

### How To Dev - Workshop



### Core Idea



### Core Idea

Software is messy, especially when distributed.



# Greatest compliment



# Greatest compliment

It just works!



# What brakes programs?



# What brakes programs?





# What brakes programs?

Code

Environment





Code



Code - Version control system



Code - Version control system - Git



Code - Version control system - Git
Environment



- Code Version control system Git
- Environment Containerized environment



Code - Version control system - Git

Environment - Containerized environment - Docker



Git

Docker

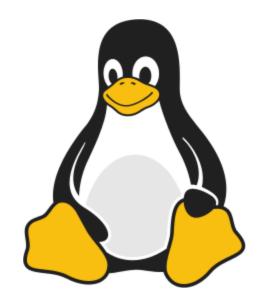


Linux

Git

Docker







Most computations runs on servers



- Most computations runs on servers
  - Most servers runs Linux



- Most computations runs on servers
  - Most servers runs Linux
  - Most effective in resources



- Most computations runs on servers
  - Most servers runs Linux
  - Most effective in resources
    - Linux Philosophy



# Linux Linux Philosophy



### Linux Philosophy

Do only one thing



### Linux Philosophy

- Do only one thing
  - And do it well



# Linux Linux Philosophy In practice



### Linux Philosophy

#### In practice

Built out of tiny independent programs



### Linux Philosophy

#### In practice

- Built out of tiny independent programs
  - Productive terminal environment



Fill at ~ in the \$



Fill at ~ in the \$

Fill at home in the terminal (shell)



This is the / of the problem



- This is the / of the problem
- This is the root of the problem



My ~ is at /home/user/



Where have you bin/?



```
Where have you bin/?
```

Directory structure:

/bin /home /opt /tmp /usr /var /etc



Don't Bash your head against the keyboard



Hand-on keyboard!



## Hand-on keyboard!

Go to cmd



## Hand-on keyboard!

Go to cmd

ssh



### Utilities



### Utilities



### Utilities

ls

cd

Change directory



### Utilities

ls

cd

cat / less

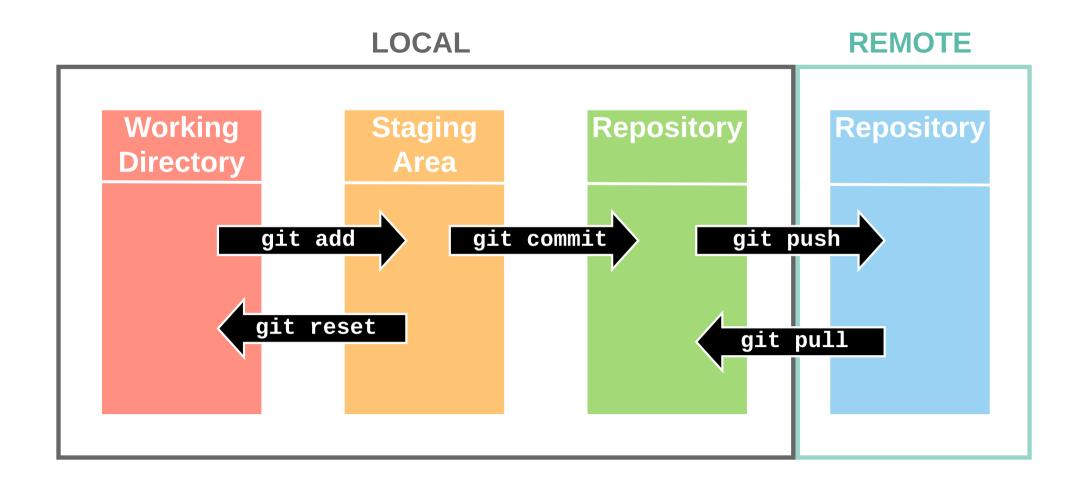
Show content of file



#### Utilities









mkdir <dir\_name>



mkdir <dir\_name>
git init.



- mkdir <dir\_name>
  - git init .
  - git status





nano <file\_name>
git status



```
pano <file_name>
```

git status

git add <file\_name>



- pano <file\_name>
  - git status
- git add <file\_name>
  - git status



- p nano <file\_name>
  - git status
- git add <file\_name>
  - git status
- git commit -m "some commit message"



# Docker

