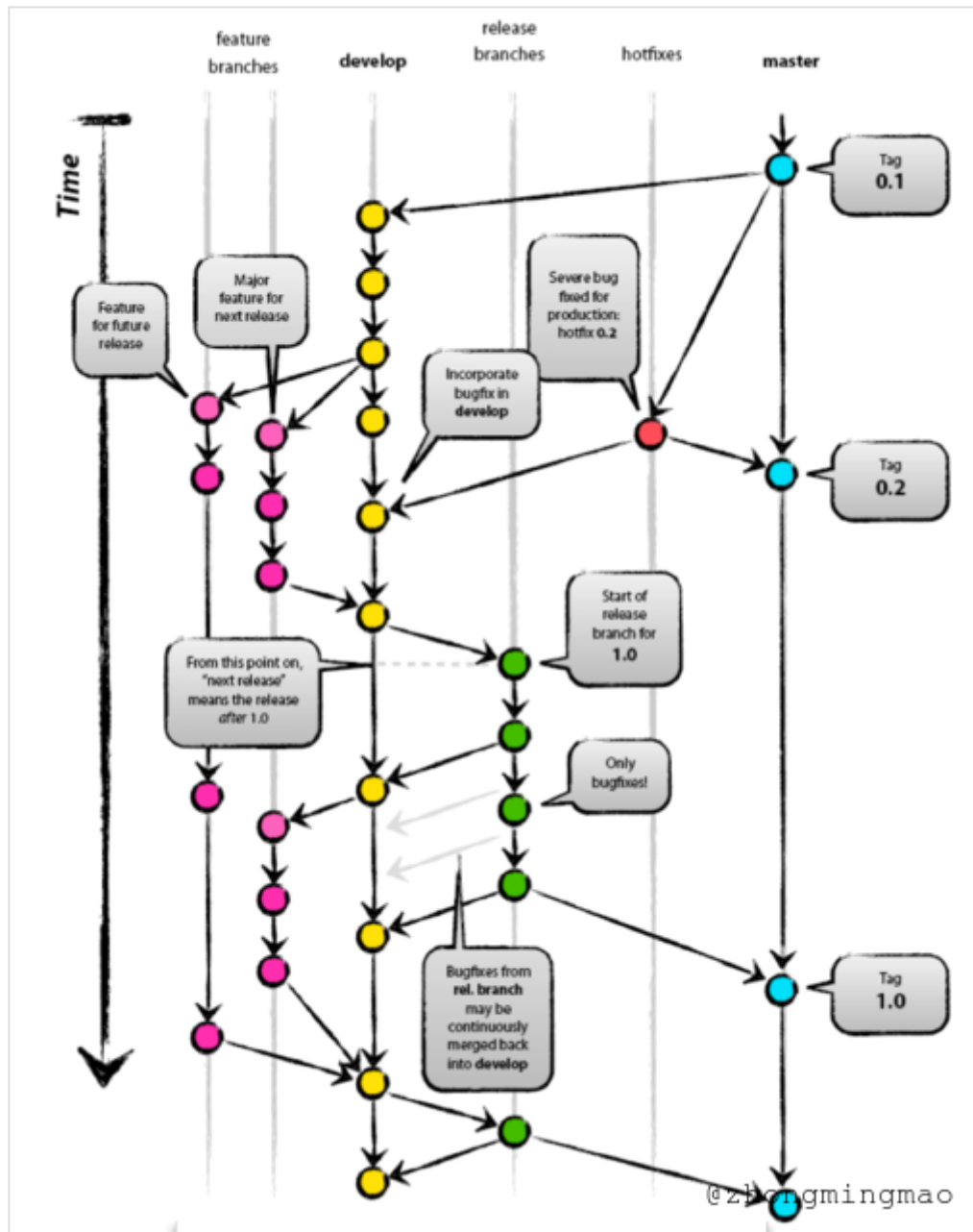# Git Flow

初始化仓库

git flow init ：初始化仓库，支持 GitFlow 分支模型

```
 1  $ git clone https://github.com/hzmajia/gitflow-example.git
 2  Cloning into 'gitflow-example'...
 3  warning: You appear to have cloned an empty repository.
 4  Checking connectivity... done.
 5
 6  $ cd gitflow-example && git flow init
 7  No branches exist yet. Base branches must be created now.
 8  Branch name for production releases: [master]
 9  Branch name for "next release" development: [develop]
10  How to name your supporting branch prefixes?
11  Feature branches? [feature/]
12  Bugfix branches? [bugfix/]
13  Release branches? [release/]
14  Hotfix branches? [hotfix/]
15  Support branches? [support/]
16  Version tag prefix? []
17  Hooks and filters directory? [/home/zhongmingmao/gitflow-example/.git/hooks]
18
19  $ git branch -vv
20  * develop 378941f Initial commit
21    master  378941f [origin/master: gone] Initial commit
22
23  $ git push origin develop
24  Counting objects: 2, done.
25  Writing objects: 100% (2/2), 163 bytes | 0 bytes/s, done.
26  Total 2 (delta 0), reused 0 (delta 0)
27  To https://github.com/hzmajia/gitflow-example.git
28   * [new branch]    develop -> develop
29
30  $ git checkout master
```

```
30   $ git checkout master
31   Switched to branch 'master'
32   Your branch is based on 'origin/master', but the upstream is gone.
33     (use "git branch --unset-upstream" to fixup)
34
35   $ git push -u origin master
36   Total 0 (delta 0), reused 0 (delta 0)
37   To https://github.com/hzmajia/gitflow-example.git
38    * [new branch]     master -> master
39   Branch master set up to track remote branch master from origin.
40
41   $ git branch -vv
42     develop 378941f Initial commit
43   * master  378941f [origin/master] Initial commit
44
45   $ git log --oneline --decorate --graph --all
46   * 378941f (HEAD -> master, origin/master, origin/develop, develop) Initial commit
```

Feature分支

git flow feature ：Feature分支列表

git flow feature start ：新建一个Feature分支

git flow publish ：将Feature分支推送到远程仓库，并设为 上游分支

git flow feature finish ：完成一个Feature分支，一般是 merge request 或 pull request 的接受者执行

```
1   $ git flow feature start featureA
2   Switched to a new branch 'feature/featureA'
3   Summary of actions:
4   - A new branch 'feature/featureA' was created, based on 'develop'
5   - You are now on branch 'feature/featureA'
6   Now, start committing on your feature. When done, use:
7       git flow feature finish featureA
8
9   $ git branch -vv
```

```
 9  $ git branch -vv
10    develop          378941f Initial commit
11  * feature/featureA 378941f Initial commit
12    master           378941f [origin/master] Initial commit
13
14  $ git flow feature
15  * featureA
16
17  $ git flow publish featureA
18  Total 0 (delta 0), reused 0 (delta 0)

19  To https://github.com/hzmajia/gitflow-example.git
20   * [new branch]     feature/featureA -> feature/featureA
21  Branch feature/featureA set up to track remote branch feature/featureA from origin.
22  Already on 'feature/featureA'
23  Your branch is up-to-date with 'origin/feature/featureA'.
24  Summary of actions:
25  - The remote branch 'feature/featureA' was created or updated
26  - The local branch 'feature/featureA' was configured to track the remote branch
27  - You are now on branch 'feature/featureA'
28
29  $ git branch -vv
30    develop          378941f Initial commit
31  * feature/featureA 378941f [origin/feature/featureA] Initial commit
32    master           378941f [origin/master] Initial commit
33
34  $ touch featureA && git add . && git commit -m 'featureA'
35  [feature/featureA 6e6605d] featureA
36   1 file changed, 0 insertions(+), 0 deletions(-)
37   create mode 100644 featureA
38
39  $ git branch -vv
40    develop          378941f Initial commit
41  * feature/featureA 6e6605d [origin/feature/featureA: ahead 1] featureA
42    master           378941f [origin/master] Initial commit
43
```

```
44   $ git push origin feature/featureA # git flow publish featureA
45   Counting objects: 3, done.
46   Writing objects: 100% (3/3), 235 bytes | 0 bytes/s, done.
47   Total 3 (delta 0), reused 0 (delta 0)
48   To https://github.com/hzmajia/gitflow-example.git
49      378941f..6e6605d  feature/featureA -> feature/featureA
50
51   $ git log --oneline --decorate --graph --all
52   * 6e6605d (HEAD -> feature/featureA, origin/feature/featureA) featureA
53   * 378941f (origin/master, origin/develop, master, develop) Initial commit
54
55   $ git flow feature finish featureA
56   Switched to branch 'develop'
57   Updating 378941f..6e6605d
58   Fast-forward
59    featureA | 0
60    1 file changed, 0 insertions(+), 0 deletions(-)
61    create mode 100644 featureA
62   To https://github.com/hzmajia/gitflow-example.git
63    - [deleted]         feature/featureA
64   Deleted branch feature/featureA (was 6e6605d).
65   Summary of actions:
66   - The feature branch 'feature/featureA' was merged into 'develop'
67   - Feature branch 'feature/featureA' has been locally deleted; it has been remotely deleted from 'origin'
68   - You are now on branch 'develop'
69
70   $ git fetch origin
71
72   $ git branch -vv
73   * develop 6e6605d featureA
74     master  378941f [origin/master] Initial commit
75
76   $ ls
77   featureA
```

Release分支

git flow release ：Release分支列表

git flow release start ：新建一个Release分支

git flow publish ：将Release分支推送到远程仓库，并设为 上游分支

git flow release finish ：完成一个Release分支，一般是 merge request 或 pull request 的接受者执行

```
1   $ git flow release start releaseA
2   Branches 'develop' and 'origin/develop' have diverged.
3   And local branch 'develop' is ahead of 'origin/develop'.
4   Switched to a new branch 'release/releaseA'
5   Summary of actions:
6   - A new branch 'release/releaseA' was created, based on 'develop'
7   - You are now on branch 'release/releaseA'
8   Follow-up actions:
9   - Bump the version number now!
10  - Start committing last-minute fixes in preparing your release
11  - When done, run:
12      git flow release finish 'releaseA'
13
14  $ git push -u origin develop
15  Counting objects: 3, done.
16  Writing objects: 100% (3/3), 235 bytes | 0 bytes/s, done.
17  Total 3 (delta 0), reused 0 (delta 0)
18  To https://github.com/hzmajia/gitflow-example.git
19    378941f..6e6605d  develop -> develop
20  Branch develop set up to track remote branch develop from origin.
21
22  $ git branch -vv
23    develop        6e6605d [origin/develop] featureA
24    master         378941f [origin/master] Initial commit
25  * release/releaseA 6e6605d featureA
```

```
26
27   $ git flow release
28   * releaseA
29
30   $ git flow publish releaseA
31   Total 0 (delta 0), reused 0 (delta 0)
32   To https://github.com/hzmajia/gitflow-example.git
33    * [new branch]     release/releaseA -> release/releaseA
34   Branch release/releaseA set up to track remote branch release/releaseA from origin.
35   Already on 'release/releaseA'
36   Your branch is up-to-date with 'origin/release/releaseA'.
37   Summary of actions:
38   - The remote branch 'release/releaseA' was created or updated
39   - The local branch 'release/releaseA' was configured to track the remote branch
40   - You are now on branch 'release/releaseA'
41
42   $ git branch -vv
43     develop         6e6605d [origin/develop] featureA
44     master          378941f [origin/master] Initial commit
45   * release/releaseA 6e6605d [origin/release/releaseA] featureA
46
47   $ touch releaseA && git add . && git commit -m 'releaseA'
48   [release/releaseA f993ec4] releaseA
49    1 file changed, 0 insertions(+), 0 deletions(-)
50    create mode 100644 releaseA
51
52   $ git flow publish releaseA # git push origin release/releaseA
53   Counting objects: 2, done.

54   Compressing objects: 100% (2/2), done.
55   Writing objects: 100% (2/2), 237 bytes | 0 bytes/s, done.
56   Total 2 (delta 0), reused 0 (delta 0)
57   To https://github.com/hzmajia/gitflow-example.git
58      6e6605d..f993ec4  release/releaseA -> release/releaseA
59   Branch release/releaseA set up to track remote branch release/releaseA from origin.
60   Already on 'release/releaseA'
```

```
61    Your branch is up-to-date with 'origin/release/releaseA'.
62    Summary of actions:
63    - The remote branch 'release/releaseA' was created or updated
64    - The local branch 'release/releaseA' was configured to track the remote branch
65    - You are now on branch 'release/releaseA'
66
67    $ git log --oneline --decorate --graph --all
68    * f993ec4 (HEAD -> release/releaseA, origin/release/releaseA) releaseA
69    * 6e6605d (origin/develop, develop) featureA
70    * 378941f (origin/master, master) Initial commit
71
72    $ git flow release finish releaseA
73    Switched to branch 'master'
74    Your branch is up-to-date with 'origin/master'.
75    Merge made by the 'recursive' strategy.
76     featureA | 0
77     releaseA | 0
78     2 files changed, 0 insertions(+), 0 deletions(-)
79     create mode 100644 featureA
80     create mode 100644 releaseA
81    Switched to branch 'develop'
82    Your branch is up-to-date with 'origin/develop'.
83    Merge made by the 'recursive' strategy.
84     releaseA | 0
85     1 file changed, 0 insertions(+), 0 deletions(-)
86     create mode 100644 releaseA
87    To https://github.com/hzmajia/gitflow-example.git
88     - [deleted]        release/releaseA
89    Deleted branch release/releaseA (was f993ec4).
90    Summary of actions:
91    - Release branch 'release/releaseA' has been merged into 'master'
92    - The release was tagged 'releaseA'
93    - Release tag 'releaseA' has been back-merged into 'develop'
94    - Release branch 'release/releaseA' has been locally deleted; it has been remotely deleted from 'origin'
95    - You are now on branch 'develop'
```

```
 96
 97  $ git branch -vv
 98  * develop 269c207 [origin/develop: ahead 3] Merge tag 'releaseA' into develop
 99    master  4944ec5 [origin/master: ahead 3] Merge branch 'release/releaseA'
100
101  $ git push origin master
102  Counting objects: 3, done.
103  Compressing objects: 100% (3/3), done.
104  Writing objects: 100% (3/3), 372 bytes | 0 bytes/s, done.
105  Total 3 (delta 1), reused 0 (delta 0)
106  remote: Resolving deltas: 100% (1/1), done.
107  To https://github.com/hzmajia/gitflow-example.git
108    378941f..4944ec5  master -> master
109
110  $ git push origin develop
111  Counting objects: 1, done.
112  Writing objects: 100% (1/1), 238 bytes | 0 bytes/s, done.
113  Total 1 (delta 0), reused 0 (delta 0)
114  To https://github.com/hzmajia/gitflow-example.git
115    6e6605d..269c207  develop -> develop
116
117  $ git branch -vv
118  * develop 269c207 [origin/develop] Merge tag 'releaseA' into develop
119    master  4944ec5 [origin/master] Merge branch 'release/releaseA'
120
121  $ ls
122  featureA  releaseA
```

Hotfix分支

git flow hotfix ：Hotfix分支列表

git flow hotfix start ：新建一个Hotfix分支

git flow publish ：将Hotfix分支推送到远程仓库，并设为 上游分支

git flow hotfix finish ：完成一个Hotfix分支，一般是 merge request 或 pull request 的接受者执行

```
1   $ git flow hotfix start hotfixA
2   Switched to a new branch 'hotfix/hotfixA'
3   Summary of actions:
4   - A new branch 'hotfix/hotfixA' was created, based on 'master'
5   - You are now on branch 'hotfix/hotfixA'
6   Follow-up actions:
7   - Start committing your hot fixes
8   - Bump the version number now!
9   - When done, run:
10       git flow hotfix finish 'hotfixA'
11
12  $ git branch -vv
13    develop       269c207 [origin/develop] Merge tag 'releaseA' into develop
14  * hotfix/hotfixA 4944ec5 Merge branch 'release/releaseA'
15    master        4944ec5 [origin/master] Merge branch 'release/releaseA'
16
17  $ git flow hotfix
18  * hotfixA
19
20  $ git flow publish hotfixA
21  Total 0 (delta 0), reused 0 (delta 0)
22  To https://github.com/hzmajia/gitflow-example.git
23   * [new branch]     hotfix/hotfixA -> hotfix/hotfixA
24  Branch hotfix/hotfixA set up to track remote branch hotfix/hotfixA from origin.
25  Already on 'hotfix/hotfixA'
26  Your branch is up-to-date with 'origin/hotfix/hotfixA'.
27  Summary of actions:
28  - The remote branch 'hotfix/hotfixA' was created or updated
29  - The local branch 'hotfix/hotfixA' was configured to track the remote branch
30  - You are now on branch 'hotfix/hotfixA'
31
32  $ git branch -vv
33    develop       269c207 [origin/develop] Merge tag 'releaseA' into develop
34  * hotfix/hotfixA 4944ec5 [origin/hotfix/hotfixA] Merge branch 'release/releaseA'
35    master        4944ec5 [origin/master] Merge branch 'release/releaseA'
```

```
36   $ touch hotfixA && git add . && git commit -m 'hotfixA'
37   [hotfix/hotfixA e17d475] hotfixA
38    1 file changed, 0 insertions(+), 0 deletions(-)
39    create mode 100644 hotfixA
40
41   $ git flow publish hotfixA
42   Counting objects: 2, done.
43   Compressing objects: 100% (2/2), done.
44   Writing objects: 100% (2/2), 249 bytes | 0 bytes/s, done.
45   Total 2 (delta 0), reused 0 (delta 0)
46   To https://github.com/hzmajia/gitflow-example.git
47     4944ec5..e17d475  hotfix/hotfixA -> hotfix/hotfixA
48   Branch hotfix/hotfixA set up to track remote branch hotfix/hotfixA from origin.
49   Already on 'hotfix/hotfixA'
50   Your branch is up-to-date with 'origin/hotfix/hotfixA'.
51   Summary of actions:
52   - The remote branch 'hotfix/hotfixA' was created or updated
53   - The local branch 'hotfix/hotfixA' was configured to track the remote branch
54   - You are now on branch 'hotfix/hotfixA'
55
56   $ git log --oneline --decorate --graph --all
57   * e17d475 (HEAD -> hotfix/hotfixA, origin/hotfix/hotfixA) hotfixA
58   | *  269c207 (origin/develop, develop) Merge tag 'releaseA' into develop
59   | |\
60   | |/
61   |/|
62   * |   4944ec5 (tag: releaseA, origin/master, master) Merge branch 'release/releaseA'
63   |\ \
64   | * | f993ec4 releaseA
65   | |/
66   | * 6e6605d featureA
67   |/
68   * 378941f Initial commit
69
70   $ git flow hotfix finish hotfixA
```

```
70   $ git flow hotfix finish hotfixA

71   Switched to branch 'master'
72   Your branch is up-to-date with 'origin/master'.
73   Merge made by the 'recursive' strategy.
74    hotfixA | 0
75    1 file changed, 0 insertions(+), 0 deletions(-)
76    create mode 100644 hotfixA
77   Switched to branch 'develop'
78   Your branch is up-to-date with 'origin/develop'.
79   Merge made by the 'recursive' strategy.
80    hotfixA | 0
81    1 file changed, 0 insertions(+), 0 deletions(-)
82    create mode 100644 hotfixA
83   To https://github.com/hzmajia/gitflow-example.git
84    - [deleted]        hotfix/hotfixA
85   Deleted branch hotfix/hotfixA (was e17d475).
86   Summary of actions:
87   - Hotfix branch 'hotfix/hotfixA' has been merged into 'master'
88   - The hotfix was tagged 'hotfixA'
89   - Hotfix tag 'hotfixA' has been back-merged into 'develop'
90   - Hotfix branch 'hotfix/hotfixA' has been locally deleted; it has been remotely deleted from 'origin'
91   - You are now on branch 'develop'
92
93   $ git branch -vv
94   * develop c293bc1 [origin/develop: ahead 3] Merge tag 'hotfixA' into develop
95     master  87bca9d [origin/master: ahead 2] Merge branch 'hotfix/hotfixA'
96
97   $ git push origin master
98   Counting objects: 3, done.
99   Compressing objects: 100% (3/3), done.
100  Writing objects: 100% (3/3), 338 bytes | 0 bytes/s, done.
101  Total 3 (delta 1), reused 0 (delta 0)
102  remote: Resolving deltas: 100% (1/1), done.
103  To https://github.com/hzmajia/gitflow-example.git
104    4944ec5..87bca9d  master -> master
105
```

```
$ git push origin master
Counting objects: 1, done.
Writing objects: 100% (1/1), 238 bytes | 0 bytes/s, done.
Total 1 (delta 0), reused 0 (delta 0)
To https://github.com/hzmajia/gitflow-example.git
   269c207..c293bc1  develop -> develop

$ git log --oneline --decorate --graph --all
*   c293bc1 (HEAD -> develop, origin/develop) Merge tag 'hotfixA' into develop
|\
| *   87bca9d (tag: hotfixA, origin/master, master) Merge branch 'hotfix/hotfixA'
| |\
| | * e17d475 hotfixA
| |/
* |   269c207 Merge tag 'releaseA' into develop
|\ \
| |/
| *   4944ec5 (tag: releaseA) Merge branch 'release/releaseA'
| |\
| | * f993ec4 releaseA
| |/
|/|
* | 6e6605d featureA
|/
* 378941f Initial commit
```