

We Can Use Git Bisect To Mark Commit As *Bad* OR *Good*.

With Bisect We Can Also Detach Commit.

To Find All The Contributors Of Project:

- *Run Command:* `git shortlog`

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git shortlog
Jafar Loka (10):
Initial Commit
After Deleting File2.txt
Trying Rename Files
Adding .gitignore To Project
Adding By Accident
Removing File From Index/Staging Area
Testing Short Status Command
Second Testing Of Files To Show Output
Adding All Files
Deleting The New File: file-03.txt
```

To Show The Number Of Commits By Author (Sorted By Number Of Committed), We Can Use:

- *Run Command:* `git shortlog -n -s -e`
 - The -n: To Sort.
 - The -s: For Short.
 - The -e: For Email Address.
 - Note: We Can Also Use: **--after** && **--before**

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git shortlog -s -n -e
10 Jafar Loka <joyhess501@gmail.com>
```

To Get The Stats About Specific File:

- **Run Command:** `git log --stat file-name-here.extension`
 - **We Can Use:** `--patch` To See The Actual Changes

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git log --stat file-01.txt
commit 43a35dd34aad1cf03a19ade3141dd07764af7bfe
Author: Jafar Loka <joyhess501@gmail.com>
Date: Tue Nov 19 09:47:37 2024 +0300

    Second Testing Of Files To Show Output

file-01.txt | 1 +
1 file changed, 1 insertion(+)

commit c5b550f49466a2f999f95e8e9f1d9c21d09b772c
Author: Jafar Loka <joyhess501@gmail.com>
Date: Tue Nov 19 09:46:56 2024 +0300

    Testing Short Status Command

file-01.txt | 1 +
1 file changed, 1 insertion(+)

commit 2df21afcf285aa4eb21987665fc58d111c1c963e
Author: Jafar Loka <joyhess501@gmail.com>
Date: Mon Nov 18 12:03:01 2024 +0200

    Trying Rename Files

file-01.txt | 3 +++
1 file changed, 3 insertions(+)
```

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git log --patch -- file-01.txt
commit 43a35dd34aad1cf03a19ade3141dd07764af7bfe
Author: Jafar Loka <joyhess501@gmail.com>
Date: Tue Nov 19 09:47:37 2024 +0300
```

Second Testing Of Files To Show Output

```
diff --git a/file-01.txt b/file-01.txt
index 56fb3e1..2261396 100644
--- a/file-01.txt
+++ b/file-01.txt
@@ -2,3 +2,4 @@ hello
world
Jafar Loka
Jafar Loka Here
+Jafar Loka -02

commit c5b550f49466a2f999f95e8e9f1d9c21d09b772c
Author: Jafar Loka <joyhess501@gmail.com>
Date: Tue Nov 19 09:46:56 2024 +0300
```

Testing Short Status Command

```
diff --git a/file-01.txt b/file-01.txt
index 33dc114..56fb3e1 100644
--- a/file-01.txt
+++ b/file-01.txt
@@ -1,3 +1,4 @@
hello
world
Jafar Loka
+Jafar Loka Here

commit 2df21afcf285aa4eb21987665fc58d111c1c963e
Author: Jafar Loka <joyhess501@gmail.com>
Date: Mon Nov 18 12:03:01 2024 +0200
```

Trying Rename Files

```
diff --git a/file-01.txt b/file-01.txt
new file mode 100644
index 0000000..33dc114
--- /dev/null
+++ b/file-01.txt
@@ -0,0 +1,3 @@
```

After We Delete The File, **file-03.txt**, We Can Restore It Using Checkout:

- **Run Command:** `git rm file-03.txt`
- **Run Command:** `git commit -m "Message Here"`
- **Run Command:** `git log --oneline -- file-03.txt`
 - In This Way We Can Get All Commits Of Specific File
- **Run Command:** `git checkout short-commit-id-here file-03.txt`
 - In This Case The Short Hash Is: **1b6514e**
- **Run Command:** `git status -s` To Get The Information About The Project.
- **Run Command:** `git commit -m "Message Here"`

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git ls-files
.gitignore
file-01.txt
file-02.txt

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git log --oneline file-03.txt
715de30 (HEAD -> master) Deleting The New File: file-03.txt
1b6514e Adding All Files

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git log --oneline -- file-03.txt
715de30 (HEAD -> master) Deleting The New File: file-03.txt
1b6514e Adding All Files

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git commit -m "After We Delete file-03.txt"
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    file-03.txt

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

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git log --oneline -- file-03.txt
715de30 (HEAD -> master) Deleting The New File: file-03.txt
1b6514e Adding All Files

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git checkout 1b6514e file-03.txt
Updated 1 path from b37034e

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git status -s
A  file-03.txt

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git commit -m "Restore File After Deleting"
[master a6f4fa3] Restore File After Deleting
 1 file changed, 1 insertion(+)
 create mode 100644 file-03.txt

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ |
```

To Git The Author Of Specific Commit For Specific File-Name:

- Run Command: *git blame file-name-here.extension*
- To Get The Email Address: *git blame -e file-name-here.extension*
- To Get The Ranges Of Line: *git blame -e -L 1,3 file-name-here.extension*

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git blame -e -L 1,5 file-01.txt
^c378284 file1.txt (<joyhess501@gmail.com> 2024-11-13 10:28:24 +0200 1) hello
^c378284 file1.txt (<joyhess501@gmail.com> 2024-11-13 10:28:24 +0200 2) world
4702e827 file1.txt (<joyhess501@gmail.com> 2024-11-18 11:49:19 +0200 3) Jafar Loka
c5b550f4 file-01.txt (<joyhess501@gmail.com> 2024-11-19 09:46:56 +0300 4) Jafar Loka Here
43a35dd3 file-01.txt (<joyhess501@gmail.com> 2024-11-19 09:47:37 +0300 5) Jafar Loka -02
```

To Set The Tag Name Of Specific Commit (The Version Of Our Project):

- **Run Command:** *git tag version-name-here short-commit-id-hash-here*
 - **Ex:** *git tag v1.0 1b6514e*

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git tag v1.0 1b6514e

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git log --oneline
a6f4fa3 (HEAD -> master) Restore File After Deleting
715de30 Deleting The New File: file-03.txt
1b6514e (tag: v1.0) Adding All Files
43a35dd Second Testing Of Files To Show Output
c5b550f Testing Short Status Command
edc6933 Removing File From Index/Staging Area
c047d34 Adding By Accident
014c4b9 Adding .gitignore To Project
2df21af Trying Rename Files
4702e82 After Deleting File2.txt
c378284 Initial Commit
```

To Get The List Of Tags, Which We Created:

- **Run Command:** *git tag*

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git tag
v1.0
```

To Create Annotated Tag That Contain Information:

- **Run Command:** *git tag -a tag-name-here -m "Message Here"*
 - **Ex:** *git tag -a V1.1 -m "My Tag With Version"*
- To Get The Information Of Tags: *git tag -n*

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git tag -a V1.1 -m "Jafar Loka V1.1"

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git tag
V1.1
v1.0

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git tag -n
V1.1          Jafar Loka V1.1
v1.0          Adding All Files
```

To Show Complete Information About Tag:

- **Run Command:** *git show tag-annotate*
 - **Ex:** *git show v1.1*

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git show v1.1
tag V1.1
Tagger: Jafar Loka <joyhess501@gmail.com>
Date:   Wed Nov 27 10:30:42 2024 +0300

Jafar Loka V1.1

commit a6f4fa32ea3a9fedfe45d346a8c0667b3ea94ba7 (HEAD -> master, tag: V1.1)
Author: Jafar Loka <joyhess501@gmail.com>
Date:   Wed Nov 27 10:11:41 2024 +0300

    Restore File After Deleting

diff --git a/file-03.txt b/file-03.txt
new file mode 100644
index 0000000..557db03
--- /dev/null
+++ b/file-03.txt
@@ -0,0 +1 @@
+Hello World
```

To Delete Tag:

- *Run Command:* `git tag -d tag-name-here`
 - *Ex:* `git tag -d v1.0`

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git tag -n
V1.1          Jafar Loka V1.1
```

To Create New Branch:

- *Run Command:* `git branch branch-name-here`
 - *Ex:* `git branch bug-fixing`

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git branch big-fixing
```

To Get List Of Branches:

- *Run Command:* `git branch`
- The Star Is The *Current Branch*

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git branch
big-fixing
* master ←
```

To Switch To *Big-Fixing* Branch:

- *Run Command:* `git switch bug-fixing`

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git status
On branch master
nothing to commit, working tree clean

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git switch big-fixing
Switched to branch 'big-fixing'

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (big-fixing)
$ git status
On branch big-fixing
nothing to commit, working tree clean
```

To Change The Name Of Branch:

- **Run Command:** `git branch -m old-name new-name`

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (big-fixing)
$ git branch -m big-fixing bug-fix/jafar-loka-test-01
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (bug-fix/jafar-loka-test-01)
$ |
```

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (bug-fix/jafar-loka-test-01)
$ echo "Jafar-Loka-Testing-Git-01" >> file-03.txt

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (bug-fix/jafar-loka-test-01)
$ git status
On branch bug-fix/jafar-loka-test-01
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   file-03.txt

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

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (bug-fix/jafar-loka-test-01)
$ git add .
warning: in the working copy of 'file-03.txt', LF will be replaced by CRLF the next time Git touches it

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (bug-fix/jafar-loka-test-01)
$ git commit -m "Fix Bug About Jafar Loka-01"
[bug-fix/jafar-loka-test-01 79ddd89] Fix Bug About Jafar Loka-01
1 file changed, 1 insertion(+)

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (bug-fix/jafar-loka-test-01)
$ git log --oneline
79ddd89 (HEAD -> bug-fix/jafar-loka-test-01) Fix Bug About Jafar Loka-01
a6f4fa3 (tag: V1.1, master) Restore File After Deleting
715de30 Deleting The New File: file-03.txt
1b6514e Adding All Files
43a35dd Second Testing Of Files To Show Output
c5b550f Testing Short Status Command
edc6933 Removing File From Index/Staging Area
c047d34 Adding By Accident
014c4b9 Adding .gitignore To Project
2df21af Trying Rename Files
4702e82 After Deleting File2.txt
c378284 Initial Commit
```

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (bug-fix/jafar-loka-test-01)
$ cat file-03.txt
Hello World
Jafar-Loka-Testing-Git-01

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (bug-fix/jafar-loka-test-01)
$ git switch master
Switched to branch 'master'

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ cat file-03.txt
Hello World
```

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git log --oneline
a6f4fa3 (HEAD -> master, tag: V1.1) Restore File After Deleting
715de30 Deleting The New File: file-03.txt
1b6514e Adding All Files
43a35dd Second Testing Of Files To Show Output
c5b550f Testing Short Status Command
edc6933 Removing File From Index/Staging Area
c047d34 Adding By Accident
014c4b9 Adding .gitignore To Project
2df21af Trying Rename Files
4702e82 After Deleting File2.txt
c378284 Initial Commit
```

To View All The Commits With All Branches:

- *Run Command: `git log --oneline --all`*

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git log --oneline --all
79ddd89 (bug-fix/jafar-loka-test-01) Fix Bug About Jafar Loka-01
a6f4fa3 (HEAD -> master, tag: V1.1) Restore File After Deleting
715de30 Deleting The New File: file-03.txt
1b6514e Adding All Files
43a35dd Second Testing Of Files To Show Output
c5b550f Testing Short Status Command
edc6933 Removing File From Index/Staging Area
c047d34 Adding By Accident
014c4b9 Adding .gitignore To Project
2df21af Trying Rename Files
4702e82 After Deleting File2.txt
c378284 Initial Commit
```

To Delete The Branch That We Created:

- **Run Command:** *git branch -d branch-name-here*
 - **Ex:** *git branch -d bug-fixing*
- **Note:** If We Have Data, Maybe Git Not Allowed Us To Delete Branch.
- Then We Can **Run Command:** *git branch -D bug-fixing*

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git branch -d bug-fix/jafar-loka-test-01
error: the branch 'bug-fix/jafar-loka-test-01' is not fully merged
hint: If you are sure you want to delete it, run 'git branch -D bug-fix/jafar-loka-test-01'
hint: Disable this message with "git config advice.forceDeleteBranch false"

Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (master)
$ git branch -D bug-fix/jafar-loka-test-01
Deleted branch bug-fix/jafar-loka-test-01 (was 79ddd89).
```

To Show All The Commits That Are In Bug-Fixing Bot In Master:

- **Run Command:** *git log master..bug-fixing*

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (bug-fixing)
$ git log master..bug-fixing
commit 10b7bedbb0f7f498ed411d562afbb946f871c205 (HEAD -> bug-fixing)
Author: Jafar Loka <joyhess501@gmail.com>
Date: Thu Nov 28 10:05:20 2024 +0300

    Test Branches For Bug Fixing
```

To Git The Difference Between Two Branches:

- **Run Command:** *git diff master..bug-fixing*
- **Note:** If We Are On Master Branch We Can Write Only:
 - **Run Command:** *git diff bug-fixing*
- Note: We Can Also Use **--name-only** && **--name-status**

```
Tatweer@DESKTOP-9FV4RTN MINGW64 /c/Tests/Github-And-GitLab/Tutorial-02-Code-With-Mosh (bug-fixing)
$ git diff master..bug-fixing
diff --git a/file-03.txt b/file-03.txt
index 557db03..f05f23c 100644
--- a/file-03.txt
+++ b/file-03.txt
@@ -1,2 @@
 Hello World
+Jafar Loka Test Branches-01
```
