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Git Introduction

A Crashcourse

Start by installing git

- Windows:
  - Install Gitbash
- Mac:
  - `$ brew install git`
- Linux:
  - `$ sudo apt-get install git`

You'll need an account for this!

- Register on one of the following sites:
  - github.com
  - gitlab.com
  - bitbucket.com
- Obviously, we should all agree to use the same service
  - Group discussion?

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Keys

Public and Private

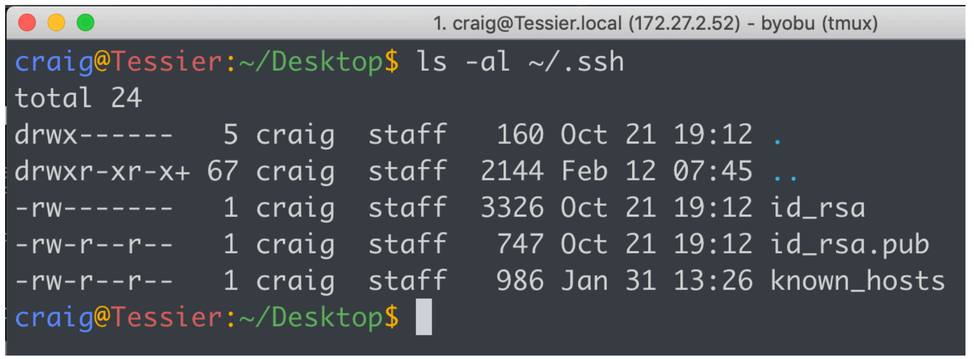
⚠️ ⚠️ ⚠️ WAIT STOP ⚠️ ⚠️ ⚠️

- We are going to set up our account

- But if you already have a key then you **MUST NOT** generate a new one

Check if you already have a key

- Run this command:
- `$ ls -al ~/.ssh`
- If you see `id_rsa` and `id_rsa.pub` then you already have a key



I have a key! 🔑

- Skip ahead to the slide titled:
  “Copying a key to the clipboard”

- You may need to install clip

I do not have a key! ❌🔑

- Are you sure?
- This is non-reversible
- If you've used a key somewhere else you will need to update that one again

- The next four slides detail the process

Generating a key - Part 1

- This command will create the keys that we need:

```
$ ssh-keygen -t rsa -b 4096 -C “you@example.com"
```

- There will be prompts!
- Follow alone with these slides

Generating a key - Part 2

- Let the key be generated in the default location, /something/something/.ssh/id_rsa [Press enter]

- You will prompted for a pass phrase (password), enter it twice as requested

Generating a key - Part 3

- Check that ssh-agent is running

```
$ eval $(ssh-agent -s)
```

- You can manually start it with:

```
$ ssh-agent -s
```

Generating a key - Part 4

- Add your newly generated key to the agent:

```
$ ssh-add ~/.ssh/id_rsa
```

Copying a key to the clipboard

- Windows:
  - `$ clip < ~/.ssh/id_rsa.pub`
- Mac:
  - `$ pbcopy < ~/.ssh/id_rsa.pub`
- Linux (install xclip):
  - `$ sudo apt-get install clip`
  - `$ xclip -sel clip < ~/.ssh/id_rsa.pub`

A cautionary note

- Never, under any circumstance ever share your `id_rsa`

- `id_rsa` is your **private** key
  - SUPER SECRET

- `id_rsa.pub` is your **public** key
  - Safe to share

Head back to your account settings

- You will need to go the account settings on the service that you chose to use and paste your key in there

- Now it is possible to securely connect to the chosen service

One last step, git config

- We configure ourselves as the default/global user for git
- Run the following two commands with your details:

```
$ git config --global user.name “your name”

$ git config --global user.email you@example.com
```

All done!

- Your git is now setup for ease of use
- If done correctly you will not be prompted for passwords too often
- You commits will be correctly attributed to you