GIT

What is GIT and how do we use it?

- () Version control system that keeps track of changes in a project.
- () Allows work coordination between teams members.

For example if James and John are both working on a project and James just finished something. He will update the cloud with the new version of the project and John will be able to update his local project to have everything James has finished to his local machine.

() GIT will be set up locally in the IDE and be connected to an online cloud where others can also access the same project

Keywords

- branch: changes from one source
- Commit: Save changes to local machine
- Stage: get local changes ready to be committed
- Push: sends new local changes to the online cloud
- origin: online platform

Github

Bitbucket

Making an account on GitHub

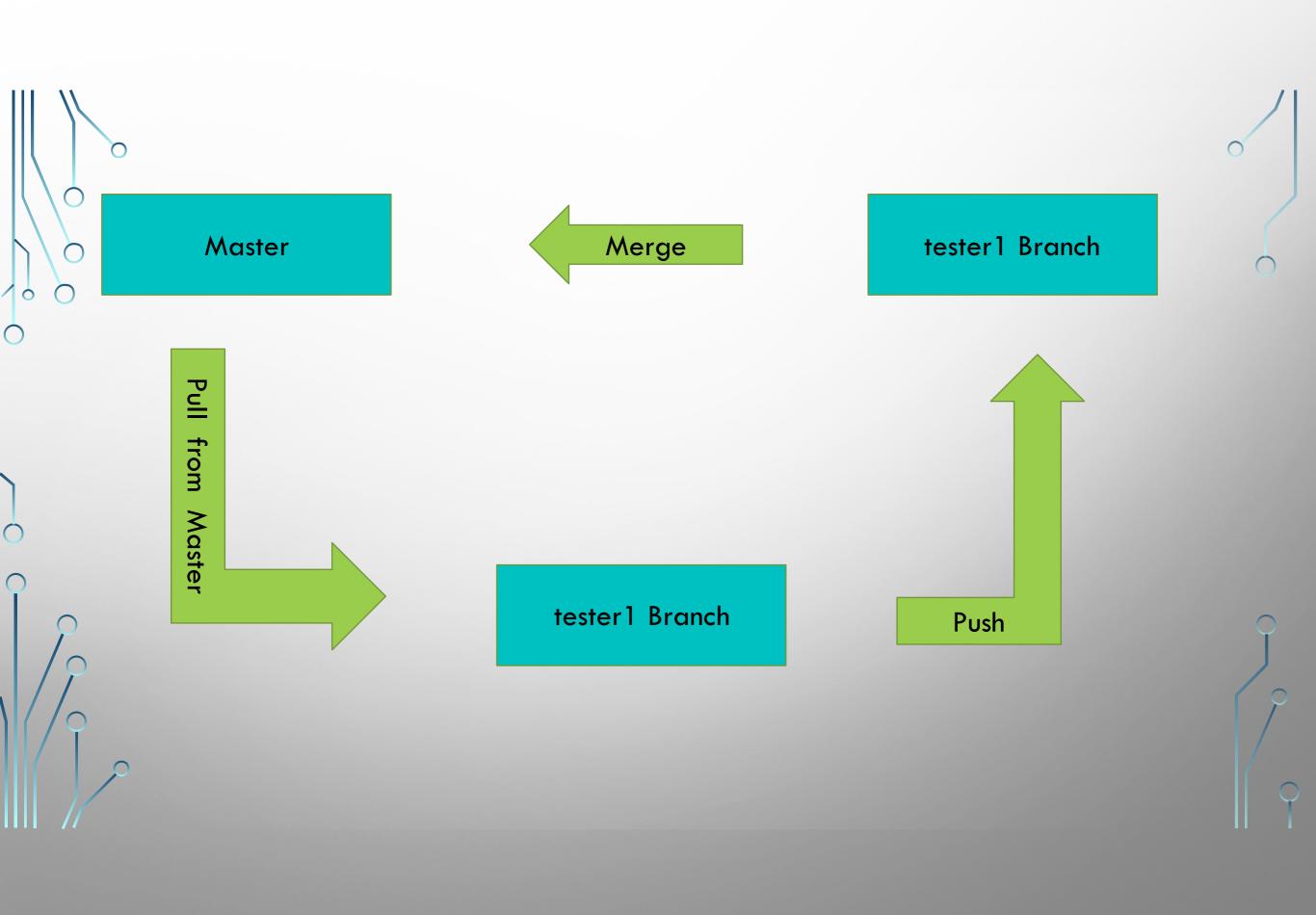
- Go to github.com
- Click sign up button
- Create a username, enter your email, and create a password
- Click next, Select free account
- Verify your email

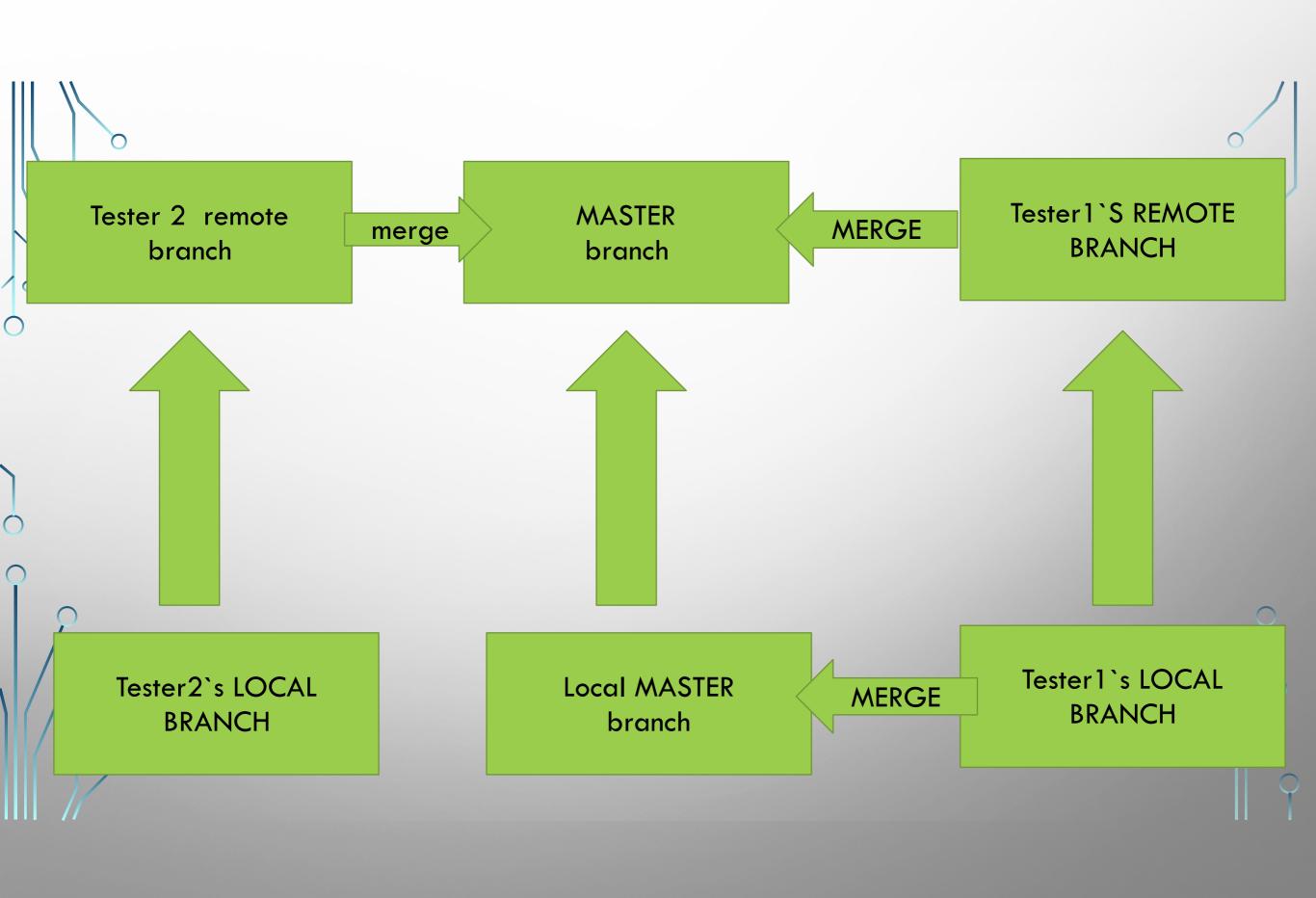
Set up GIT

- Install git —> google: "download git" click on first link
- Open terminal /cmd
- Git -- version
- Make sure you have a github account
 - Don't forget your credentials
- Make a repository on GitHub
- In IntelliJ: click on the VSC menu on the top
- Click Enable version control integration
- Select git
- Up to this point you have an online repository and a local repository

Finish set up

- Go under VCS and select commit
- Select all the files you want to send to the repository
- Add a commit message and click commit
- Go under VCS and hover over git, then select push
- Click define remote, don't touch the name. Go to your online repository and copy the url at the top of the page. Paste that url in the url option
- Enter your GitHub credentials, make sure remember me is selected
- Click push





Importing a project

-> When you want to add a project to your ide, you need to import it

- 1) On the main intellij page click import project
- 2) Find the folder of your project and click open
- 3) Select create project from existing source and click next
- 4) Change the name or location of the project if needed. Click next
- 5) Continue clicking next

GIT CONFLICT:

WHEN WE DIDN'T PULL THE LATEST CODE FROM THE MASTER BRANCH AND TRY TO MERGE NEW CODE, GIT WILL GIVE CONFLICT.

WE HAVE TO PULL THE LATEST CODE FROM MASTER

What is difference between git pull and pull request?

Git pull= To pull latest code from another branch (master)

Pull Request= when we try to merge from one branch to another, we should create pull request and when we create pull request we can assign reviewer.

HOW TO MERGE FROM ONE BRANCH TO MASTER BRANCH

```
git branch → shows the branches

git checkout branch name → to switch the from one branch to another

git status

git add -A → adds to staged area

git commit -m "Message"→ saves to local repository

git push → pushes to remote
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git checkout master → to switch to master branch
git pull origin master → to pull latest code from master
git merge tester → merge from tester branch to master branch
git push origin master → to push from local master to remote master
git rebase

git branch "name"= to create branch git checkout git push —u origin branch name git branch —a → to list branches

git branch –d branchName → to delete local branch git push origin –delete branchName → to delete remote branch

Git merge → it directly merges to other branch

Pull request -> it gives us option to assign someone to review our code

git stash→ it removes our new code and saves in different place git stash apply→it brings back