Version Control

ITI - Day 2

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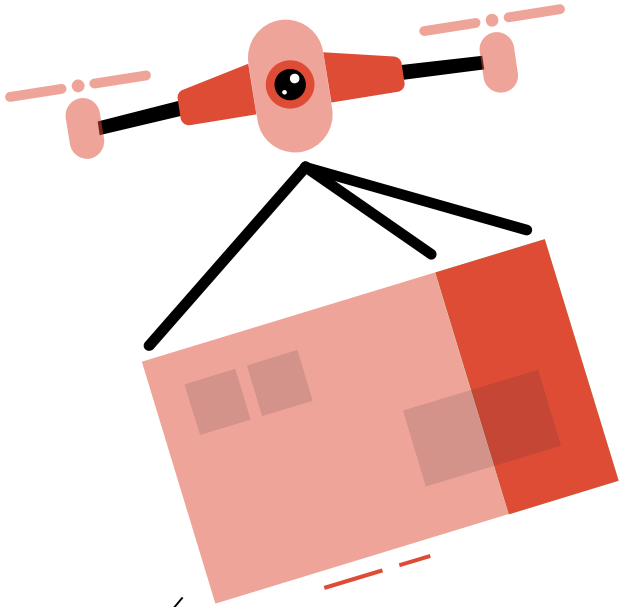
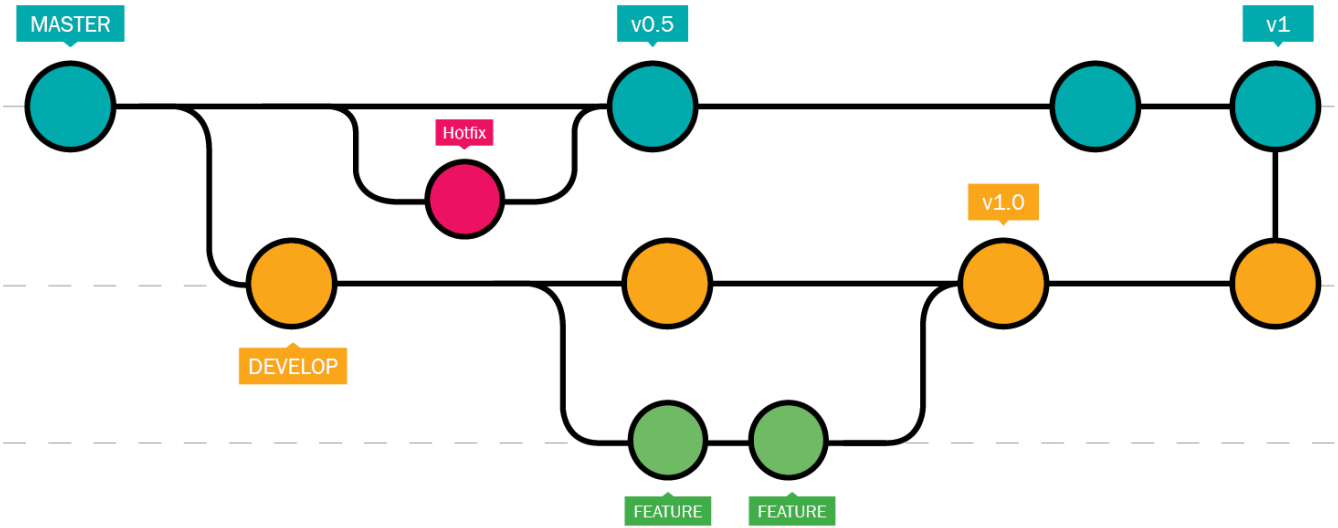
Branching & Rebasing



Branching Out



Branching Out

- To make a **new** branch.

  git branch new_branch_name

- To **list** all the branches

  git branch

- To **switch** to a branch

  git checkout branch_name

- To create a branch and checkout it in **one step**

  git checkout -b new_branch_name

Create a Remote Branch

- When you need another people to work on your branch

  Then you have to make your branch available remotely

  git push origin branch_name

- To list remote branches

  git branch -r

Remove a Branch

- To delete a **remote** branch

  `git push origin :branch_name`

- To delete a **local** branch

  `git branch -d branch_name`

Merging Branches

After finishing your work on the branch,

you've to **merge** it with the Master branch.

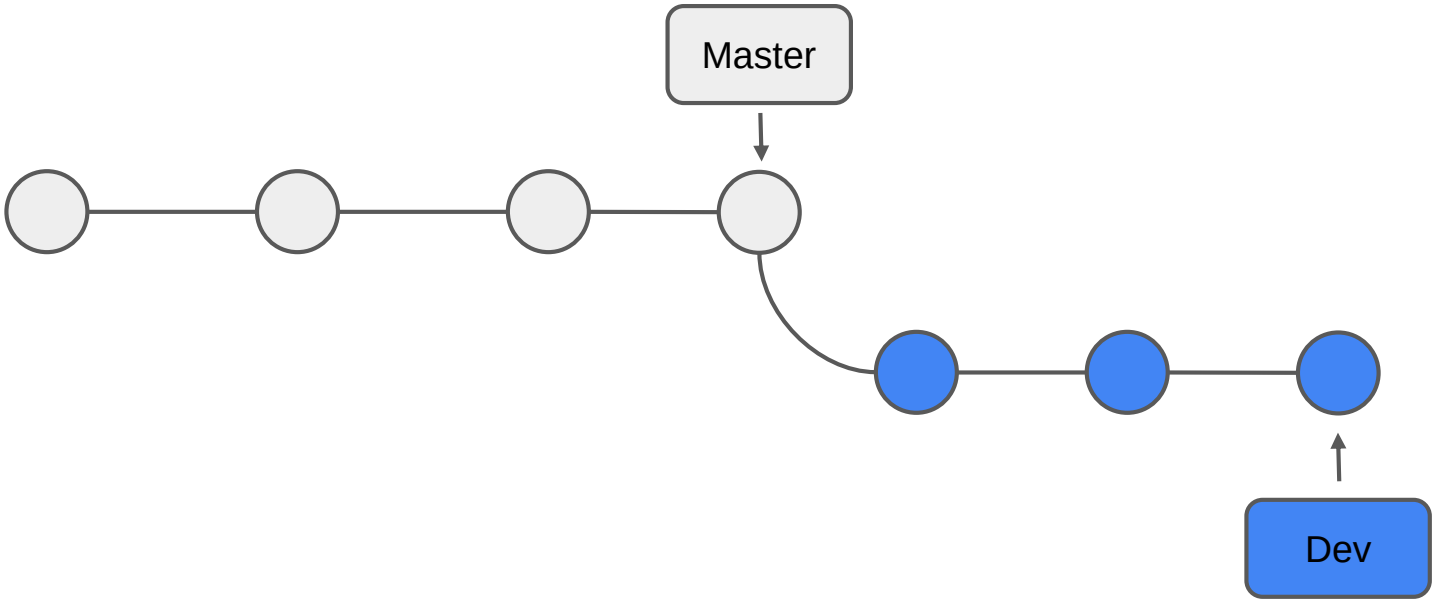
- First, go to the Master branch

  git checkout master

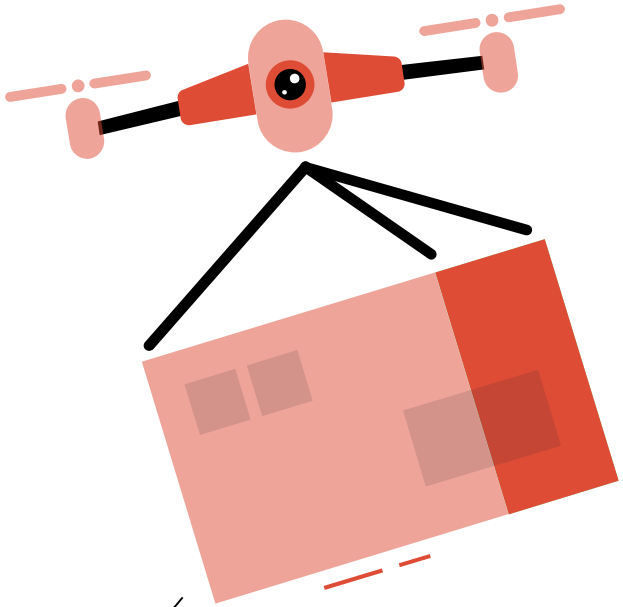
- Then, merge the two branches with each other

  git merge branch_name

Git Rebase



Pull Request



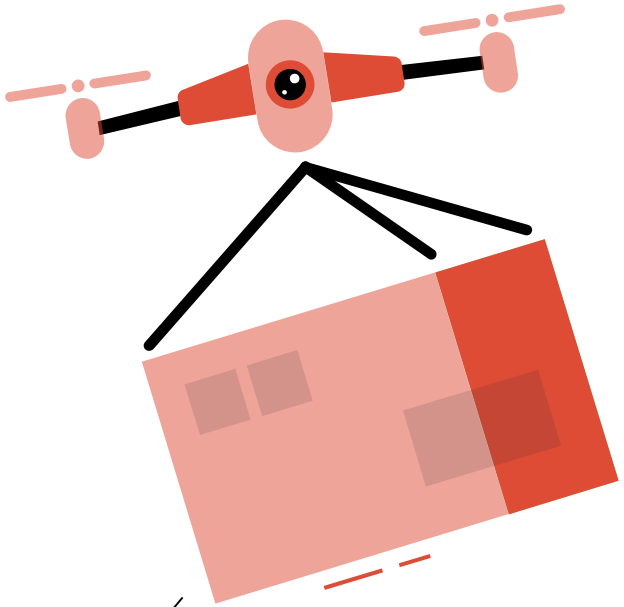
Pull Request

Pull requests let you tell others about changes you've pushed to a branch in a repository on GitHub.

Once a pull request is opened, you can discuss and review the potential changes with collaborators and add follow-up commits before your changes are merged into the base branch.

Demo on GitHub

Tagging & Versioning



Tagging

- A tag is a reference to a commit - used mostly in release versioning.

Git supports two types of tags:

- Lightweight
- Annotated.

Tags Types

- To create a **lightweight** tag

  git tag v1.0

- To create an **annotated** tag

  git tag -a v2.0 -m “version 2.0”

Push Tags

- To list all tags

  git tag

- To push tags

  git push origin <tag_name>

  git push --tags

Delete Tags

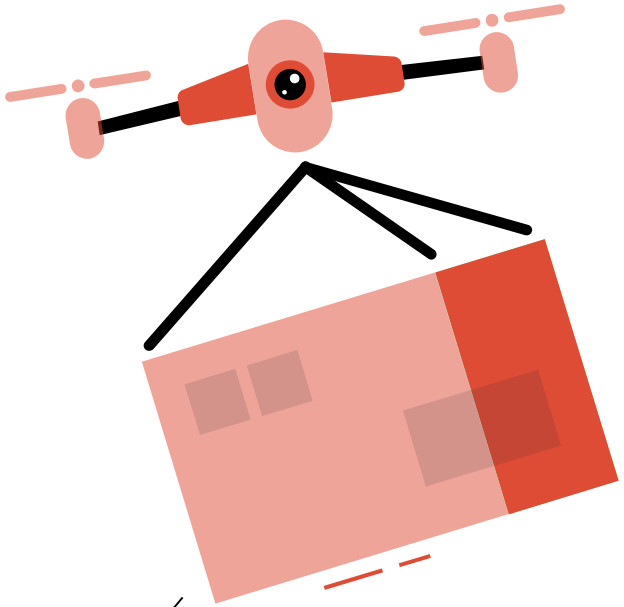
- To delete remote tag

  git push origin --delete v1.0

- To delete local tags

  git tag -d v1.0

Ignoring Files



Ignoring Files

- Often, you will have a class of files that you don’t want git to automatically add or even show to you as being untracked.
- In such cases you can create a file called .gitignore to contains all the unwanted files or directories.

➔ cache/

➔ logs/*.log

Lab 2

- Create a new project on your local machine, then push it your remote repo.
- Create two branches (dev & test) then create one file on each branch, and push this changes to the remote repo.
- Merge this changes on Master branch and then push it to your remote master branch.
- Tell me how to remove dev branch locally and remotely.
- Send an invitation to me (ahmedibrahem22322@gmail.com).

Lab 2

- Create an annotated tag with tagname (v1.7) .
- Push it to the remote repository.
- Tell me how to list tags.
- Tell me how to delete tag locally and remotely.
- Add an image in the README.md file.