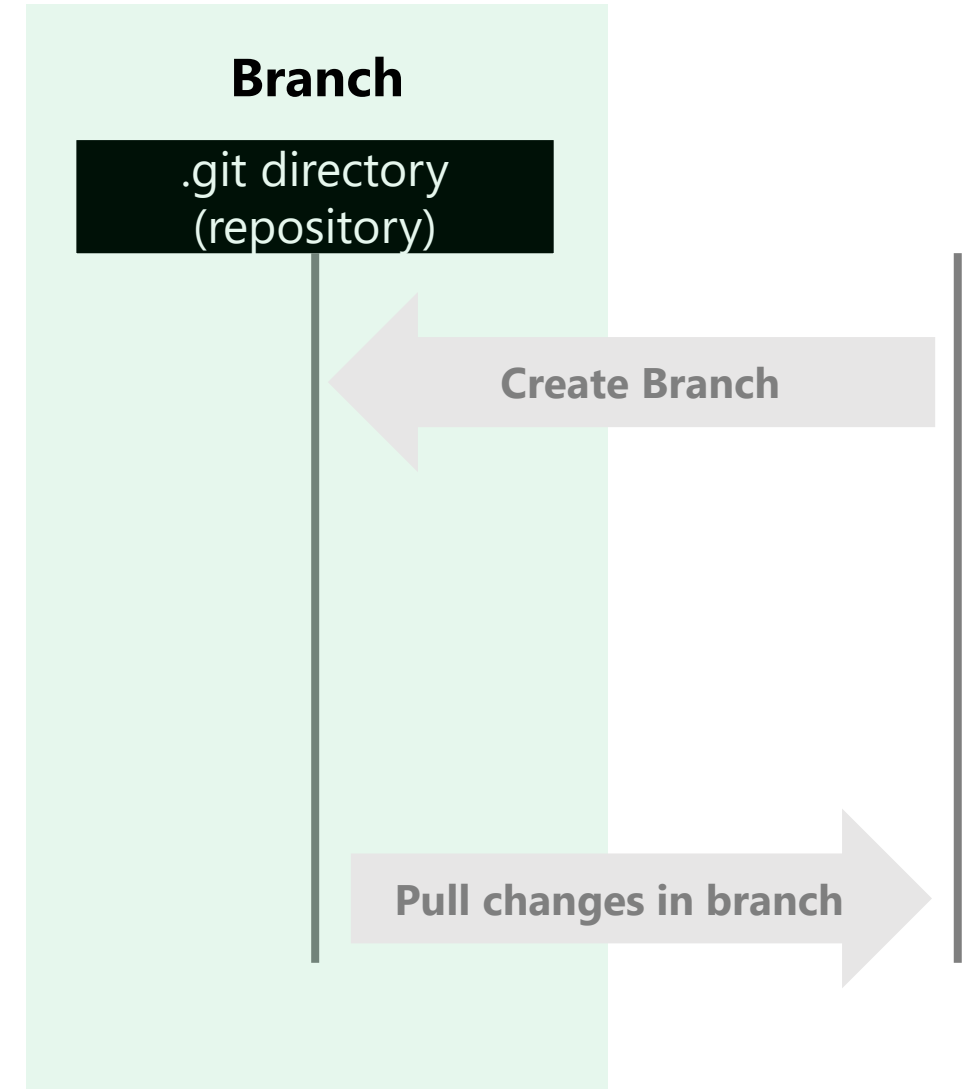


# The Git Workflow | Branches

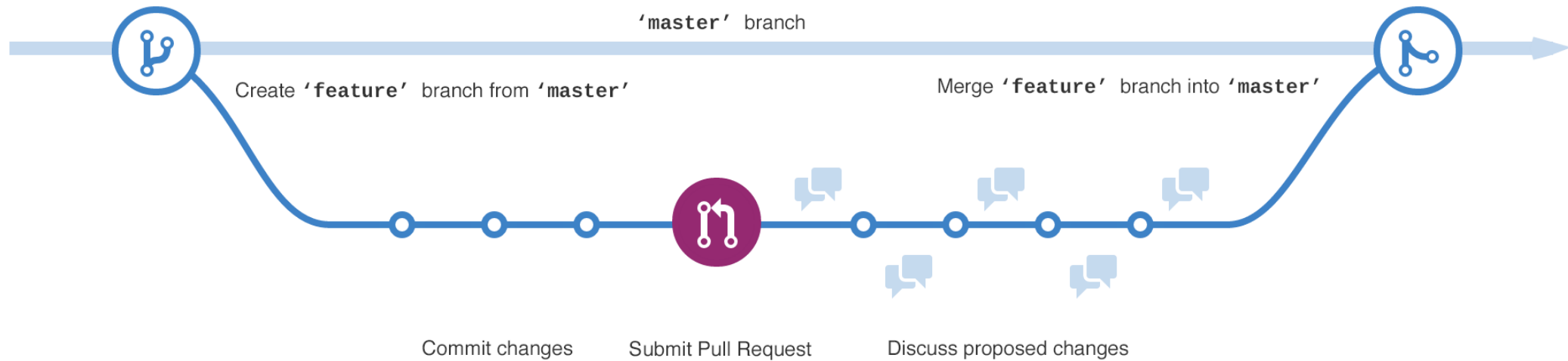
A **Branch** is a different version of the repository. It is created from a snapshot of the main repo, but then it can evolve independently.

One example can be having two environments:

1. **Production Environment:** Main Repo.
2. **Testing Environment:** Branch.



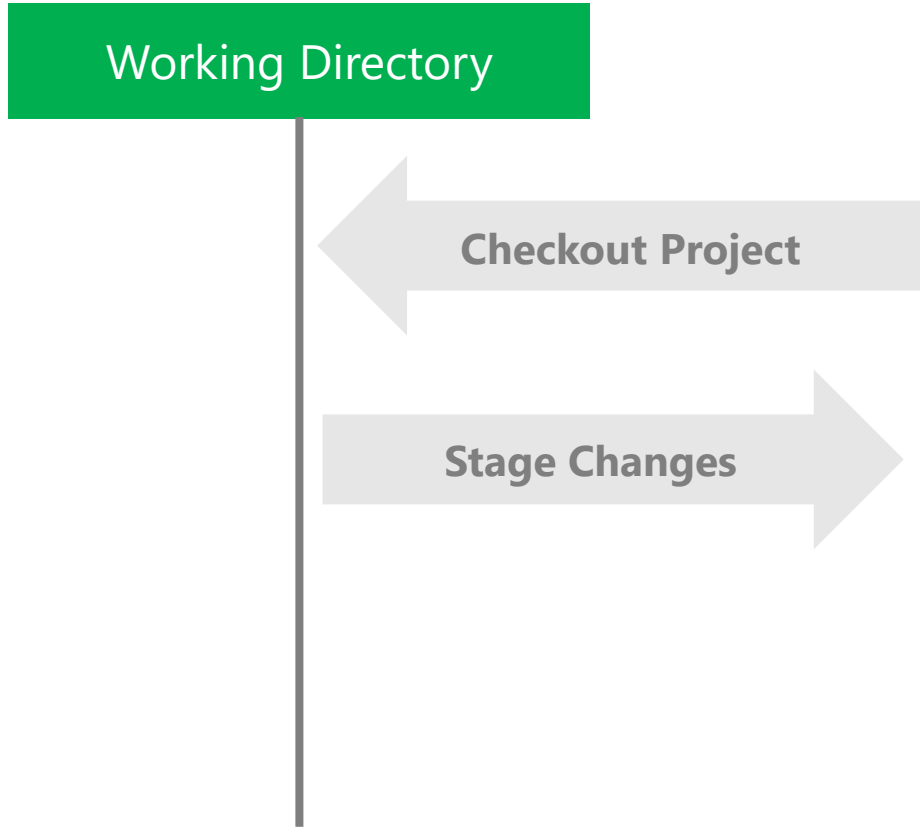
# The Git Workflow | Branches



Reference: <https://www.git-tower.com/learn/git/ebook/en/desktop-gui/basics/basic-workflow#start>

Reference: <https://guides.github.com/activities/hello-world/>

# The Git Workflow | Working directory



The **Working Directory** is a local version of your repository (**Branch**) that was extracted at a certain moment in time. This is where you modify your files, once modified, you **commit** those changes to your branch.

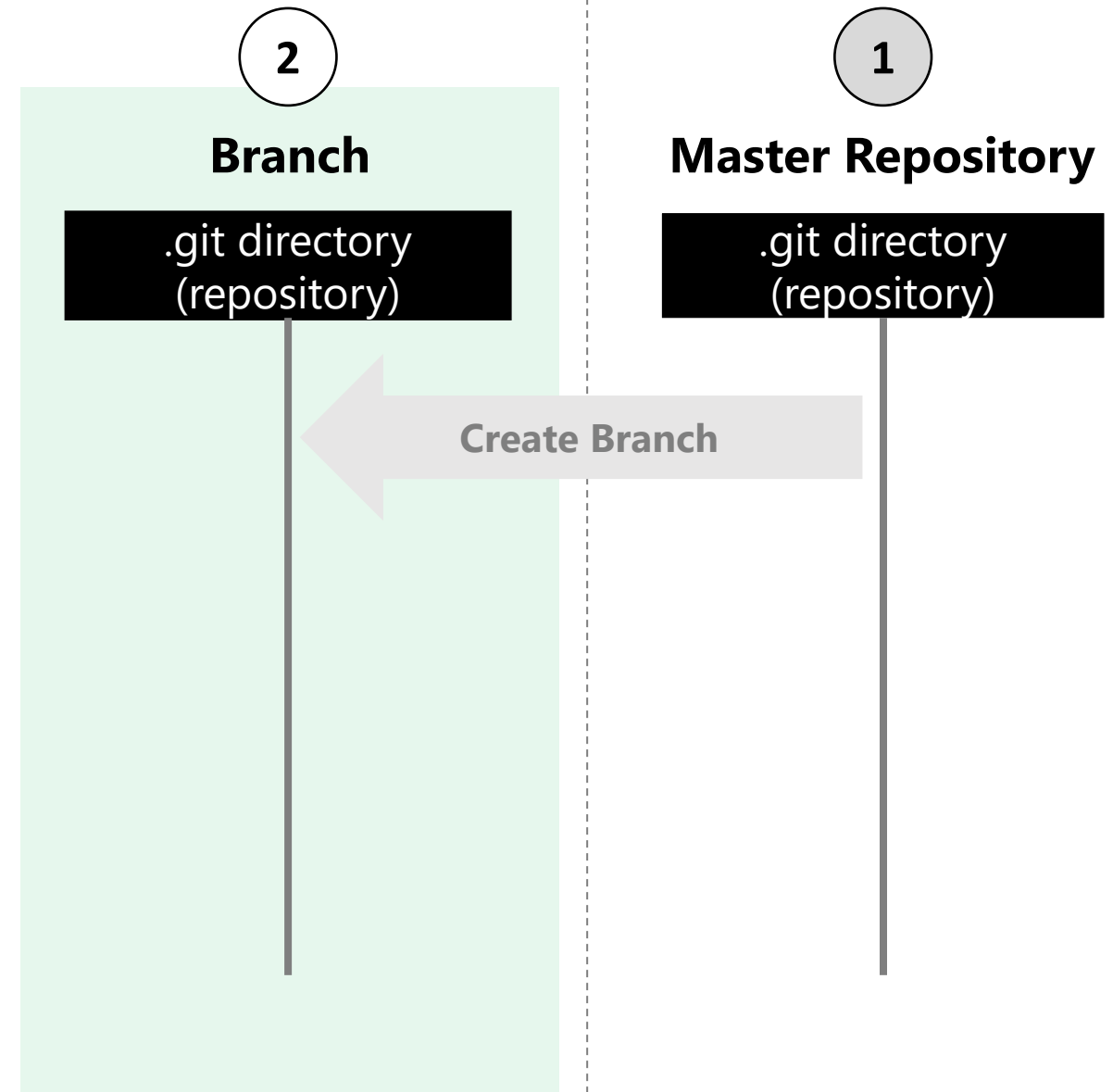
# The Git Workflow | Step by Step

1

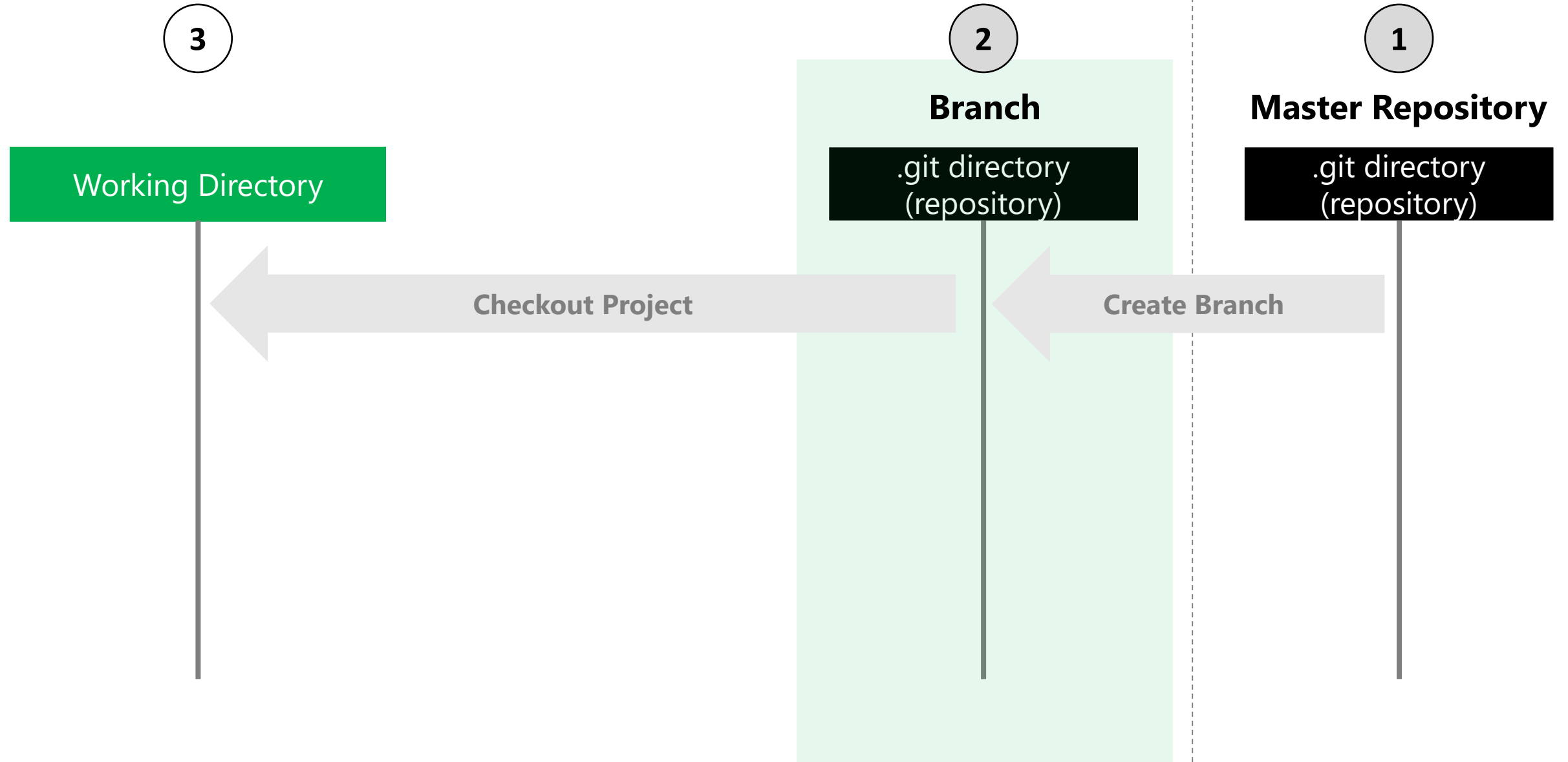
## Master Repository

.git directory  
(repository)

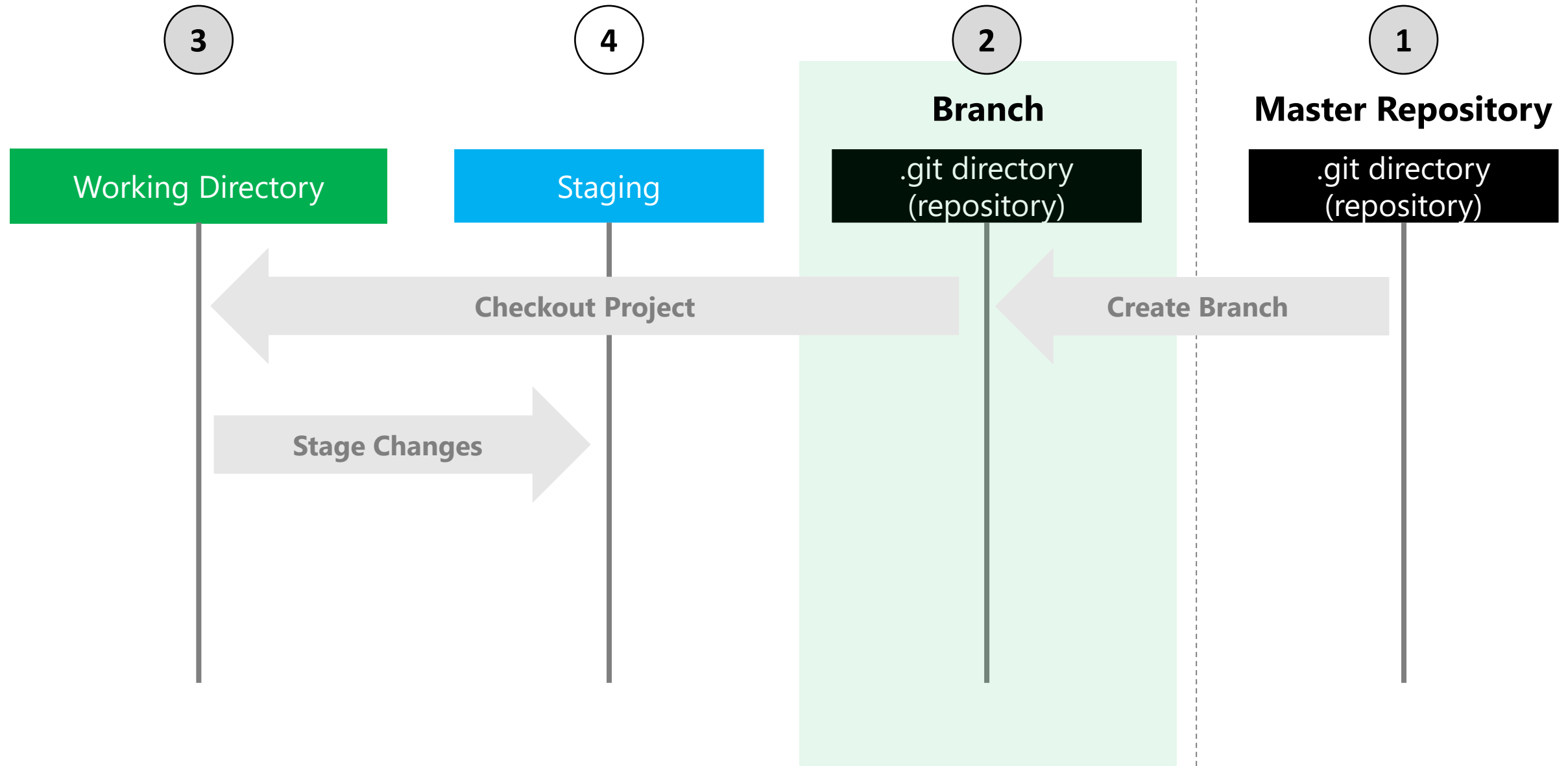
# The Git Workflow | Step by Step



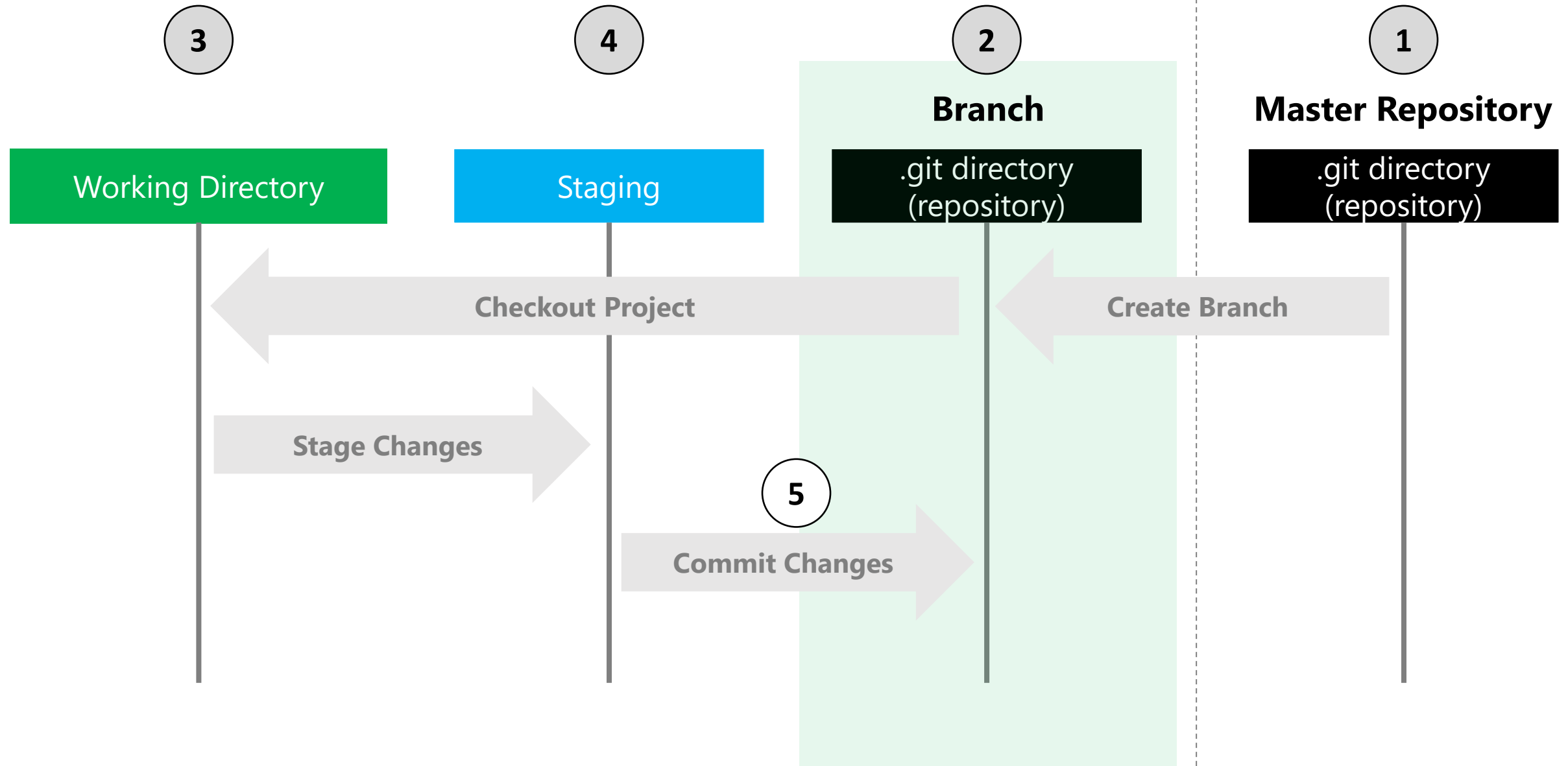
# The Git Workflow | Step by Step



# The Git Workflow | Step by Step

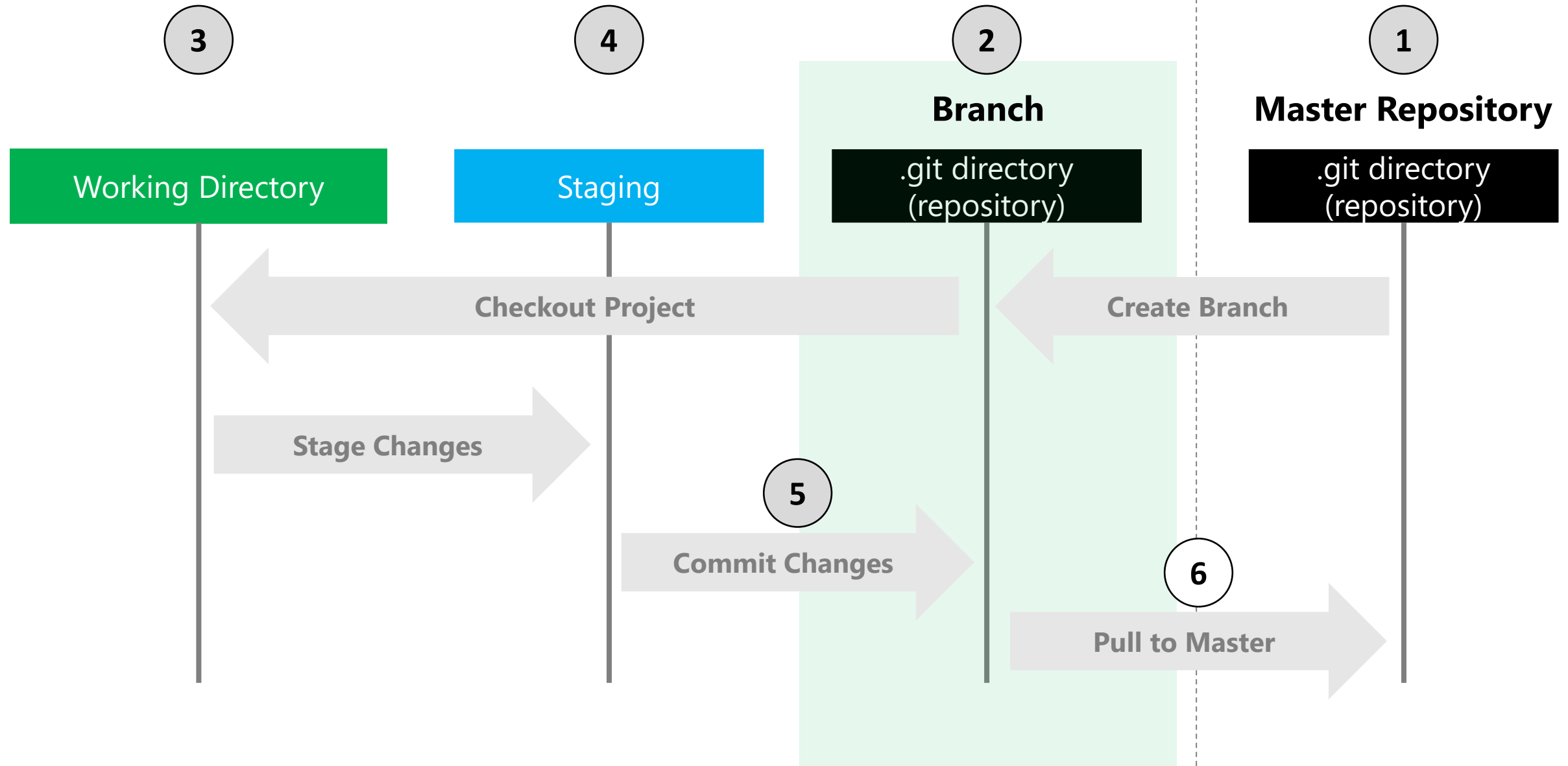


# The Git Workflow | Step by Step





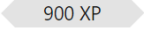

# The Git Workflow | Step by Step



# Hands-on with Git



# Module 1 | Git & GitHub



## Introduction to Git

1 hr 15 min • Module • 9 Units

★★★★☆ 4.6 (21)

Beginner Developer Azure


Find out what source control is, and get an introduction to Git - the world's most popular version control system.

In this module, you will:

- Learn what version control is
- Understand distributed version control systems, like Git
- Create a new Git project and configure it
- Make and track changes to code using Git
- Use Git to recover from simple mistakes



# Module 1| Git & GitHub



**Collaborate with Git**  
55 min • Module • 6 Units  
★★★★☆ 4.4 (16)  
Beginner Developer Azure

600 XP

Use Git to track changes to source code and collaborate with other developers

In this module, you will:

- Clone a repository
- Learn about and make a pull request
- Stash changes
- Push your changes and update your repo by pulling



# Module 1| Git & GitHub



600 XP

## Edit code through branching and merging in Git

50 min • Module • 6 Units

★★★★☆ 4.2 (15)

Beginner

Developer

Azure

Level up your Git knowledge by learning about how to keep code separate using branches and how to merge them later

In this module, you will:

- Understand what Git branches are
- Create new branches and switch between branches
- Merge branches together
- Learn basic techniques for resolving merge conflicts

