

Git, Github, Bluemix

Jerry



GitHub

GitHub [編輯]

GitHub是一個**共享虛擬主機服務**，用於存放使用**Git**版本控制的軟體代碼和內容專案。它由GitHub公司（曾稱Logical Awesome）的開發者Chris Wanstrath、PJ Hyett和Tom Preston-Werner使用**Ruby on Rails**編寫而成。

GitHub 同時提供付費帳戶和免費帳戶。這兩種帳戶都可以建立公開的代碼倉庫，但是付費帳戶也可以建立私有的代碼倉庫。根據在2009年的Git使用者調查，GitHub是最流行的Git存取站點。^[2]除了允許個人和組織建立和存取代碼庫以外，它也提供了一些方便社會化軟體開發的功能，包括允許使用者跟蹤其他使用者、組織、軟體庫的動態，對軟體代碼的改動和 **bug** 提出評論等。GitHub也提供了圖表功能，用於顯示開發者們怎樣在代碼庫上工作以及軟體的開發活躍程度。

截止到 2015 年，GitHub 已經有超過九百萬註冊使用者和 2110 萬代碼倉庫。^[3]事實上已經成為了世界上最大的代碼存放網站。^[4]

GitHub

GitHub

公司類型

私人

創始人

Tom Preston-Werner
Chris Wanstrath
PJ Hyett

執行長

Chris Wanstrath

總部地點

美國加利福尼亞州舊金山

產業

軟體

所有者

GitHub, Inc.


網址

github.com 

Alexa排名

 世界 163 ▼ 16

 美國 149

 中國 304^[1]

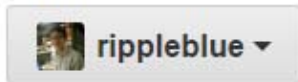
Set up

- `git config --global user.name "jerry"`
`git config --global user.email`
`"jerry@mail.ntust.edu.tw"`

EMPTY REPOSITORY

Empty repository

Owner



Repository name

/

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

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 repository



- 自行進資料夾新增檔案(windows)

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

```
echo # gitpython1 >> README.md  
git init  
git add README.md  
git commit -m "first commit"  
git remote add origin https://github.com/rippleblue/gitpython1.git  
git push -u origin master
```

空的必須加

成功畫面



rippleblue / gitpython1

Unwatch 1

Star 0

Fork 0

Description

Short description of this repository

Website

Website for this repository (optional)

Save or Cancel

1 commit

1 branch

0 releases

1 contributor



Branch: master

gitpython1 / +



first commit



rippleblue authored 4 minutes ago

latest commit 215088d101



README.md

first commit

4 minutes ago



README.md

Hello World

<> Code

Issues 0

Pull requests 0

Wiki

Pulse

Graphs

Settings

HTTPS clone URL

https://github.com/



You can clone with HTTPS, SSH,

NON-EMPTY REPOSITORY(09/21進度)

 rippleblue ▾



You've been added to the **codefortomorrow** organization!

Here are some quick tips for a first-time organization member.

- Use the switch context button in the upper left corner of this page to switch between your personal context (**rippleblue**) and organizations you are a member of.
- After you switch contexts you'll see an organization-focused dashboard that lists out organization repositories and activities.



defunkt ▾





Easier feeds for GitHub Pages

If you publish a blog using GitHub pages, it's now easier for others to subscribe to updates with the Jekyll feed plugin.

[View 76 new broadcasts](#)

Repositories you contribute to

 dspim/A1-basic-data-analysis	0 ★
 dspim2/dspim2.github.io	0 ★

Your repositories **22**

[+ New repository](#)

Find a repository...

Owner

Repository name



rippleblue ▾

/

git



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

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 repository



Branch: **master** ▾

gitpython / +



Initial commit



rippleblue authored just now

latest commit 7097629b9b

README.md

Initial commit

just now

README.md

gitpython

Pull requests

0

Wiki

Pulse

Graphs

Settings

HTTPS clone URL

<https://github.com/rippleblue/gitpython>



You can clone with [HTTPS](#), [SSH](#), or [Subversion](#). ⓘ

Clone in Desktop

Download ZIP

Non-empty Repository

- git clone
<https://github.com/rippleblue/pythontest2.git>
- cd gitpython
- 自行新增檔案至資料夾
- git add .
- git commit -m "11.txt"
- git push origin master
- git log

Non-empty Repository

- 再新增檔案至資料夾
- `git add .`
- `git commit -m "new commit"`
- `git push`

新檔案上傳

- 再新增檔案至資料夾
- `git add .`
- `git commit -m "new commit"`
- `git push`

```
[master +1 ~0 -0 !]> git add .  
[master +1 ~0 -0]> git add.
```

```
[master +1 ~0 -0  
[master +2 ~0 -0]
```

REPOSITORY MERGE

- 新增github 與 工作目錄
 - gitpython_empty
 - 照舊再做一次

- git remote add origin https://github.com/rippleblue/gitpython_empty.git
- git add .
- git branch new1
- git branch
- git checkout new1

- 新增任檔案
- `git add .`
- `git commit -m "new1 branch"`
- `git push`
- `git push origin new1`

- git checkout master
- git merge new1
- git push

Github

The screenshot shows the GitHub interface for a repository named 'gitpython_empty'. A modal window titled 'Switch branches/tags' is open, displaying a search bar 'Find or create a branch...' and a list of branches: 'master' (checked) and 'new1'. The repository page shows the 'master' branch selected, with the latest commit 'db07d6b4dc' listed. The commit history table shows three commits: 'latest commit db07d6b4dc' (10 minutes ago), '40 minutes ago', and '16 minutes ago'. On the right sidebar, there are links for 'Pull requests' (0), 'Wiki', 'Pulse', 'Graphs', and 'Settings'. At the bottom, there is a section for cloning the repository, showing the HTTPS clone URL 'https://github.com/...' and a button to 'Clone in Desktop'.

Branch: master **gitpython_empty** / +

Switch branches/tags

Find or create a branch...

Branches Tags

✓ master

new1

new1

latest commit db07d6b4dc

10 minutes ago

40 minutes ago

16 minutes ago

Help people interested in this repository understand your project by adding a README. [Add a README](#)

Pull requests 0

Wiki

Pulse

Graphs

Settings

HTTPS clone URL

<https://github.com/>

You can clone with [HTTPS](#), [SSH](#), or [Subversion](#).

[Clone in Desktop](#)



Branch: **new1** ▾

gitpython_empty / +



This branch is 2 commits ahead, 1 commit behind master.

Pull request Compare

new file2



rippleblue authored 3 minutes ago

latest commit d2dfa94773

111.txt	next new file	10 minutes ago
2222.txt	new file	7 minutes ago
eee.txt	new file2	3 minutes ago
new111.txt	first commit	41 minutes ago
new222.txt	new1 branch	16 minutes ago

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

[Add a README](#)

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also [compare across forks](#).



base: **master** ▾

...

compare: **new1** ▾

✓ **Able to merge.** These branches can be automatically merged.



Create pull request

Discuss and review the changes in this comparison with others.



🔗 **2** commits

📄 **2** files changed

💬 **0** commit comments

👤 **1** contributor



Commits on Sep 19, 2015



rippleblue

new file

074cd64



rippleblue

new file2

d2dfa94



Showing **2** changed files with **0** additions and **0** deletions.

Unified

Split



New1 new file1

Write

Preview

 Markdown supported

Leave a comment

Attach images by dragging & dropping, [selecting them](#), or pasting from the clipboard.

Create pull request



rippleblue commented just now

Owner



No description provided.



rippleblue added some commits 8 minutes ago



new file

074cd64



new file2

d2dfa94

Add more commits by pushing to the **new1** branch on **rippleblue/gitpython_empty**.



This branch is up-to-date with the base branch

Merging can be performed automatically.



Merge pull request

You can also [open this in GitHub Desktop](#) or [view command line instructions](#).

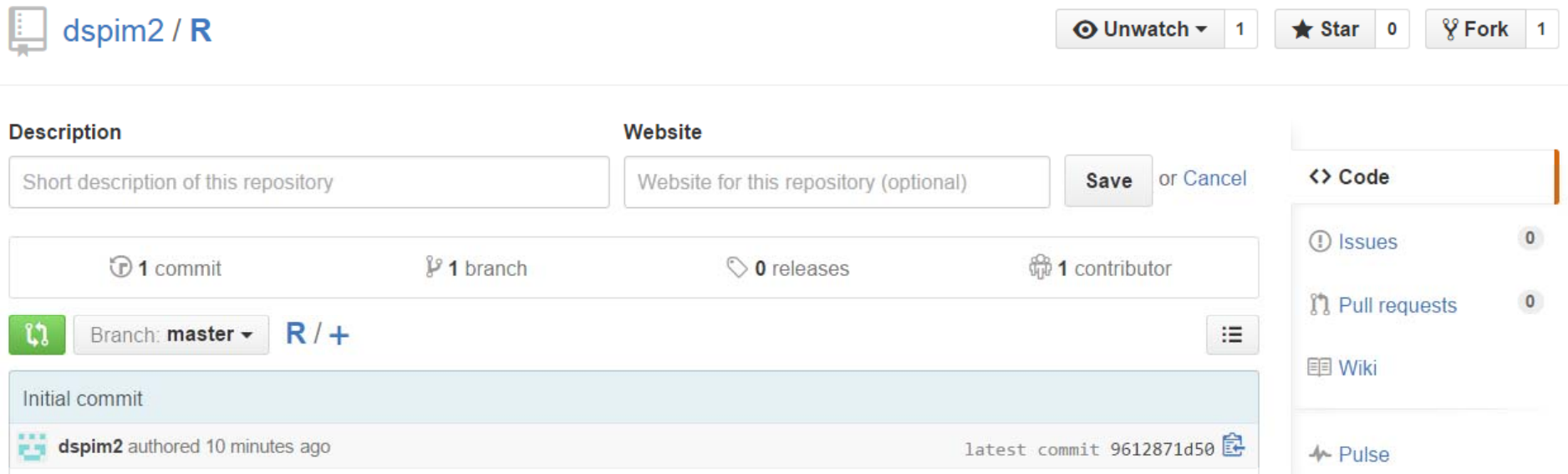
EXERCISE

Exercise

- Try to create non-empty and Empty repository
- Try to commit to repository
- Try to push files to repository
- How to upload your files to teacher repository ?

How to upload your files to teacher repository ?

- 提交檔案到老師的Repository

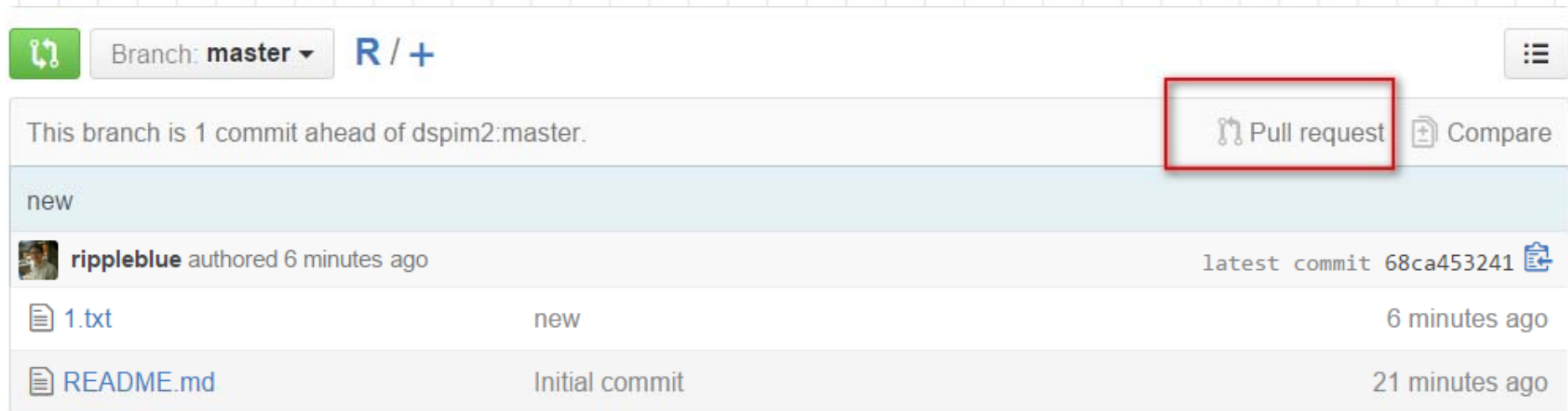


The screenshot shows the GitHub interface for the repository `dspim2 / R`. At the top, there are buttons for `Unwatch` (1), `Star` (0), and `Fork` (1). Below this is the repository description section with fields for `Description` and `Website`, and buttons for `Save` and `Cancel`. A summary bar shows `1 commit`, `1 branch`, `0 releases`, and `1 contributor`. Below the summary bar, there is a green `Branch: master` dropdown and a blue `R / +` button. The commit history shows an `Initial commit` by `dspim2` 10 minutes ago, with the latest commit hash `9612871d50`. On the right side, there is a sidebar with links to `Code`, `Issues` (0), `Pull requests` (0), `Wiki`, and `Pulse`.

先Fork到本機

- git clone <https://github.com/rippleblue/R.git>
- 新增檔案
- Git add .
- Git commit -m “something new”
- Git push

Create pull request



The screenshot shows a GitHub pull request interface. At the top, there's a green icon with a fork and a branch selector showing 'master'. To the right is a blue 'R / +' icon. Below this, a status bar indicates 'This branch is 1 commit ahead of dspim2:master.' On the right side of this bar, there are two buttons: 'Pull request' (highlighted with a red box) and 'Compare'. Below the status bar, the pull request is titled 'new'. The author is 'rippleblue' who authored it 6 minutes ago. The latest commit is '68ca453241'. The pull request contains two files: '1.txt' (new, 6 minutes ago) and 'README.md' (Initial commit, 21 minutes ago).

Branch: master R / +

This branch is 1 commit ahead of dspim2:master.

Pull request Compare

new

rippleblue authored 6 minutes ago latest commit 68ca453241

1.txt	new	6 minutes ago
README.md	Initial commit	21 minutes ago

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also [compare across forks](#).



base fork: **dspim2/R** ▾

base: **master** ▾

...

head fork: **rippleblue/R** ▾

compare: **master** ▾

✓ **Able to merge.** These branches can be automatically merged.



Create pull request

Discuss and review the changes in this comparison with others.



🔗 1 commit

📄 1 file changed

💬 0 commit comments

👤 1 contributor



Commits on Sep 19, 2015



rippleblue

new

68ca453



Showing **1 changed file** with **0 additions** and **0 deletions**.

Unified


Split

0 1.txt

View



收到Pull requests的Repository

 dspim2 / R

[Unwatch](#) 1 [Star](#) 0 [Fork](#) 1

Description

Short description of this repository

Website

Website for this repository (optional)

[Save](#) or [Cancel](#)

1 commit

1 branch


0 releases

1 contributor

Branch: master

R / +

Initial commit

 dspim2 authored 22 minutes ago

latest commit 9612871d50

README.md

Initial commit

22 minutes ago

README.md

R

<> Code

Issues 0

Pull requests 1

Wiki

Pulse

Graphs

Settings

HTTPS clone URL



rippleblue commented [a minute ago](#)



No description provided.



new

68ca453



dspim2 commented just now

Owner



Thx



This branch is up-to-date with the base branch

Merging can be performed automatically.



Merge pull request

You can also [open this in GitHub Desktop](#) or view [command line instructions](#).



Write

Preview

Markdown supported

Leave a comment

Attach images by dragging & dropping, [selecting them](#), or pasting from the clipboard.

Close pull request

Comment

im



Merge pull request #2 from rippleblue/master

Something new2

 Confirm merge

Cancel

Description

Website

 or [Cancel](#)

🕒 3 commits

🌿 1 branch

📦 0 releases

👤 1 contributor



Branch: master ▾

R / +



Merge pull request #2 from rippleblue/master ...



dspim2 authored 10 seconds ago

latest commit aad009cae4

📄 1.txt

new

11 minutes ago

📄 README.md

Initial commit

25 minutes ago

📖 README.md

R

<> Code

🔔 Issues 0

🔗 Pull requests 0

📖 Wiki

📶 Pulse

📊 Graphs

⚙️ Settings

HTTPS clone URL



IBM BLUEMIX WITH GIT

What is Git ?

Git [編輯]

Git是一個分散式版本控制軟體，最初由林納斯·托瓦茲（Linus Torvalds）創作，於2005年以**GPL**釋出。最初目的是為更好地管理**Linux**內核開發而設計。應注意的是，這與GNU Interactive Tools^[5]（一個類似**Norton Commander**介面的檔案管理器）有所不同。

Git最初的開發動力來自於**BitKeeper**和**Monotone**^{[6][7]}。Git最初只是作為一個可以被其他前端（比如**Cogito**或**StGIT**^[8]）包裝的後端而開發的，但後來Git內核已經成熟到可以獨立地用作版本控制^[9]。很多著名的軟體都使用Git進行版本控制^[10]，其中包括**Linux**內核、**X.Org**伺服器和**OLPC**內核等專案的開發流程^[11]。

目錄 [隱藏]

- 1 命名來源
- 2 早期歷史

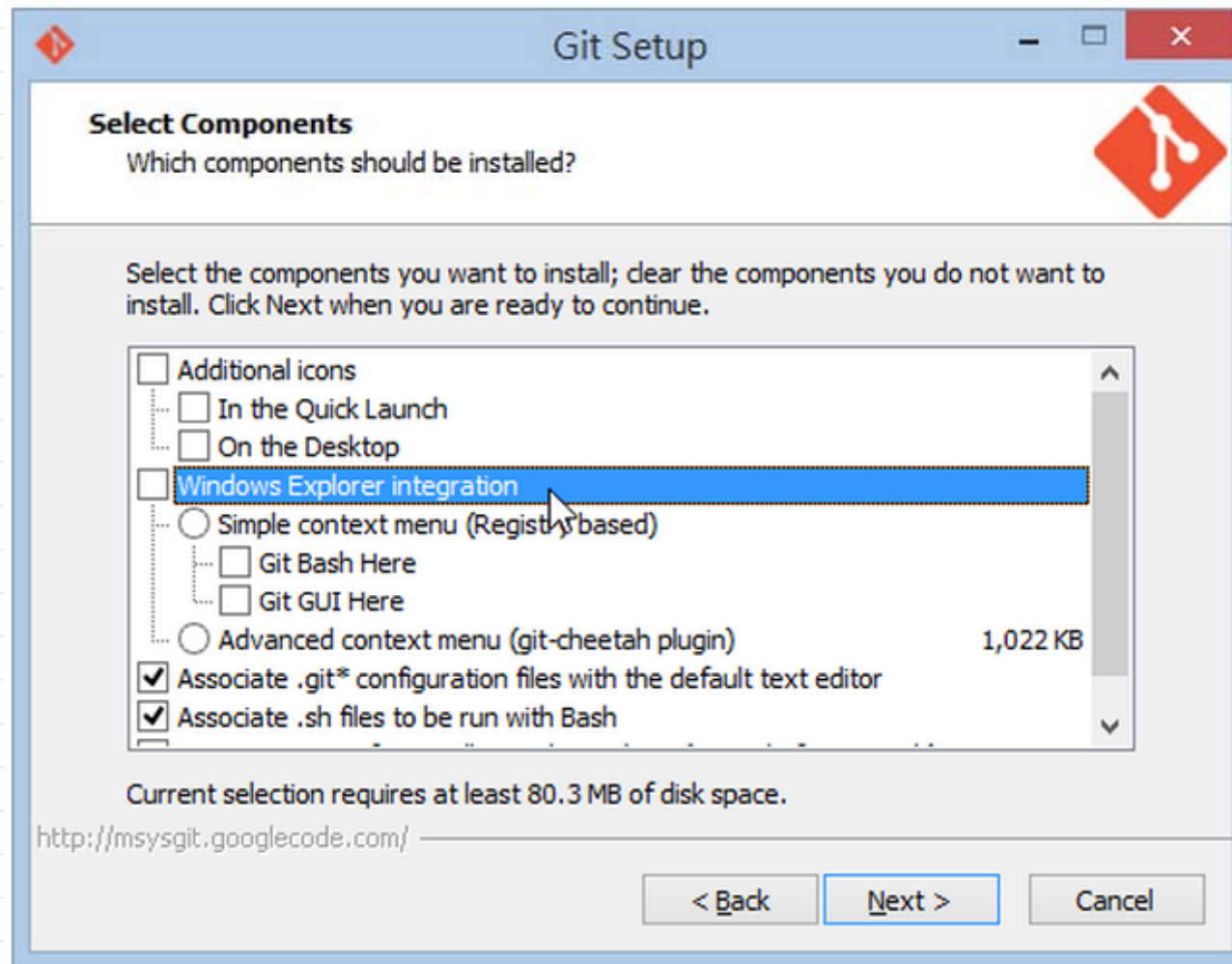


gitweb，Git的一個Web介面。

原作者 林納斯·托瓦茲

開發者 濱野純、林納斯·托瓦茲

Install Git on windows



- 其餘 Default

What is Bluemix

IBM Bluemix is a cloud [platform as a service \(PaaS\)](#) developed by IBM. It supports several [programming languages](#) and services^[1] as well as integrated [DevOps](#) to build, run, deploy and manage applications on the cloud. Bluemix is based on [Cloud Foundry](#) open technology and runs on [SoftLayer](#) infrastructure. Bluemix supports several programming languages^[2] including [Java](#), [Node.js](#), [Go](#), [PHP](#), [Python](#), [Ruby Sinatra](#), [Ruby on Rails](#) and can be extended to support other languages such as [Scala](#)^[3] through the use of buildpacks.^[4]

It took a team of people located in different places only 18 months to build Bluemix from initial concept to public availability.^[5] It was announced as a public beta in February 2014^[6] and generally available in June.

References [\[edit\]](#)


- ^{1.} [^ IBM Bluemix catalog](#)
- ^{2.} [^ What are the languages supported by BlueMix?](#)

IBM Bluemix



The Bluemix logo.

Developer(s)	IBM
Initial release	30 June 2014; 14 months ago
Development status	active
Written in	Python , Java , PHP
Website	http://www.ibm.com/cloud-computing/bluemix/

 IBM Bluemix

DASHBOARD SOLUTIONS CATALOG PRICING DOCS COMMUNITY 376

ORG: jerry@mail.ntust.ed... ▾

Type to search

+ Create a Space

National Taiwan University ... ▾

CF APPS (1)

SERVICES (2)

CONTAINERS (0)

VIRTUAL MACHINES (0)

CF Cloud Foundry Apps
0 B/8 GB Used

CREATE APP

Containers
0 B/2 GB | 0/2 Public IPs

START CONTAINERS

BETA Virtual Machines
0 B/0 B | 0/0 Public IPs

RUN VIRTUAL MACHINES

100+ Services & APIs
2/40 Used

USE SERVICES OR APIS

Applications

What do you want to start with?



Liberty for Java™



SDK for Node.js™



Go



PHP



Python



Ruby



ASP.NET 5



IBM XPages



Community
buildpacks



I Have Code Already



Browse Boilerplates



Liberty for Java™



SDK for Node.js™



Go



PHP



Python



Ruby



ASP.NET 5



IBM XPages



Community
buildpacks



I Have Code Already



Browse Boilerplates

Python

A simple Python application that will get you up and running quickly.

375 GB-hours free each month

[View Docs](#) | [View Details in Catalog](#)

CONTINUE



CF Command Line Interface

Run your code locally.
Manually push to Bluemix.



GIT

Deploy your app with the Git CLI,
or use Bluemix DevOps Services.

Start coding with Git

You can create a hosted Git repository that deploys to IBM® Bluemix™ automatically. Then, you can modify the code that runs in your app by pushing changes to the Git repository.

- 1 To get started, on the app's Overview page, click **ADD GIT**.
- 2 In the window that opens, make sure that the **Populate the repository with the starter application package and enable Delivery Pipeline (Build & Deploy)** check box is selected. The Git repository is created. If starter code is available, it is loaded into the repository. In addition, the application is deployed by the Delivery Pipeline service running in IBM Bluemix DevOps

a. If you use the command line:

- I. Clone your Git repository from the Git URL on the app's Overview page.
- II. In your favorite editor, update the code.
- III. From the Git command line interface, push your changes.

b. If you use the Web IDE:

- I. On the app's Overview page, click **EDIT CODE** . Your project opens in the Web IDE.
- II. Make changes as needed, and then push by using the built-in Git support.

The updated app is redeployed to Bluemix.

 For step-by-step directions, see [Set up Git integration and auto-deployment](#).

[VIEW DOCS](#)

[VIEW APP OVERVIEW](#)



python-git

Routes: python-git.mybluemix.net

ADD GIT



PYTHON

INSTANCES:

1

MEMORY QUOTA:

128

(MB per Instance)

AVAILABLE MEMORY:

7.875 GB

SAVE

RESET



ADD A SERVICE OR API



BIND A SERVICE OR API

APP HEALTH

Your application is staging.

ACTIVITY LOG

- 9/19/15 3:42 PM jerry@mail.ntust.edu.tw started python-git app
- 9/19/15 3:42 PM jerry@mail.ntust.edu.tw updated python-git app
 - changed routes
- 9/19/15 3:41 PM jerry@mail.ntust.edu.tw created python-git app

Estimate the cost of this app





Create Git Repository



請按 **繼續** 以建立與 **python-git** 應用程式相關聯的 Git 儲存庫。將變更推送至此儲存庫將對應應用程式觸發的自動部署。

☒ 請將入門應用程式套件移入至儲存庫，並啟用 Delivery Pipeline（建置及部署）。

繼續

檔案 編輯 檢視 工具 | python-git (執行中：一般) | EDIT CODE TRACK & PLAN BUILD & DEPLOY

▼ 0830 | python-git

▶ .git
▶ launchConfigurations
▶ static
📄 .cfignore
📄 .gitignore
📄 License.txt
📄 manifest.yml
📄 Procfile
📄 project.json
📄 README.md
📄 README.txt
📄 requirements.txt
📄 server.py

▼ README.md

This README.md file is displayed on your project page. You should edit this file to describe your project, including instructions for building and running the project, pointers to the license under which you are making the project available, and anything else you think would be useful for others to know.

We have created an empty license.txt file for you. Well, actually, it says, "<Replace this text with the license you've chosen for your project.>" We recommend you edit this and include text for license terms under which you're making your code available. A good resource for open source licenses is the [Open Source Initiative](#).

Be sure to update your project's profile with a short description and eye-catching graphic.

Finally, consider defining some sprints and work items in Track & Plan to give interested developers a sense of your cadence and upcoming enhancements.

▼ Git

Git Url	https://hub.jazz.net/git/0830/python-git/
Git Repository	Git Repository

```
C:\Users\rippleblue2002\git>git --version  
git version 2.5.3.windows.1
```

```
C:\Users\rippleblue2002\git>git clone https://hub.jazz.net/git/0830/python-git/  
Cloning into 'python-git'...
```

```
Username for 'https://hub.jazz.net': jerry@mail.ntust.edu.tw
```

```
Password for 'https://jerry@mail.ntust.edu.tw@hub.jazz.net':
```

```
remote: Counting objects: 17, done
```

```
remote: Finding sources: 100% (17/17)
```

```
remote: Total 17 (delta 0), reused 17 (delta 0)
```

```
Unpacking objects: 100% (17/17), done.
```

```
Checking connectivity... done.
```

```
C:\Users\rippleblue2002\git>dir
```

```
磁碟區 C 中的磁碟是 OS
```

```
磁碟區序號: 56CE-0C16
```

```
C:\Users\rippleblue2002\git 的目錄
```

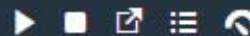
```
2015/09/19 下午 05:15 <DIR> .  
2015/09/19 下午 05:15 <DIR> ..  
2015/09/19 下午 05:15 <DIR> python-git  
0 個檔案 0 位元組  
3 個目錄 92,725,108,736 位元組可用
```

- git log
- git add .
- git commit -m “new file” (-m 版本訊息)
- git push



檔案 編輯 檢視 工具

python-git (執行中 : 一般)



▼ 0830 | python-git

0830 | python-git

▶ .git

▶ launchConfigurations

▶ static

.cignore

.gitignore

1.txt

License.txt

manifest.yml

Procfile

project.json

README.md

README.txt

requirements.txt

server.py

▼ README.md

This README.md file is displayed on your project page. You should edit this file to describe your project, pointers to the license under which you are making the project available to others to know.

We have created an empty license.txt file for you. Well, actually, it says, "<Replace this with your own license text. We recommend you edit this and include text for license terms under which you're making the project available to others to know. The license is the [Open Source Initiative](#)."

Be sure to update your project's profile with a short description and eye-catching graphic.

Finally, consider defining some sprints and work items in Track & Plan to give interest in your project.

▼ Git

Git Url <https://hub.jazz.net/git/0830/python-git/>

Git Repository [Git Repository](#)

作用中的分支 (master)

 工作目錄變更
3 個檔案已變更。0 個檔案已備妥可確定。

▼ 送出 (0) 推送 ▼

無變更

▼ 送入 (1) 提取 ▼

 Something files
jerry 於 2015/9/19 下午 5:25:51
確定者 jerry <jerry@mail.ntust.edu.tw>

確定：01b2094fc38e8e621f8ffd4670c63e1c933a90dd
分支：origin/master
更少 ...

▼ 歷程

確定 (01b209)

1 個檔案已變更

▼  2.txt





儲存庫：

0830 | python-git ▼

參照：

master => origin/master ▼



作用中的分支 (master)



同步



工作目錄變更

3 個檔案已變更 · 0 個檔案已備妥可確定。

▼ 送出 (0)

推送 ▼

無變更

▼ 送入 (1)



提取 ▼



Something files

jerry 於 2015/9/19 下午 5:25:51
確定者 jerry <jerry@mail.ntust.edu.tw>

確定： 01b2094fc38e8e621f8ffd4670c63e1c933a90dd

分支： origin/master

更少 ...

確定 (01b209)

1 個檔案已變更

▼ + 2.txt



將分支的內容合併到作用中分支

.gitignore

1.txt

2.txt

License.txt

manifest.yml

Procfile

project.json

README.md

README.txt

requirements.txt

server.py

▼ 0830 | python-git

.git

launchConfigurations

static

.cfignore

.gitignore

1.txt

2.txt

License.txt

manifest.yml

Procfile

2015/9/19 下午5:28:01

2015/9/19 下午3:46:28

2015/9/19 下午3:46:25

2015/9/19 下午3:46:28

2015/9/19 下午3:46:26

2015/9/19 下午5:23:15

2015/9/19 下午5:27:38

2015/9/19 下午3:46:25

2015/9/19 下午3:46:25

2015/9/19 下午3:46:25

1 KB

1 KB

0 KB

0 KB

1 KB

1 KB

1 KB

Branch with bluemix

- `git branch`
- `git branch v1`
- `git checkout v1`
- `git add .`
- `git commit -m "v1 branch"`
- `git push origin v1`
- `git checkout master`
- `git merge new1`
- `git push`

作用中的分支 (v1)

同步

工作目錄變更

3 個檔案已變更。0 個檔案已備妥可確定。

▼ 送出 (0)

推送

無變更

▼ 送入 (1)

提取

v1 branch2

jerry 於 2015/9/19 下午6:23:53
確定者 jerry <jerry@mail.ntust.edu.tw>

確定：9bf5cc90c587eca5891e4ee647c83d6badb08f4a

分支：origin/v1

[更少 ...](#)

▼ 歷程

工作目錄變更

輸入確定訊息

☐ 修正前一個確定

☐ 全選 已選取 0 個檔案

☐ .cignore

☐ .gitignore

☐ project.json

Exercise

- Try to commit to repository with bluemix
- Try to push files to repository with bluemix