

第二节

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1-2

- Enough talk, let's get hands dirty.

- 开发环境搭建

- 开发环境搭建
 - Django 2.0
 - Python 3.7.x

- 开发环境搭建 – Install Python 3

Step 1: Verify the python version in your desktop

```
wentailai@iMac ~ ➔ python --version  
Python 2.7.10
```

For Mac, Python 2 is already installed

```
wentailai@iMac ~ ➔ python3 --version  
Python 3.7.0
```

Use this command to verify if you have python3 installed

- 开发环境搭建 – Install Python 3

Step 2: Install Xcode and Homebrew

```
wentailai@iMac ~$ xcode-select --install
```

This might take some time

```
wentailai@iMac ~$ /usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

Homebrew is a package management tool for macOS.

Command can be found in this link: <https://brew.sh/>

- 开发环境搭建 – Install Python 3

Step 3: Install Python 3 and verify

```
wentailai@iMac ~ ➤ brew install python3
```

Use Homebrew to install python3

```
wentailai@iMac ~ ➤ python3
Python 3.7.0 (default, Jun 29 2018, 20:13:13)
[Clang 9.1.0 (clang-902.0.39.2)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> █
```

You should see the same thing. Use “ctrl + d” to quit

- 开发环境搭建 – **Install Virtual Environment**

Q:什么是Virtual Environment ?

A: 提供一个隔离的环境，这个环境里包括一个project所需要的所有 dependencies

Example:

Project A -> Django 2.0

Project B -> Django 1.1

- 开发环境搭建 – Install Virtual Environment



v.s.



- 开发环境搭建 – **Install Virtual Environment**

Step 1: Install pipenv

```
✗ wentailai@iMac ➤ ~ ➤ pip3 install pipenv
```

Type this command to install pipenv

(pip3 is a tool installed alone with python3)

- 开发环境搭建 – Install Django

Step 1: Create your work directory

```
wentailai@WenTailais-iMac > ~/Desktop/JZDEV/InstaDemo > pwd  
/Users/wentailai/Desktop/JZDEV/InstaDemo
```

• 开发环境搭建 – Install Django

Step 2: Install Django

```
wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo$ pipenv install django
Creating a virtualenv for this project...
Pipfile: /Users/wentailai/Desktop/JZDEV/InstaDemo/Pipfile
Using /usr/local/opt/python/bin/python3.7 (3.7.3) to create virtualenv...
* Creating virtual environment...Already using interpreter /usr/local/opt/python/bin/python3.7
Using base prefix '/usr/local/Cellar/python/3.7.3/Frameworks/Python.framework/Versions/3.7'
New python executable in /Users/wentailai/.local/share/virtualenvs/InstaDemo-8rgNeBBL/bin/python3.7
Also creating executable in /Users/wentailai/.local/share/virtualenvs/InstaDemo-8rgNeBBL/bin/python
Installing setuptools, pip, wheel...
done.

✓ Successfully created virtual environment!
Virtualenv location: /Users/wentailai/.local/share/virtualenvs/InstaDemo-8rgNeBBL
Creating a Pipfile for this project...
Installing django...
Adding django to Pipfile's [packages]...
✓ Installation Succeeded
Pipfile.lock not found, creating...
Locking [dev-packages] dependencies...
Locking [packages] dependencies...
✓ Success!
Updated Pipfile.lock (4f9dd2)!
Installing dependencies from Pipfile.lock (4f9dd2)...
  2/3 3/3 - 00:00:00
To activate this project's virtualenv, run pipenv shell.
Alternatively, run a command inside the virtualenv with pipenv run.
```

- 开发环境搭建 – Install Django

Step 3: Check your current directory

```
wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo$ ls  
Pipfile      Pipfile.lock
```

- 开发环境搭建 – Install Django
Pipfile

```
[[source]]
url = "https://pypi.org/simple"
verify_ssl = true
name = "pypi"

[packages]
django = "*"

[dev-packages]

[requires]
python_version = "3.7"
Pipfile (END)
```

- 开发环境搭建 – Install Django

Pipfile.lock

```
"default": {
  "django": {
    "hashes": [
      "sha256:7f246078d5a546f63c28fc03ce71f4d7a23677ce42109219c24c9ffb28416137",
      "sha256:ea50d85709708621d956187c6b61d9f9ce155007b496dd914fdb35db8d790aec"
    ],
    "index": "pypi",
    "version": "==2.1"
  },
```


- 开发环境搭建 – Install Django

Step 4: Activate this virtual environment

```
wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo$ pipenv shell
Launching subshell in virtual environment...
. /Users/wentailai/.local/share/virtualenvs/InstaDemo-8rgNeBBL/bin/activate
wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo$ . /Users/wentailai/.local/share/virtualenvs/InstaDemo-8rgNeBBL/bin/activate
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo$
```

- 开发环境搭建 – Install Django

Step 5: Create a new Django project !

```
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo django-admin startproject InstaDemo .
```

```
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo tree
```

```
.
├── InstaDemo
│   ├── __init__.py
│   ├── settings.py
│   ├── urls.py
│   └── wsgi.py
├── Pipfile
├── Pipfile.lock
└── manage.py
```

```
1 directory, 7 files
```

- 开发环境搭建 – Run Server

Step 1: Run local web server

```
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo$ python manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

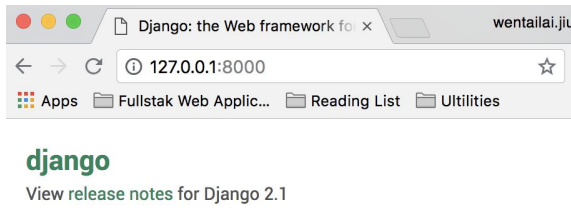
System check identified no issues (0 silenced).

You have 17 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.

July 01, 2019 - 10:45:56
Django version 2.2.3, using settings 'InstaDemo.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.
```

- 开发环境搭建 – Run Server

Step 2: Verify the server is up and running



The install worked successfully! Congratulations!

You are seeing this page because `DEBUG=True` is in your settings file and you have not configured any URLs.

- 开发环境搭建 – **Run Server**

Step 3: Verify the server is getting request

```
August 30, 2018 - 04:18:39
Django version 2.1, using settings 'helloworld_project.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.
[30/Aug/2018 04:20:22] "GET / HTTP/1.1" 200 16348
[30/Aug/2018 04:20:22] "GET /static/admin/css/fonts.css HTTP/1.1" 200 423
[30/Aug/2018 04:20:22] "GET /static/admin/fonts/Roboto-Regular-webfont.woff HTTP/1.1" 200 80304
[30/Aug/2018 04:20:22] "GET /static/admin/fonts/Roboto-Light-webfont.woff HTTP/1.1" 200 81348
[30/Aug/2018 04:20:22] "GET /static/admin/fonts/Roboto-Bold-webfont.woff HTTP/1.1" 200 82564
```

- 开发环境搭建 – **Run Server**

Step 4: Stop server and exit virtual environment

- Stop by press “ctrl + c”
- Exit virtual environment by type “exit”

- Now let's take a closer look at our server

- Now let's take a closer look at our server

```
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo tree
.
├── InstaDemo
│   ├── __init__.py
│   ├── settings.py
│   ├── urls.py
│   └── wsgi.py
├── Pipfile
├── Pipfile.lock
└── manage.py

1 directory, 7 files
```


- Now let's take a closer look at our server
 - We already know about Pipenv files

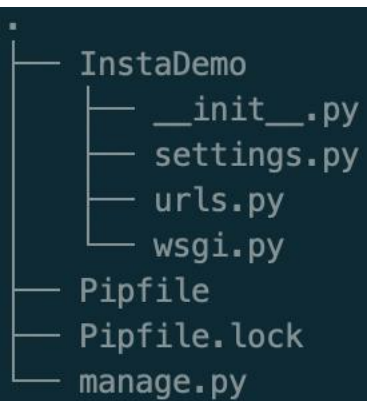
```
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo
tree
.
├── InstaDemo
│   ├── __init__.py
│   ├── settings.py
│   ├── urls.py
│   └── wsgi.py
├── Pipfile
├── Pipfile.lock
└── manage.py

1 directory, 7 files
```

- Now let's take a closer look at our server

- manage.py:

用于执行各种的django commands



```
(first_project-5vtAMXXV) wentailai@WenTailais-iMac ~/MyRepo/first_project python manage.py
cleanup                -- remove old data from the database
compilemessages         -- compile .po files to .mo for use with gettext
createcachetable        -- creates table for SQL cache backend
createsuperuser         -- create a superuser
dbshell                 -- run command-line client for the current database
diffsettings            -- display differences between the current settings and Django
dumpdata                -- output contents of database as a fixture
flush                   -- execute 'sqlflush' on the current database
inspectdb               -- output Django model module for tables in database
loaddata                -- install the named fixture(s) in the database
makemessages            -- pull out all strings marked for translation
reset                   -- executes 'sqlreset' for the given app(s)
runfcgi                 -- run this project as a fastcgi
runserver                -- start a lightweight web server for development
shell                   -- run a Python interactive interpreter. Tries to use IPython,
sql                      -- print the CREATE TABLE statements for the given app(s)
sqlall                  -- print the CREATE TABLE, CREATE INDEX and custom statements f
sqlclear                -- print the DROP TABLE statements for the given app(s)
sqlcustom               -- print the custom table-modifying SQL statements for the give
sqlflush                -- print the SQL statements required to return all tables to in
sqlindexes              -- print the CREATE INDEX statements for the given app(s)
sqlreset                -- print the DROP TABLE and CREATE TABLE statements for the giv
sqlsequencereset        -- print the SQL statements for resetting sequences for the giv
startapp                -- create Django app directory in this project's directory
syncdb                  -- create database tables for apps in INSTALLED_APPS where requ
test                    -- run the test suite for the specified app, or the entire site
testserver              -- run a development server with data from the given fixture(s)
validate                -- validate all installed modules
```

- Now let's take a closer look at our server

- settings.py:

project level settings, example:

```
.
├── InstaDemo
│   ├── __init__.py
│   ├── settings.py
│   ├── urls.py
│   └── wsgi.py
├── Pipfile
├── Pipfile.lock
└── manage.py
```

```
"""
Django settings for first_project project.

Generated by 'django-admin startproject' using Django 2.1.3.

For more information on this file, see
https://docs.djangoproject.com/en/2.1/topics/settings/

For the full list of settings and their values, see
https://docs.djangoproject.com/en/2.1/ref/settings/
"""

# Database
# https://docs.djangoproject.com/en/2.1/ref/settings/#databases

DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.sqlite3',
        'NAME': os.path.join(BASE_DIR, 'db.sqlite3'),
    }
},
}
```

- Now let's take a closer look at our server

- urls.py:

url routing management:

```
urlpatterns = [  
    path('admin/', admin.site.urls),  
]
```

```
.  
├── InstaDemo  
│   ├── __init__.py  
│   ├── settings.py  
│   ├── urls.py  
│   └── wsgi.py  
├── Pipfile  
├── Pipfile.lock  
└── manage.py
```

- Now let's take a closer look at our server
 - wsgi.py:
web server gateway interface (describe how server communicate with application)

```
├── InstaDemo
│   ├── __init__.py
│   ├── settings.py
│   ├── urls.py
│   └── wsgi.py
├── Pipfile
├── Pipfile.lock
└── manage.py
```



- **GIT** 是一个版本管理系统



• GIT是如何进行版本管理的？

yibeibaok / JZInsta

Watch 0

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< Code

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Pull requests 0

Projects 0

Wiki

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Insights

Settings

No description, website, or topics provided.

Edit

13 commits

1 branch

0 releases

2 contributors

We found a potential security vulnerability in one of your dependencies.

Only the owner of this repository can see this message.

[Manage your notification settings](#) or [learn more about security alerts](#).

See security alert

Branch: master

New pull request

Create new file

Upload files

Find File

Clone or download

yibeibaok Update README.md

Latest commit 0bdf7d5 on May 3

.vscode	Create insta app	2 months ago
JZInsta	Use AWS S3 as CDN	2 months ago
insta	Use AWS S3 as CDN	2 months ago
static	Use AWS S3 as CDN	2 months ago
templates	Use AWS S3 as CDN	2 months ago
.env.example	Use AWS S3 as CDN	2 months ago
.gitignore	Use AWS S3 as CDN	2 months ago
Pipfile	Use AWS S3 as CDN	2 months ago
Pipfile.lock	Use AWS S3 as CDN	2 months ago
README.md	Update README.md	2 months ago
db.sqlite3	Use AWS S3 as CDN	2 months ago
manage.py	Initial setup	2 months ago

- **GIT**是如何进行版本管理的？

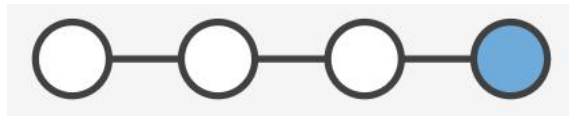
Commit

Commits on Apr 24, 2019

- Initial setup for following system
wentailai committed on Apr 24 [47c5d91](#) <>
- Make post and display posts list
wentailai committed on Apr 24 [ccd3165](#) <>

Commits on Apr 23, 2019

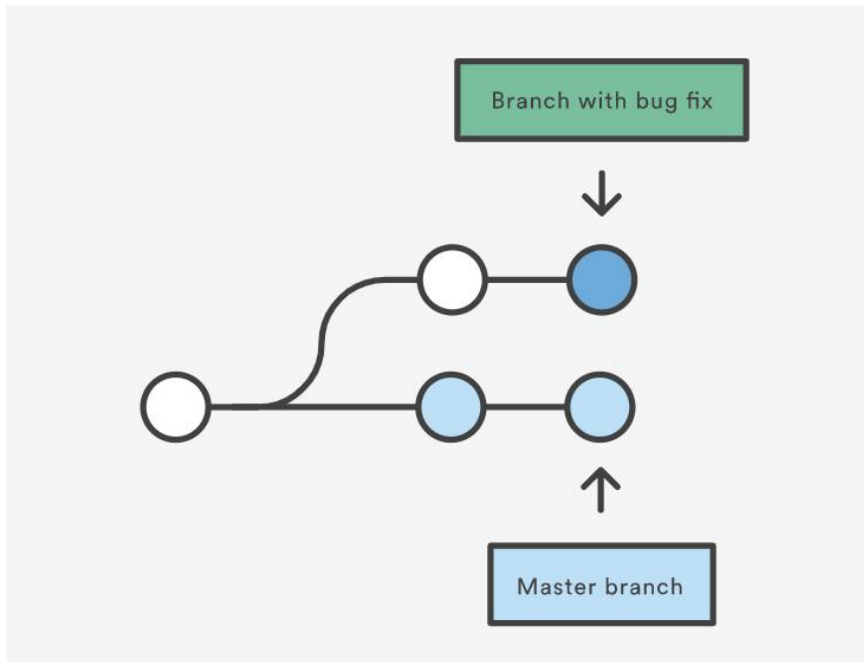
- Implement basic authentication
wentailai committed on Apr 23 [c3647e7](#) <>
- Create insta app
wentailai committed on Apr 23 [b0bb054](#) <>
- Initial setup
wentailai committed on Apr 23 [7364e3e](#) <>



	Author	Commit	Message
•	 Emma Paris	c7cf7b7	making a change in a branch
•	 Emma Paris	fccfa6f	stationlocations created online with Bitbucket
•	 Emma Paris	5424bbf	Initial commit

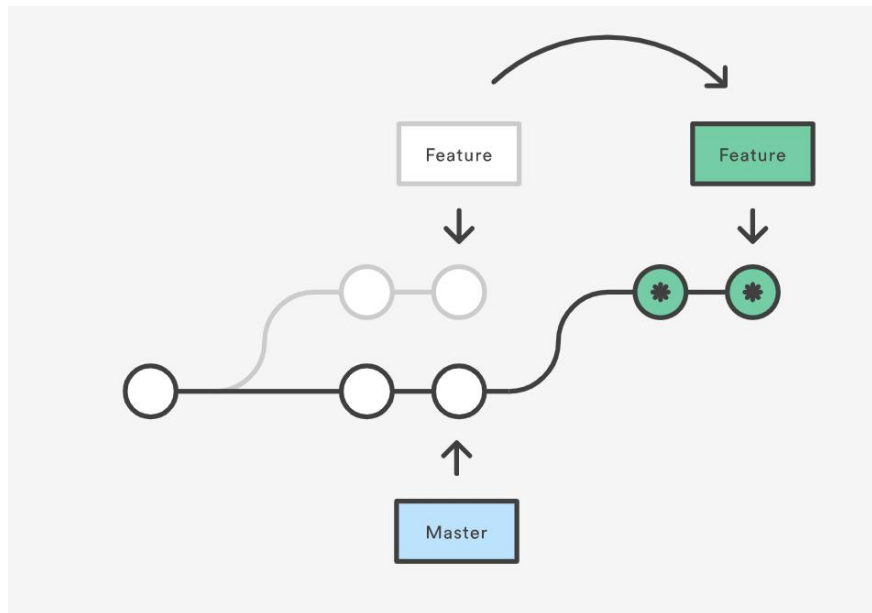
- **GIT**是如何进行版本管理的？

Branch

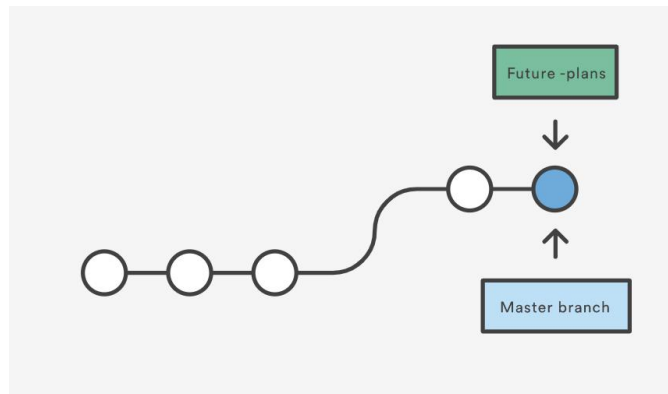


- GIT**是如何进行版本管理的？

(feature) git rebase Master

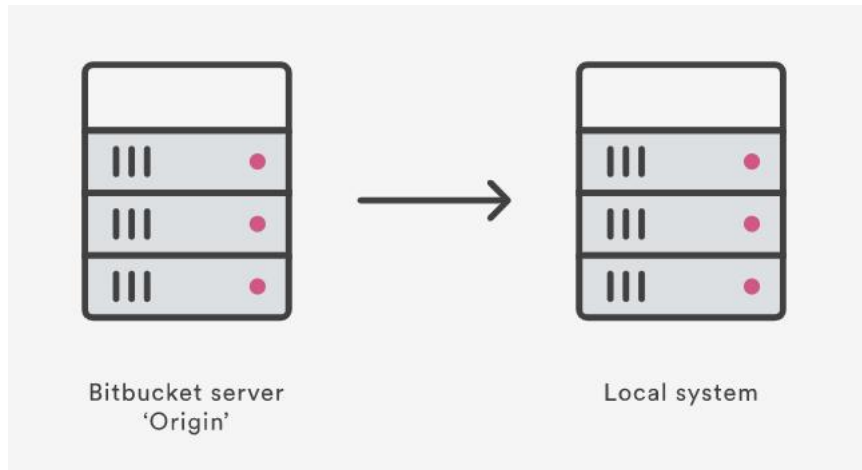


(master) git rebase future-plans



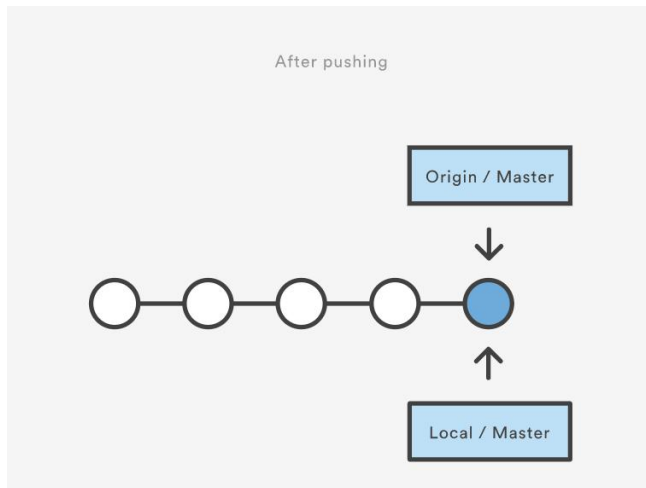
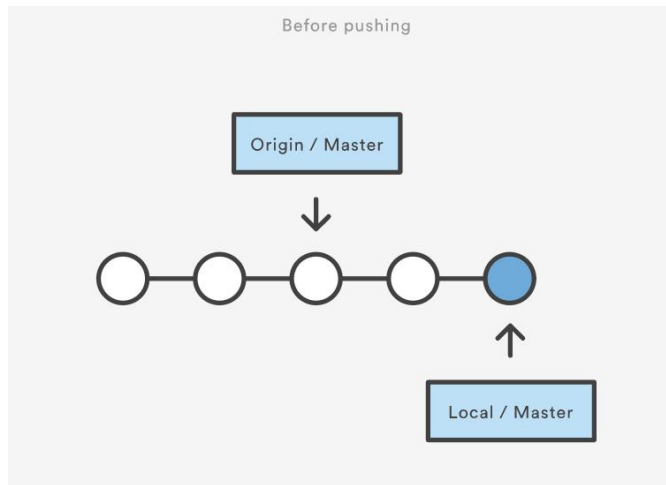
- **GIT**是如何进行版本管理的？

Git Remote / Local - git pull

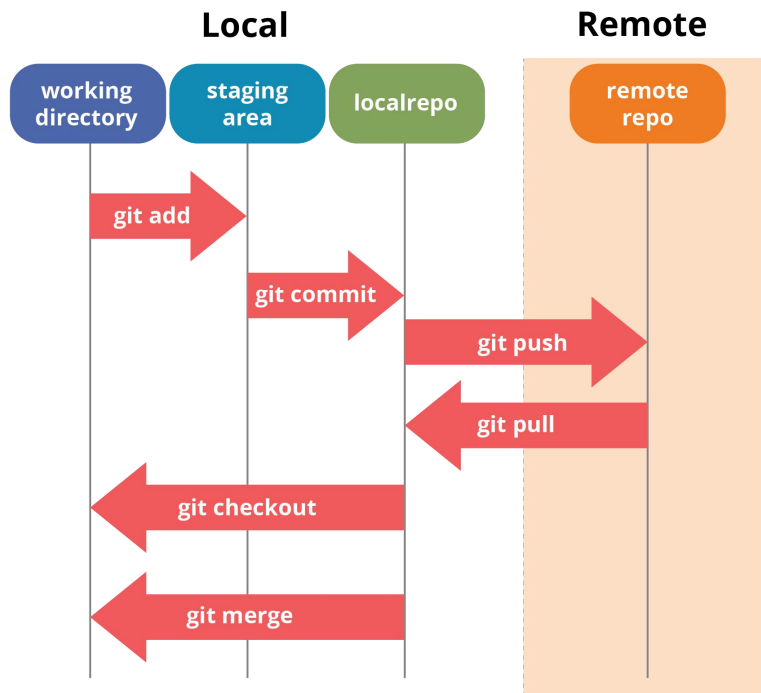


- **GIT**是如何进行版本管理的？

Local development / git push



- **GIT**是如何进行版本管理的？



```
$brew install git
```

```
$git config --global user.name "wentailai"
```

```
$git config --global user.email "wentailai@jiuzhang.com"
```

```
(InstaDemo) wentailai@WenTailais-iMac > ~/Desktop/JZDEV/InstaDemo > git init
Initialized empty Git repository in /Users/wentailai/Desktop/JZDEV/InstaDemo/.git/
(InstaDemo) wentailai@WenTailais-iMac > ~/Desktop/JZDEV/InstaDemo > ↶ master >
```

```
(InstaDemo) wentailai@WenTailais-iMac > ~/Desktop/JZDEV/InstaDemo > ↶ master > git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)

    InstaDemo/
    Pipfile
    Pipfile.lock
    db.sqlite3
    manage.py

nothing added to commit but untracked files present (use "git add" to track)
```



```
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo master git add -A
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo master + git status

On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

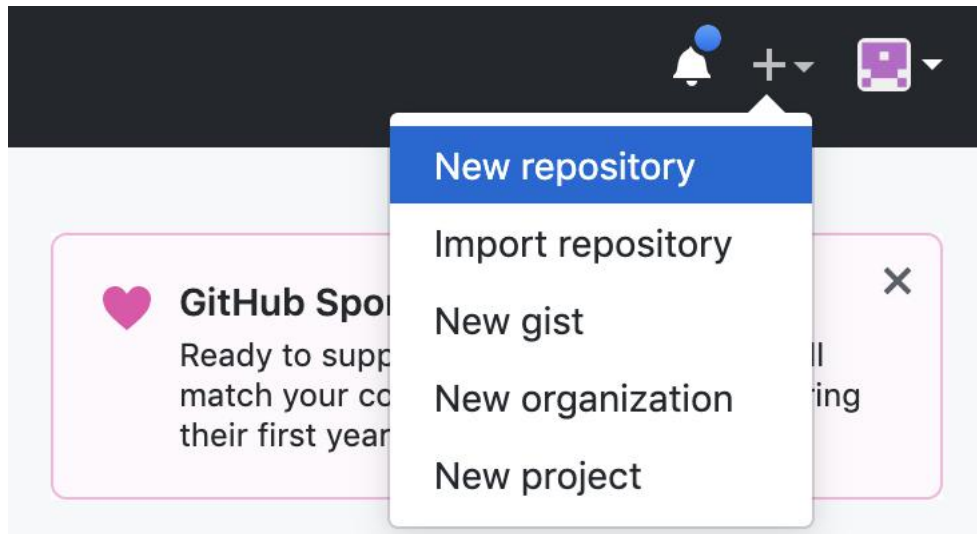
    new file:   InstaDemo/__init__.py
    new file:   InstaDemo/settings.py
    new file:   InstaDemo/urls.py
    new file:   InstaDemo/wsgi.py
    new file:   Pipfile
    new file:   Pipfile.lock
    new file:   db.sqlite3
    new file:   manage.py
```

```
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo master + git commit -m "Initial commit"
[master (root-commit) f702eeb] Initial commit
8 files changed, 233 insertions(+)
create mode 100644 InstaDemo/__init__.py
create mode 100644 InstaDemo/settings.py
create mode 100644 InstaDemo/urls.py
create mode 100644 InstaDemo/wsgi.py
create mode 100644 Pipfile
create mode 100644 Pipfile.lock
create mode 100644 db.sqlite3
create mode 100755 manage.py
```

```
(InstaDemo) wentailai@WenTailais-iMac > ~/Desktop/JZDEV/InstaDemo > master > git status  
On branch master  
nothing to commit, working tree clean
```

```
(InstaDemo) wentailai@WenTailais-iMac > ~/Desktop/JZDEV/InstaDemo > master > git log
```

```
commit f702eeb1082fc9e20c3a057af1642cabd4f14003 (HEAD -> master)  
Author: WenTailai <wentailai.jiuzhang@gmail.com>  
Date: Mon Jul 1 07:55:30 2019 -0400  
  
Initial commit  
(END)
```





Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

Owner


Repository name *

 yibeibaokke ▾ / InstaDemo 

Great repository names are short and memorable. Need inspiration? How about **urban-octo-succotash**?

Description (optional)

☒  **Public**
Anyone can see this repository. You choose who can commit.

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



Skip this step if you're importing an existing repository.

☐ **Initialize this repository with a README**
This will let you immediately clone the repository to your computer.

Add .gitignore: **None** ▾ | Add a license: **None** ▾ 

Create repository

Quick setup — if you've done this kind of thing before

 Set up in Desktop or **HTTPS** **SSH** 

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).


...or create a new repository on the command line

```
echo "# InstaDemo" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin https://github.com/yibeibaoke/InstaDemo.git
git push -u origin master
```



...or push an existing repository from the command line

```
git remote add origin https://github.com/yibeibaoke/InstaDemo.git
git push -u origin master
```



...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

[Import code](#)

 **ProTip!** Use the URL for this page when adding GitHub as a remote.

```
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo master git remote add origin https://github.com/yibeibaoke/InstaDemo.git
```

```
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo master git remote origin
```

```
(InstaDemo) wentailai@WenTailais-iMac ~/Desktop/JZDEV/InstaDemo master git push -u origin master
Enumerating objects: 10, done.
Counting objects: 100% (10/10), done.
Delta compression using up to 8 threads
Compressing objects: 100% (9/9), done.
Writing objects: 100% (10/10), 3.31 KiB | 3.31 MiB/s, done.
Total 10 (delta 0), reused 0 (delta 0)
To https://github.com/yibeibaoke/InstaDemo.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
```

后端开发Toolkit - Git



yibeibaoke / InstaDemo

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Manage topics

1 commit

1 branch

0 releases

1 contributor

Branch: master

New pull request

Create new file

Upload files

Find File

Clone or download

wentailai Initial commit

Latest commit f702eeb 7 minutes ago

InstaDemo

Initial commit

7 minutes ago

Pipfile

Initial commit

7 minutes ago

Pipfile.lock

Initial commit

7 minutes ago

db.sqlite3

Initial commit

7 minutes ago

manage.py

Initial commit

7 minutes ago

Help people interested in this repository understand your project by adding a README.

Add a README



Visual Studio Code

Set up VSCODE for django: <https://code.visualstudio.com/docs/python/tutorial-django>



扫描二维码关注微信/微博
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微博: <http://www.weibo.com/ninechapter>

官网: www.jiuzhang.com