

Thursday, December 9, 2021 12:02 PM

18:58

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GIT Basics

Traditional Version Control System

Checkins over time →

Version 1

Version 2

Version 3

Version 4

Version 5

file A

→ Δ1 → Δ2

file B


→ Δ1 → Δ2

file C


→ Δ1 → Δ2 → Δ3

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ABB




Manikrao B...




Mital Pawar




Ahtesh Inamdar




Chandan M...



Naveen G ...




Preet Parikh




Kumar Gour...

+2



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2:19 PM
12/9/2021

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21:52

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GIT Basics

Git stores data as snapshots of the project over time

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Ahtesh Inamdar

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Manikrao B... Mital Pawar
Ahtesh Inamdar Chandan M...
Naveen G Preet Parikh
KG +4
Kumar Gour...

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25:31

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GIT Basics

Important Points

- Git thinks of its data more like a set of snapshots of a mini filesystem
- Every time you commit, it basically takes a picture of what all your files look like at that moment and stores a reference to that snapshot
- If files have not changed, Git doesn't store the file again just a link to the previous identical file it has already stored

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Ahtesh Inamdar

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22:25 PM
12/9/2021

Manikrao B... Mital Pawar
Ahtesh Inamdar Chandan M...
Naveen G Preet Parikh
KG +4
Kumar Gour...

Git Init: Initialize git repository

- Open git bash
- Write linux commands here
- Go to the folder location where you want to create repo and write click select open git bash here
- Type git init

The screenshot shows a Zoom meeting interface. At the top, the title bar reads "Virtual Mode - GIT for Developer". Below it, a status bar indicates "Recording and transcription have started. By attending this meeting, you consent to being included. Privacy policy". The main area is divided into two parts: a terminal window on the left and a list of participants on the right. The terminal window shows the following commands and output:

```
MINGW64/C:/Users/inahina/Documents/Training
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training
$ ls
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training
$ pwd
/c/Users/inahina/Documents/Training
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training
$ ls -la
total 28
drwxr-xr-x 1 INAHINA 1049089 0 Dec  9 14:28 ./
drwxr-xr-x 1 INAHINA 1049089 0 Dec  9 14:28 ../
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training
$ git init
Initialized empty Git repository in C:/Users/inahina/Documents/Training/.git/
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ |
```

The participants list on the right includes: Manikrao B..., Mital Pawar, Ahtesh Inamdar, Chandan M..., Naveen G, Preet Parikh, Kumar Gour..., and a group of 6 more participants. The bottom of the window shows a Windows taskbar with the search bar and various application icons.

Git branch : to know in which branch you are

The screenshot shows a Zoom meeting interface, similar to the previous one. The title bar reads "Virtual Mode - GIT for Developer". The status bar indicates "Recording and transcription have started. By attending this meeting, you consent to being included. Privacy policy". The main area is divided into two parts: a terminal window on the left and a list of participants on the right. The terminal window shows the following commands and output:

```
MINGW64/C:/Users/inahina/Documents/Training
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training
$ ls
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training
$ pwd
/c/Users/inahina/Documents/Training
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training
$ ls -la
total 28
drwxr-xr-x 1 INAHINA 1049089 0 Dec  9 14:28 ./
drwxr-xr-x 1 INAHINA 1049089 0 Dec  9 14:28 ../
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training
$ git init
Initialized empty Git repository in C:/Users/inahina/Documents/Training/.git/
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git branch
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ touch |
```

The participants list on the right includes: Manikrao B..., Mital Pawar, Ahtesh Inamdar, Chandan M..., Naveen G, Preet Parikh, Kumar Gour..., and a group of 6 more participants. The bottom of the window shows a Windows taskbar with the search bar and various application icons.

Git status: gives the status of the branch

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33:25

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```
MINGW64~/Users/inahina/Documents/Training
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training
$ ls -la
total 28
drwxr-xr-x 1 INAHINA 1049089 0 Dec  9 14:28 ./
drwxr-xr-x 1 INAHINA 1049089 0 Dec  9 14:28 ../

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training
$ git init
Initialized empty Git repository in C:/Users/inahina/Documents/Training/.git/

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git branch

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ touch a.txt

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ ls
a.txt

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git status
On branch master

No commits yet

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

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
```

Ahitesh Inamdar

Manikrao B... Mital Pawar
Ahitesh Inamdar Chandan M...
Naveen G Preet Parikh
KG +6
Kumar Gour...

ENG
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40:43

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```
MINGW64~/Users/inahina/Documents/Training
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git status
On branch master

No commits yet

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

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ echo "Welcome" > a.txt

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git status
On branch master

No commits yet

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

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git add a.txt
warning: LF will be replaced by CRLF in a.txt.
The file will have its original line endings in your working directory

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
```

Ahitesh Inamdar

Manikrao B... Mital Pawar
Ahitesh Inamdar Chandan M...
Naveen G Preet Parikh
KG +6
Kumar Gour...

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We are in master branch and there is no commit in this branch it has a.txt file this is new file and to commit this file we need to add this file first

Git add <filename>: to move the file from current working to staging area

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```
MINGW64~/Users/inahina/Documents/Training
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git status
On branch master

No commits yet

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

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ echo "Welcome" > a.txt

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git status
On branch master

No commits yet

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

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git add a.txt
warning: LF will be replaced by CRLF in a.txt.
The file will have its original line endings in your working directory

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
```

Ahitesh Inamdar

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How to check the status of the file that it has staged? By using status command

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```

MINGW64~/Users/inahina/Documents/Training
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ echo "welcome" > a.txt

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git status
On branch master

No commits yet

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

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git add a.txt
warning: LF will be replaced by CRLF in a.txt.
The file will have its original line endings in your working directory

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git status
On branch master

No commits yet

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)

```

Ahitesh Inamdar

Manikrao B... Mital Pawar
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Naveen G Preet Parikh
Kumar Gour... +6

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But in the image we can see that the file has staged but not committed, here `git rm --cached <file>` command says that if you don't want to commit then you can unstage the changes using this command
Git commit: command used to commit the changes which only commits the files which are in staging area

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45:07

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```

MINGW64~/Users/inahina/Documents/Training
On branch master

No commits yet

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

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git add a.txt
warning: LF will be replaced by CRLF in a.txt.
The file will have its original line endings in your working directory

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git status
On branch master

No commits yet

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git commit -m "sample a.txt first change"
[master (root-commit) 50377de] sample a.txt first change
1 file changed, 1 insertion(+)
create mode 100644 a.txt

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)

```

Ahitesh Inamdar

Manikrao B... Mital Pawar
Ahitesh Inamdar Chandan M...
Naveen G Preet Parikh
Kumar Gour... +5

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It shows no of files and no of lines are changed
 Every commit has unique id generated after commit
 Check in which branch you are and then create dev branch in it

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53:50

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```
MINGW64~/Users/inahina/Documents/Training
INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git add a.txt
warning: LF will be replaced by CRLF in a.txt.
The file will have its original line endings in your working directory

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git status
On branch master

No commits yet

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git commit -m "sample a.txt first change"
[master (root-commit) 50377de] sample a.txt first change
1 file changed, 1 insertion(+)
create mode 100644 a.txt

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ gitk

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git branch
* master

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git branch dev

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git checkout dev
Switched to branch 'dev'
```

Ahtesh Inamdar

Shubha Lak... Manikrao B... MP Ahtesh Inamdar Mital Pawar CM Naveen G Chandan M... KG +5 Kumar Gour...

ENG

2:54 PM 12/9/2021

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Git checkout : Move to the newly created branch

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54:32

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```
MINGW64~/Users/inahina/Documents/Training
No commits yet

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git commit -m "sample a.txt first change"
[master (root-commit) 50377de] sample a.txt first change
1 file changed, 1 insertion(+)
create mode 100644 a.txt

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ gitk

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git branch
* master

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git branch dev

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git checkout dev
Switched to branch 'dev'
```

Ahtesh Inamdar

Shubha Lak... Manikrao B... MP Ahtesh Inamdar Mital Pawar CM Naveen G Chandan M... KG +5 Kumar Gour...

ENG

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do 2 things together add and commit with this command

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01:00:13 Request control Unmute (Ctrl+Shift+M) miss

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MINGW64~/Users/inahina/Documents/Training

```

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (master)
$ git checkout dev
Switched to branch 'dev'

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (dev)
$ git branch
* dev
  master

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (dev)
$ git status
On branch dev
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:   a.txt

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

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (dev)
$ git commit -a -m "File a.txt updated in dev branch"
warning: LF will be replaced by CRLF in a.txt.
The file will have its original line endings in your working directory
[dev ab876ab] File a.txt updated in dev branch
1 file changed, 1 insertion(+), 1 deletion(-)

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (dev)
$ git status
On branch dev
nothing to commit, working tree clean

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (dev)

```

Ahtesh Inamdar

SL Shubha Lak... Manikrao B... MP Ahtesh Inamdar Mital Pawar CM Naveen G Chandan M... KG Kumar Gour... +5

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Git k command to open visualization of commits

Virtual Mode - GIT for Developer

01:01:06 Request control Unmute (Ctrl+Shift+M) miss

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Training: All files - gitk

File Edit View Help

dev File a.txt updated in dev branch
master sample a.txt first change

inahina <ahtesh.inamdar@in.abb.com>
inahina <ahtesh.inamdar@in.abb.com>

SHA1 ID: ab876ab5f606f61b23c55b01a2b09dd079de6bec6 Row 1/2

Find commit containing: Search Patch Tree

Diff Old version New version Lines of context: 3

Precedes:

File a.txt updated in dev branch

index ba4c514..82d7caa 100644

@@ -1 +1 @@

welcome

welcome to branch "dev"

Ahtesh Inamdar

SL Shubha Lak... Manikrao B... MP Ahtesh Inamdar Mital Pawar CM Naveen G Chandan M... KG Kumar Gour... +5

ENG 3:01 PM 12/9/2021

Type here to search

Yellow color says this is the head currently you are in dev branch

Git log : to check latest activity or commit

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01:09:40

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File Home Share View

Pin to Quick access Copy Paste Cut Copy path Move to Delete Rename

Clipboard

Organize

Quick access

Pictures

2021

bills

Desktop

Training

OneDrive - ABB

This PC

3D Objects

Desktop

Documents

Downloads

Music

Pictures

Videos

zenonbuildmc

Windows (C:)

Share (\\10.140.133.128) (Z:)

Network

Ahtesh Inamdar

MINGW64/c/Users/inahina/Documents/Training

nothing to commit, working tree clean

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (dev)

\$ git log

commit 6ae98dc087462ef9f51d97eaea5f3caf642ada6f (HEAD -> dev)

Author: inahina <ahtesh.inamdar@in.abb.com>

Date: Thu Dec 9 15:05:44 2021 +0530

File b.txt updated in dev branch

commit ab876ab5f606f61b23c55b01a2b09dd079de6be6

Author: inahina <ahtesh.inamdar@in.abb.com>

Date: Thu Dec 9 14:59:46 2021 +0530

File a.txt updated in dev branch

commit 50377de33838c1baa0c16244425d3cc114af011b (master)

Author: inahina <ahtesh.inamdar@in.abb.com>

Date: Thu Dec 9 14:45:24 2021 +0530

sample a.txt first change

INAHINA@IN-L-7284868 MINGW64 ~/Documents/Training (dev)

\$

VR SL

Varun R... Shubha Lak...

Ahtesh Inamdar Manikrao B...

Naveen G... MP

Mital Pawar

CM +5

Chandan M...

ENG

3:09 PM

12/9/2021

3:09 PM

12/9/2021

commands

Thursday, December 9, 2021 3:19 PM

Git merge, merges the local master changes to the feature branch

Difference between fetch and pull

Git pull = git fetch + git merge: it replace all the local changes with remote, if we have not committed the local changes then will lost them. It auto merge all the changes

Git fetch: fetch all the changes from remote

Git merge: merge local master changes to the feature branch(current working branch)

Note: it's always good practice to use git fetch command instead of git pull as the non-committed changes will be lost

Git branch: Show all the branch exist for the repo

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02:14:47

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git fetch
git pull

git merge

```

MINGW64~/c/Users/Inahina/Documents/remotest/Playgnd
INAHINA@IN-L-7284868 MINGW64 ~/Documents/remotest/Playgnd (master)
$ git branch
* master

INAHINA@IN-L-7284868 MINGW64 ~/Documents/remotest/Playgnd (master)
$ git branch -v
* master 9ee337e Deleted azure-pipelines.yml

INAHINA@IN-L-7284868 MINGW64 ~/Documents/remotest/Playgnd (master)
$ git branch -r
origin/BB_109128_AMT_TitleForImportAndWriteCertificatesNeedToChange
origin/BB_sprint48_vikas
origin/BB_sprint51_vikas
origin/HEAD -> origin/master
origin/PAM_AD_POC
origin/f_test_ahatesh
origin/master
origin/newbranch1

INAHINA@IN-L-7284868 MINGW64 ~/Documents/remotest/Playgnd (master)
$
  
```

Ahtesh Inamdar

1316 x 843px

100%

ENG

4:15 PM
12/9/2021

4:15 PM
12/9/2021

VR
Preet Parikh
RD
Ahtesh Inamdar
SL
Shubha Lak...
CM
Chandan M...
MP
Mital Pawar

Git remote -v : If we want to see the origin refers to which url

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02:17:09

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git branch -r

```

MINGW64~/c/Users/Inahina/Documents/remotest/Playgnd
INAHINA@IN-L-7284868 MINGW64 ~/Documents/remotest/Playgnd (master)
$ git branch -r
origin/BB_109128_AMT_TitleForImportAndWriteCertificatesNeedToChange
origin/BB_sprint48_vikas
origin/BB_sprint51_vikas
origin/HEAD -> origin/master
origin/PAM_AD_POC
origin/f_test_ahatesh
origin/master
origin/newbranch1

INAHINA@IN-L-7284868 MINGW64 ~/Documents/remotest/Playgnd (master)
$ git branch
* master

INAHINA@IN-L-7284868 MINGW64 ~/Documents/remotest/Playgnd (master)
$ git remote -v
origin https://tfsa.abb.com/tfs/PPMV/Development/_git/Playgnd (fetch)
origin https://tfsa.abb.com/tfs/PPMV/Development/_git/Playgnd (push)

INAHINA@IN-L-7284868 MINGW64 ~/Documents/remotest/Playgnd (master)
$
  
```

Ahtesh Inamdar

100%

ENG

4:17 PM
12/9/2021

VR
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SL
Shubha Lak...
CM
Chandan M...
MP
Mital Pawar

Git Pwd : present working directory

Git reset : to remove commit from the remote branch

Command : Git status

Thursday, February 24, 2022 11:35 AM

Git status gives the status of your local repository like how many commits you have done and is there any file has changes or is in staged area or your branch is up to date with master or you need to push your commits to the master.

```
INSHAGR@IN-L-7397978 MINGW64 ~/Desktop/testGit (master)
$ git commit -m 'text file added'
[master 925a8a9] text file added
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 test/txtfile1.txt

INSHAGR@IN-L-7397978 MINGW64 ~/Desktop/testGit (master)
$ git add .

INSHAGR@IN-L-7397978 MINGW64 ~/Desktop/testGit (master)
$ git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
(use "git push" to publish your local commits)

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   test/txtfile1.txt

INSHAGR@IN-L-7397978 MINGW64 ~/Desktop/testGit (master)
$ git commit -m 'text is added in text file'
[master be1cd7] text is added in text file
1 file changed, 1 insertion(+)

INSHAGR@IN-L-7397978 MINGW64 ~/Desktop/testGit (master)
$ git status
On branch master
Your branch is ahead of 'origin/master' by 2 commits.
(use "git push" to publish your local commits)

nothing to commit, working tree clean
```

1. Text file committed

Command: git checkout -- filename

Thursday, February 24, 2022 3:13 PM

If by mistakenly you have done some changes you want to discard it or say want the master file

Then we can discard it from UI which is showing under changes

If we want to do it from command line then `git checkout -- file1.txt` is used

If suppose then you have 3 to 4 times commit and you realize that one of those were working better than current one and we want to get back those particular commit changes so that can be done using 2 command

1. Git checkout <copy 7 to 8 initial no of the particular commit id > -- <filename>(`git checkout 3bf31b338 -- file1.txt`)
2. `Git reset HEAD file1.txt`

Command: git commit --amend -m 'message'

Thursday, February 24, 2022 3:52 PM

When you want to change the message or some file in the last commit but not really want to make a new commit at that time this amend can be used

```
INSHAGR@IN-L-7397978 MINGW64 ~/Desktop/testGit (master)
$ git log
commit bee1cd75f06e8a3b3374df1a1a3cb6a70ead8a6 (HEAD -> master)
Author: shrutiAgrawal27 <shruti.vivek17@gmail.com>
Date: Thu Feb 24 10:40:09 2022 +0530

    text is added in text file

commit 925a8a94e03a39728bf23b8f1c555f5cae619f5d
Author: shrutiAgrawal27 <shruti.vivek17@gmail.com>
Date: Thu Feb 24 10:35:17 2022 +0530

    text file added

commit 313a2781a7477e6e4bc9e3e9b098bb218aa61209 (origin/master)
Author: shrutiAgrawal27 <shruti.vivek17@gmail.com>
Date: Wed Feb 23 12:13:11 2022 +0530

    second commit

commit ecdc70bd757ed68d55394197d3cceb2ae8ef8a79
Author: shrutiAgrawal27 <shruti.vivek17@gmail.com>
Date: Wed Feb 23 12:09:14 2022 +0530

    first commit

INSHAGR@IN-L-7397978 MINGW64 ~/Desktop/testGit (master)
$ git commit --amend -m 'sample text is added'
[master f075935] sample text is added
Date: Thu Feb 24 10:40:09 2022 +0530
1 file changed, 1 insertion(+)

INSHAGR@IN-L-7397978 MINGW64 ~/Desktop/testGit (master)
$ git log
commit f075935615333fadbcca0a7ab20979d52b2ffd42 (HEAD -> master)
Author: shrutiAgrawal27 <shruti.vivek17@gmail.com>
Date: Thu Feb 24 10:40:09 2022 +0530

    sample text is added

commit 925a8a94e03a39728bf23b8f1c555f5cae619f5d
Author: shrutiAgrawal27 <shruti.vivek17@gmail.com>
Date: Thu Feb 24 10:35:17 2022 +0530

    text file added

commit 313a2781a7477e6e4bc9e3e9b098bb218aa61209 (origin/master)
Author: shrutiAgrawal27 <shruti.vivek17@gmail.com>
Date: Wed Feb 23 12:13:11 2022 +0530

    second commit

commit ecdc70bd757ed68d55394197d3cceb2ae8ef8a79
Author: shrutiAgrawal27 <shruti.vivek17@gmail.com>
Date: Wed Feb 23 12:09:14 2022 +0530

    first commit
```

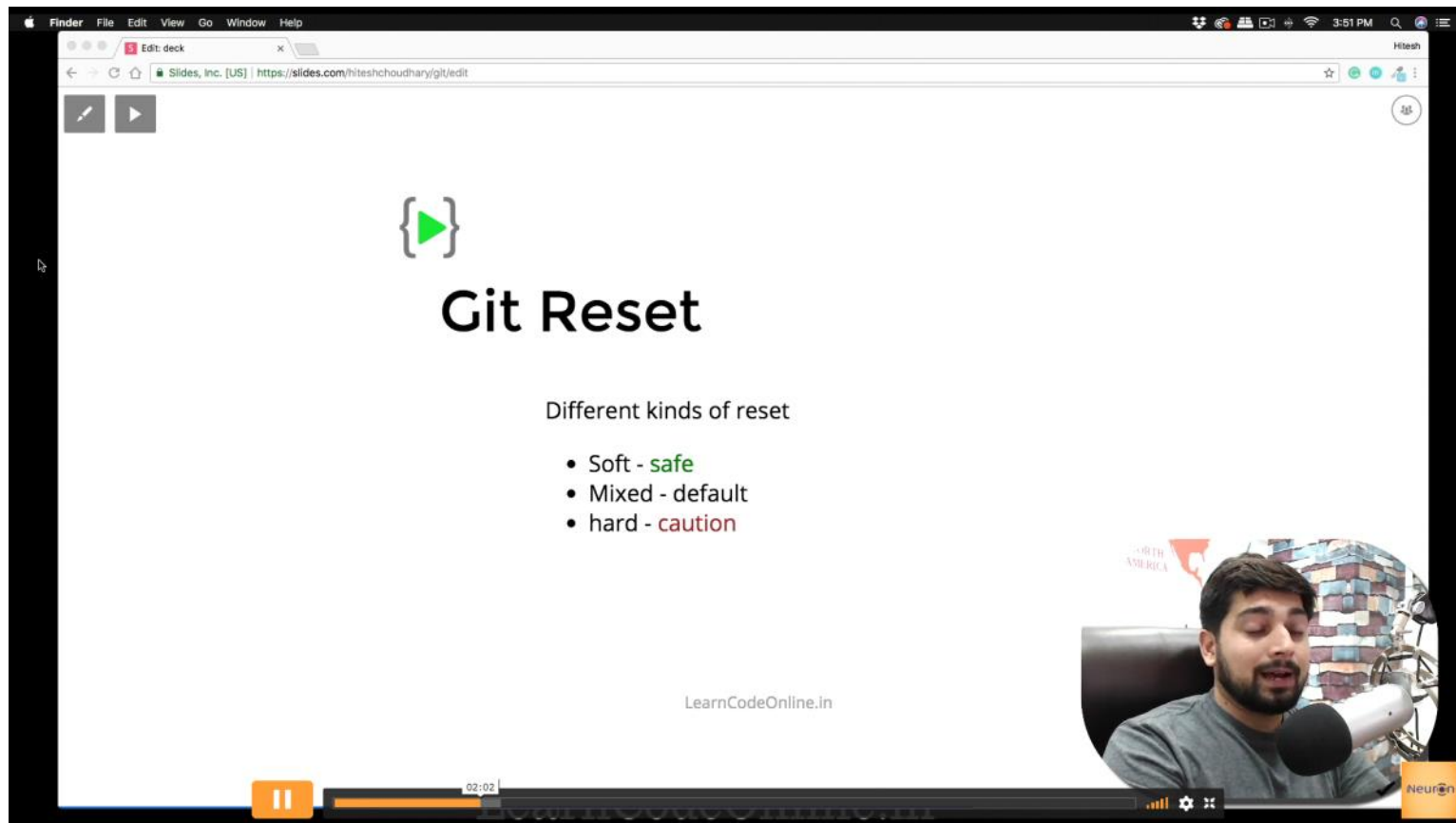
So here in git log we can see the last commit has comment like 'text is added in text file' we want to change the comment but not want to create a new commit so that is done by using **amend** command and in the next log we can see that the comment has been changed. We can observe here that the commit id has also changed but total no of commits are same and date of commit is also same it has not changed i.e 4 which means no new commit has added we have modified the previous commit.

So this can be used to handle very small changes

Reset

Thursday, February 24, 2022 5:25 PM

Git reset soft actually moves the HEAD pointer from current or recent commit to the desired commit, it also means that that if you moved to third last commit then 2nd last and 1st last commit will be gone and there is no way we can get back those changes.



The screenshot shows a video player interface. The main content is a presentation slide titled "Git Reset" with a green play button icon. The slide lists "Different kinds of reset" with three bullet points: "Soft - safe", "Mixed - default", and "hard - caution". The text "LearnCodeOnline.in" is visible at the bottom of the slide. A video player control bar at the bottom shows a pause button, a progress bar at 02:02, and a volume icon. In the bottom right corner, there is a small video inset of a man speaking into a microphone, with a "Neuron" logo next to it.

Finder File Edit View Go Window Help

Edit: deck

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

{ } ▶

Git Reset

Different kinds of reset

- Soft - **safe**
- Mixed - default
- hard - **caution**

LearnCodeOnline.in

02:02

Neuron

Chrome File Edit View History Bookmarks People Window Help

Edit: deck x

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

{ }

Git Reset Soft

Soft - Just points towards another SHA

Local files Staging area Repository

LearnCodeOnline.in

02:38

Neuron

Terminal Shell Edit View Window Help

Edit: deck x

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

```
Hiteshs-iMac:03revert studio$ git log
commit 96c6915aeebf75d9b4272bec85b8b711d70d1f08 (HEAD -> master)
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:12:43 2018 +0530

    new and newer added

commit 3bf21b338c578a4b9fb7c16a75b5caaa459cc7c0
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:11:50 2018 +0530

    2 and 3 funcntion added

commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

    Intial commit
Hiteshs-iMac:03revert studio$
```

LearnCodeOnline.in

03:19

Neuron

Chrome File Edit View History Bookmarks People Window Help

Edit: deck x

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

{ } ▶

Git Reset Mixed

Mixed - points towards another SHA and makes your staging area a copy of repo

Local files Staging area Repository

LearnCodeOnline.in

03:55

Neuron

Chrome File Edit View History Bookmarks People Window Help

Edit: deck x

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

{ } ▶

Git Reset - HARD

Mixed - points towards another SHA, makes your staging area a copy of repo and makes your local files exactly same as repo

Local files Staging area Repository

LearnCodeOnline.in

04:34

Neuron

TerminalShellEditViewWindowHelp

Edit: deckx

Slides, Inc. [US] | https://slides.com/hiteshchoudhary/git/edit

03revert — -bash — 80x24

```

Hiteshs-iMac:03revert studio$ git log
commit 96c6915aeebf75d9b4272bec85b8b711d70d1f08 (HEAD -> master)
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:12:43 2018 +0530

    new and newer added

commit 3bf21b338c578a4b9fb7c16a75b5caaa459cc7c0
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:11:50 2018 +0530

    2 and 3 funcntion added

commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

    Intial commit
Hiteshs-iMac:03revert studio$ git reset --hard 9286902d9fb669e

```

LearnCodeOnline.in

Neuron

ChromeFileEditViewHistoryBookmarksPeopleWindowHelp

Edit: deckx

Slides, Inc. [US] | https://slides.com/hiteshchoudhary/git/edit

Git Reset

a3e23	— HEAD	a3e23	a3e23
23ab2		23ab2 — HEAD	23ab2
55a2a		55a2a	55a2a — HEAD
3321a		3321a	3321a

git reset HEAD~1

git reset HEAD~2

LearnCodeOnline.in

Neuron

Terminal Shell Edit View Window Help

Edit: deck

myfunction.txt — 03revert

myfunction.txt

```
1 onefunction - I have added a very important function here.
2 Twofunction - I have added another very important function here.
3 Threefunction - I have added unnecessary function.
4
5
6 Newfunction - New function added
7 NewerFunction - newer function added.
```

Hiteshs-iMac:03revert studio\$ git log

```
commit 96c6915aeebf75d9b4272bec85b8b711d70d1f08 (HEAD -> master)
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:12:43 2018 +0530

    new and newer added

commit 3bf21b338c578a4b9fb7c16a75b5caaa459cc7c0
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:11:50 2018 +0530


    2 and 3 funcntion added

commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

    Intial commit

Hiteshs-iMac:03revert studio$ git reset --hard 9286902d9fb669e
```

07:36



Neuron

Terminal Shell Edit View Window Help

Edit: deck

myfunction.txt — 03revert

myfunction.txt

```
1 onefunction - I have added a very important function here.
2 Twofunction - I have added another very important function here.
3 Threefunction - I have added unnecessary function.
4
5
6 Newfunction - New function added
7 NewerFunction - newer function added.
```

Hiteshs-iMac:03revert studio\$ git log

```
commit 96c6915aeebf75d9b4272bec85b8b711d70d1f08 (HEAD -> master)
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:12:43 2018 +0530

    new and newer added

commit 3bf21b338c578a4b9fb7c16a75b5caaa459cc7c0
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:11:50 2018 +0530


    2 and 3 funcntion added

commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

    Intial commit

Hiteshs-iMac:03revert studio$ git reset --hard

07:46



Neuron


```

Terminal Shell Edit View Window Help

Edit: deck

myfunction.txt — 03revert

myfunction.txt

```
1 onefunction - I have added a very important function here.
2 Twofunction - I have added another very important function here.
3 Threefunction - I have added unnecessary function.
4
5
6 Newfunction - New function added
7 NewerFunction - newer function added.
```

Hiteshs-iMac:03revert studio\$ git log

```
commit 96c6915aeebf75d9b4272bec85b8b711d70d1f08 (HEAD -> master)
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:12:43 2018 +0530

    new and newer added

commit 3bf21b338c578a4b9fb7c16a75b5caaa459cc7c0
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:11:50 2018 +0530


    2 and 3 funcntion added

commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

    Intial commit

Hiteshs-iMac:03revert studio$ git reset --hard 3bf21b338c578a
```

07:50



Terminal Shell Edit View Window Help

Edit: deck

myfunction.txt — 03revert

myfunction.txt

```
1 onefunction - I have added a very important function here.
2 Twofunction - I have added another very important function here.
3 Threefunction - I have added unnecessary function.
4
5
6 Newfunction - New function added
7 NewerFunction - newer function added.
```

Hiteshs-iMac:03revert studio\$ git log

```
commit 96c6915aeebf75d9b4272bec85b8b711d70d1f08 (HEAD -> master)
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:12:43 2018 +0530

    new and newer added

commit 3bf21b338c578a4b9fb7c16a75b5caaa459cc7c0
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:11:50 2018 +0530


    2 and 3 funcntion added

commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

    Intial commit

Hiteshs-iMac:03revert studio$ git reset --hard 3bf21b338c578a
HEAD is now at 3bf21b3 2 and 3 funcntion added
Hiteshs-iMac:03revert studio$
```

08:03



Sublime Text File Edit Selection Find View Goto Tools Project Window Help

Edit: deck


myfunction.txt — 03revert

myfunction.txt

```
1 onefunction - I have added a very important function here.
2 Twofunction - I have added another very important function here.
3 Threefunction - I have added unnecessary function.
4
5
6
```

Line 1, Column 1, Reloading ~/Desktop/git/exercise/03revert/myfunction.txt

08:11



Terminal Shell Edit View Window Help

Edit: deck

myfunction.txt — 03revert

myfunction.txt

```
1 onefunction - I have added a very important function here.
2 Twofunction - I have added another very important function here.
3 Threefunction - I have added unnecessary function.
```

03revert — bash — 80x24

```
Date: Tue Aug 21 13:11:50 2018 +0530

2 and 3 funcntion added

commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

Intial commit
Hiteshs-iMac:03revert studio$ git reset --hard 3bf21b338c578a
HEAD is now at 3bf21b3 2 and 3 funcntion added
Hiteshs-iMac:03revert studio$ git log
commit 3bf21b338c578a4b9fb7c16a75b5caaa459cc7c0 (HEAD -> master)
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:11:50 2018 +0530

2 and 3 funcntion added


commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

Intial commit
Hiteshs-iMac:03revert studio$
```

Line 6, Column 1

Tab Size: 4

08:21



Terminal Shell Edit View Window Help

Edit: deck

myfunction.txt — 03revert

myfunction.txt

```
1 onefunction - I have added a very important function here.
2 Twofunction - I have added another very important function here.
3 Threefunction - I have added unnecessary function
```

commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

Intial commit

Hiteshs-iMac:03revert studio\$ git reset --hard 3bf21b338c578a
HEAD is now at 3bf21b3 2 and 3 funcntion added

Hiteshs-iMac:03revert studio\$ git log
commit 3bf21b338c578a4b9fb7c16a75b5caaaa459cc7c0 (HEAD -> master)
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:11:50 2018 +0530


2 and 3 funcntion added

commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

Intial commit

Hiteshs-iMac:03revert studio\$ git reset 9286902d9fb669
Unstaged changes after reset:
M myfunction.txt
Hiteshs-iMac:03revert studio\$

08:43



Terminal Shell Edit View Window Help

Edit: deck

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

03revert — -bash — 80x24

```
commit 3bf21b338c578a4b9fb7c16a75b5caaaa459cc7c0 (HEAD -> master)
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:11:50 2018 +0530

2 and 3 funcntion added


commit 9286902d9fb669eff902227616937afad8c9e036
Author: Hitesh Choudhary <>
Date: Tue Aug 21 13:10:47 2018 +0530

Intial commit
Hiteshs-iMac:03revert studio$ git reset 9286902d9fb669
Unstaged changes after reset:
M myfunction.txt
Hiteshs-iMac:03revert studio$ 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 direct*

    modified:   myfunction.txt

no changes added to commit (use "git add" and/or "git commit -a")
Hiteshs-iMac:03revert studio$
```

09:17



Terminal Shell Edit View Window Help

Edit: deck x

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

```
Hiteshs-iMac:03revert studio$ 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:   myfunction.txt

no changes added to commit (use "git add" and/or "git commit -a")
Hiteshs-iMac:03revert studio$
```

09:28

Neuron

Terminal Shell Edit View Window Help

Edit: deck x

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

```
Hiteshs-iMac:03revert studio$ 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:   myfunction.txt

no changes added to commit (use "git add" and/or "git commit -a")
Hiteshs-iMac:03revert studio$ git add .
Hiteshs-iMac:03revert studio$
```

09:33

Neuron

Terminal Shell Edit View Window Help

Edit: deck x

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

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: myfunction.txt

no changes added to commit (use "git add" and/or "git commit -a")
Hiteshs-iMac:03revert studio\$ git add .
Hiteshs-iMac:03revert studio\$ git stat
git: 'stat' is not a git command. See 'git --help'.

The most similar commands are
status
stage
stash
Hiteshs-iMac:03revert studio\$ git status
On branch master
Changes to be committed:
(use "git reset HEAD <file>..." to unstage)

modified: myfunction.txt

Hiteshs-iMac:03revert studio\$

03revert -- bash -- 80x24

09:40

Neuron

Terminal Shell Edit View Window Help

Edit: deck x

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

modified: myfunction.txt

no changes added to commit (use "git add" and/or "git commit -a")
Hiteshs-iMac:03revert studio\$ git add .
Hiteshs-iMac:03revert studio\$ git stat
git: 'stat' is not a git command. See 'git --help'.

The most similar commands are
status
stage
stash
Hiteshs-iMac:03revert studio\$ git status
On branch master
Changes to be committed:
(use "git reset HEAD <file>..." to unstage)

modified: myfunction.txt

Hiteshs-iMac:03revert studio\$ git add .
Hiteshs-iMac:03revert studio\$ git commit -m "reset"
[master b151a50] reset
1 file changed, 5 insertions(+), 1 deletion(-)
Hiteshs-iMac:03revert studio\$ git commit -m "reset"

03revert -- bash -- 80x24

09:55

Neuron

Terminal Shell Edit View Window Help

Edit: deck x

Slides, Inc. [US] | <https://slides.com/hiteshchoudhary/git/edit>

Hiteshs-iMac:03revert studio\$ git status

On branch master

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: myfunction.txt

Hiteshs-iMac:03revert studio\$ git add .

Hiteshs-iMac:03revert studio\$ git commit -m "reset"

[master b151a50] reset

1 file changed, 5 insertions(+), 1 deletion(-)

Hiteshs-iMac:03revert studio\$ git log

commit b151a50d2a3b4cab7f128aa64e276680b8b51989 (HEAD -> master)

Author: Hitesh Choudhary <>

Date: Tue Aug 21 15:59:55 2018 +0530

reset

commit 9286902d9fb669eff902227616937afad8c9e036

Author: Hitesh Choudhary <>

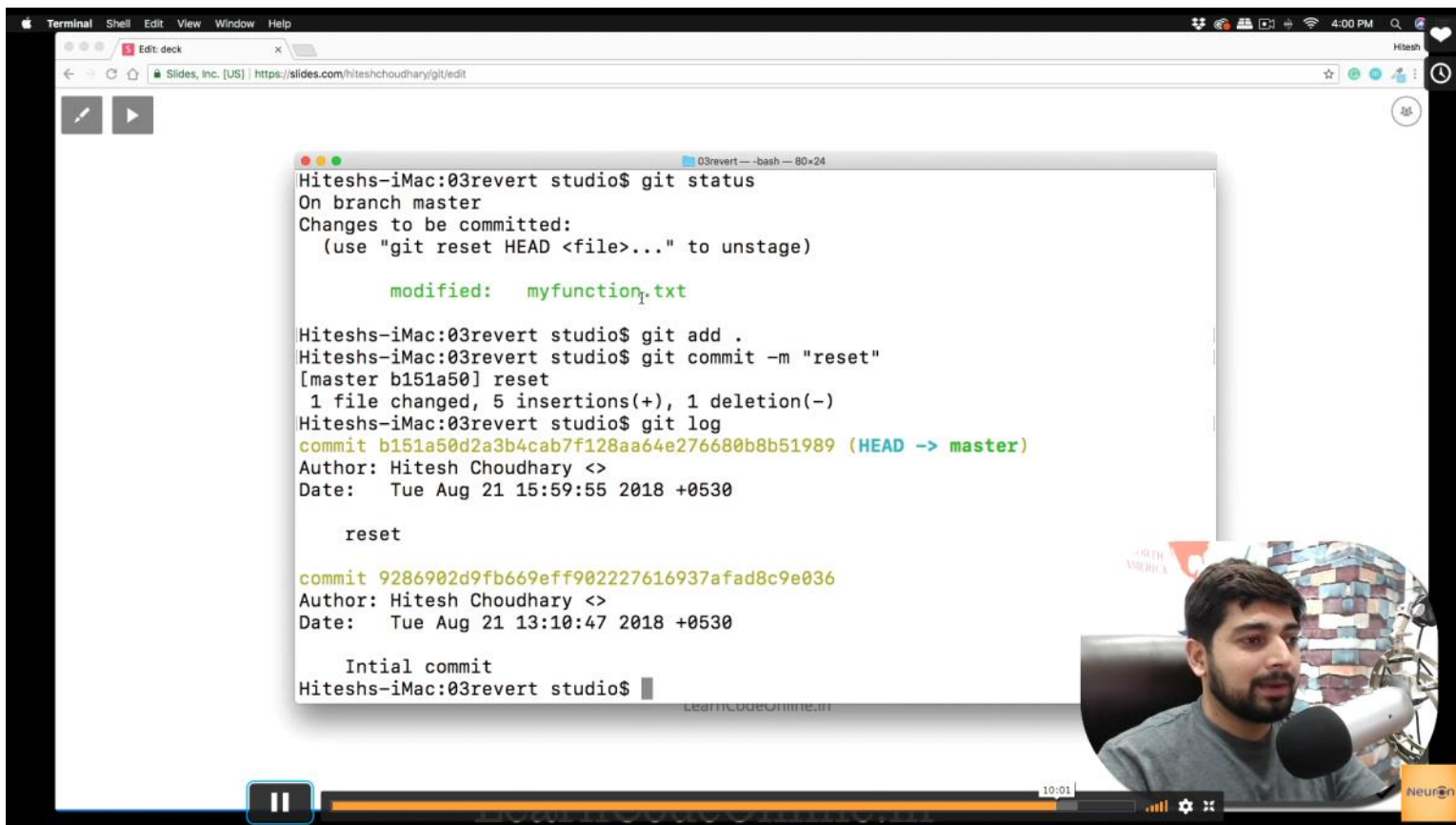
Date: Tue Aug 21 13:10:47 2018 +0530

Intial commit

Hiteshs-iMac:03revert studio\$

10:01

Neuron

The image shows a video player interface. The main content is a terminal window with a black background and white text. The terminal shows a series of Git commands and their outputs. The commands include 'git status', 'git add .', 'git commit -m "reset"', and 'git log'. The outputs show the current branch (master), changes to be committed (myfunction.txt), and the commit history. A small inset video in the bottom right corner shows a man with a beard and dark hair, wearing a grey shirt, speaking into a microphone. The video player has a progress bar at the bottom with a play button icon on the left and a '10:01' timestamp on the right. The 'Neuron' logo is visible in the bottom right corner of the video player.

Git merge master

Monday, March 21, 2022 3:44 PM

How to update master changes to the branch

Git checkout master

Git pull

Git checkout 'branch'

Git merge master