celleste bio
cocoa the new way

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?

🍫 Code

🍫 Environment

Development enablers

Development enablers

Code

Development enablers

Code - Version control system

Development enablers

🥥 Code - Version control system - **Git**

Development enablers

🌰 Code - Version control system - **Git**

🌰 Environment

Development enablers

- Code - Version control system - **Git**
- Environment - Containerized environment

Development enablers

🥥 Code - Version control system - **Git**

🥥 Environment - Containerized environment - **Docker**

Development enablers

- Git
- Docker

Development enablers

- Linux
- Git
- Docker

Linux

Linux

🍫 Most computations runs on **servers**

Linux

- Most computations runs on **servers**
- Most **servers** runs **Linux**

Linux

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

Linux

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

Linux

Linux Philosophy

Linux

Linux Philosophy

🫛 Do only one thing

Linux

Linux Philosophy

- 🥥 Do only one thing
- 🥥 And do it well

Linux

Linux Philosophy

In practice

Linux

Linux Philosophy

In practice

🍫 Built out of tiny independent programs

Linux

Linux Philosophy

In practice

🌱 Built out of tiny independent programs
🌱 Productive terminal environment

Linux

🟤 Fill at **~** in the **$**

Linux

🍃 Fill at **~** in the **$**

🍃 Fill at **home** in the **terminal** (shell)

Linux

🌰 This is the **/** of the problem

Linux

🥥 This is the **/** of the problem

🥥 This is the **root** of the problem

Linux

🥥 What is going on . ?

Linux

🌰 What is going on . ?

🌰 What is going on **here** ?

Linux

🟤 My ~ is at **/home/user/**

Linux

🥥 Where have you **bin/** ?

Linux

🌰 Where have you **bin/** ?

🌰 Directory structure:
/bin /home /opt /tmp /usr /var /etc

Linux

🫘 Don't **Bash** your head against the keyboard

Linux

Hands-on keyboard!

Go to cmd

Linux

Hands-on keyboard!

🍫 Go to cmd

```
ssh -i how-to-dev_key.pem
howtodev@172.160.226.208
```

Linux

Utilities

Linux

Utilities

```
ls
```

List all files in a directory

Linux

Utilities

cd

Change directory

Linux

Utilities

```
cat
less
```

Show content of file

Linux

Utilities

```
touch
cp
mv
```

Make, copy, move or rename files

Linux

Utilities

```
mkdir
```
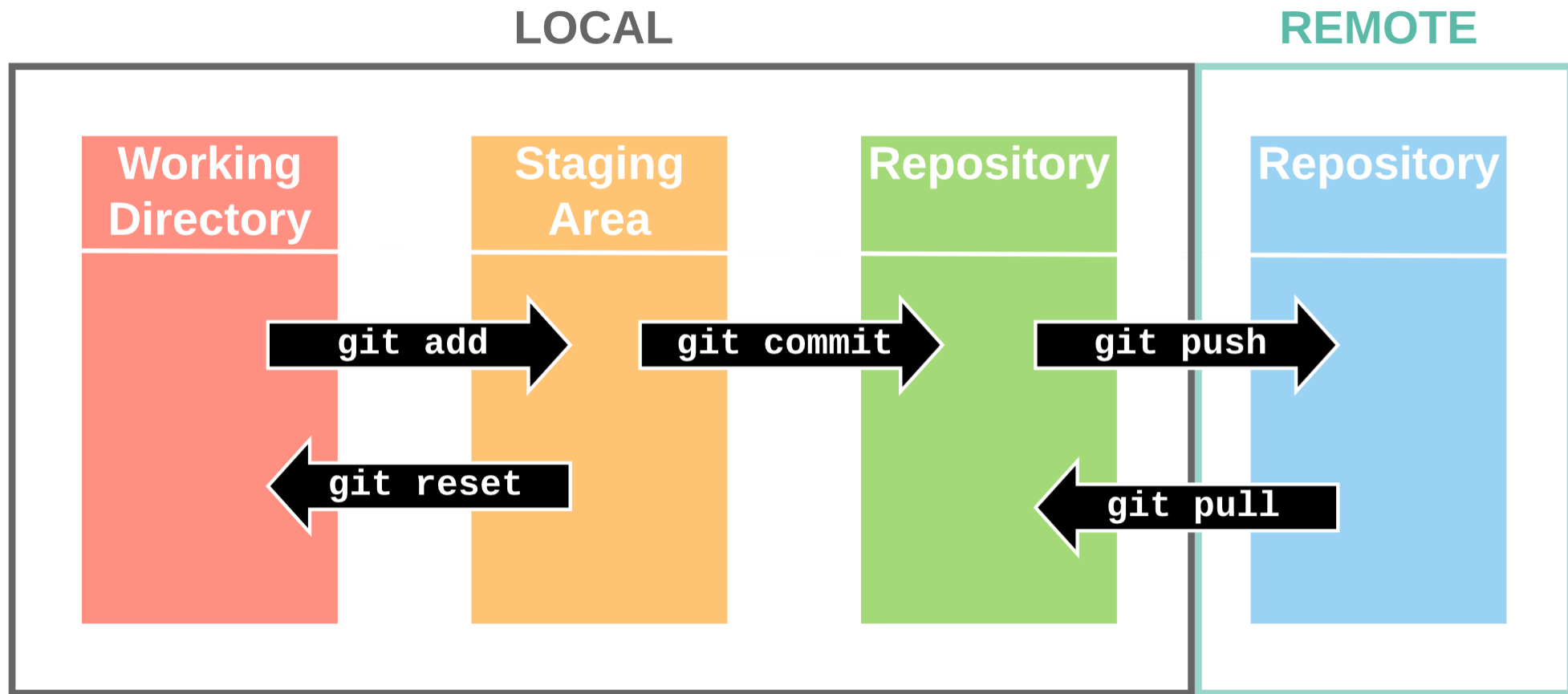
Make a directory

Git

Git

Git

```
mkdir <dir_name>
```

Git

```
mkdir <dir_name>
git init .
```

Git

```
mkdir <dir_name>
git init .
git status
```

Git

```
nano <file_name>
echo <content> > <file_name>
```

Enter some content to a file.

Git

```
nano <file_name>
echo <content> > <file_name>
git status
```

Git

```
nano <file_name>
echo <content> > <file_name>
git status
git add <file_name>
```

Git

```
nano <file_name>
echo <content> > <file_name>
git status
git add <file_name>
git status
```
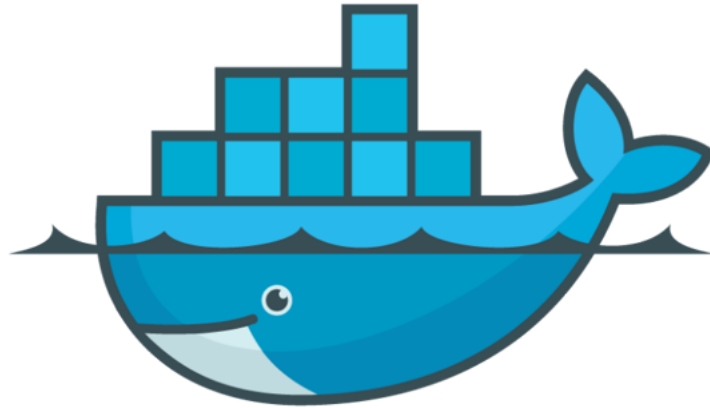
Git

```
nano <file_name>
echo <content> > <file_name>
git status
git add <file_name>
git status
git commit -m "some commit message"
```

Docker

Docker

```
docker build --tag "how-to-dev" .
```

Building a new docker image based on the 'Dockerfile' in the current directory.

Docker

```
docker image list
```

```
REPOSITORY      TAG        IMAGE ID        CREATED              SIZE
how-to-dev      latest     d211d6bfa5ab    About a minute ago   202MB
```

Docker

```
docker run --interactive --tty --name <my_name> how-to-dev bash
```

Docker

```
docker run -it --name <my_name> how-to-dev bash
```

Docker

```
docker container list
docker container list --all
```

Docker

```
docker run \
    -tty \
    --detach \
    --name <my_name> \
    how-to-dev \
    bash
```

Docker

```
docker container list
docker container list --all
```

Docker

```
docker exec -t <my_name> bash -c "ls"
```