

GIT TAGS EXERCISE

Action	Command Used
Create Repository	git init
Check status	git status
Add untracked files to staging area	git add .
Commit	git commit -m "message"
Add files to staging area and commit in one go	git commit -am "message"
Create tag	git tag -a <tag-name> -m <message>
Display all tags	git tag
Checkout specific tag	git checkout <tag-name>
Show log	git log
Add local repository to github	git remote add origin <github-repo-url>
Push changes to remote	git push -u origin <branch- names>
Push all tags	git push --tags

1. Create a repository

```
C:\Users\Naresh Sharma\Documents\gitTrack>mkdir git-tags
C:\Users\Naresh Sharma\Documents\gitTrack>cd git-tags
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git init
Initialized empty Git repository in C:/Users/Naresh Sharma/Documents/gitTrack/git-tags/.git/
```

2. Create two files in master branch, then create a tag 1.0.0 for first release from master.

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git status
On branch master

No commits yet

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

        TagsTestFile.txt
        hello_world.rb

nothing added to commit but untracked files present (use "git add" to track)
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git add .
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git commit -m "Initial commit"
[master (root-commit) 41951bb] Initial commit
 2 files changed, 6 insertions(+)
 create mode 100644 TagsTestFile.txt
 create mode 100644 hello_world.rb
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git tag -a 1.0.0 -m "release 1.0.0"

C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git tag
1.0.0
```

3. Now, perform some changes in previous files and create another tag 1.0.1.

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git status
On branch master
nothing to commit, working tree clean

C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   TagsTestFile.txt
        modified:   hello_world.rb

no changes added to commit (use "git add" and/or "git commit -a")

C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git commit -am "modified content ob both files"
[master bd47403] modified content ob both files
 2 files changed, 2 insertions(+), 5 deletions(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git tag -a 1.0.1 -m "release 1.0.1"
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git tag
1.0.0
1.0.1
```

4. Now, create another file file3 and create a tag 1.1.0.

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        File3.txt

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

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git add .

C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git commit -m "added file3"
[master 86b217c] added file3
 1 file changed, 1 insertion(+)
 create mode 100644 File3.txt
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git tag -a 1.1.0 -m "release 1.1.0"

C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git tag
1.0.0
1.0.1
1.1.0
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git log
commit 86b217c8983593571d78fc53e223e6f6115b6055 (HEAD -> master, tag: 1.1.0)
Author: Naresh Sharma <naresh@vinsol.com>
Date:   Fri Nov 1 18:25:59 2019 +0530

    added file3

commit bd474032ce8bdd3d080d88d2106cbdbf10071011 (tag: 1.0.1)
Author: Naresh Sharma <naresh@vinsol.com>
Date:   Fri Nov 1 17:24:18 2019 +0530

    modified content ob both files

commit 41951bbb25a87d3dfb179c058fbc714f6d0c4a63 (tag: 1.0.0)
Author: Naresh Sharma <naresh@vinsol.com>
Date:   Fri Nov 1 17:18:32 2019 +0530

    Initial commit
```

5. Now in 1.0.1 release, do some changes in existing files and create another tag 1.0.2

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git checkout 1.0.1
Note: checking out '1.0.1'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using -b with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

HEAD is now at bd47403 modified content ob both files

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git status
HEAD detached at 1.0.1
nothing to commit, working tree clean
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git status
HEAD detached at 1.0.1
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   TagsTestFile.txt

no changes added to commit (use "git add" and/or "git commit -a")

C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git commit -am "modified file for release 1.0.2"
[detached HEAD 9558465] modified file for release 1.0.2
1 file changed, 3 insertions(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git tag -a 1.0.2 -m "release 1.0.2"

C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git tag
1.0.0
1.0.1
1.0.2
1.1.0
```

6. Also do some changes in release 1.1.0, create a tag for next release 1.1.1.

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git checkout 1.1.0
Previous HEAD position was 9558465 modified file for release 1.0.2
HEAD is now at 86b217c added file3
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git status
HEAD detached at 1.1.0
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   File3.txt

no changes added to commit (use "git add" and/or "git commit -a")
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git commit -am "Modified file3 for release 1.1.1"
[detached HEAD 1085514] Modified file3 for release 1.1.1
1 file changed, 3 insertions(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git tag -a 1.1.1 -m "release 1.1.1"

C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git tag
1.0.0
1.0.1
1.0.2
1.1.0
1.1.1
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git log
commit 1085514e752e4493a7dcf959e832524118efca0e (HEAD, tag: 1.1.1)
Author: Naresh Sharma <naresh@vinsol.com>
Date:   Fri Nov 1 18:41:19 2019 +0530

    Modified file3 for release 1.1.1

commit 86b217c8983593571d78fc53e223e6f6115b6055 (tag: 1.1.0, master)
Author: Naresh Sharma <naresh@vinsol.com>
Date:   Fri Nov 1 18:25:59 2019 +0530

    added file3

commit bd474032ce8bdd3d080d88d2106cbdbf10071011 (tag: 1.0.1)
Author: Naresh Sharma <naresh@vinsol.com>
Date:   Fri Nov 1 17:24:18 2019 +0530

    modified content ob both files

commit 41951bbb25a87d3dfb179c058fbc714f6d0c4a63 (tag: 1.0.0)
Author: Naresh Sharma <naresh@vinsol.com>
Date:   Fri Nov 1 17:18:32 2019 +0530

    Initial commit
```

Push repository to github.

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git remote add origin https://github.com/naresh226/git-tags.git
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git push -u origin master
Enumerating objects: 11, done.
Counting objects: 100% (11/11), done.
Delta compression using up to 8 threads
Compressing objects: 100% (9/9), done.
Writing objects: 100% (11/11), 1.03 KiB | 210.00 KiB/s, done.
Total 11 (delta 0), reused 0 (delta 0)
To https://github.com/naresh226/git-tags.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\git-tags>git push --tags
Enumerating objects: 16, done.
Counting objects: 100% (15/15), done.
Delta compression using up to 8 threads
Compressing objects: 100% (11/11), done.
Writing objects: 100% (11/11), 1.35 KiB | 344.00 KiB/s, done.
Total 11 (delta 0), reused 0 (delta 0)
To https://github.com/naresh226/git-tags.git
 * [new tag]         1.0.0 -> 1.0.0
 * [new tag]         1.0.1 -> 1.0.1
 * [new tag]         1.0.2 -> 1.0.2
 * [new tag]         1.1.0 -> 1.1.0
 * [new tag]         1.1.1 -> 1.1.1
```