

Benefits of Source Control in PostgreSQL

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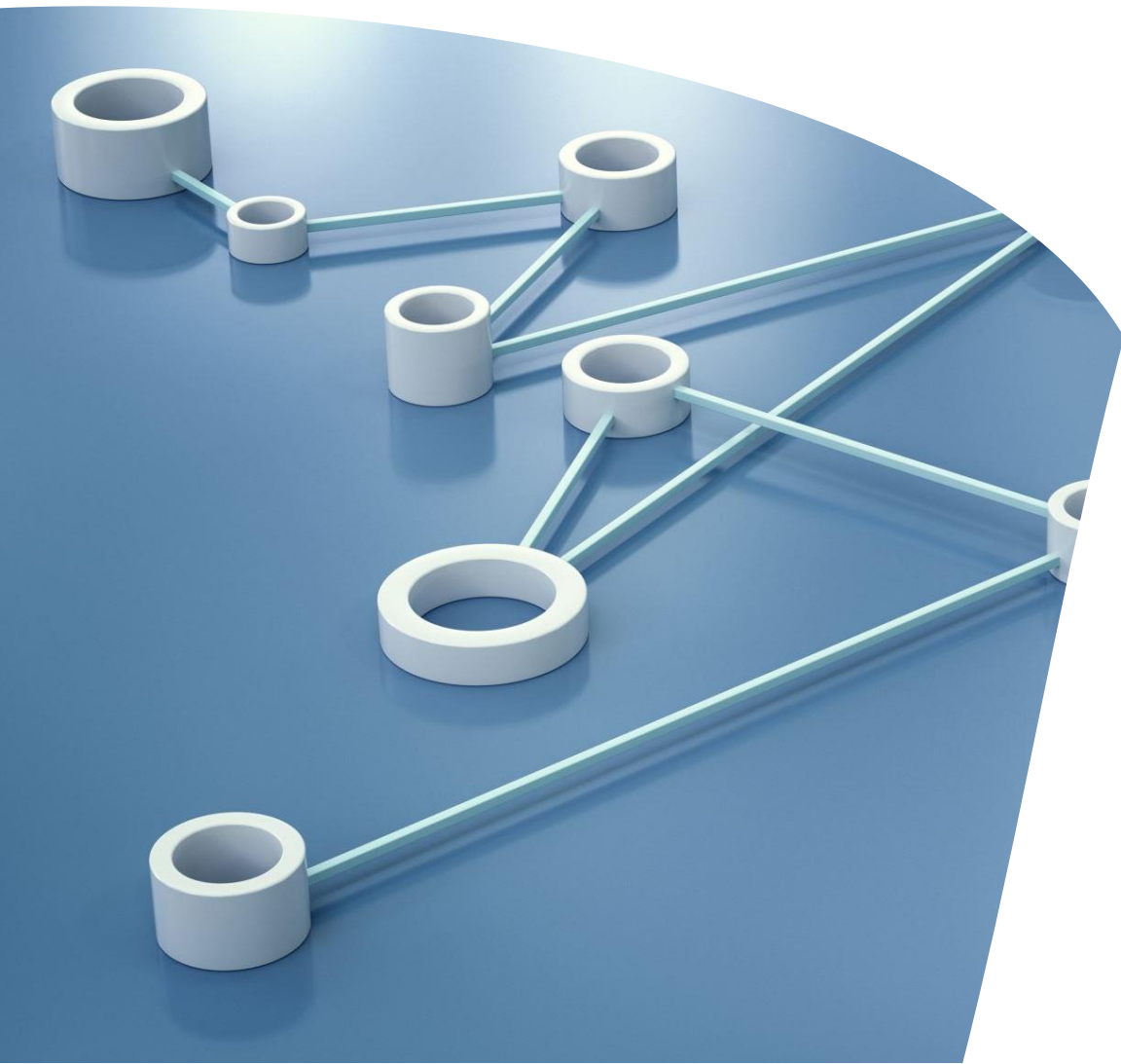
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Source Control (Version Control)



A system to enhance collaboration by tracking and managing code changes.

| Benefits

- Audits
- Undo
- Known State
- Backups
- Development Isolation
- Automation



| Audits

- Who made the change?
- When was the change made?
- What was the change?



| Undo

- CTL+Z does not work on databases
- Restores can be long and difficult
- Provides a mechanism for rollback



| Known State

- Accurately define a moment in time
- Compare between environments
- Compare across time



| Backups

- It may be code only, but it's a backup
- Backups are good



| Development Isolation

- New versions
- Hot fixes
- Environments

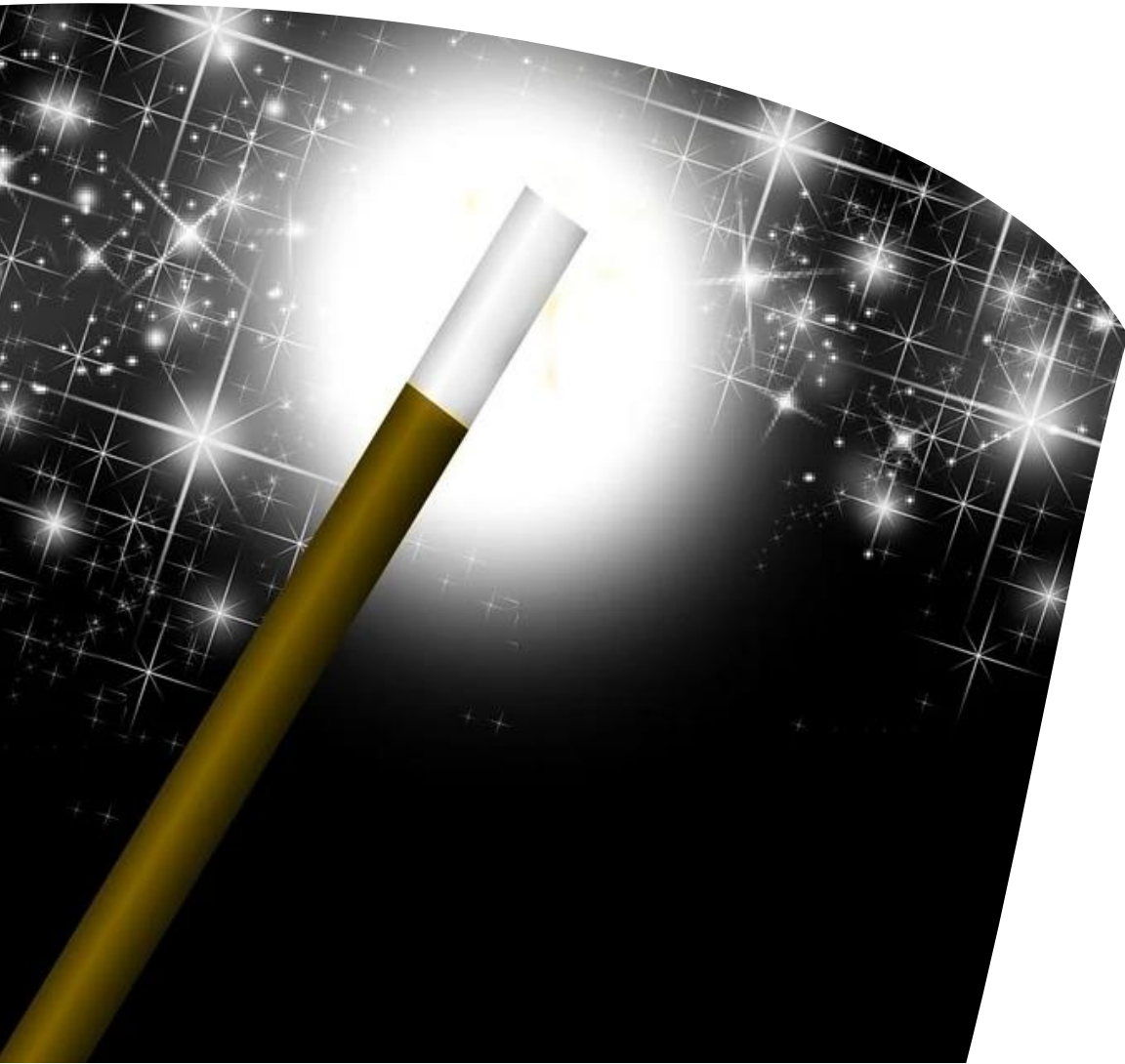


| Automation



Source control
provides the
basis for all
automation

| Need a Piece of Magic



You will need
a magic tool



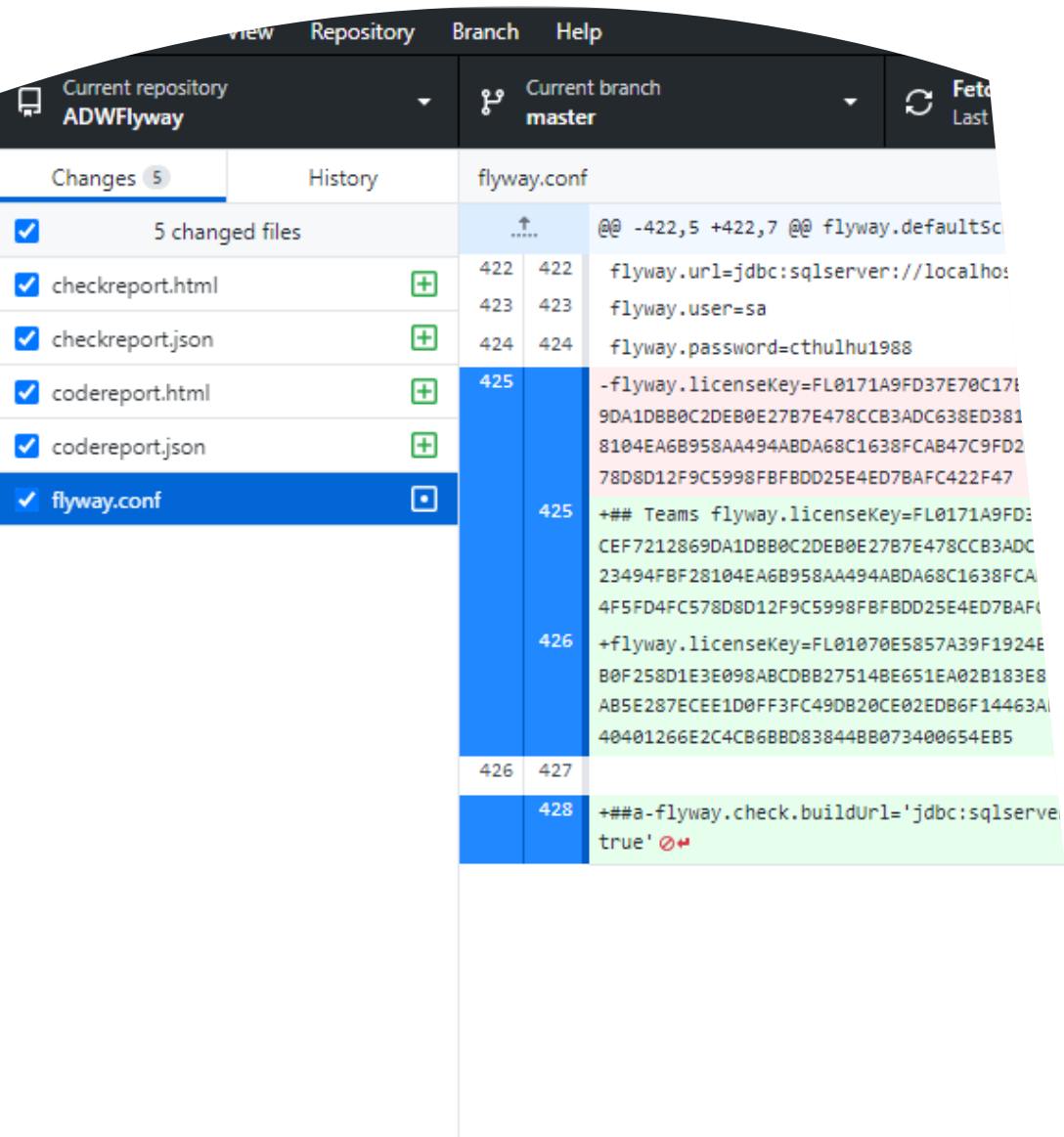
If it's not in
source
control, it
doesn't exist

| Where Git



- On your machine
- On your server
- AWS Code Commit
- Azure DevOps
- GitHub
- GitLab
- BitBucket
- Atlassian
- Perforce
- SourceForge
- Launchpad
- Codebase

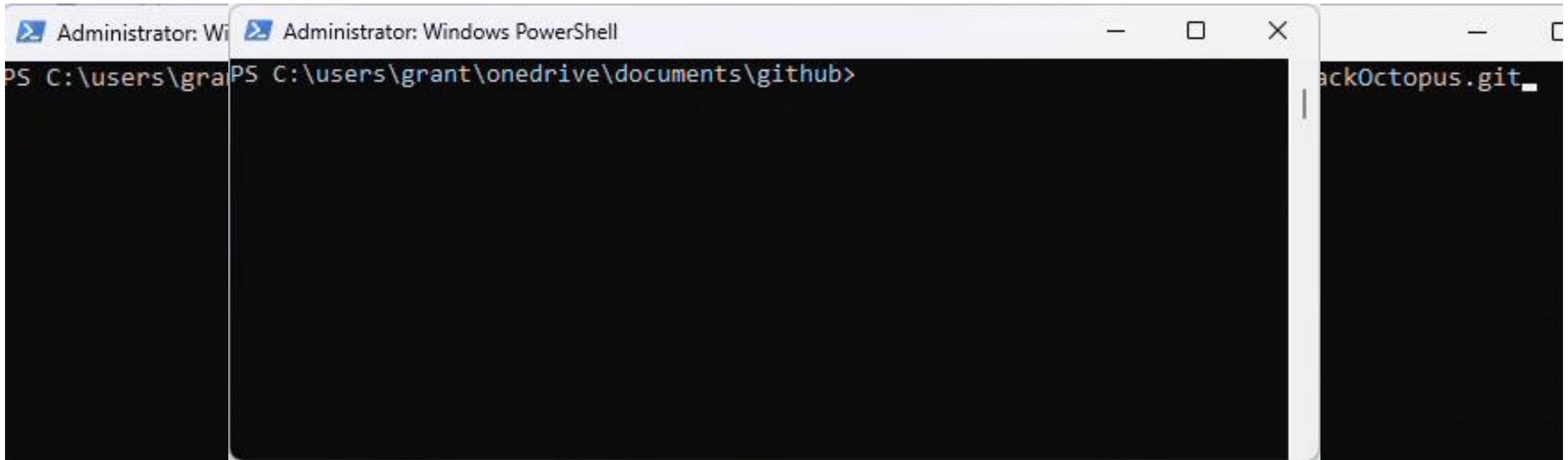
How Git



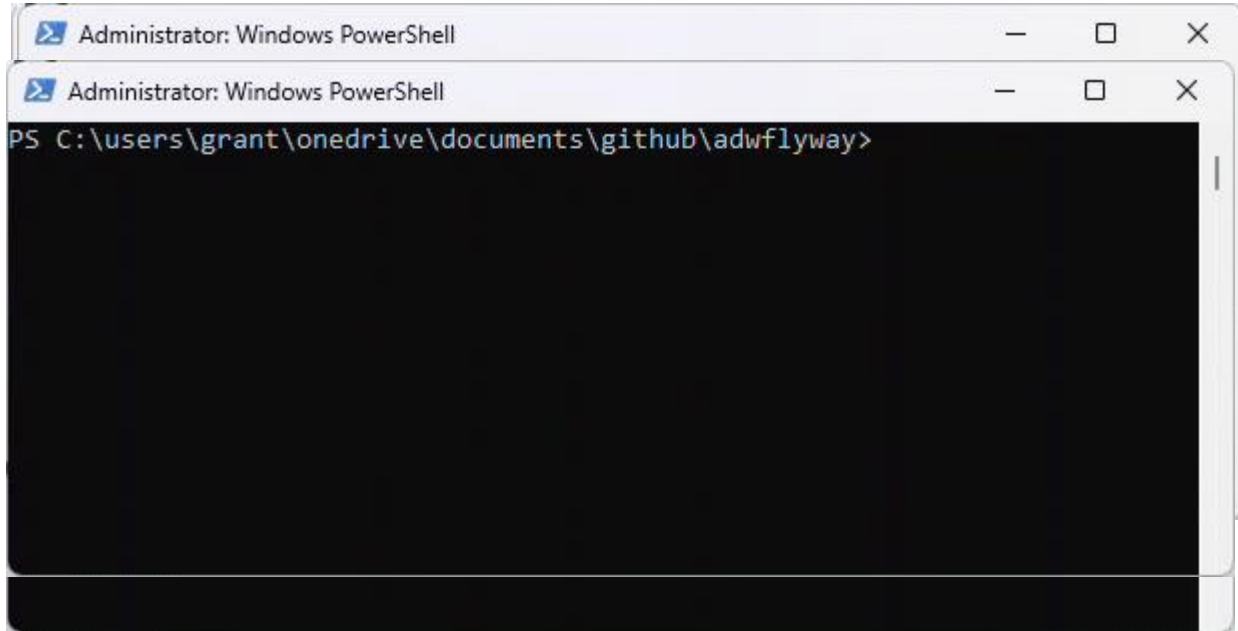
- Command Line
- Generic GUI
- Specific GUI

How Git: Commands To Start

- Clone
- Init



How Git: Working Day-To-Day



```
Administrator: Windows PowerShell
Administrator: Windows PowerShell
PS C:\users\grant\onedrive\documents\github\adwflyway>
```

- Fetch
- Pull
- Add
- Commit
- Push
- Status

| How Git: Teams

Open a pull request

Create a new pull request by comparing changes between two branches. If you need to, you can also [compare across forks](#).

base: master

compare: IntroToGit

✓ Able to merge. These branches can be automatically merged.

Removed gitintro.sql

Write

Preview

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Showing how to create a pull request for introduction to [git](#)

Attach files by dragging & dropping, selecting or pasting them.

Create pull request

Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).

1 commit

1 file changed

Commits on Jan 27, 2023

Removed gitintro.sql

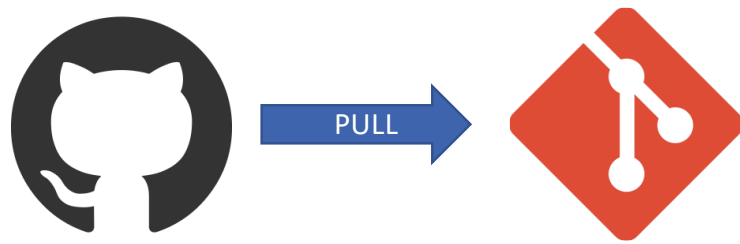
ScaryDBA committed now

Showing 1 changed file with 0 additions and 0 deletions.

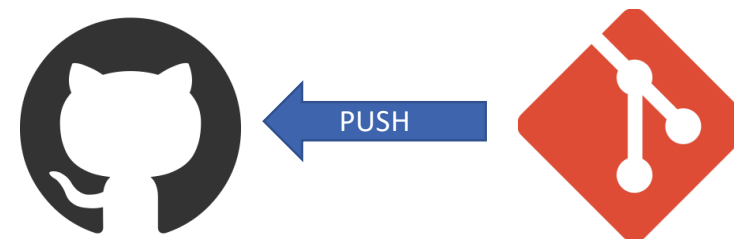
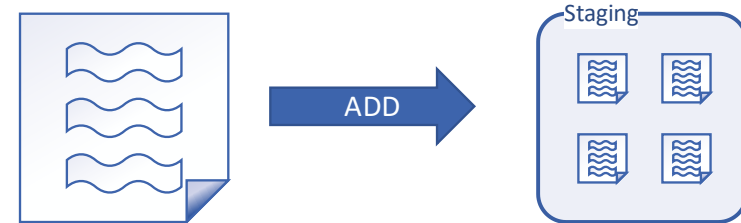
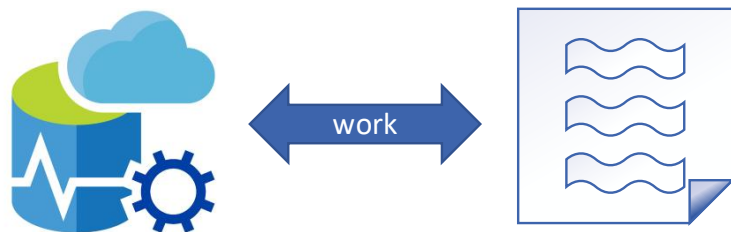
gitintro.sql

- Branch
- Pull request
- Merge

How Git: Workflow



Create Branch



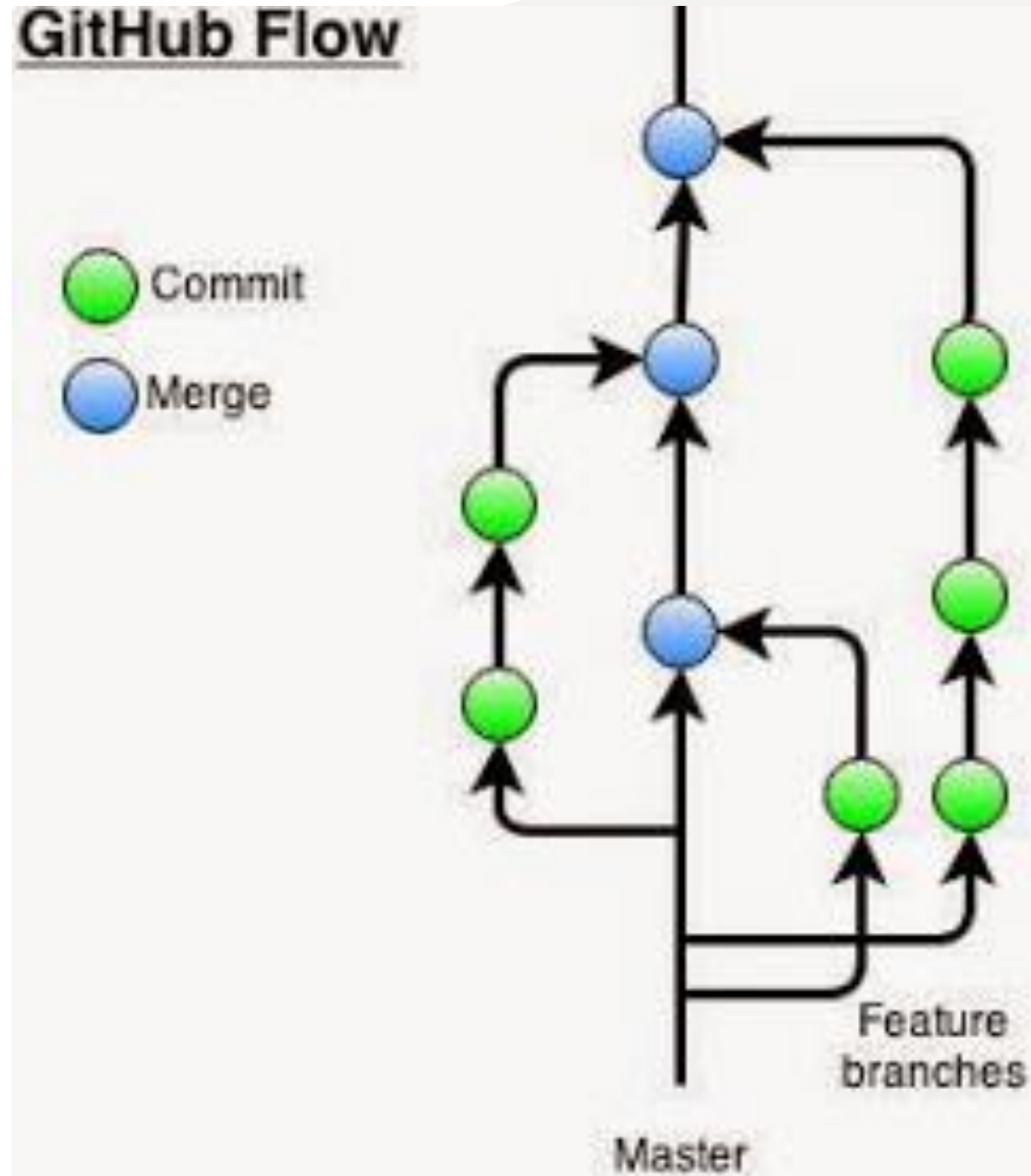
| Good Habits



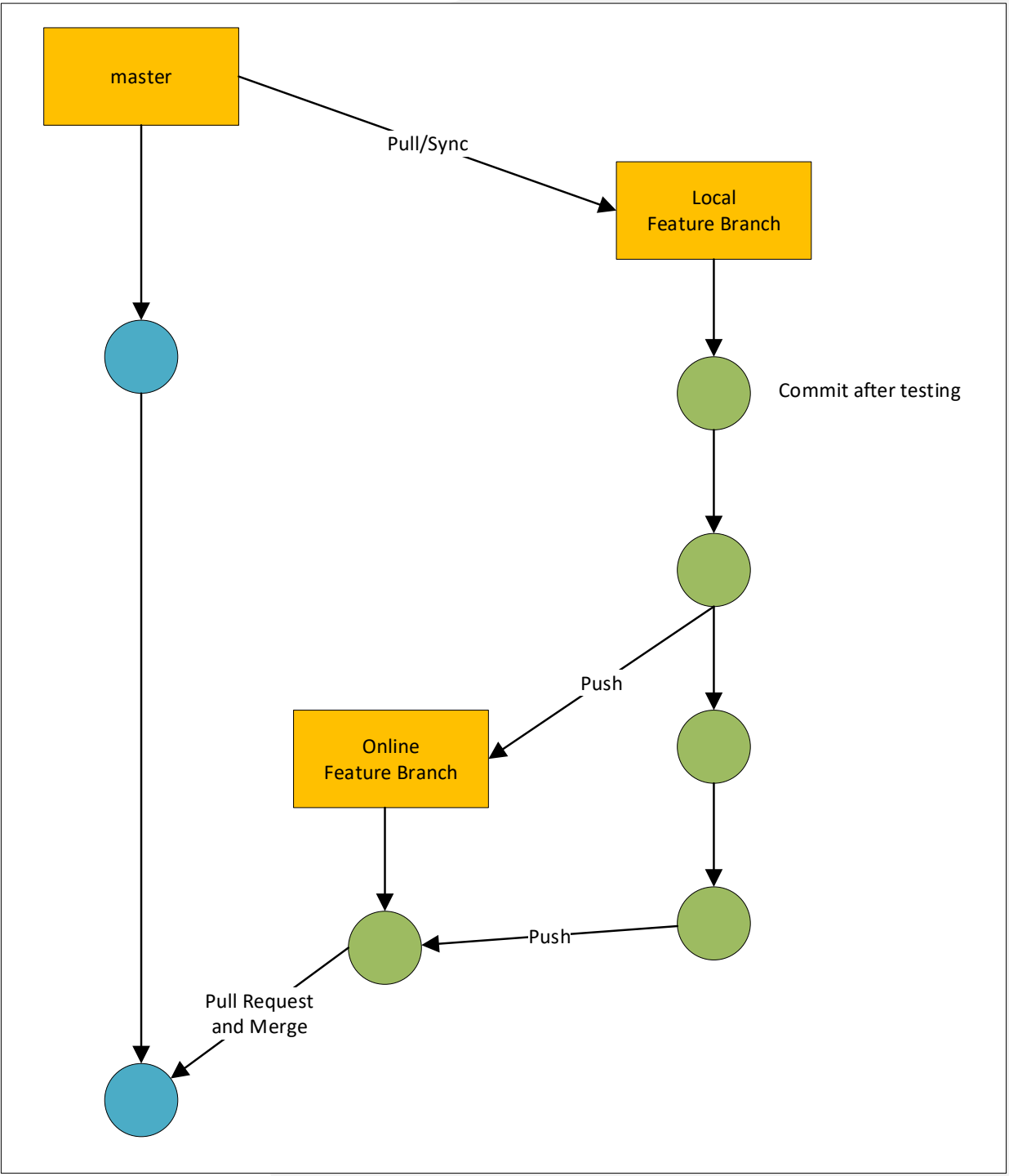
- Commit early & often
 - Especially locally
- Write clear & meaningful commit messages
- Commits should be single purpose
- Develop a branching strategy

GitHub Flow

- Sourced: [Git Workflows That Work](#)



My suggestion



| Flow Control

- Chef
- Jenkins
- Azure DevOps
- Octopus
- TeamCity
- GitLab
- GitHub Actions
- ReadyRoll



| Database Tooling, the Magic

- DBMaestro
- DbUp
- Liquibase
- Flyway



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Thanks for
attending!

