INTRODUCTION TO GITHUB

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Agenda

- What is Git & Github ?
- Github Structure
- Important Concepts for Github Users
- Understanding Github workflow
- Setting up Github
- Github Desktop Demo

What is Git & Github ?

Git is an example of **version control**

Version control is a system that records changes to a file or set of files and helps us recall specific versions later if needed. E.g. Subversion (SVN), CVS etc

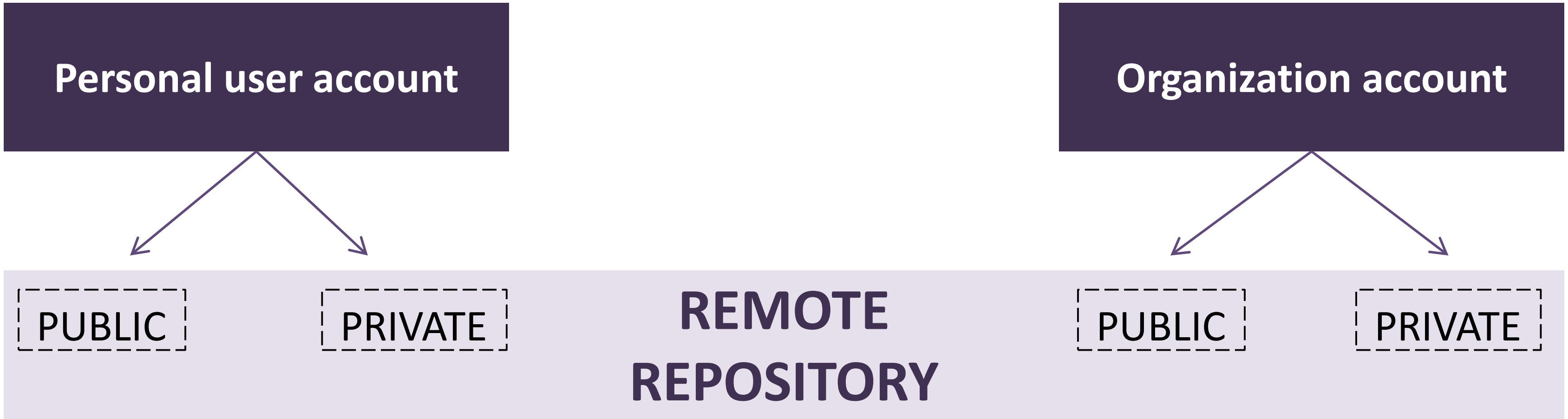
It allows you to :

- Revert files or the whole project to an earlier state
- Compare changes over time
- See who modified what?
- Control modifications by collaborators with the permission of admin/owners

Github is a a repository hosting service for Git

- While Git is a command line tool, GitHub provides a web-based graphical interface that works on top of GIT. It can also be treated as a social platform to share knowledge and work.
- It also provides access control and several collaboration features, such as wikis and basic task management tools

Github Structure



Personal user account

Organization account

PUBLIC

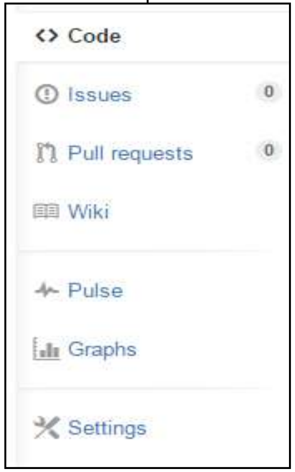
PRIVATE

REMOTE REPOSITORY

PUBLIC

PRIVATE

- Unlimited public repositories and collaborators on all plans
- Limited Private repositories
- Ability to add unlimited repository collaborators
- Public repositories are open to view and copy but not commit changes.



- Organizations are great for that need multiple owners & admins.
- Limited private repositories (> Personal)
- Team-based access permissions
- Unlimited owners, admins, & collaborators using teams

SYNC

CLONE TO GET LOCAL REPOSITORY

Important Concepts for Github Users

Creating a repo

Creating a repository for multiple people to work together

Master in a repository

This is the final version that is considered ready to use by anybody in the team or outside if repository is public.

Creating a Branch

- Create a branch in your project, for an environment where you can try out new ideas.
- Changes you make on a branch don't affect the master unless pull request is accepted.
- Changes committed to branch reflects for you to keep track of different versions

Adding Commits

- Keeps track of your progress as you work on a branch or master.
- Creates a transparent history that others can follow to understand what you've done and why.

Forking a repository

- It creates a copy for you to work on independently without any changes to theirs.
- Submit a pull request to owner so that the owner can incorporate changes.

Concepts for Github Users .. Cntd

Pull requests

- Pull Requests initiates discussion about your commits or changes made to a code.
- See exactly what changes would be merged if pull request is accepted.
- Use GitHub's @mention system in your Pull Request message to ask for feedback from specific people or teams, or for someone to review your work

Issues

- Highlight bugs or issues with codes that need rectification.
- Issues remain open unless resolved.
- Can be filtered, Can be labeled as bug/enancement/ question/help wanted etc
- @mention can be used to notify someone

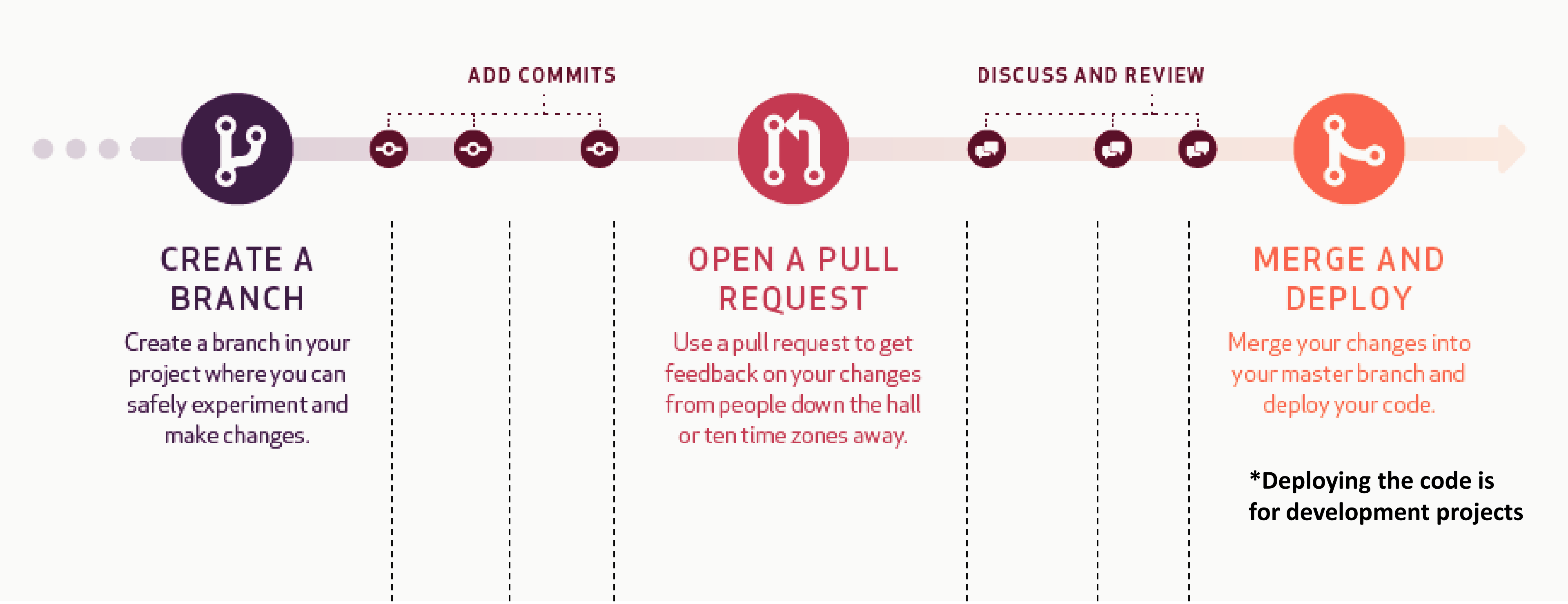
Markdown syntax

- Markdown is a way to style text on the web.
- Available in descriptions and comments of Issues and Pull Requests. These include @mentions as well as references to SHA-1 hashes, Issues, and Pull Requests

Watch and Star

Watch notifies us of all conversations over and above your @mentions, commits, comments on discussion. Star will favorite it but not show on your dashboards like watch

Understanding Github Workflow



CREATE A BRANCH

Create a branch in your project where you can safely experiment and make changes.

OPEN A PULL REQUEST

Use a pull request to get feedback on your changes from people down the hall or ten time zones away.

MERGE AND DEPLOY

Merge your changes into your master branch and deploy your code.

***Deploying the code is for development projects**

Commit

Compare

Sync or Push to branch

Comment on Pull request

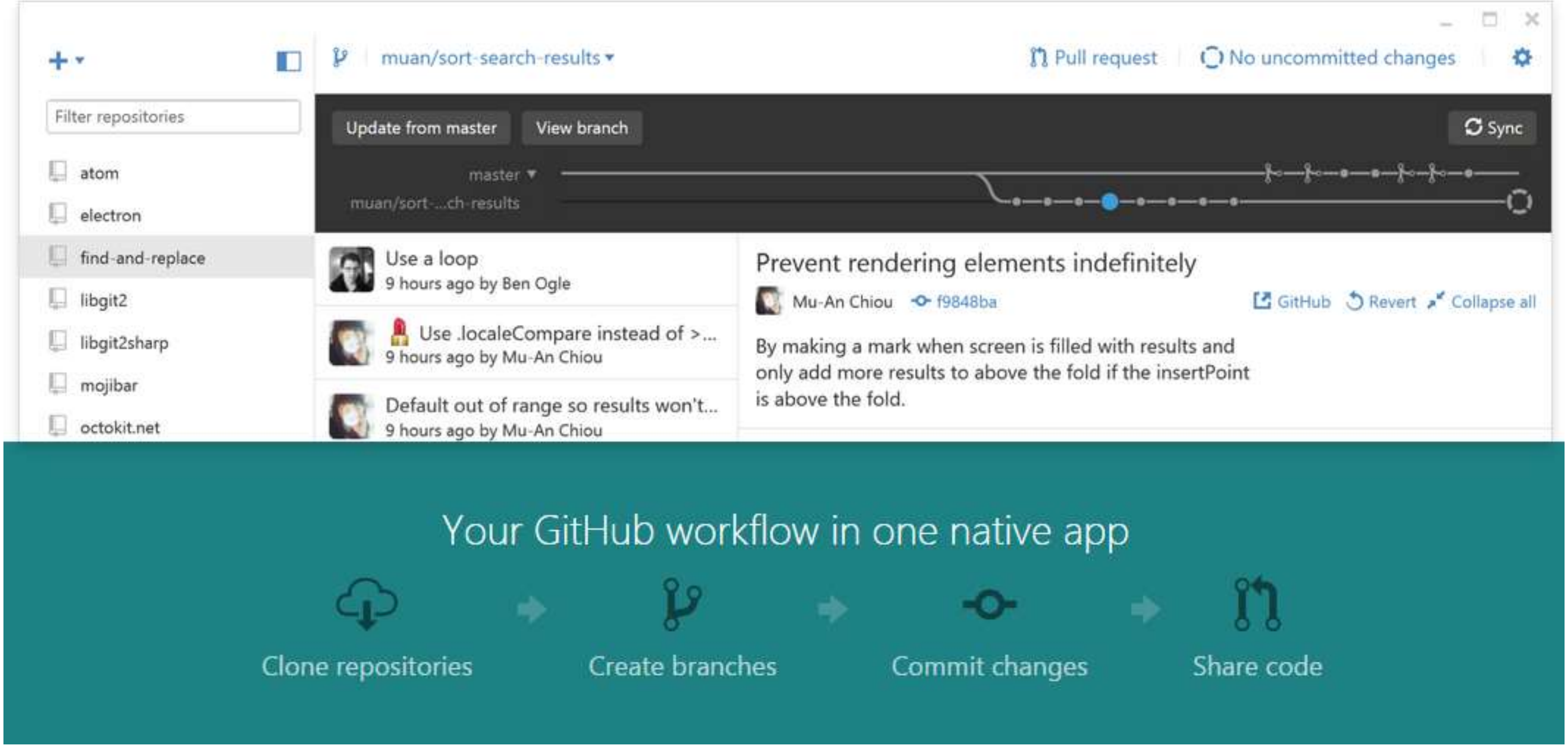
Add Issues/ Resolve Issues
Mention Individuals

Close Pull request

Git flow: https://guides.github.com/introduction/flow/

Github Desktop Demo

Link to download Github Desktop : https://desktop.github.com/



Use a loop
9 hours ago by Ben Ogle

Use .localeCompare instead of >...
9 hours ago by Mu-An Chiou

Default out of range so results won't...
9 hours ago by Mu-An Chiou

Prevent rendering elements indefinitely

Mu-An Chiou f9848ba

By making a mark when screen is filled with results and only add more results to above the fold if the insertPoint is above the fold.

RESOURCES

https://help.github.com/

http://guides.github.com

http://www.slideshare.net/nicotourne/starting-with-git-git-hub-27464735?related=1