

AGENDA

Today we will learn:

- What is git reset
- reset VS checkout
- git reset --soft
- git reset --mixed
- git reset --hard
- git reset to specific commit
- git reset few commits back
- git fetch --all and git reset origin branch
- Practical exercise



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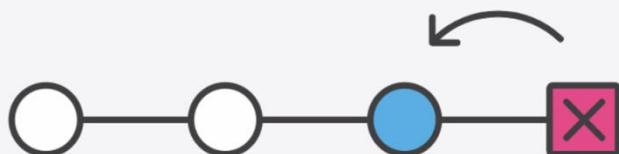


When to use git reset?

WHEN TO USE RESET

SOME OF THE CASES

- Undo last changes
- Change commit history
- Restore state of the remote branch
- Restore state of the branch after unsuccessful rebase



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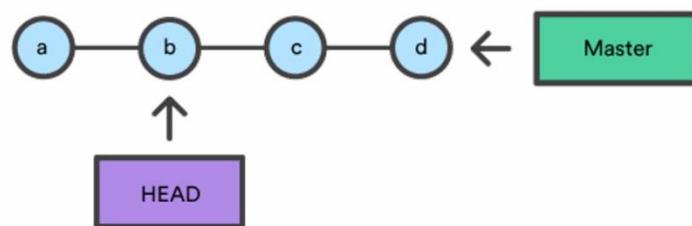


git checkout VS git rebase

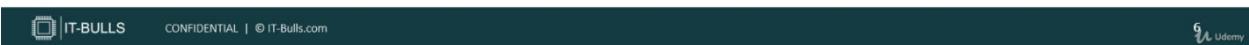
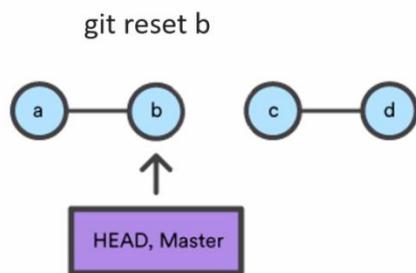


git checkout VS git rebase

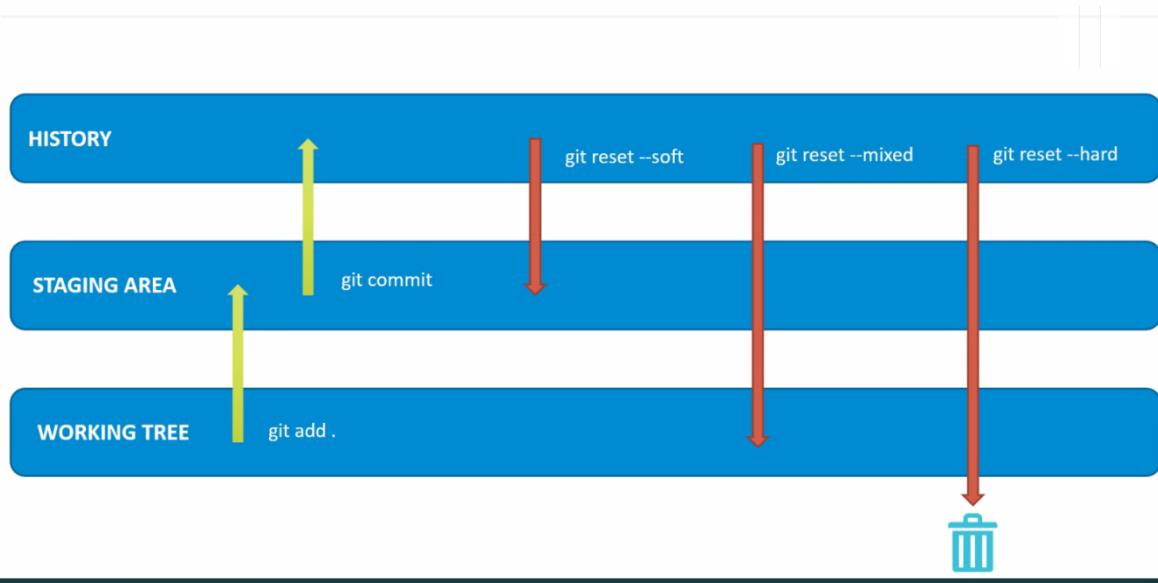
git checkout b



git checkout VS git rebase



reset soft VS mixed VS hard



```
MINGW64/c/Users/Andrii_Piatakha/Desktop/Lern IT - Git/src
Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git log -3
commit 82db11923d82840adb0cbeec04ca4b59449ab3f0 (HEAD -> master)
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Sun Oct 25 22:58:03 2020 +0200

    html file was created for the sake of the demo during merge conflicts lesson

commit 7675198b865f6685fc1b20bb1b3c9324782d6cc4
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Sat Oct 24 20:52:31 2020 +0300

    Cart Management is implemented

commit e71a5b032ab1d7399257908ace1f04483fbafc44
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Sat Oct 24 20:57:07 2020 +0300

    Stock Management is implemented

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git reset --soft e71a5b|
```

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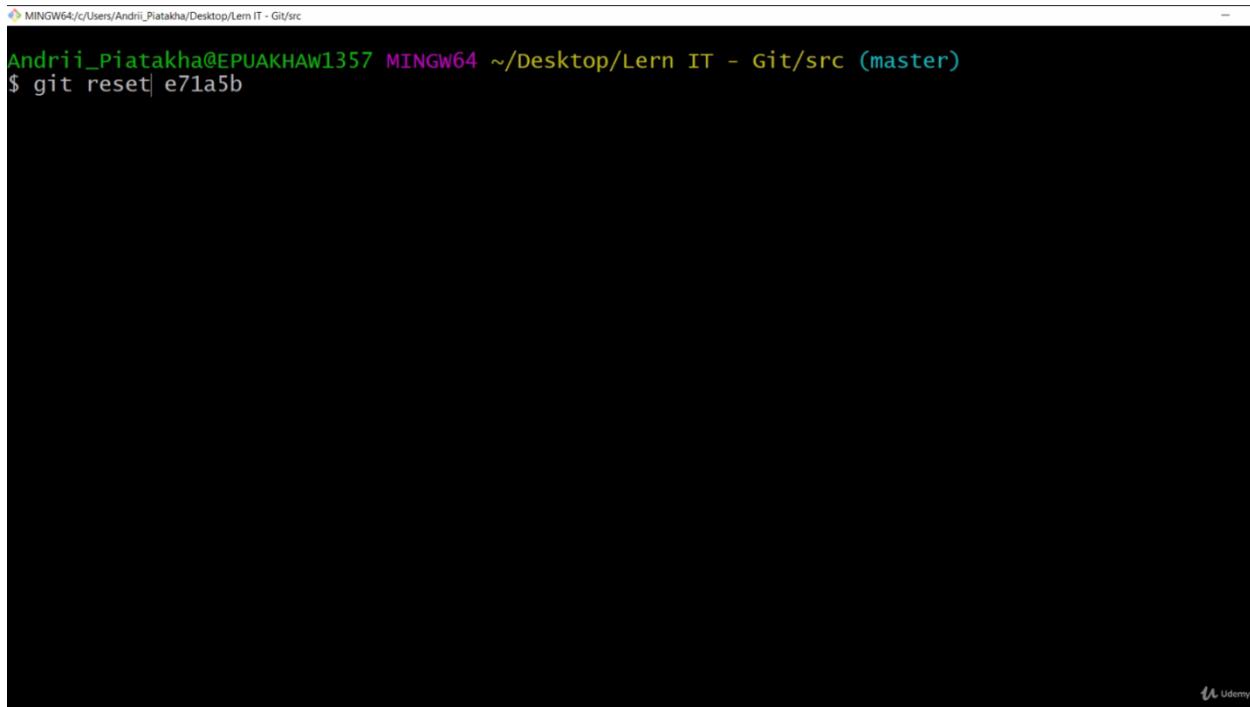
type starting few letters and press tab to auto complete the commit id. Commit changes after going to a specific commit to move back to original position.

```
MINGW64/c/Users/Andrii_Piatakha/Desktop/Lern IT - Git/src
Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git commit -m "cart management and home html"
[master 48000e5] cart management and home html
 2 files changed, 6 insertions(+)
  create mode 100644 src/cart/CartManagementService.java
  create mode 100644 src/webcontent/home.html

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ |
```

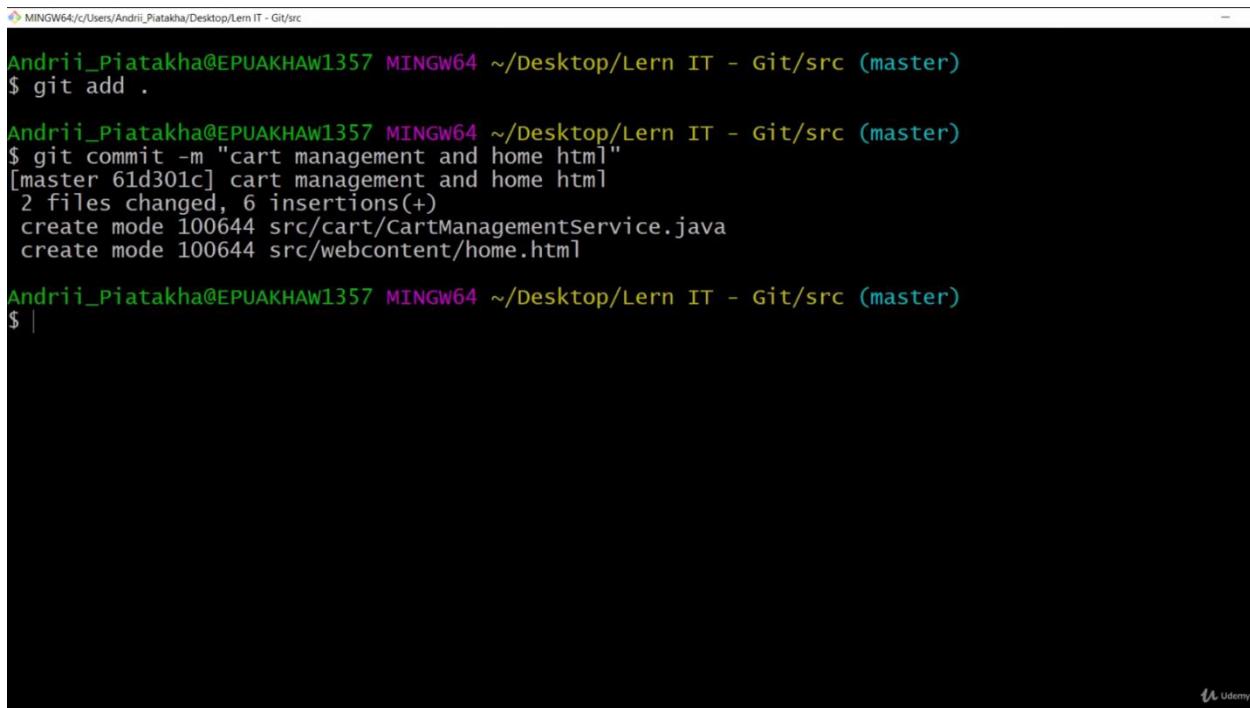
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By default “reset” will automatically add --mixed



```
MINGW64/c/Users/Andrii_Piatakha/Desktop/Lern IT - Git/src
Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git reset e71a5b
```

To return to original position



```
MINGW64/c/Users/Andrii_Piatakha/Desktop/Lern IT - Git/src
Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git add .

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git commit -m "cart management and home html"
[master 61d301c] cart management and home html
 2 files changed, 6 insertions(+)
 create mode 100644 src/cart/CartManagementService.java
 create mode 100644 src/webcontent/home.html

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ |
```

```
MINGW64:/c/Users/Andrii_Piatakha/Desktop/Lern IT - Git/src (master)
$ git log -3
commit 61d301c97cc386c394e6dd09e874b5e2bbd5bde3 (HEAD -> master)
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Sat Oct 31 15:58:29 2020 +0200

    cart management and home html

commit e71a5b032ab1d7399257908ace1f04483fbafc44
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Sat Oct 24 20:57:07 2020 +0300

    Stock Management is implemented

commit 26726f01ded652ebd220b7568be85dbb7c0545ed
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Wed Oct 21 01:05:55 2020 +0300

    spaces are added to the HelloWorld file

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git reset --hard 26726f
```

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```
Spaces are added to the HelloWorld file

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git reset --hard 26726f
HEAD is now at 26726f0 Spaces are added to the HelloWorld file

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git log -3
commit 26726f01ded652ebd220b7568be85dbb7c0545ed (HEAD -> master)
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   wed Oct 21 01:05:55 2020 +0300

    Spaces are added to the HelloWorld file

commit 8ab419ae9c98853b48b1df5aee120367b2ec9007
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Sun Oct 18 20:28:14 2020 +0300

    Personal discount for user can be calculated

commit 979f1caaa4a955127e17f5d52c1c4dc3961e6ac7 (new_branch)
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   wed Oct 14 22:45:46 2020 +0300

    test SSH connection

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
```

Udemy

```
MINGW64/c/Users/Andrii_Piatakha/Desktop/Lern IT - Git/src
$ git log -3
commit 26726f01ded652ebd220b7568be85dbb7c0545ed (HEAD -> master)
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Wed Oct 21 01:05:55 2020 +0300

    Spaces are added to the HelloWorld file

commit 8ab419ae9c98853b48b1df5aee120367b2ec9007
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Sun Oct 18 20:28:14 2020 +0300

    Personal discount for user can be calculated

commit 979f1caaa4a955127e17f5d52c1c4dc3961e6ac7 (new_branch)
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Wed Oct 14 22:45:46 2020 +0300

    test SSH connection

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git status
On branch master
Your branch is behind 'origin/master' by 4 commits, and can be fast-forwarded.
  (use "git pull" to update your local branch)

nothing to commit, working tree clean
```

```
MINGW64/c/Users/Andrii_Piatakha/Desktop/Lern IT - Git/src
Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ ls -l
total 1
-rw-r--r-- 1 Andrii_Piatakha 1049089 0 Oct 30 19:34 DiscountCalculationService.java
-rw-r--r-- 1 Andrii_Piatakha 1049089 176 Oct 30 19:34 HelloWorld.java
```

we see other files in folders are removed

Another method of giving reset command

```
MINGW64/c/Users/Andrii_Piatakha/Desktop/Lern IT - Git/src (master)
$ ls -l
total 1
-rw-r--r-- 1 Andrii_Piatakha 1049089 0 Oct 30 19:34 DiscountCalculationService.java
-rw-r--r-- 1 Andrii_Piatakha 1049089 176 Oct 30 19:34 HelloWorld.java

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git reset --hard HEAD~3
HEAD is now at 720fd02 vi editor test - Added .gitignore and removed bin/ from staging

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$
```

Udemy

```
-rw-r--r-- 1 Andrii_Piatakha 1049089 0 Oct 30 19:34 DiscountCalculationService.java
-rw-r--r-- 1 Andrii_Piatakha 1049089 176 Oct 30 19:34 HelloWorld.java

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git reset --hard HEAD~3
HEAD is now at 720fd02 vi editor test - Added .gitignore and removed bin/ from staging

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git log -3
commit 720fd02cd628098e573caeb70a7bcab9d21d4f4c (HEAD -> master)
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Thu Oct 8 00:02:46 2020 +0300

    vi editor test - Added .gitignore and removed bin/ from staging

commit 06d1bd2f4fc4cddd78fc0e217fc18955b71c7ab
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Mon Oct 5 19:14:06 2020 +0300

    new changes

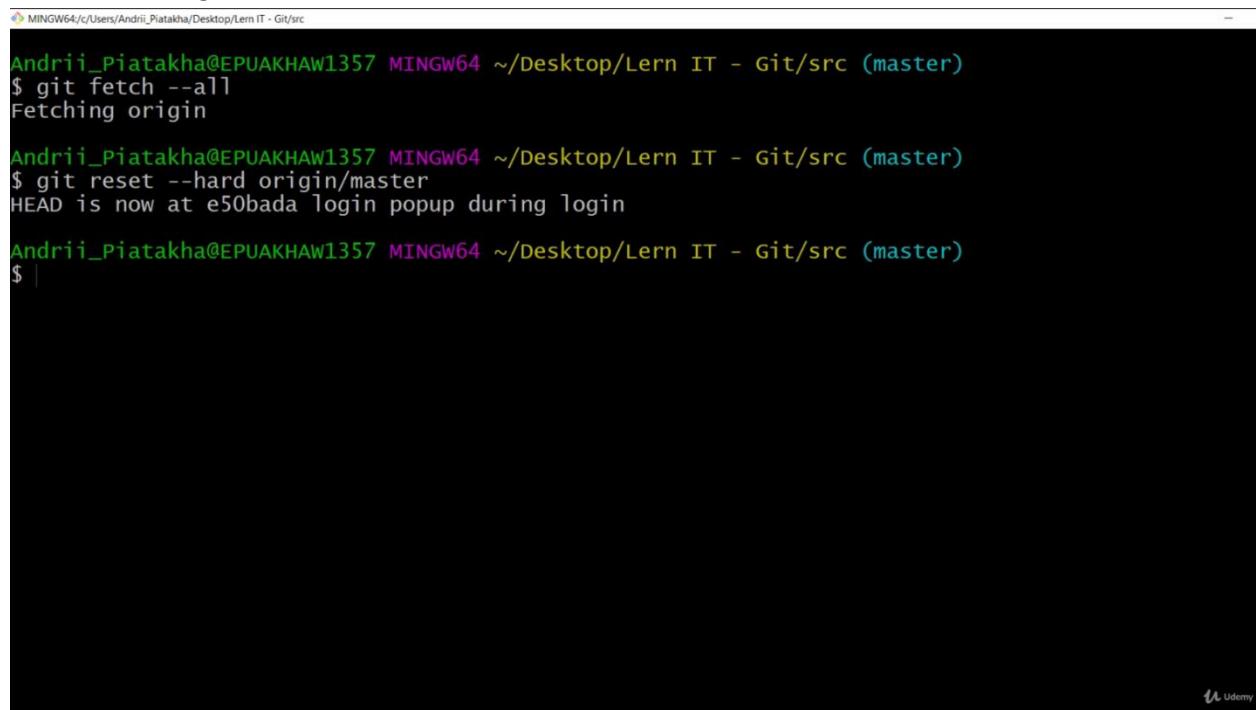
commit 381f9817eec49c390a2ee81e5e6b00391570a423
Author: Andrii Piatakha <andrii.piatakha@example.com>
Date:   Mon Oct 5 19:12:20 2020 +0300

    init commit

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ |
```

Udemy

Take back all original files form remote



```
MINGW64/c/Users/Andrii_Piatakha/Desktop/Lern IT - Git/src (master)
$ git fetch --all
Fetching origin

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ git reset --hard origin/master
HEAD is now at e50bada login popup during login

Andrii_Piatakha@EPUAKHAW1357 MINGW64 ~/Desktop/Lern IT - Git/src (master)
$ |
```