Just Git it

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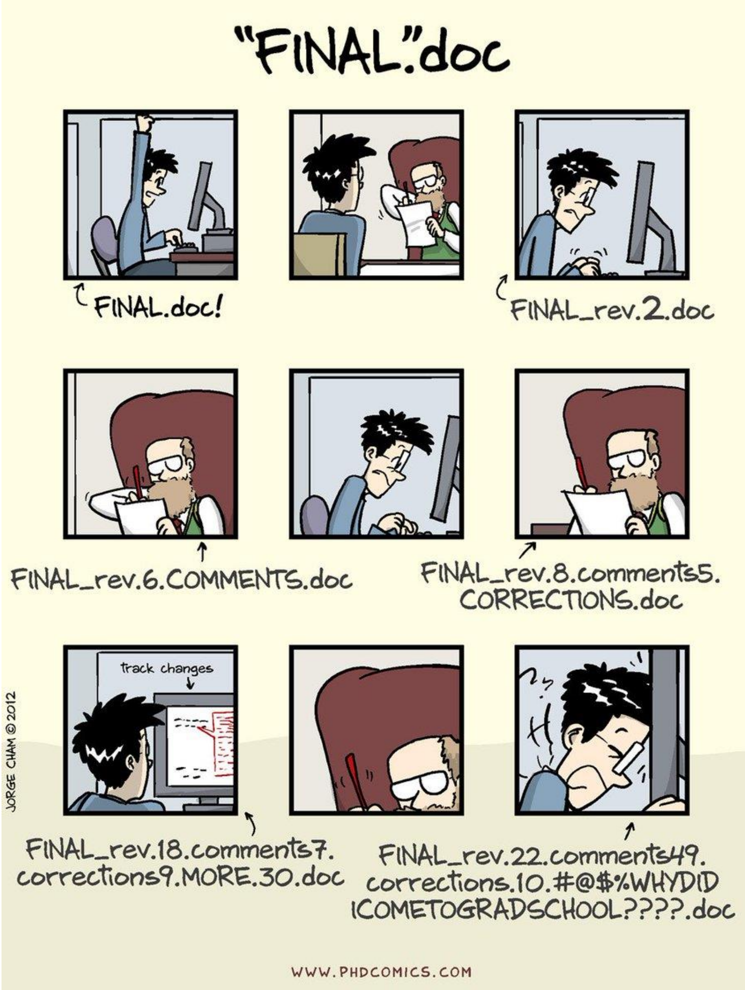
Why git



- Version Control
  - Save work
  - Review Changes
  - Do not lose history
  - Share with others
  - Reduce mental burden
- Working in collaboration

Ref:- SDE course lecture notes, Instructor: Prabhu Ramachandran

Installation on Windows

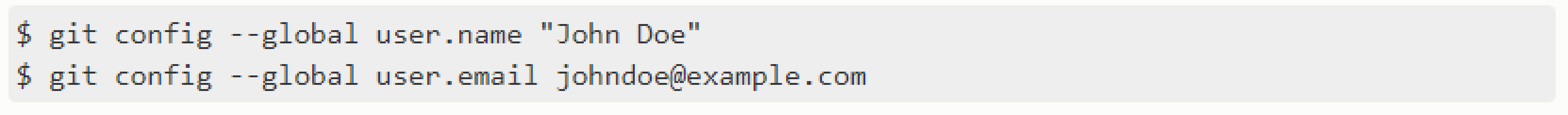
- Git Bash – Command Prompt specifically designed for windows

(https://git-for-windows.github.io/) {during installation path – use gitbash only}

Youtube video (https://www.youtube.com/watch?v=_tN0T7jYn0A)

- Configure the git bash

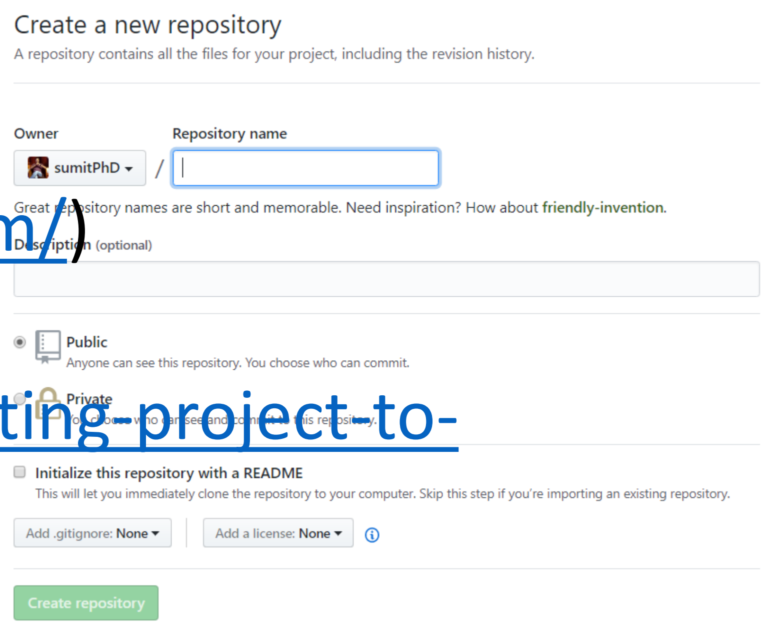
(https://git-scm.com/book/en/v2/Getting-Started-First-Time-Git-Setup)



```
$ git config --global user.name "John Doe"
$ git config --global user.email johndoe@example.com
```

Username and user email must be same as in used in github.com

GitHub



Create a new repository

A repository contains all the files for your project, including the revision history.

Owner: sumitPHD / Repository name:

Great repository names are short and memorable. Need inspiration? How about friendly-invention.

Description (optional)

● Public
Anyone can see this repository. You choose who can commit.

○ Private
You choose who can see and commit to this repository.

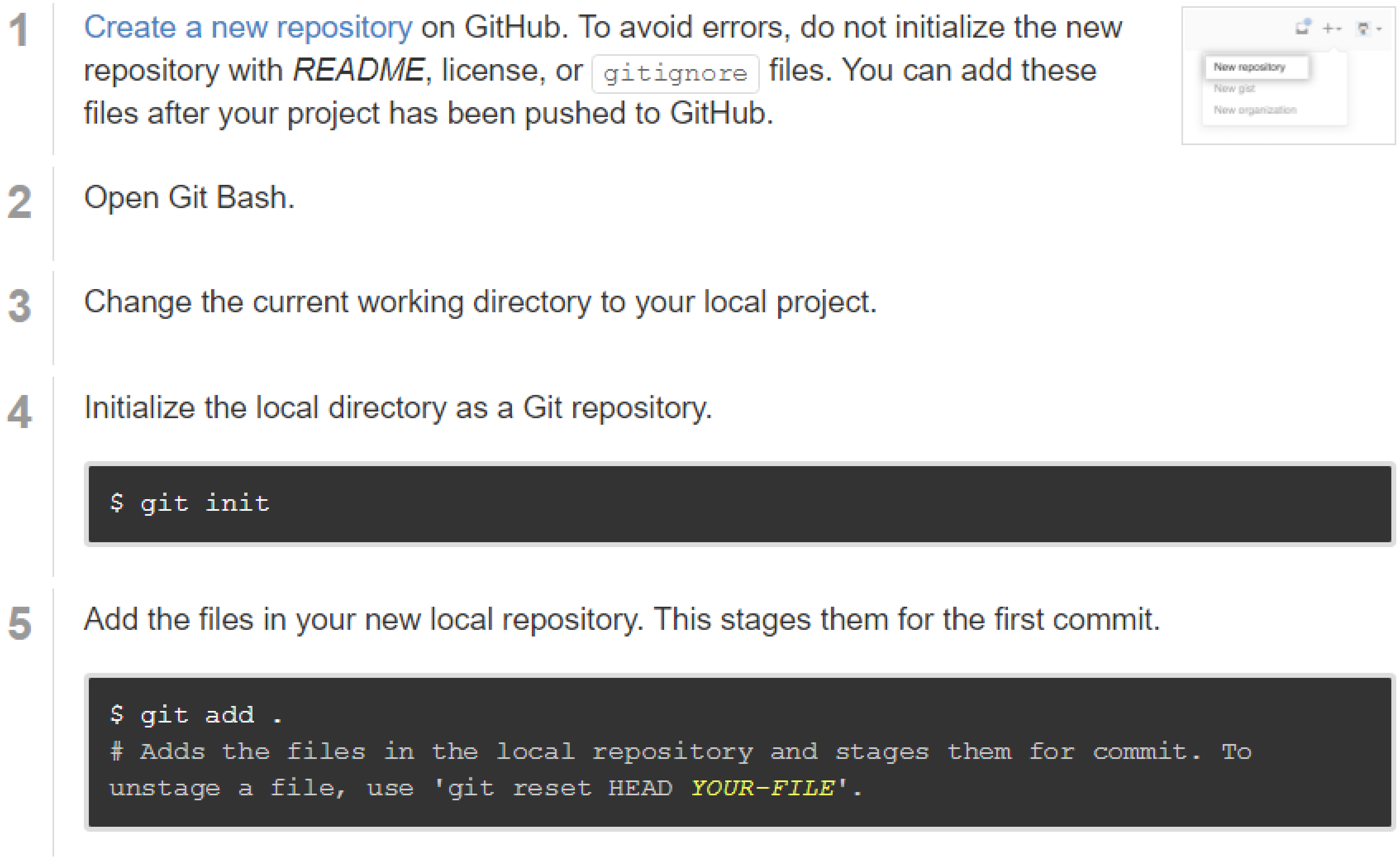
□ Initialize this repository with a README
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None

Add a license: None

- Create and account on github (https://github.com/)
- To add an existing project on github follow this. (https://help.github.com/articles/adding-an-existing-project-to-github-using-the-command-line/)

- Public Repository (Free – open)
- Private Repository (create account with iitb mail id – get 2 year of subscription free, after that 7$ per month)
- Storage(no limitation on number of repository. Repository size<1GB)



1 Create a new repository on GitHub. To avoid errors, do not initialize the new repository with *README*, license, or `gitignore` files. You can add these files after your project has been pushed to GitHub.

2 Open Git Bash.

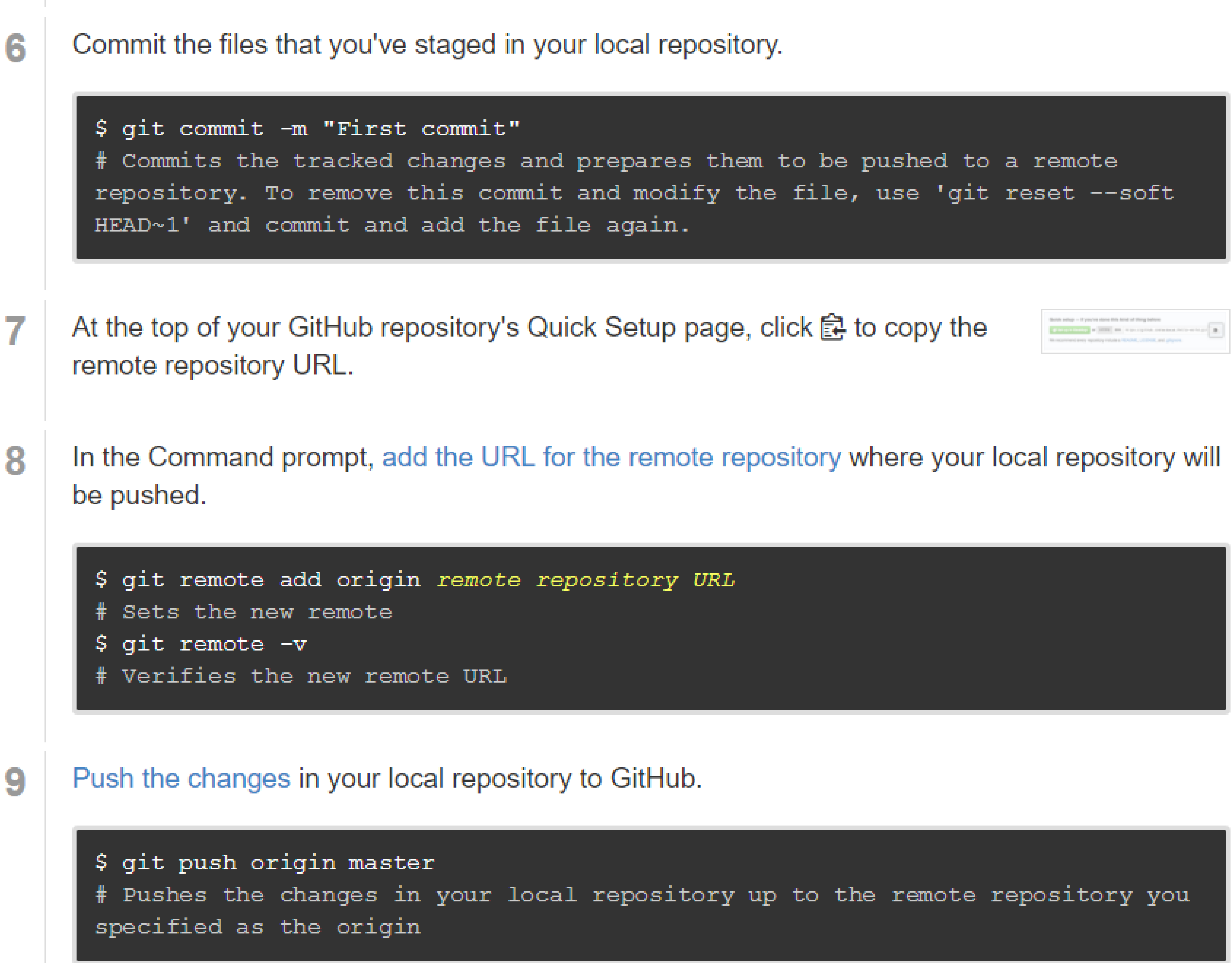
3 Change the current working directory to your local project.

4 Initialize the local directory as a Git repository.

```
$ git init
```

5 Add the files in your new local repository. This stages them for the first commit.

```
$ git add .
# Adds the files in the local repository and stages them for commit. To
unstage a file, use 'git reset HEAD YOUR-FILE'.
```



6 Commit the files that you've staged in your local repository.

```
$ git commit -m "First commit"
# Commits the tracked changes and prepares them to be pushed to a remote
repository. To remove this commit and modify the file, use 'git reset --soft
HEAD~1' and commit and add the file again.
```

7 At the top of your GitHub repository's Quick Setup page, click 📋 to copy the remote repository URL.

8 In the Command prompt, add the URL for the remote repository where your local repository will be pushed.

```
$ git remote add origin remote repository URL
# Sets the new remote
$ git remote -v
# Verifies the new remote URL
```

9 Push the changes in your local repository to GitHub.

```
$ git push origin master
# Pushes the changes in your local repository up to the remote repository you
specified as the origin
```

EDITOR PAIN

- Download sublime editor
- Make sublime default editor for git bash(https://stackoverflow.com/questions/8951275/how-can-i-make-sublime-text-the-default-editor-for-git)

```
git config --global core.editor "'c:/program files/sublime text 2/sublime_text.exe' -w"
```

Sync PAIN

If it happens, refer

https://www.atlassian.com/git/tutorials/syncing

Commands

- git init
- git add abc.m
- git status
- git commit
- git log
- git diff abcCommit1 abcCommit2
- git remote add origin <remote>
- git push origin master
- git pull <remote>
- git ignore

A note on commit logs

```
First line brief <= 50 chars

Detailed information below. Ideally wrapped to 72 cols.

- ALWAYS leave a good log message.

- Bullet points are fine.

- Multiple paras separated by blank line.
```

Further Reading

Fetch

Branching

merge

- Udacity Course – How to use git and github

https://in.udacity.com/course/how-to-use-git-and-github--ud775/

Thank You

happy gitting