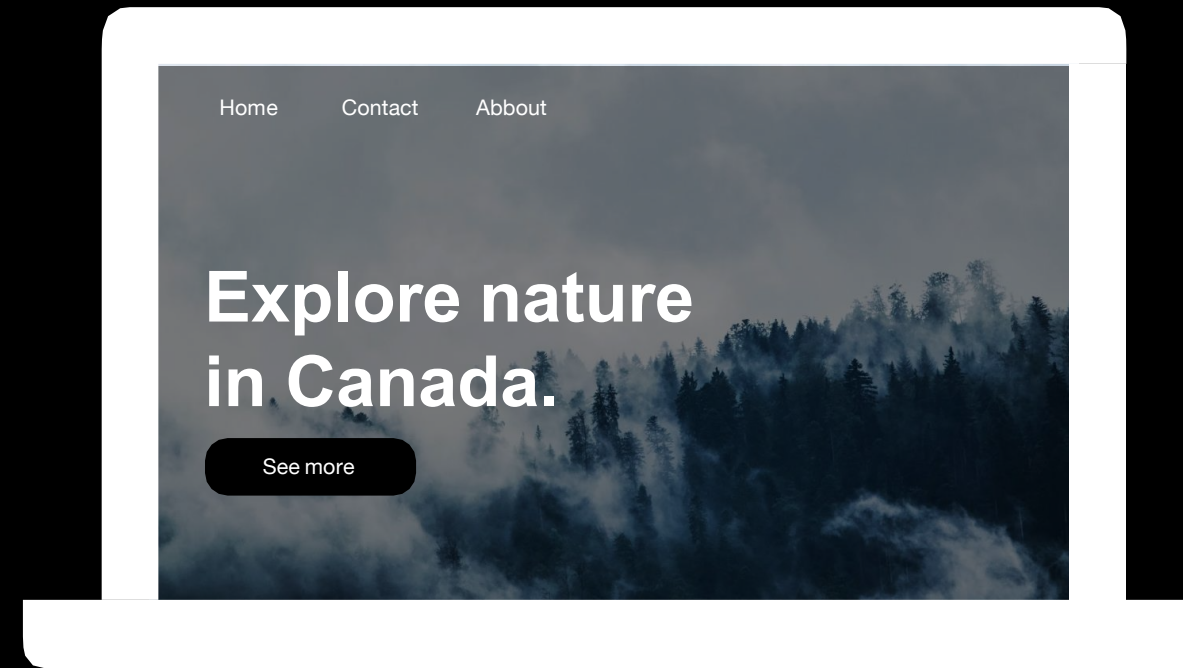




Git



www.mywebsite.com

Home Contact About

Explore nature
in Canada.

See more

local

Home Contact About

Explore nature
in Canada.

See more



www.mywebsite.com

Home Contact About

Explore nature
in Canada.

See more

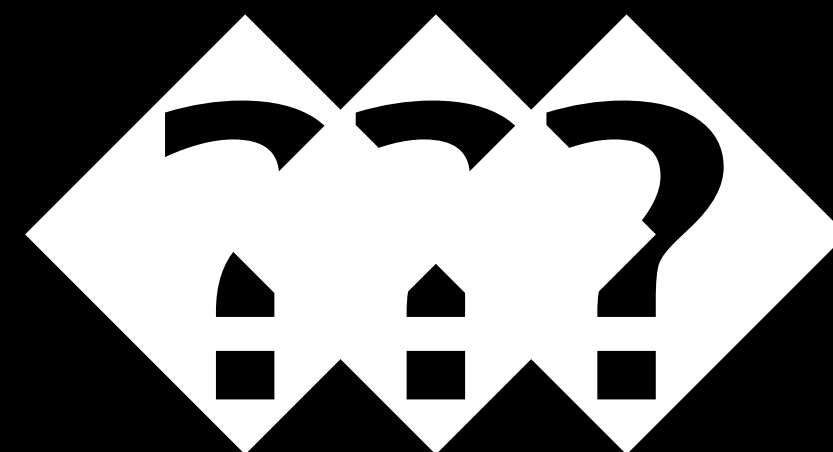
local

Home Contact About

Explore nature
in Canada.

Visit Canada's lakes and mountains.

See more



www.mywebsite.com

Home Contact **About**

Explore nature
in Canada.

See more

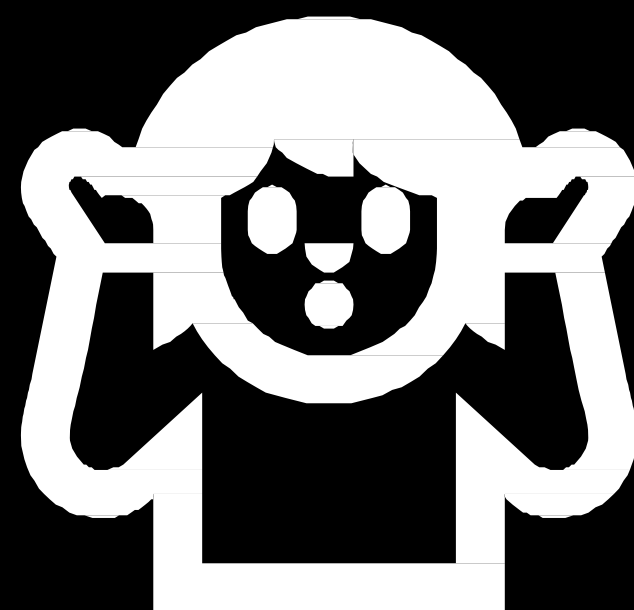
local

Home Contact About

Explore nature
in Canada.

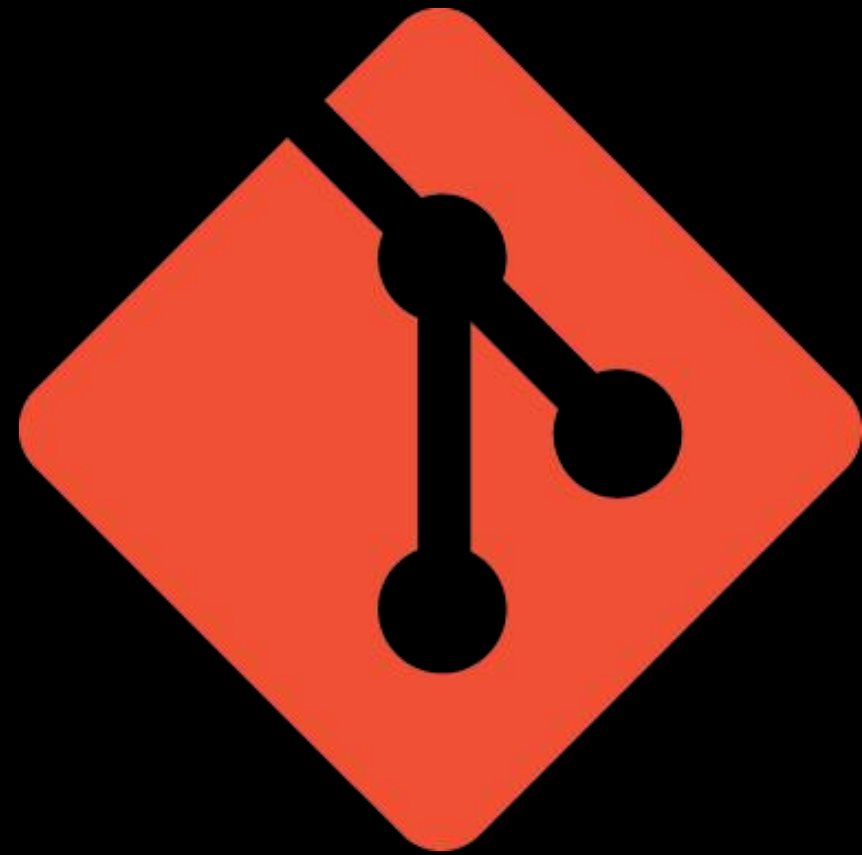
Visit Canada's lakes and mountains.

See more





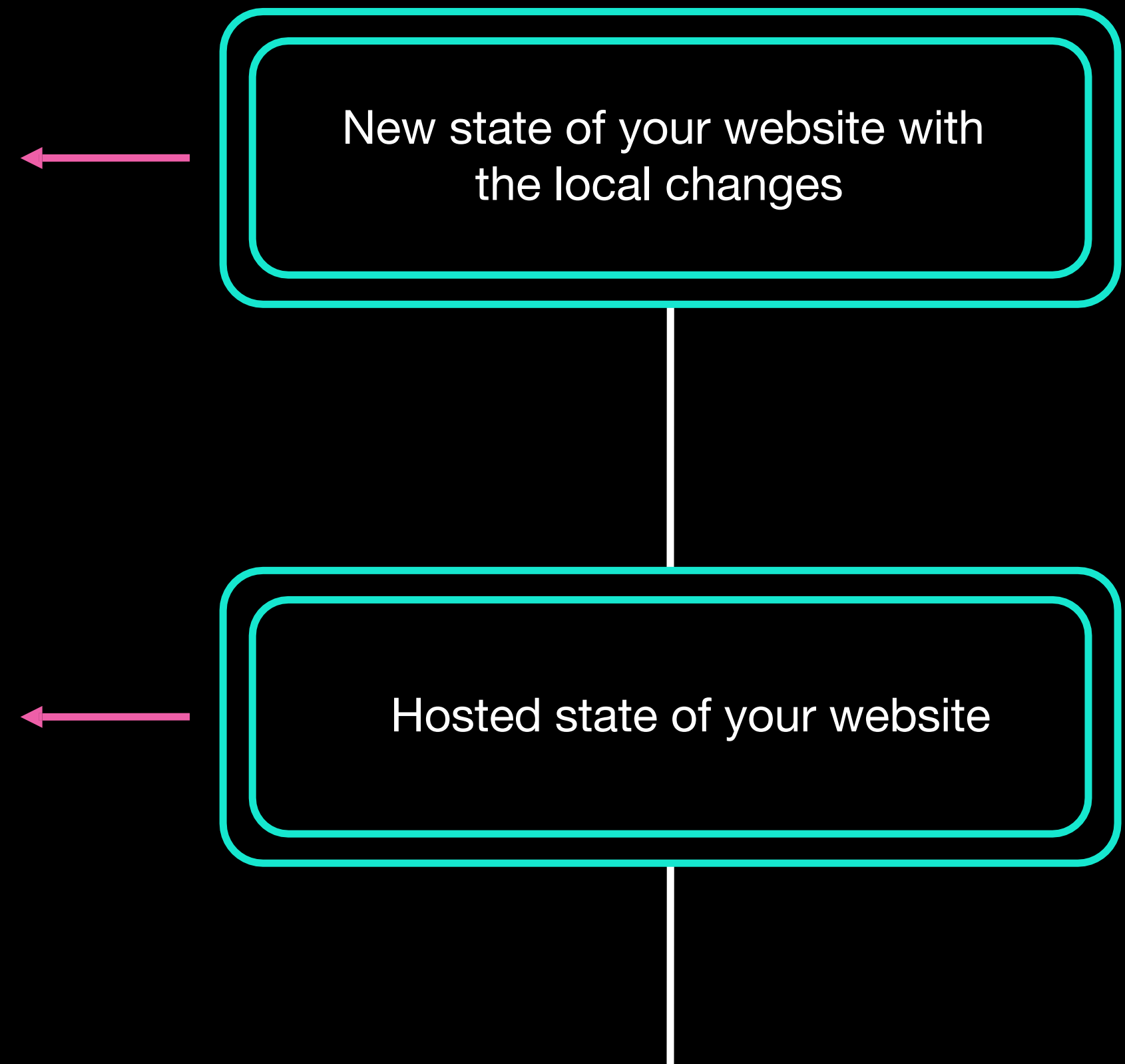
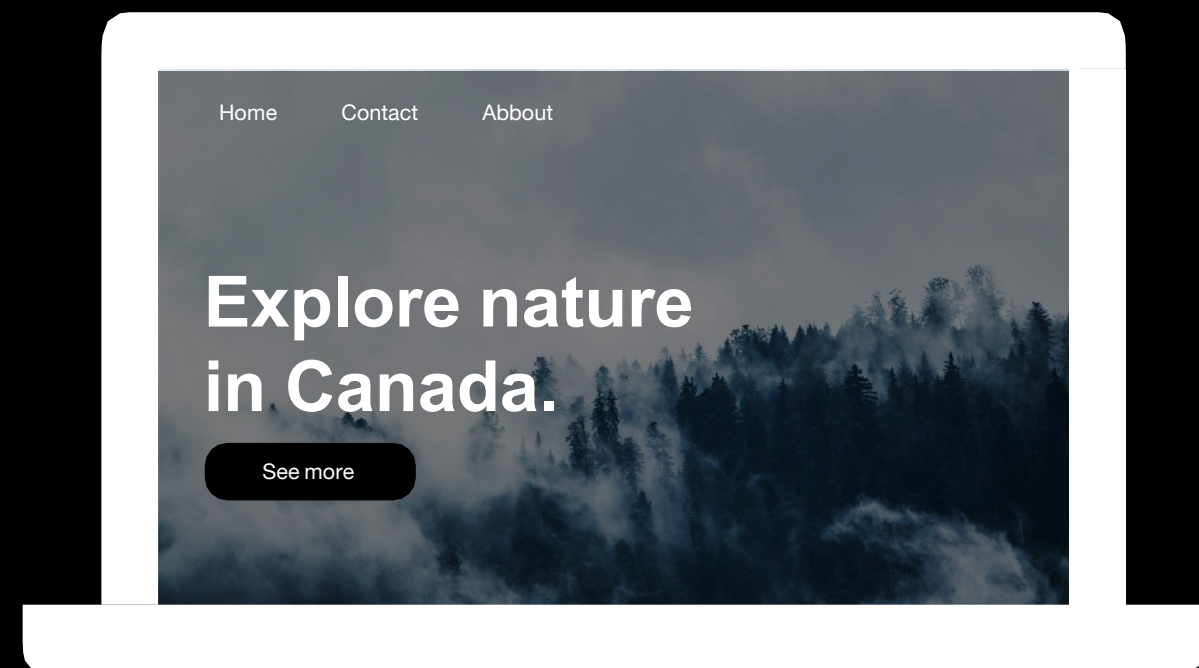
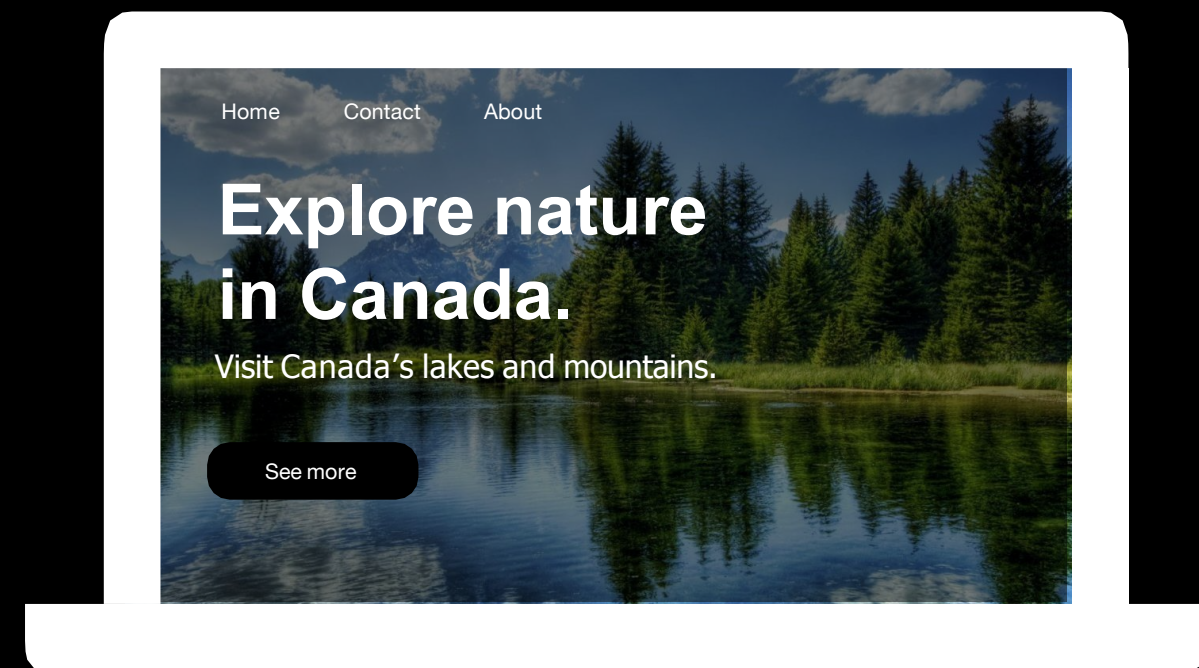
Git

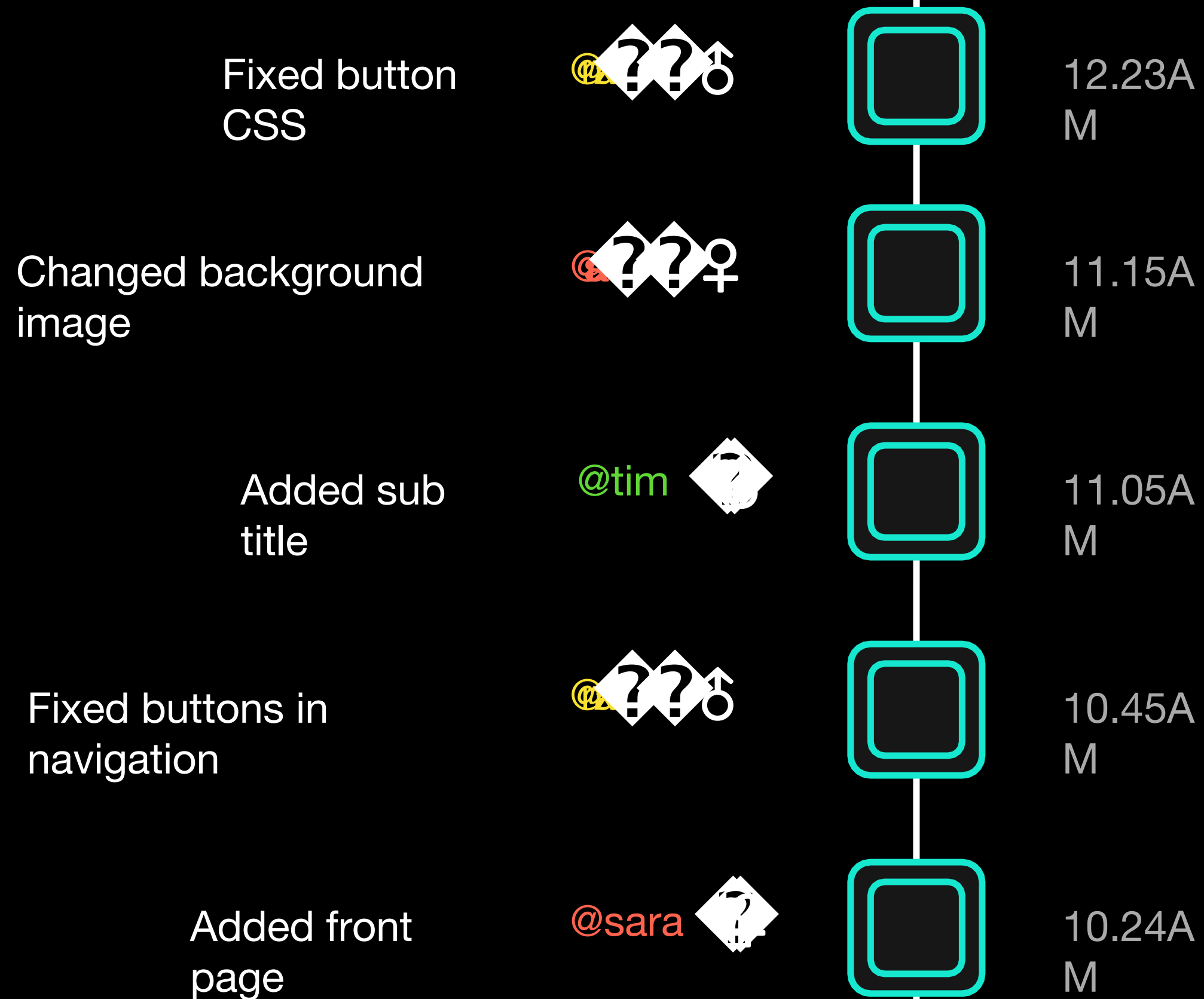


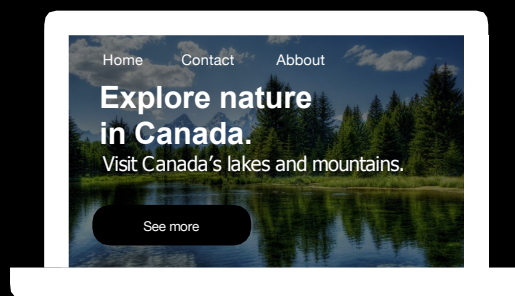
Git

Content tracker

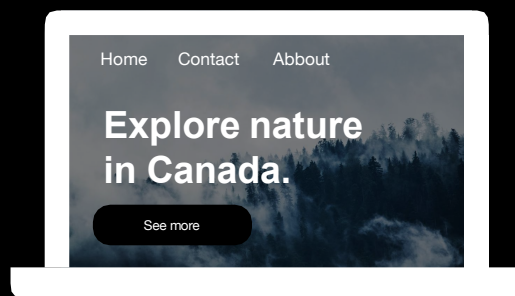
Distributed Version Control System



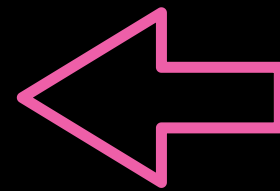


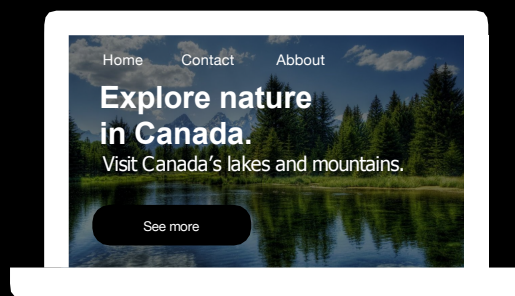


Change
background

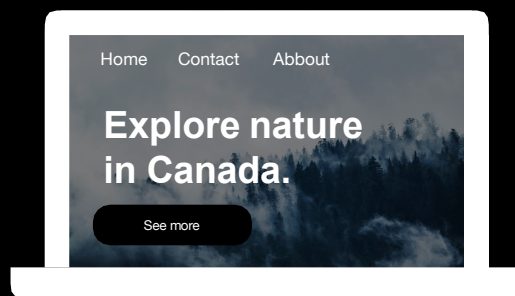


Added front page

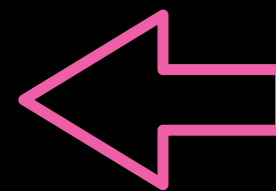


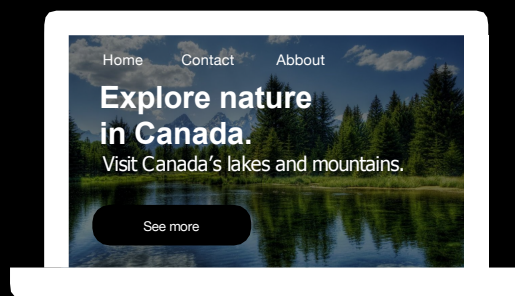


Change
background

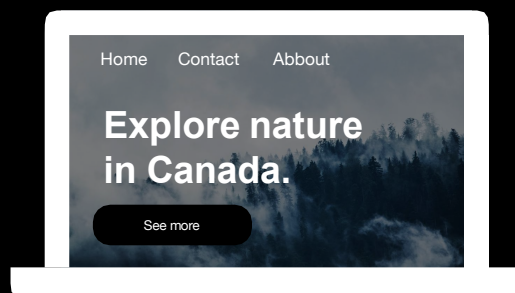


Added front page

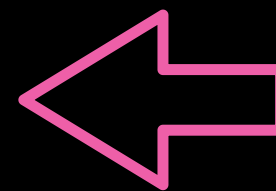




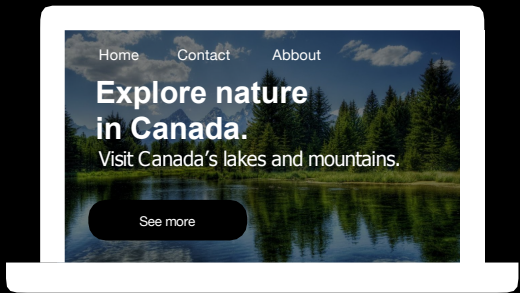
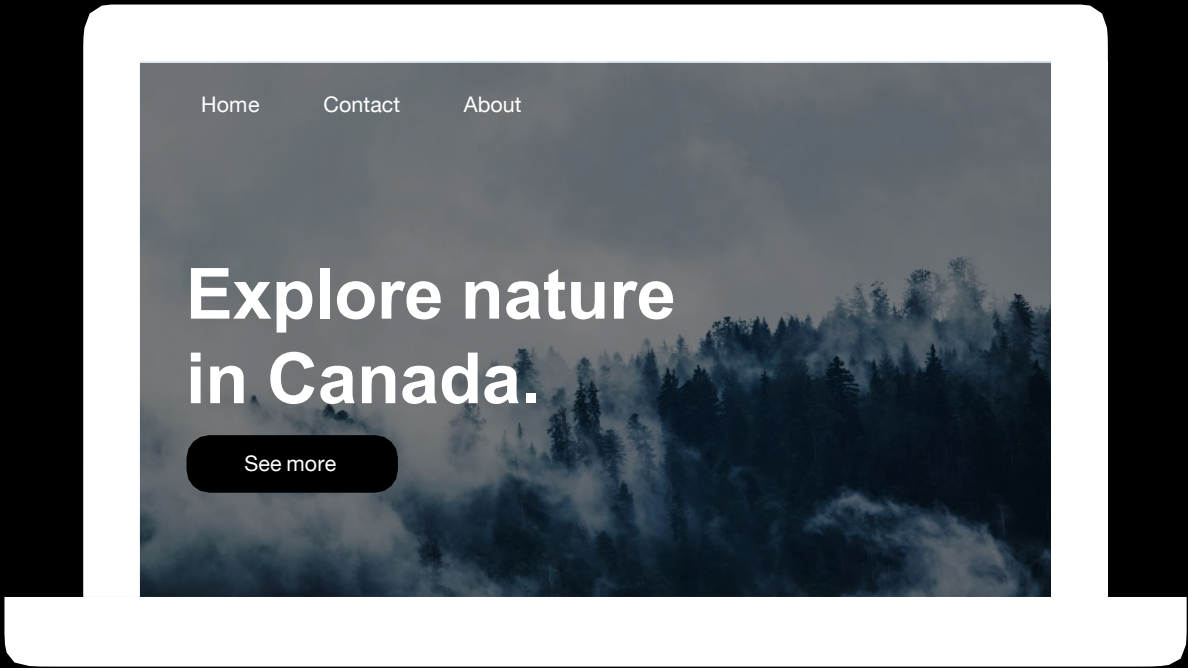
Change
background



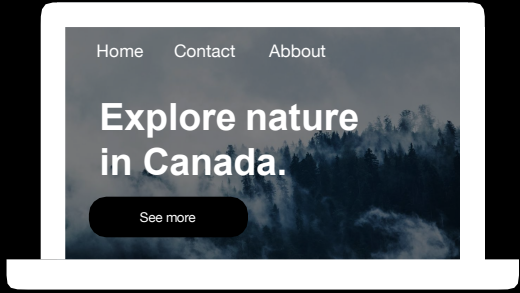
Added front page



www.mywebsite.com



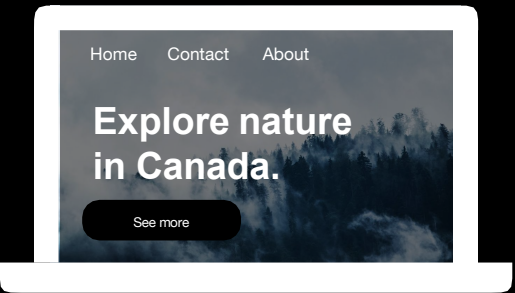
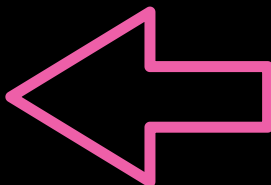
Change background



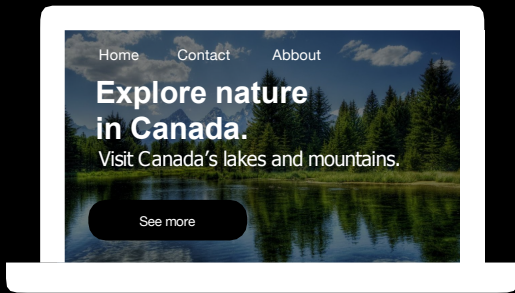
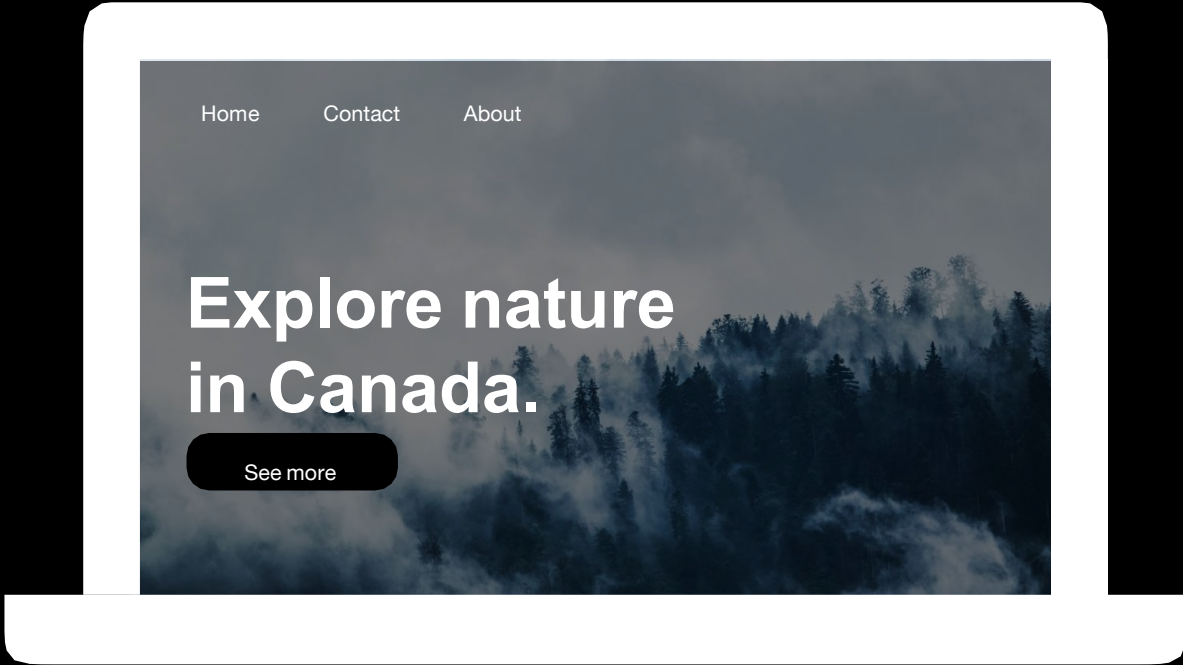
Added front page



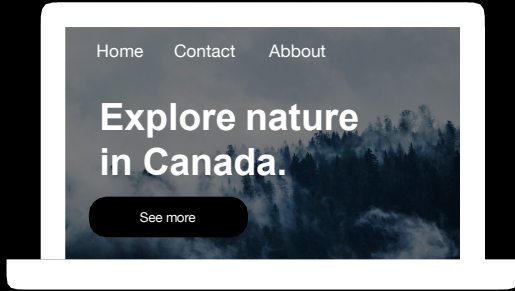
Fixed button typo



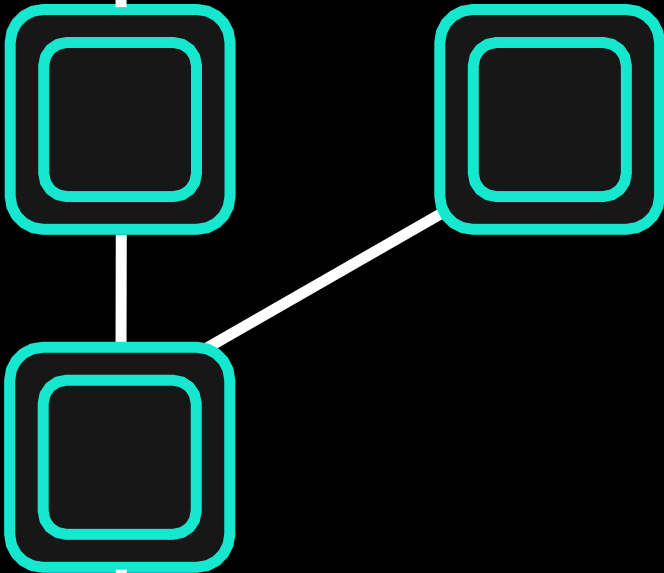
www.mywebsite.com



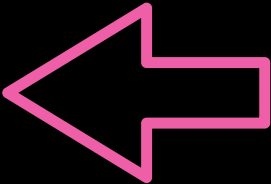
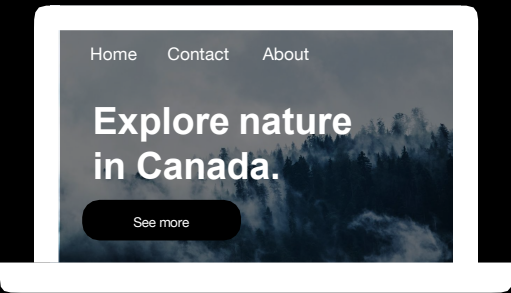
Change background



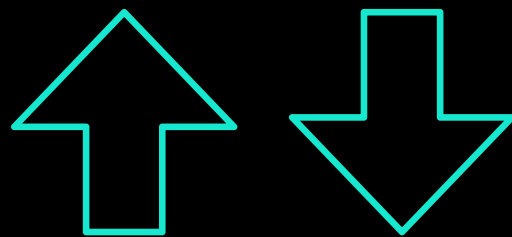
Added front page



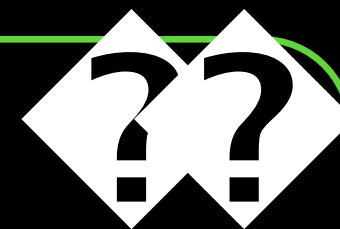
Fixed button typo



Remote Repository

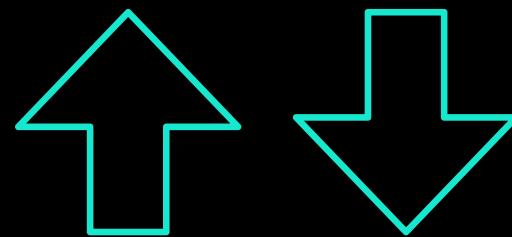


Local Repository



Remote Repository

```
<html>
<body>
  <h1>My
  Website!</h1>
</body>
</html>
```

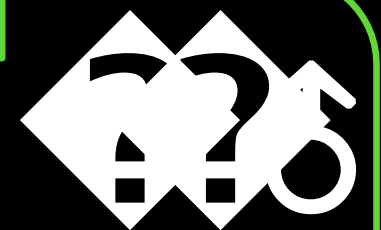


Local Repository

```
<html>
<body>
  <h1>My
  Website!</h1>
</body>
</html>
```

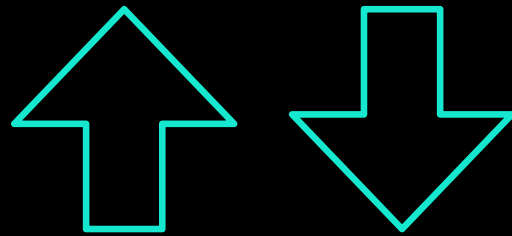


Local Repository



Remote Repository

```
<html>
<body>
  <h1>My
  Website!</h1>
</body>
</html>
```



Local Repository

```
<html>
<body>
  <h1>My
  Website!</h1>
</body>
</html>
```



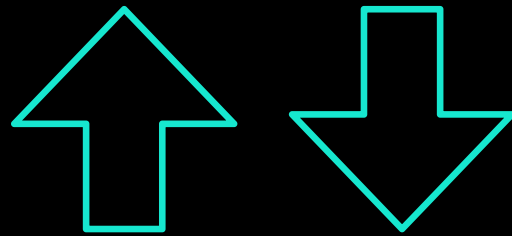
Local Repository

```
<html>
<body>
  <h1>My Website 123!</h1>
  <p>This is some more
  text!</p>
</body>
</html>
```



Remote Repository

```
<html>
<body>
  <h1>My Website!</h1>
  <p>This is some more
  text!</p>
</body>
</html>
```



Local Repository

```
<html>
<body>
  <h1>My
  Website!</h1>
</body>
</html>
```



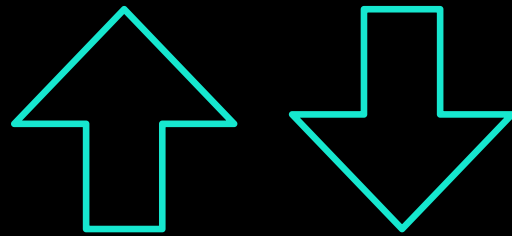
Local Repository

```
<html>
<body>
  <h1>My Website!</h1>
  <p>This is some more
  text!</p>
</body>
</html>
```



Remote Repository

```
<html>
<body>
  <h1>My Website!</h1>
  <p>This is some more
  text!</p>
</body>
</html>
```



Local Repository

```
<html>
<body>
  <h1>My
  Website!</h1>
  <p>This is some
  more text!</p>
</body>
</html>
```



Local Repository

```
<html>
<body>
  <h1>My Website!</h1>
  <p>This is some more
  text!</p>
</body>
</html>
```



Local Repository

```
graph TD; subgraph Local_Repository [Local Repository]; Working_Area[Working Area]; Staging_Area[Staging Area]; Committed_Files[Committed Files]; end
```

The diagram illustrates the structure of a Local Repository. It is represented by a large rounded rectangle with a red border. At the top center of this rectangle is a smaller rectangle with a black background and white text labeled "Local Repository". Below this, the repository is divided into three distinct areas, each in a rounded rectangle with a colored border: a blue-bordered "Working Area" on the left, an orange-bordered "Staging Area" in the center, and a green-bordered "Committed Files" area on the right.

Working
Area

Staging
Area

Committed
Files

Fixed button
CSS



commit

Changed background
image



commit

Added sub
title



commit

Fixed buttons in
navigation



commit

Added front
page



commit

Local Repository

```
graph TD; subgraph Local_Repository [Local Repository]; Working_Area[Working Area]; Staging_Area[Staging Area]; Committed_Files[Committed Files]; end; Working_Area --- Staging_Area; Staging_Area --- Committed_Files; Working_Area --- story1_txt[story1.txt]; Working_Area --- story2_txt[story2.txt];
```

The diagram illustrates the structure of a Local Repository. It is divided into three main sections: Working Area, Staging Area, and Committed Files. The Working Area contains two files: story1.txt and story2.txt. The Staging Area is currently empty. The Committed Files section is also empty. The entire structure is enclosed in a rounded rectangle with a green border.

Working
Area

story2.txt

story1.txt

Staging
Area

Committed
Files



Initialize Git Repo



bash

```
$ git init
```

```
Initialized empty Git repository in  
/myproject/.git/
```



bash

\$ ls -a

. .. .git



bash

```
$ touch story1.txt
```

```
$ echo "This is a beautiful story" >>  
story1.txt
```



bash

```
$ git status
```

```
On branch master
```

```

No commits yet Untracked files:
  story1.txt
```

```
nothing added to commit but untracked files present
```


bash

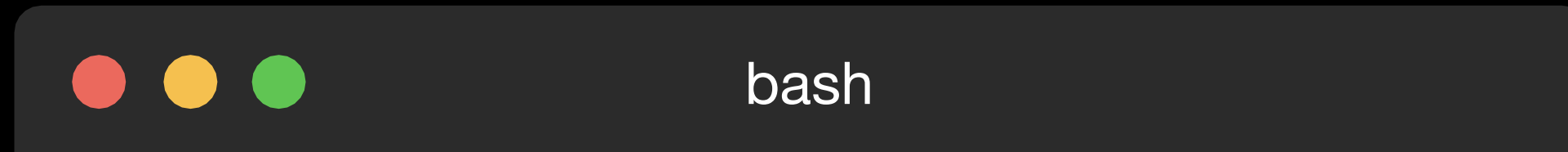
\$

Working Area

Staging Area

Committed Files

story1.txt



```
$ git add story1.txt
```

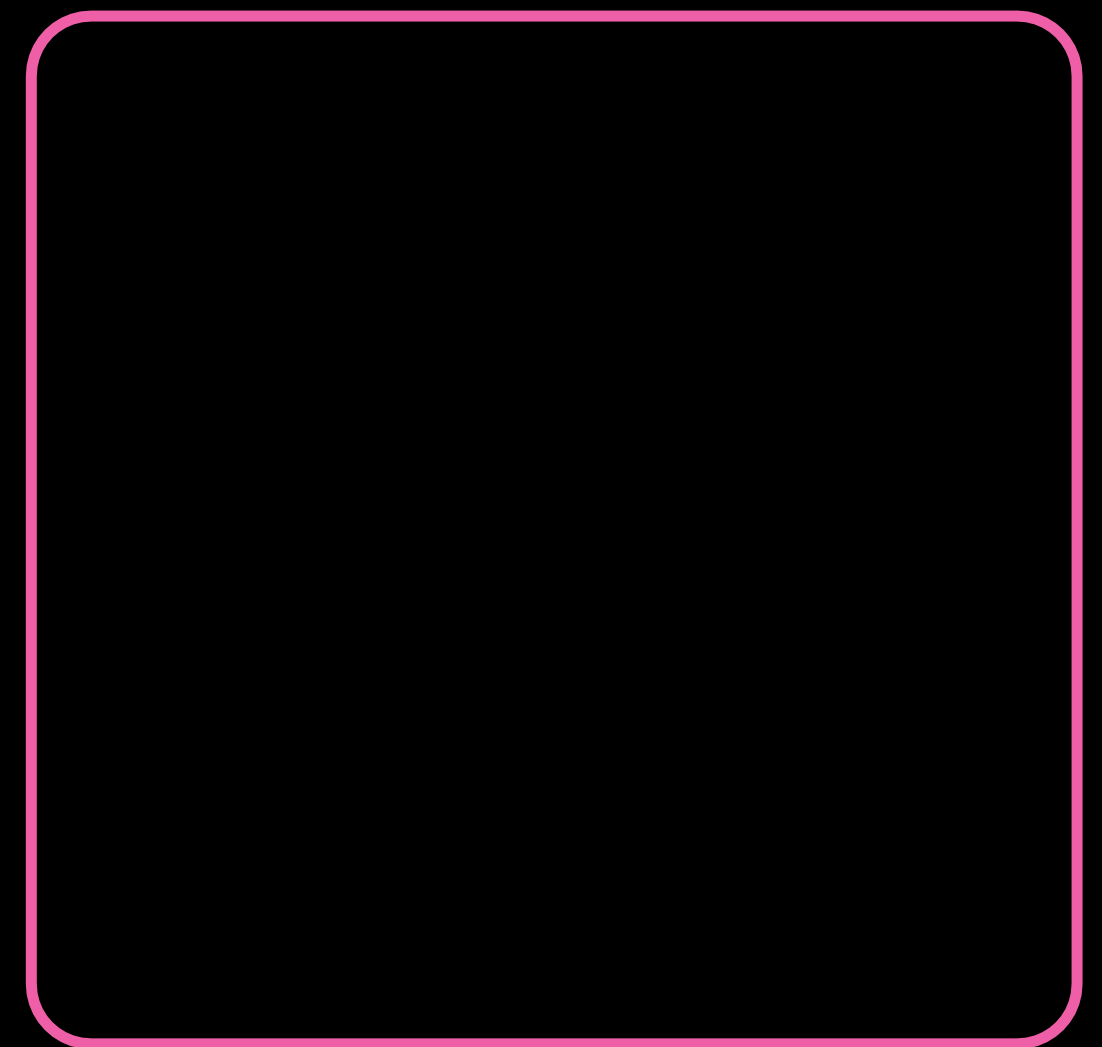
Working Area

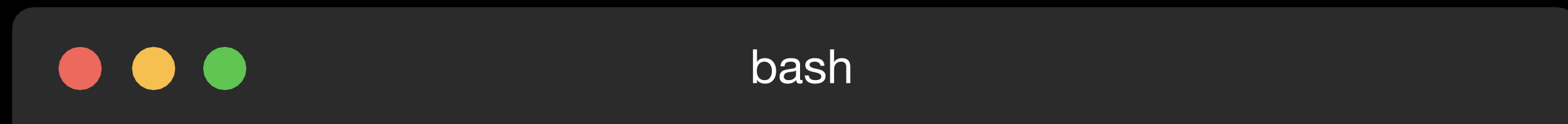


Staging Area



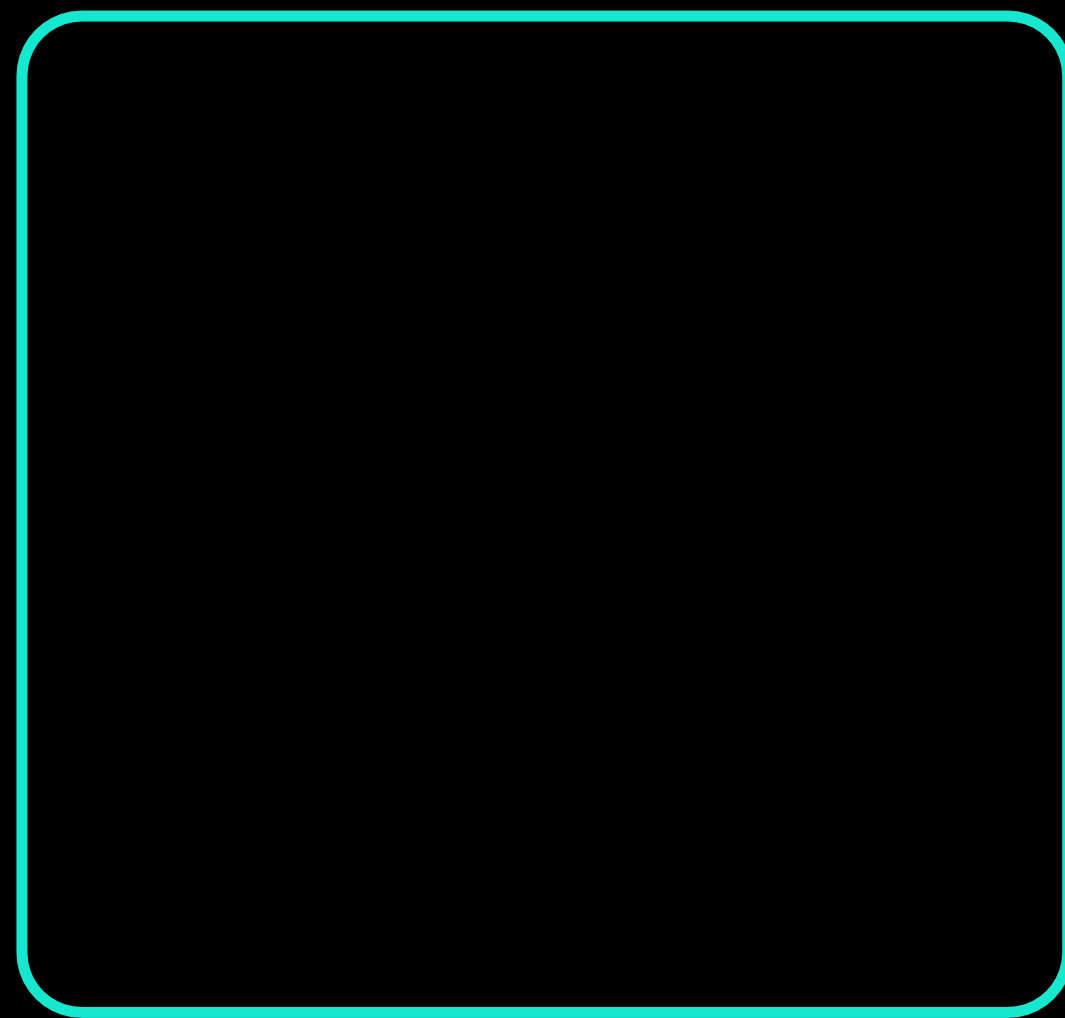
Committed Files





```
$ git commit -m "Added first story"
```

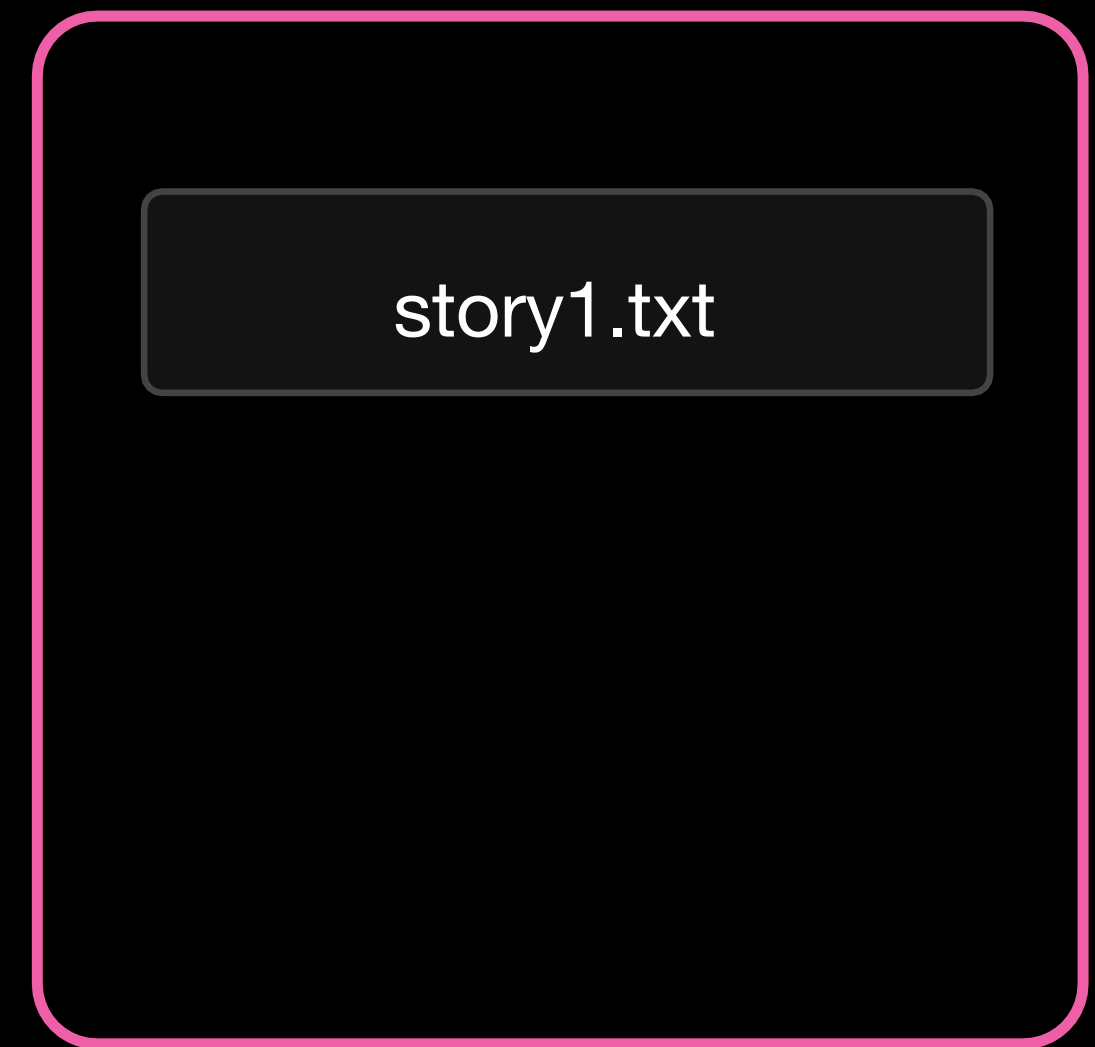
Working Area



Staging Area



Committed Files



Added first story@me





Git log



bash

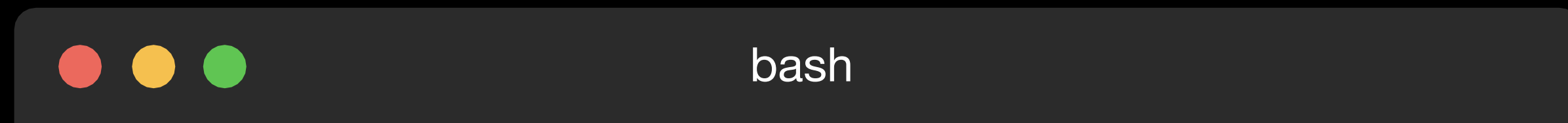
```
$ git log
```

```
commit 67c833e3...ecb7df62f (HEAD -> master)
```

```
Author: John Doe <john@doe>
```

```
Date: Sun Jun 14 14:45:07 2020 -0700
```

```
    Added first story
```



```
$ git log --oneline
```

```
67c833e (HEAD -> master) Added first story
```



Initializing a remote repo



GitHub



GitLab



Bitbucket



GitHub



GitLab



Bitbucket

Connection String

`https://.../.../[name].git`



bash

```
$ git remote add origin https://.../.../[name].git
```

Local Repository

```
graph TD; subgraph Local_Repository [Local Repository]; Working_Area[Working Area]; Staging_Area[Staging Area]; Committed_Files[Committed Files]; end
```

The diagram illustrates the structure of a Local Repository. It is represented by a large rounded rectangle with a green border. At the top center of this rectangle is a smaller, dark gray rectangle with a green border containing the text "Local Repository". Below this, the main area is divided into three distinct sections, each represented by a rounded rectangle with a colored border. From left to right, these are: a cyan-bordered rectangle labeled "Working Area", an orange-bordered rectangle labeled "Staging Area", and a pink-bordered rectangle labeled "Committed Files". All text is in a white, sans-serif font.

Working
Area

Staging
Area

Committed
Files

Remote Repository

`https://.../.../[name].git`

Local Repository

Working
Area

Staging
Area

Committed
Files



bash

```
$ git remote -v
```

```
origin  https://.../.../[name].git (fetch)
```

```
origin  https://.../.../[name].git (push)
```



Pushing

Remote Repository



Local Repository





bash

```
$ git push origin master
```

Added fifth story

@me



Added fourth story

@me



Added third story

@me



Added second story

@me



Added first story

@me





Cloning



bash

```
$ git clone <ssh link>
```



bash

```
$ git clone git@github.com:.....git
```

Cloning into 'remote-repo'...

remote: Enumerating objects: 59, done.

remote: Counting objects: 100% (59/59), done.

remote: Compressing objects: 100% (43/43),

done. remote: Total 2948 (delta 28), reused 18

(delta 6)

Receiving objects: 100% (2948/2948), 1.93 MiB | 2.53 MiB/s,
done.

Resolving deltas: 100% (1526/1526), done.



bash

```
$ cd remote-repo
```

```
$ git log
```

```
commit 67c833e3...ecb7df62f (HEAD -> origin/master)
```

```
Author: John Doe <john@doe>
```

```
Date: Sun Jun 14 14:45:07 2020 -0700
```

```
Added first story
```



Branches

Added fifth
story

@me



Added fourth
story

@me



Added third
story

@me



Added second
story

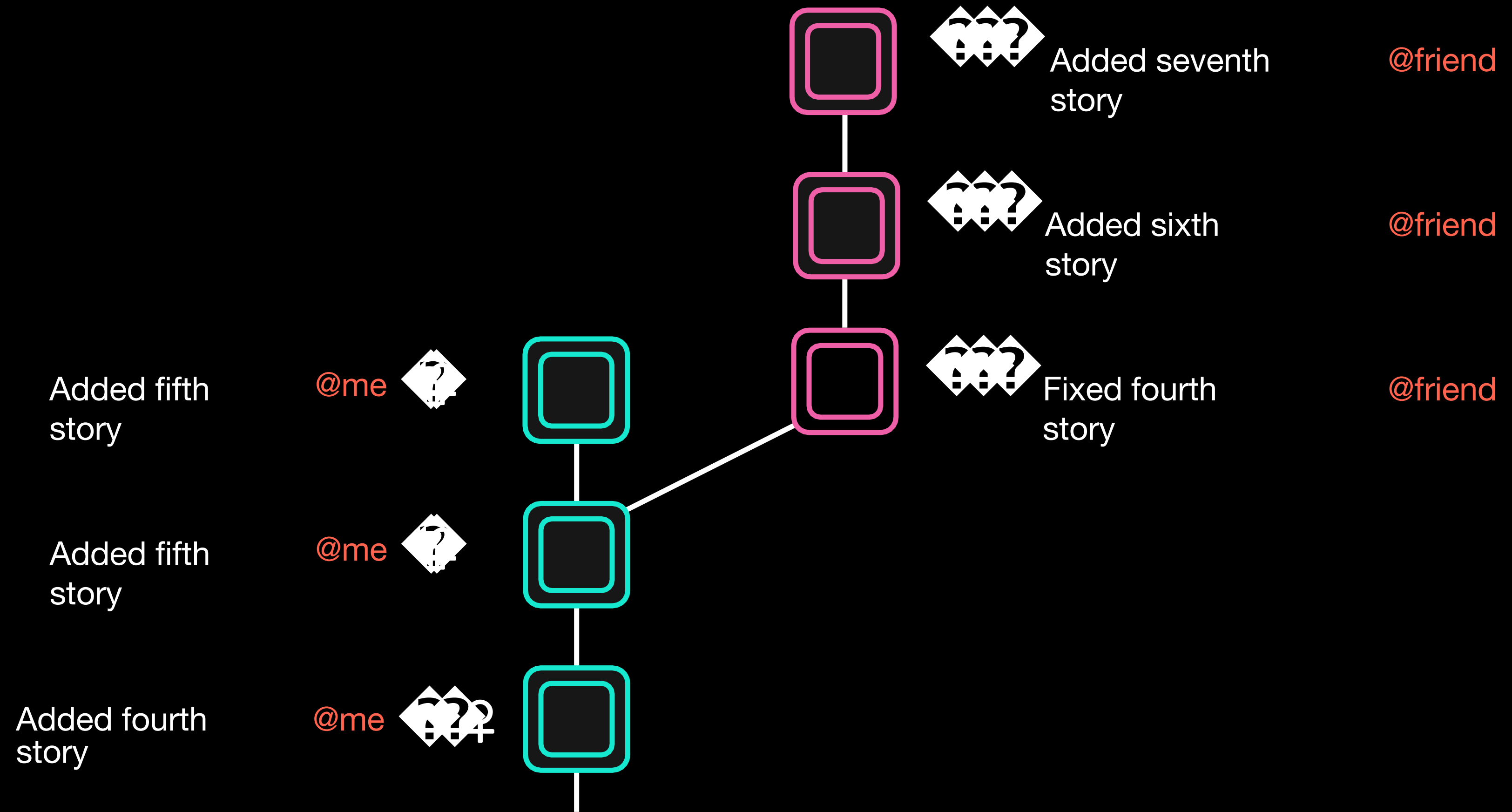
@me



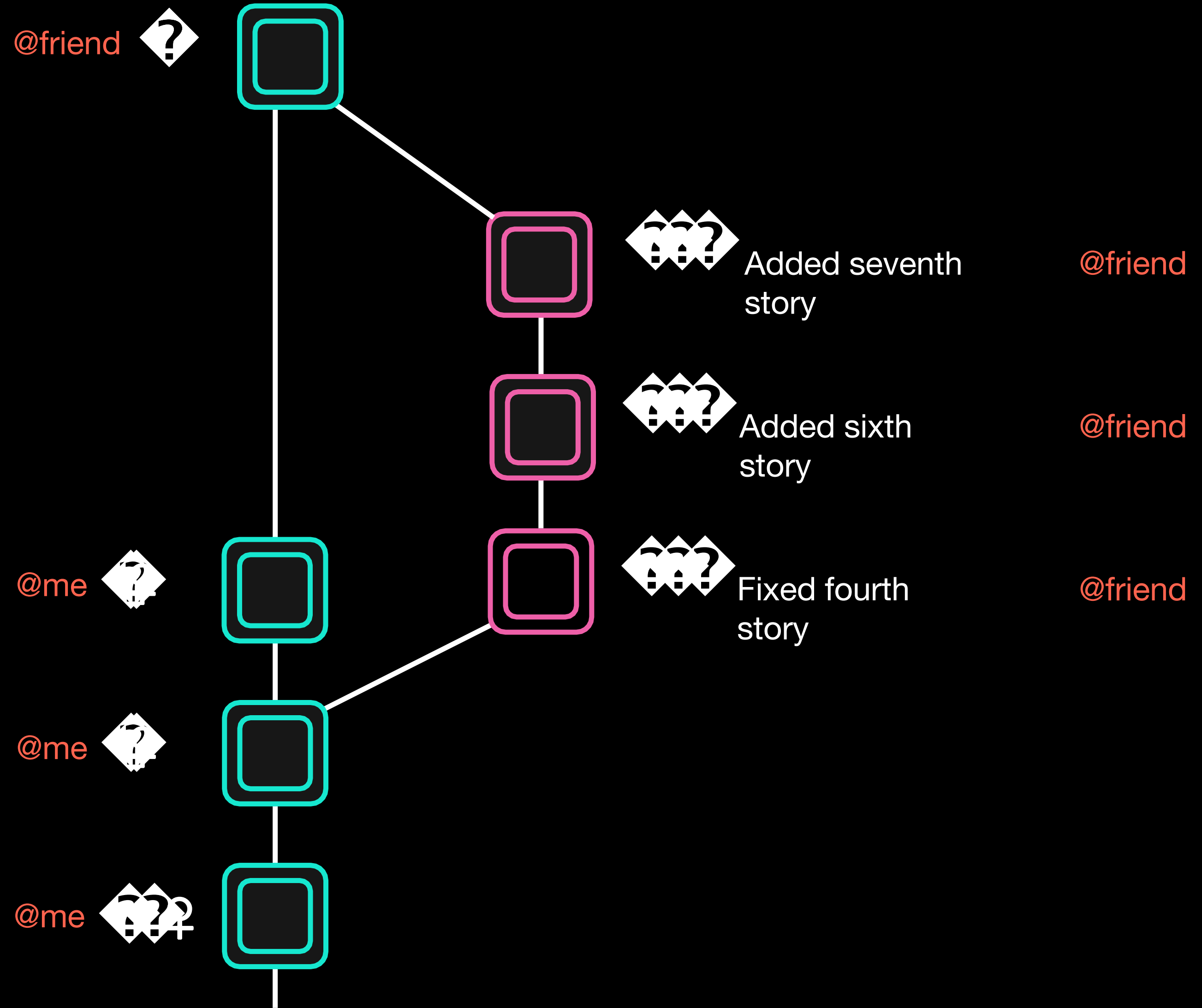
Added first
story

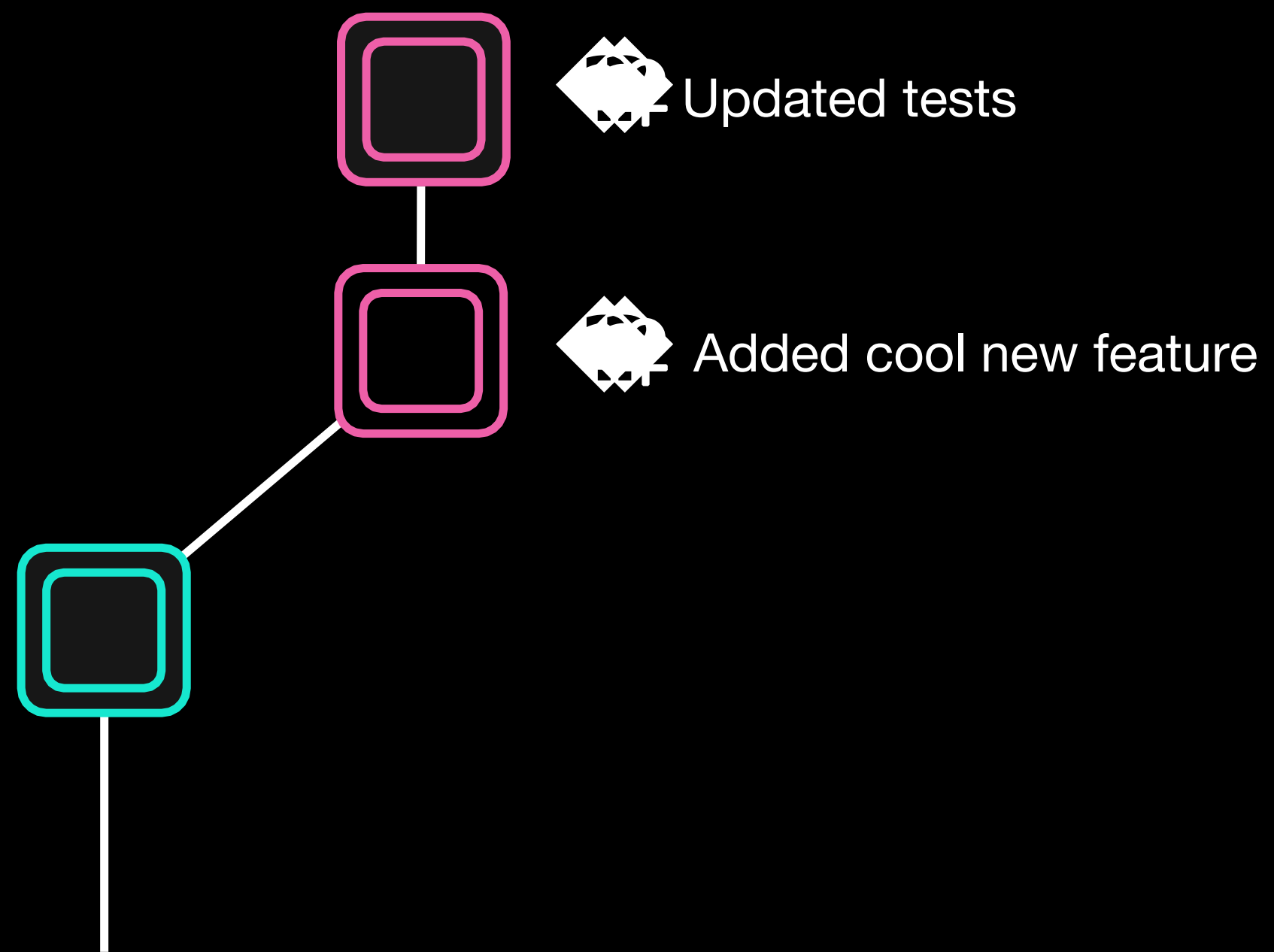
@me

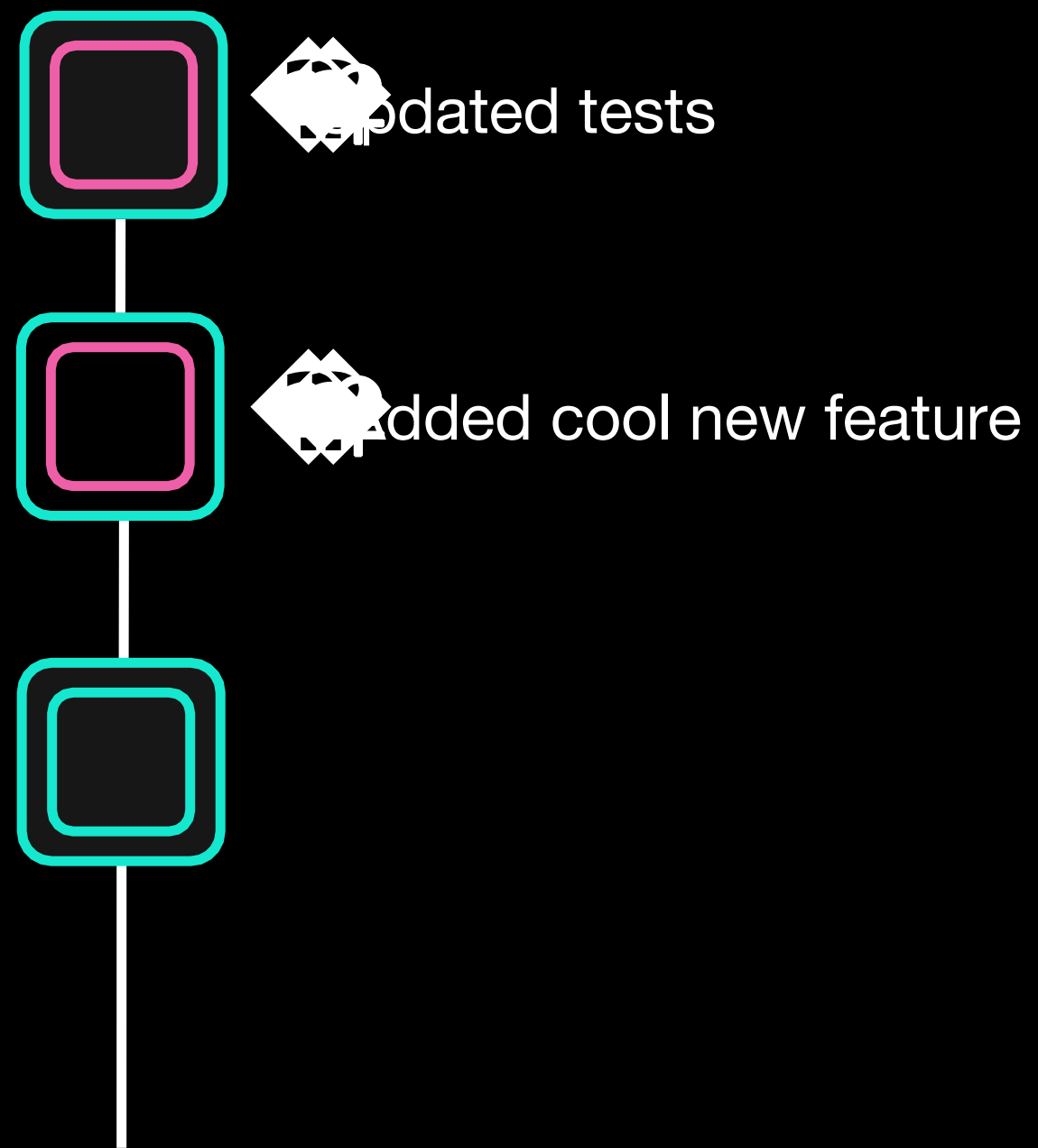




Merged branch









bash

```
$ git checkout -b sarah
```

```
Switched to a new branch 'sarah'
```

```
$ git branch
```

```
master
```

```
* sarah
```

Added first
story

@me



master

sarah

Added second story

@sarah



Added first story

@me

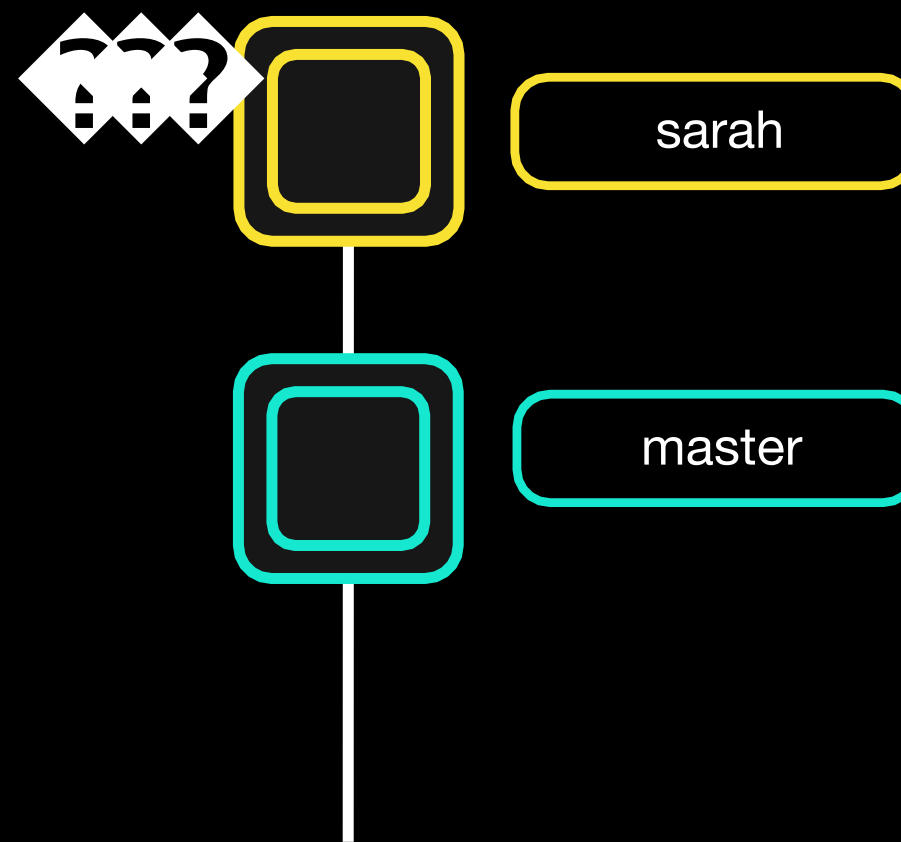


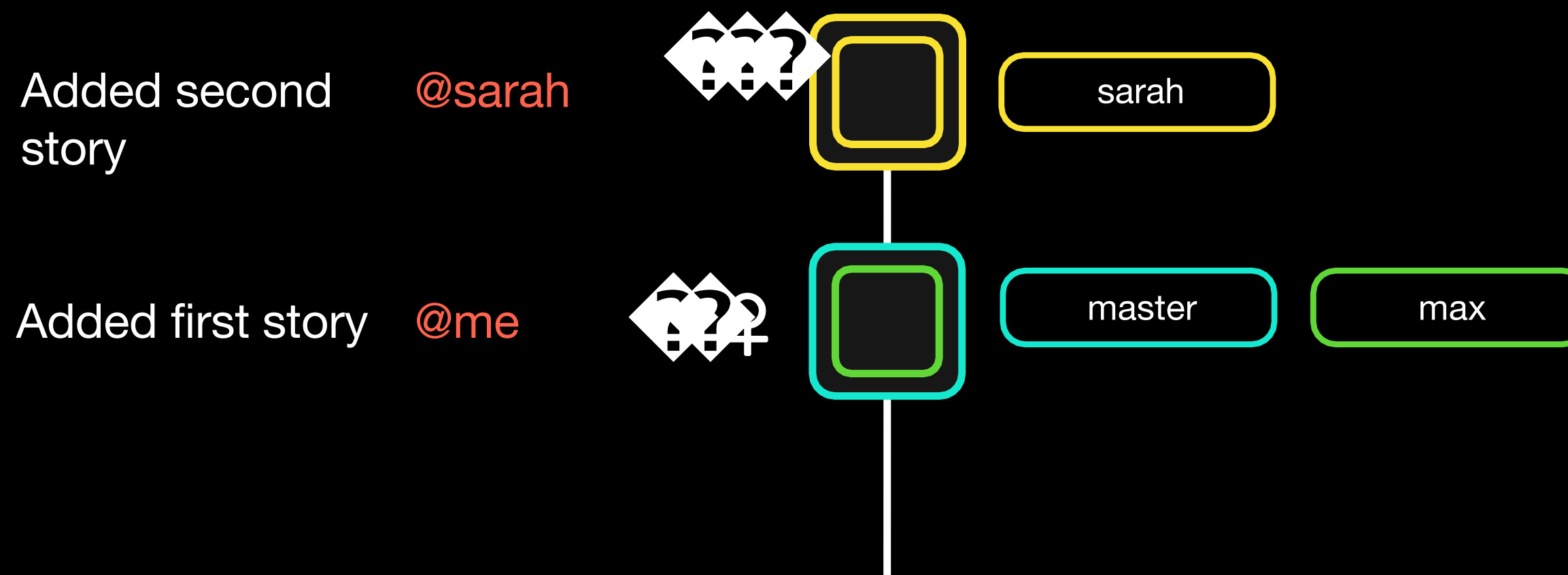
master

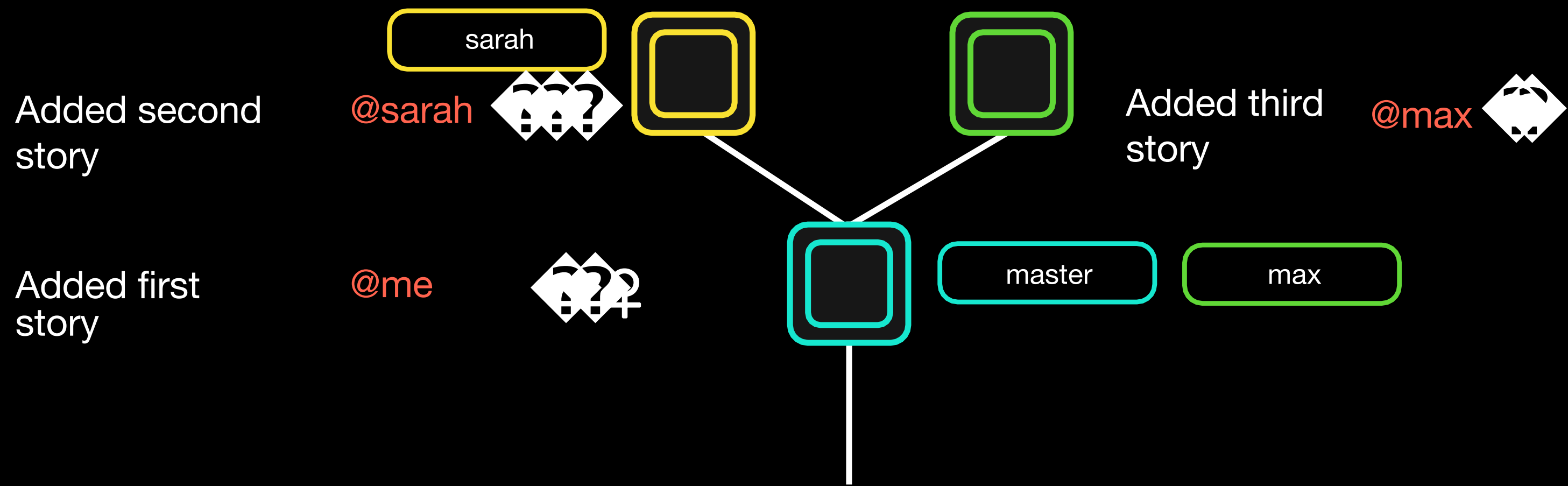
sarah

Added second story @sarah

Added first story @me

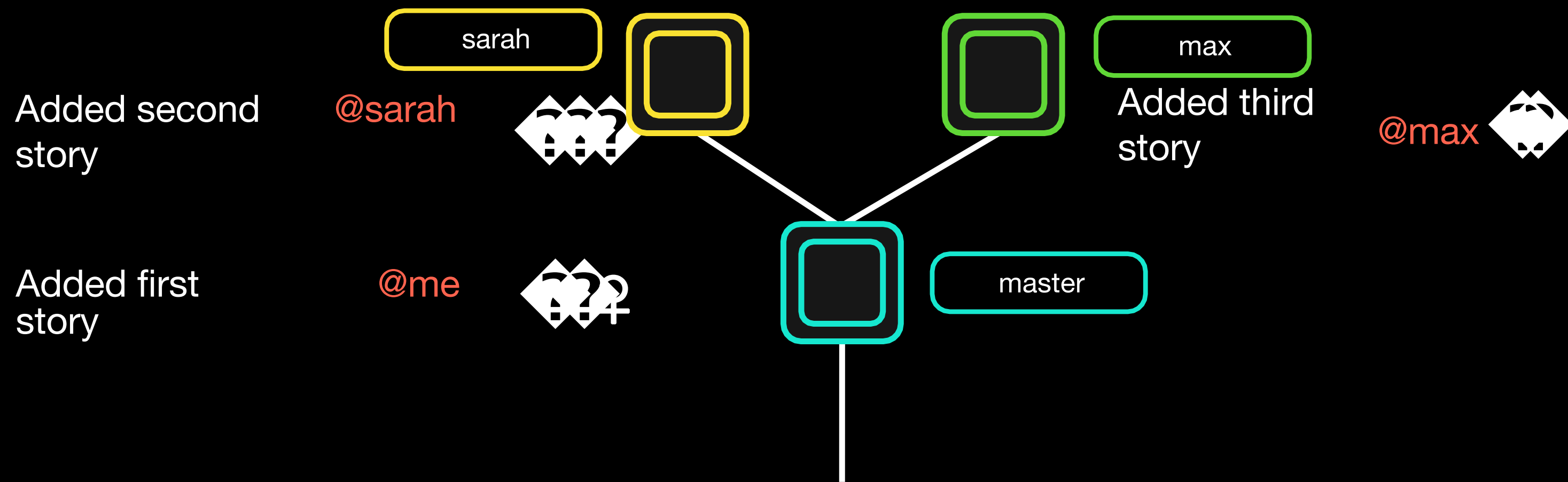






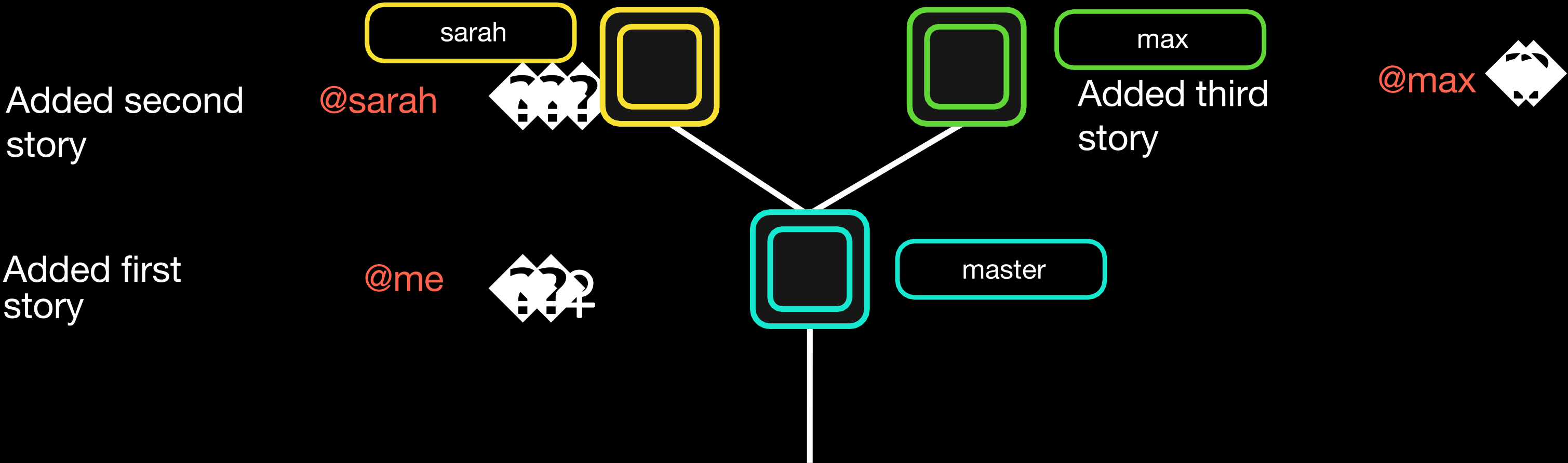


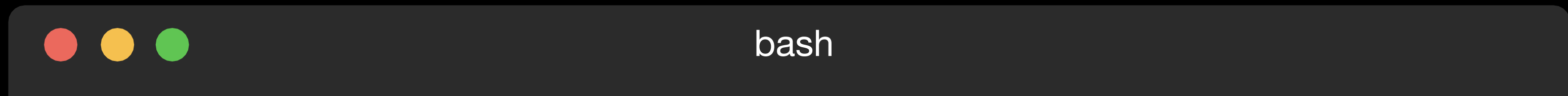
Merging



bash

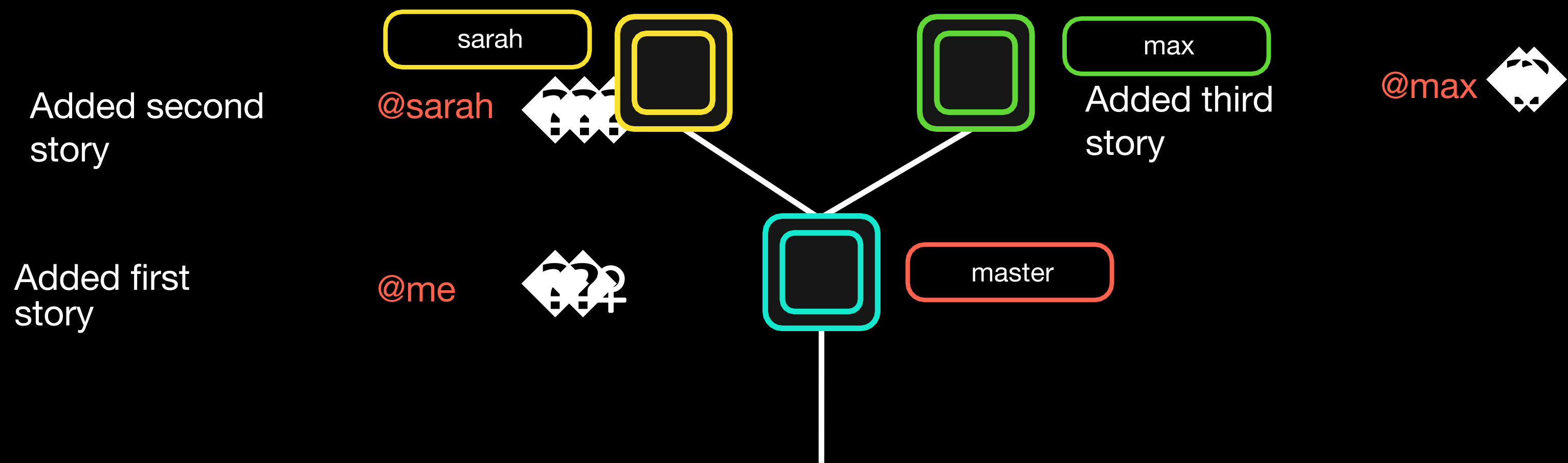
```
$ git checkout master
```

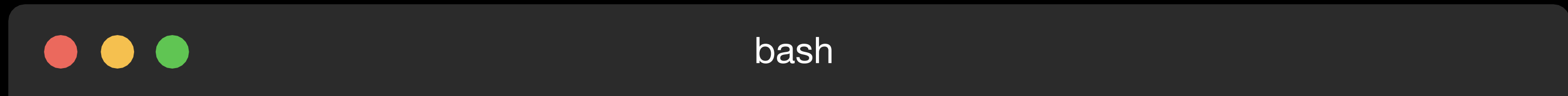




\$ git checkout master

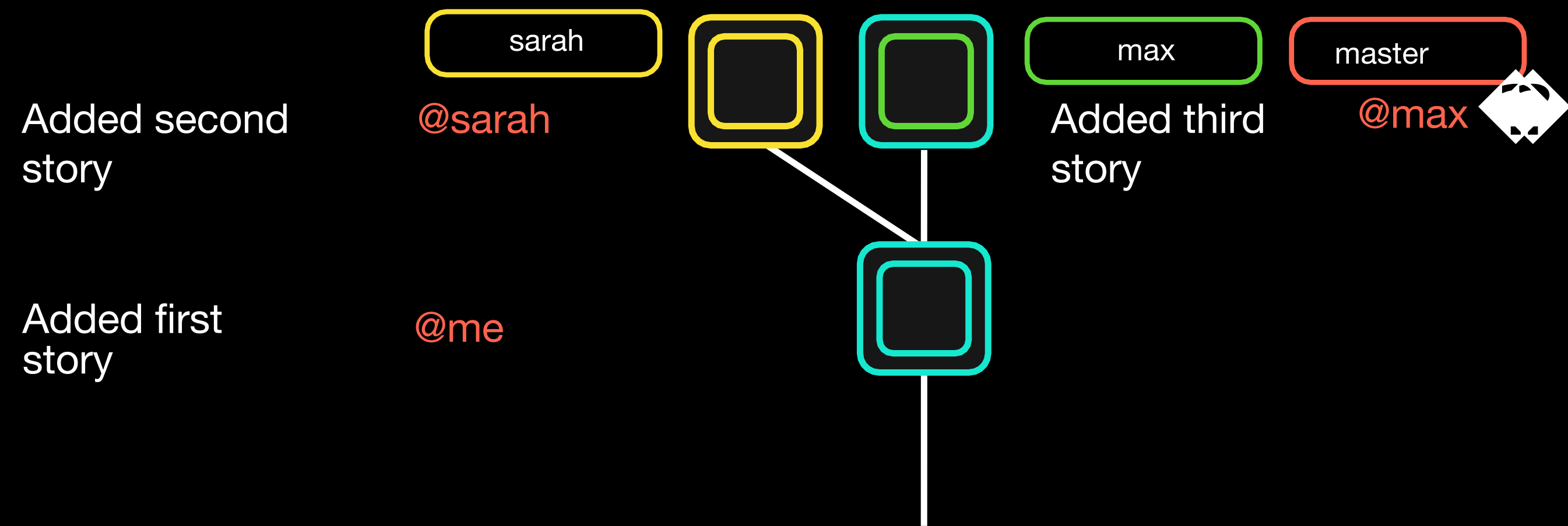
\$ git merge max

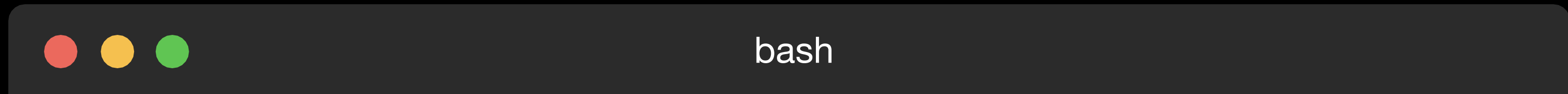




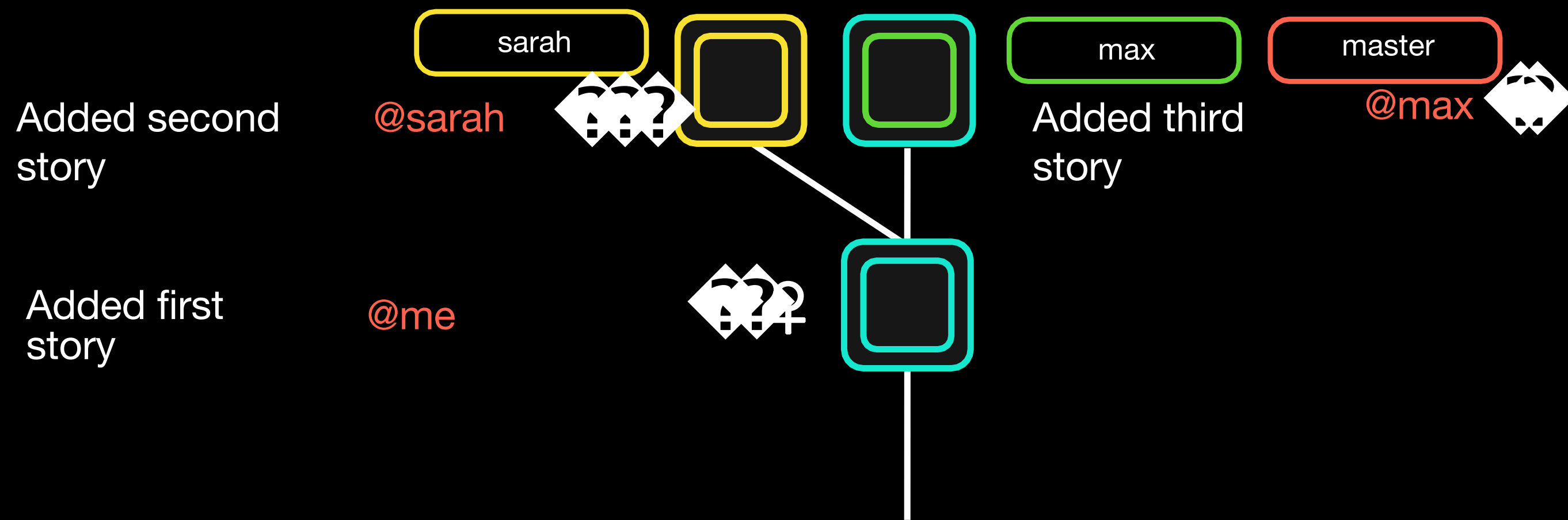
```
$ git checkout master
```

```
$ git merge max
```



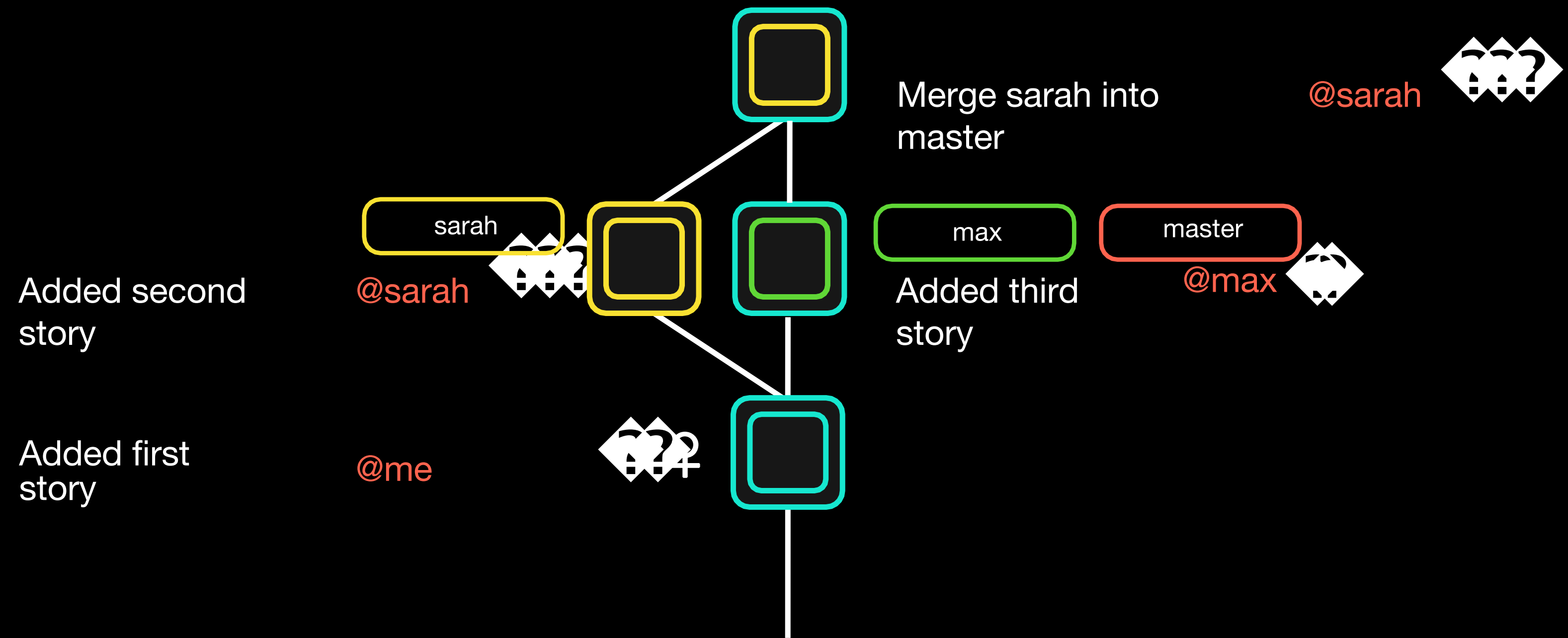


```
$ git checkout master  
$ git merge sarah
```



bash

\$ git merge sarah

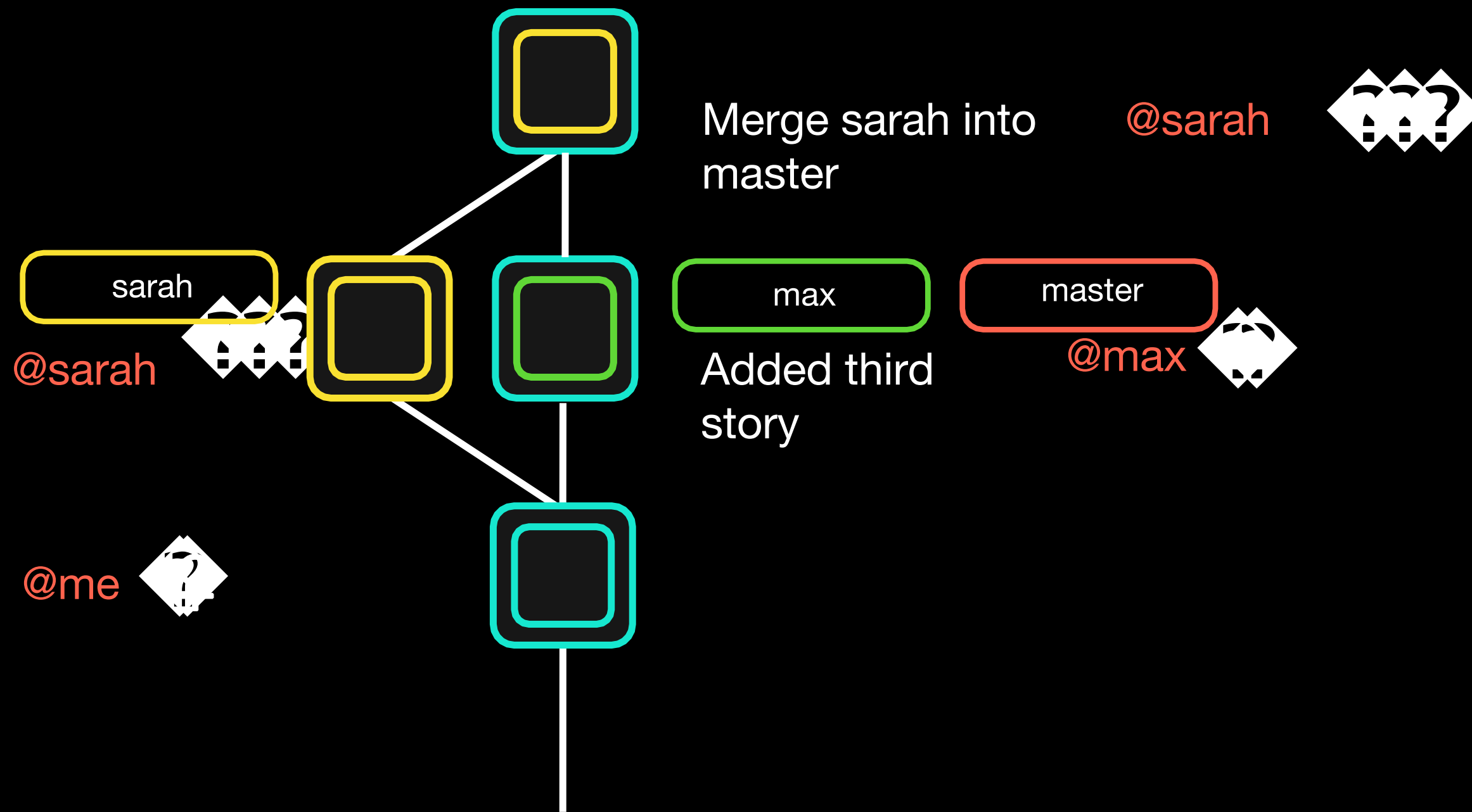


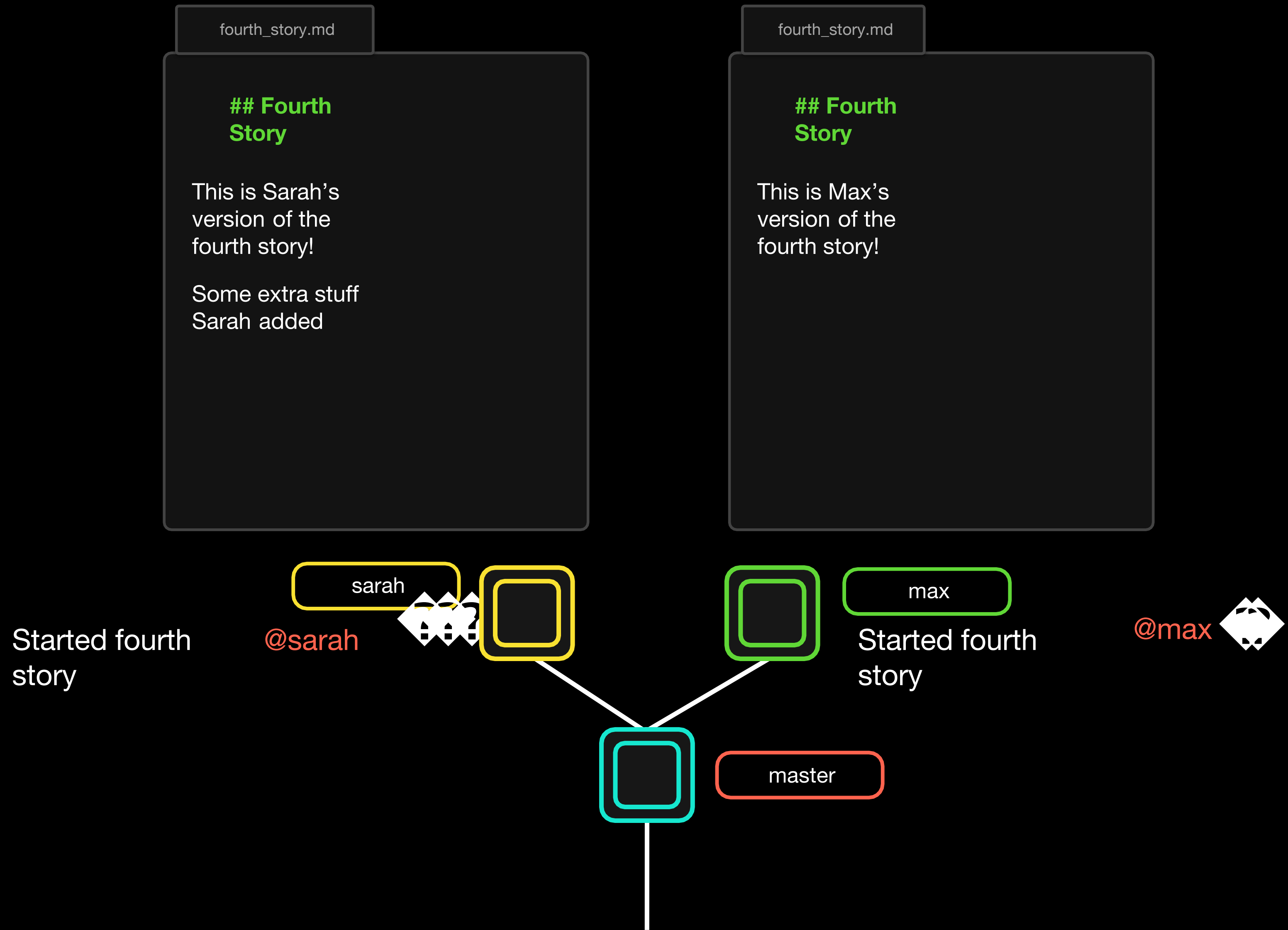


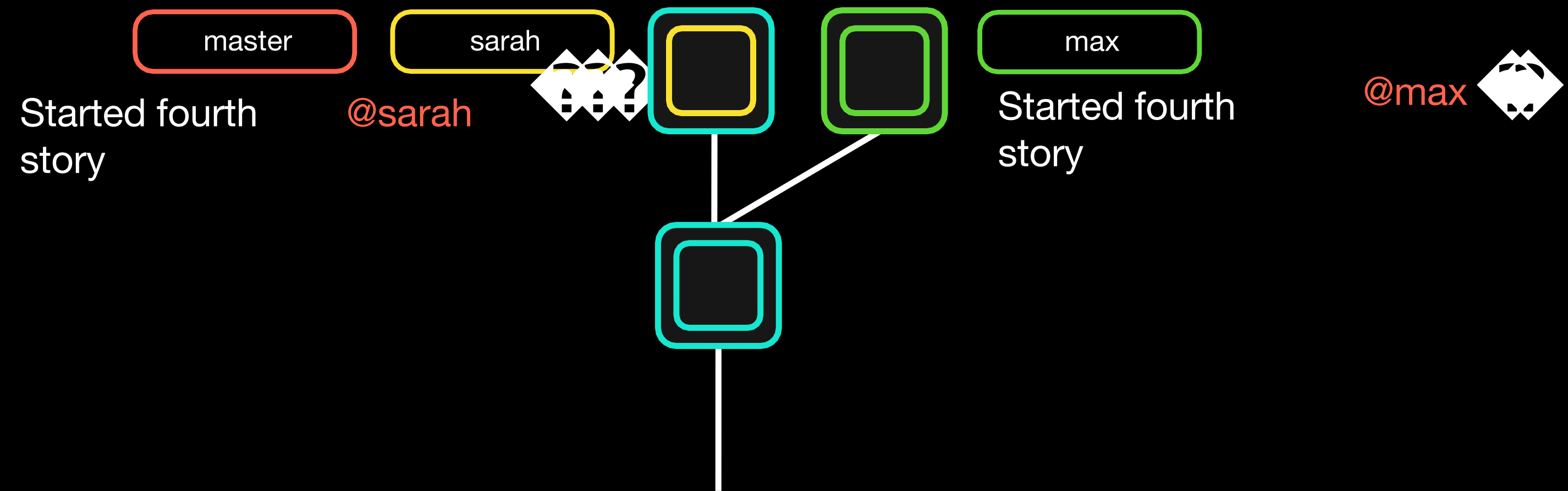
Merge Conflicts

Added second story

Added first story







fourth_story.md

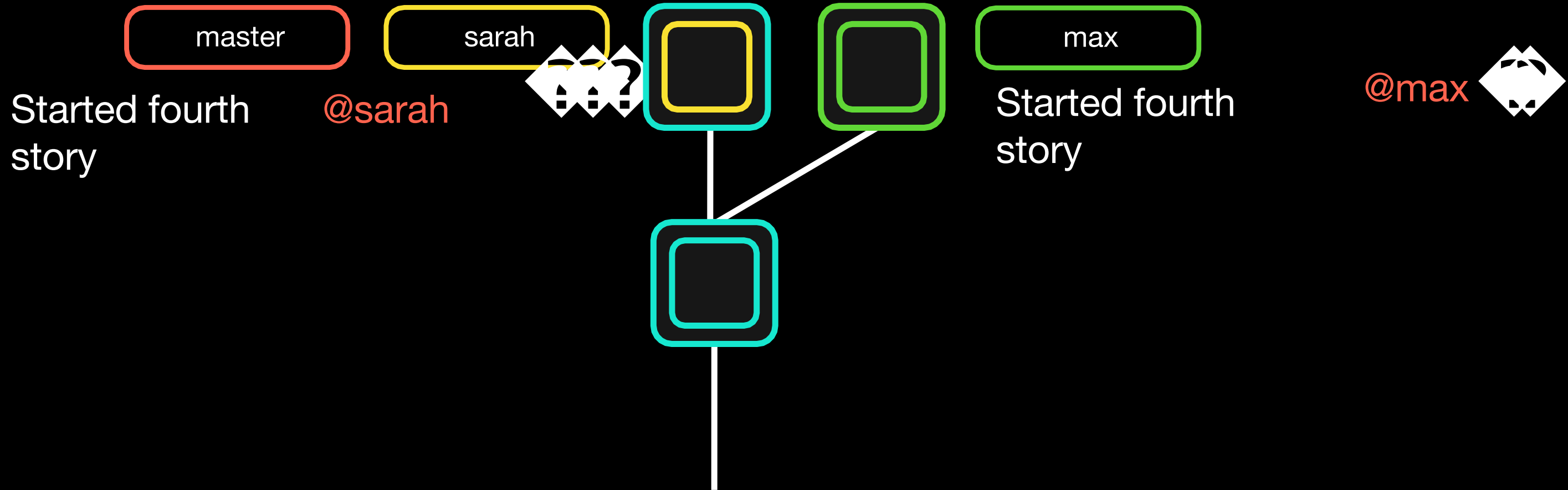
Fourth Story

This is Sarah's version of the fourth story!

fourth_story.md

Fourth Story

This is Max's version of the fourth story!



fourth_story.md

Fourth Story

<<<<<<<< HEAD

This is Sarah's
version

=====

This is Max's
version

>>>>>>> max

of the fourth story!

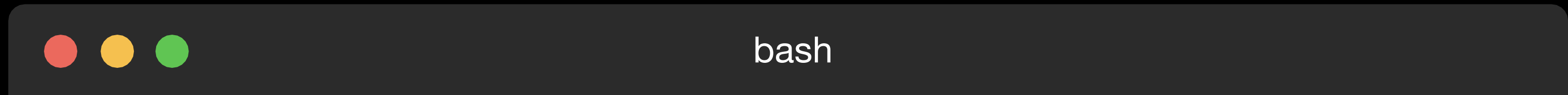
Some extra stuff
Sarah added

fourth_story.md

Fourth Story

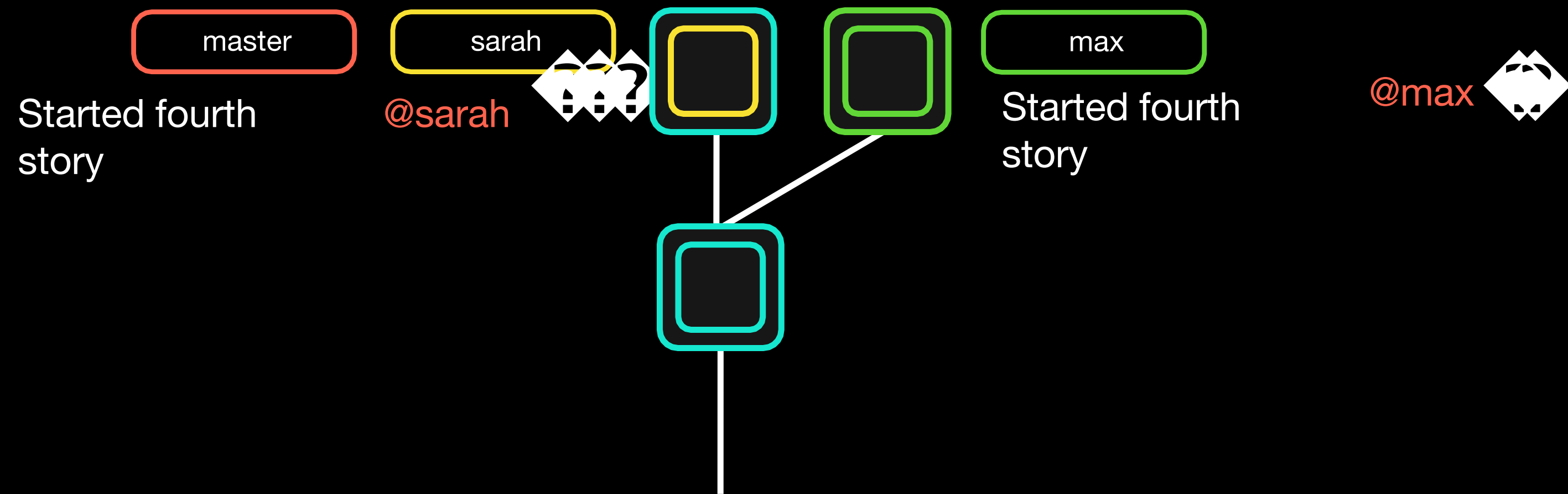
This is Max's
version
max
of the fourth story!

Some extra stuff
Sarah added



```
$ git add fourth_story.txt
```

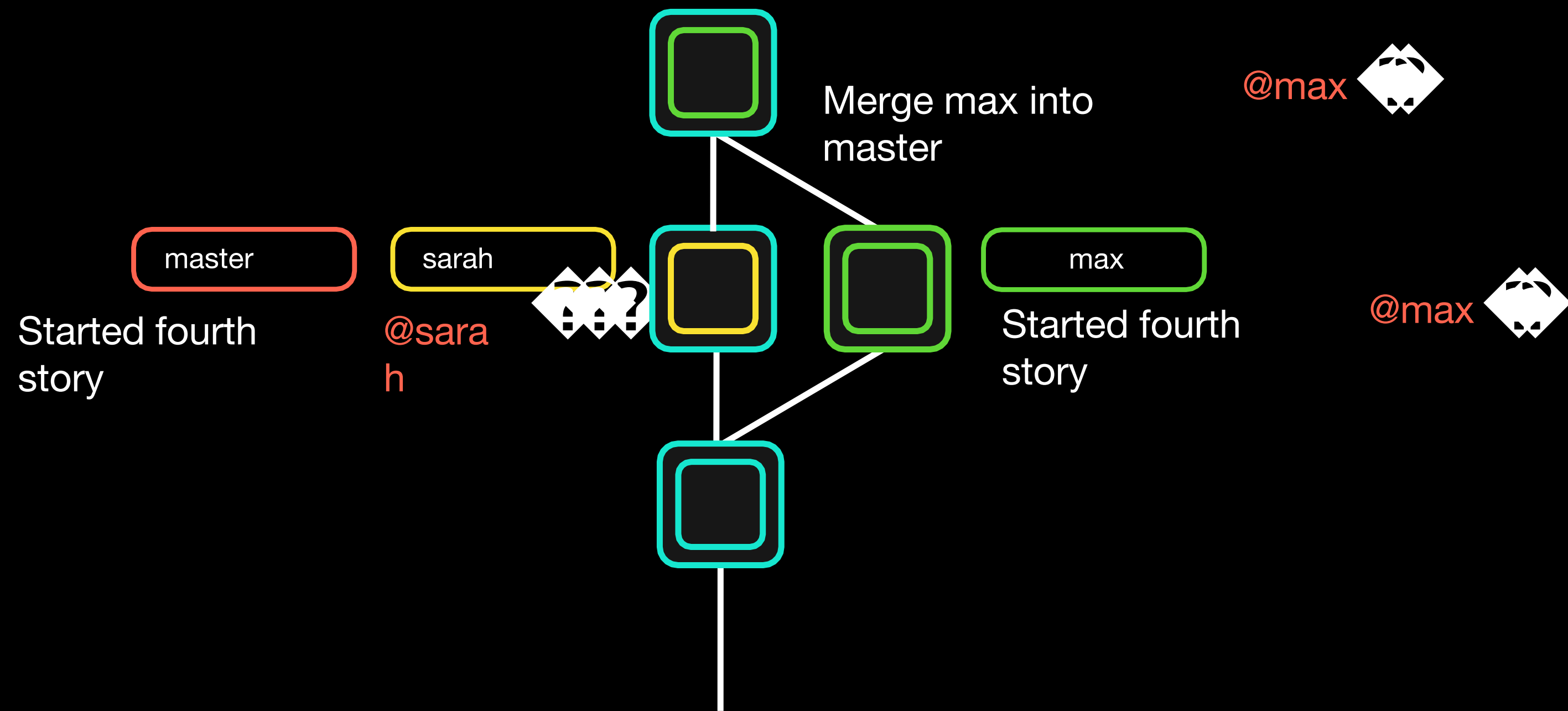
```
$ git merge
```





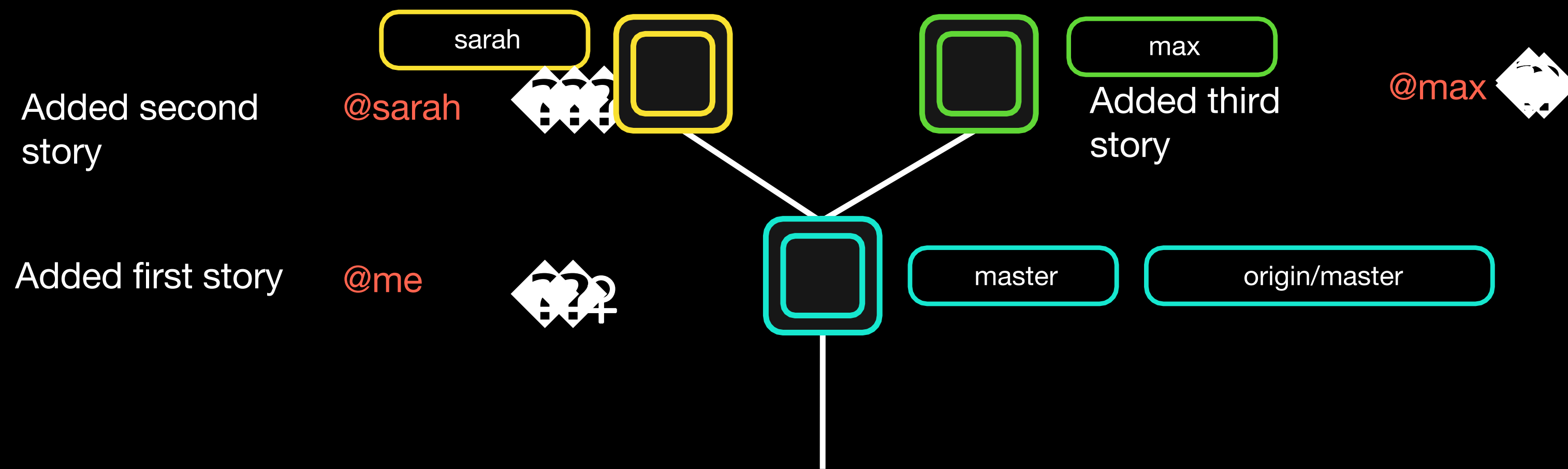
\$ git add fourth_story.txt

\$ git merge



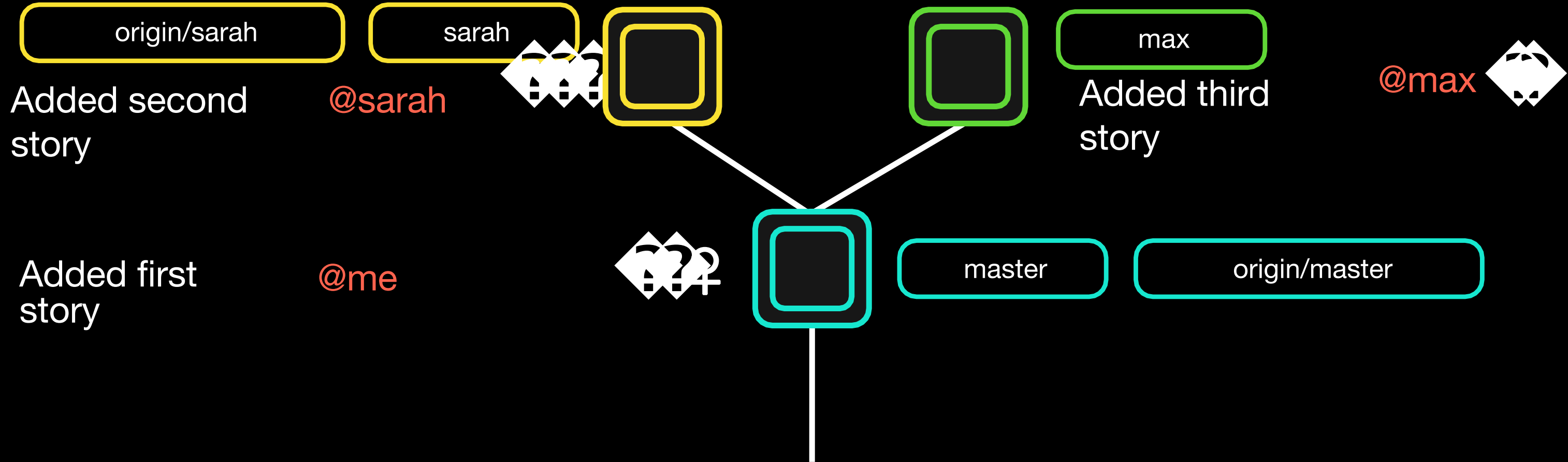


Pull Request



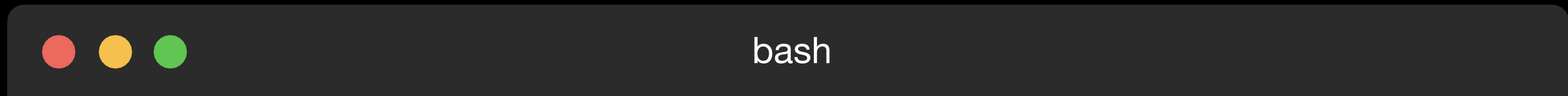
bash

```
$ git push origin sarah
```

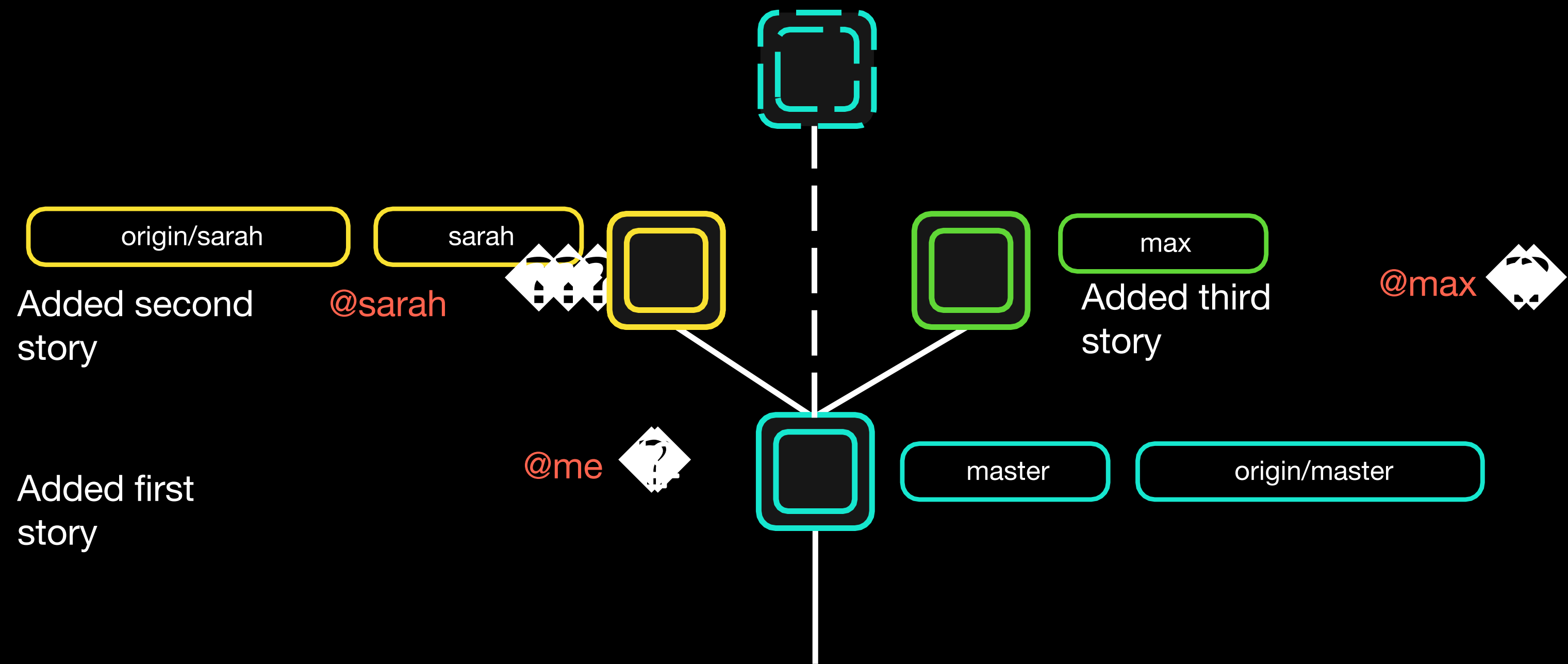




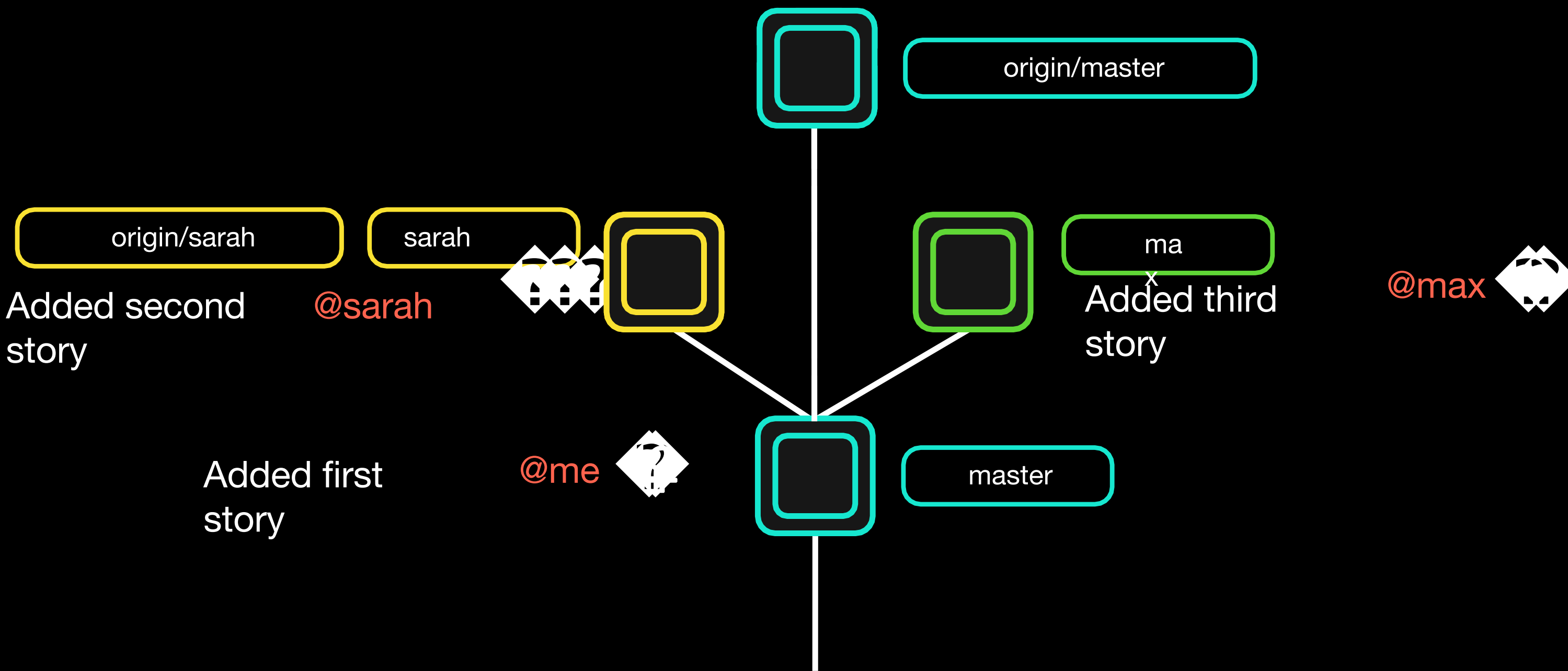
Fetching and Pulling



\$ git fetch origin master

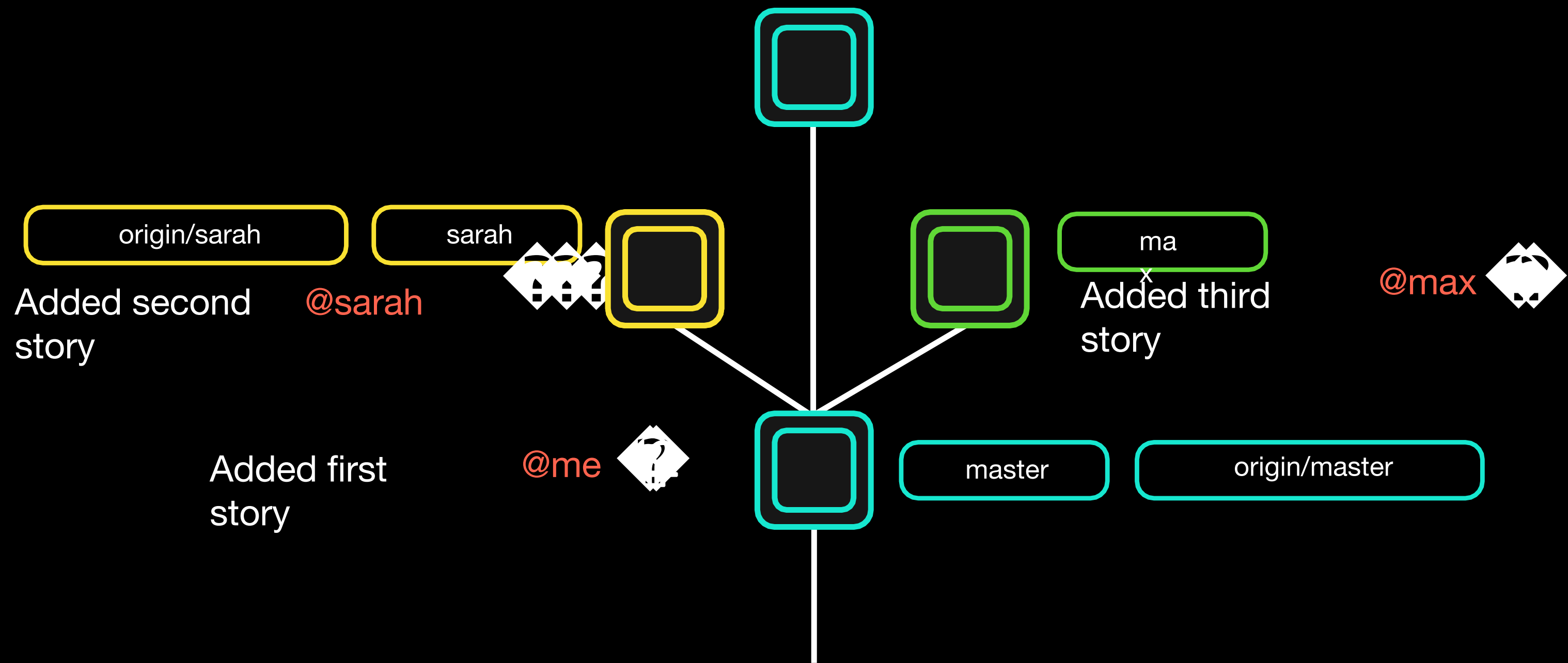


```
$ git merge origin/master
```



bash

\$ git pull origin master

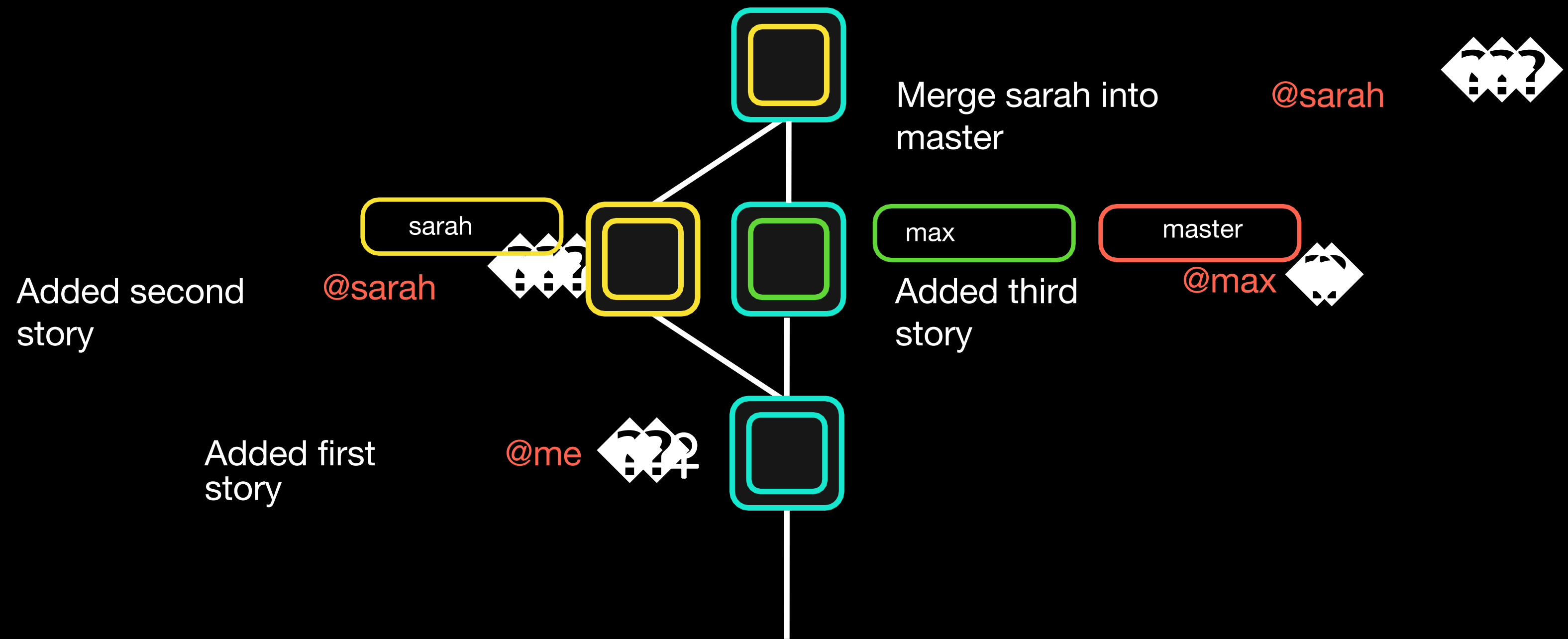




Rebasing

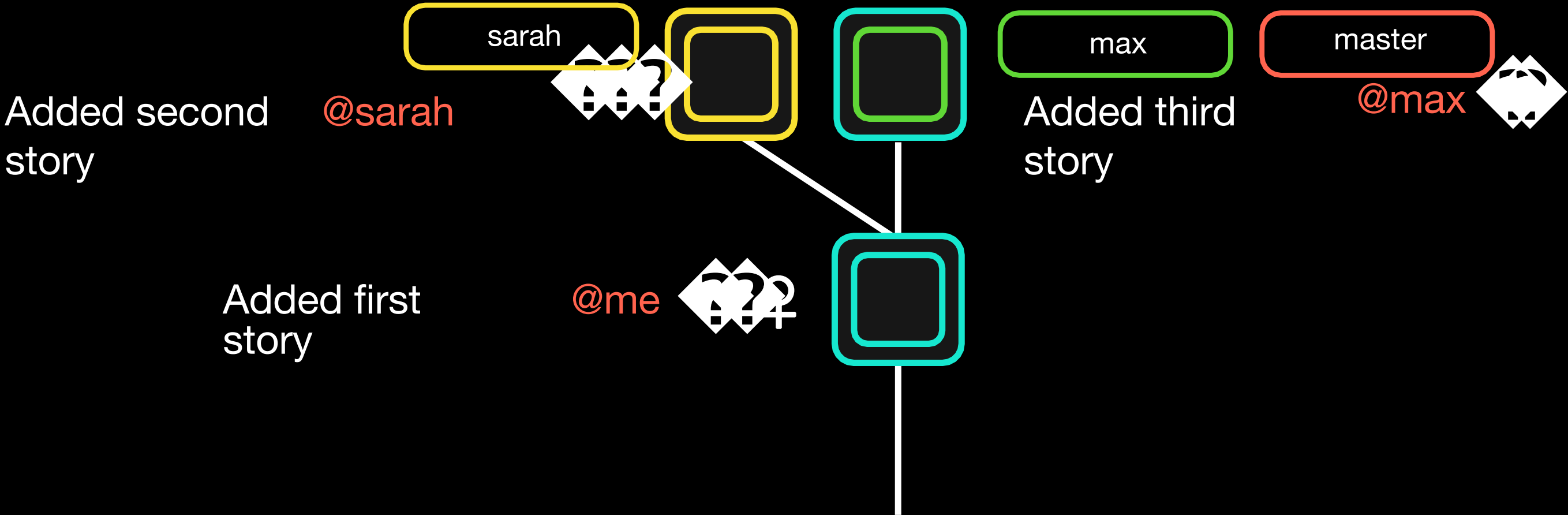
bash

\$ git merge sarah



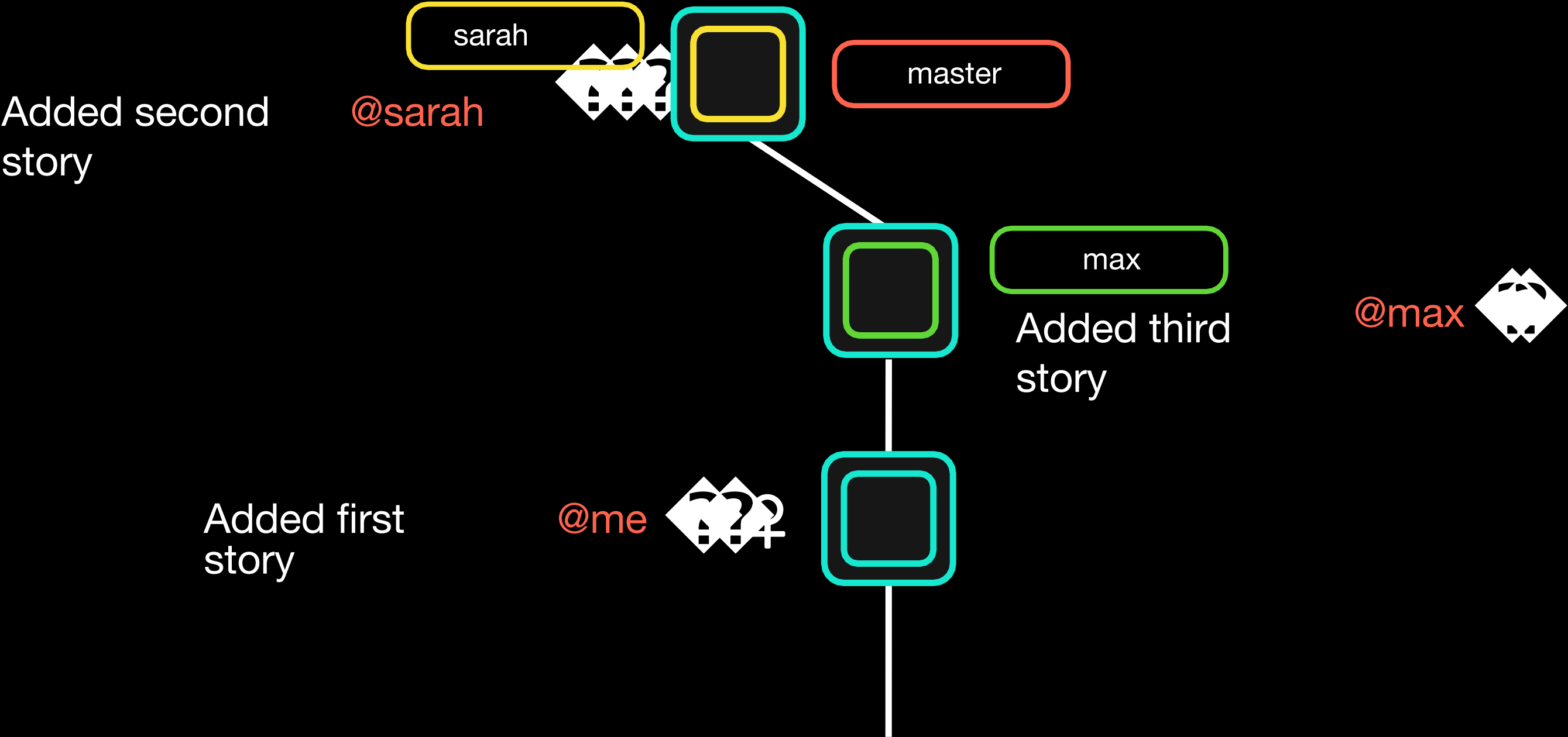


\$ git rebase sarah



bash

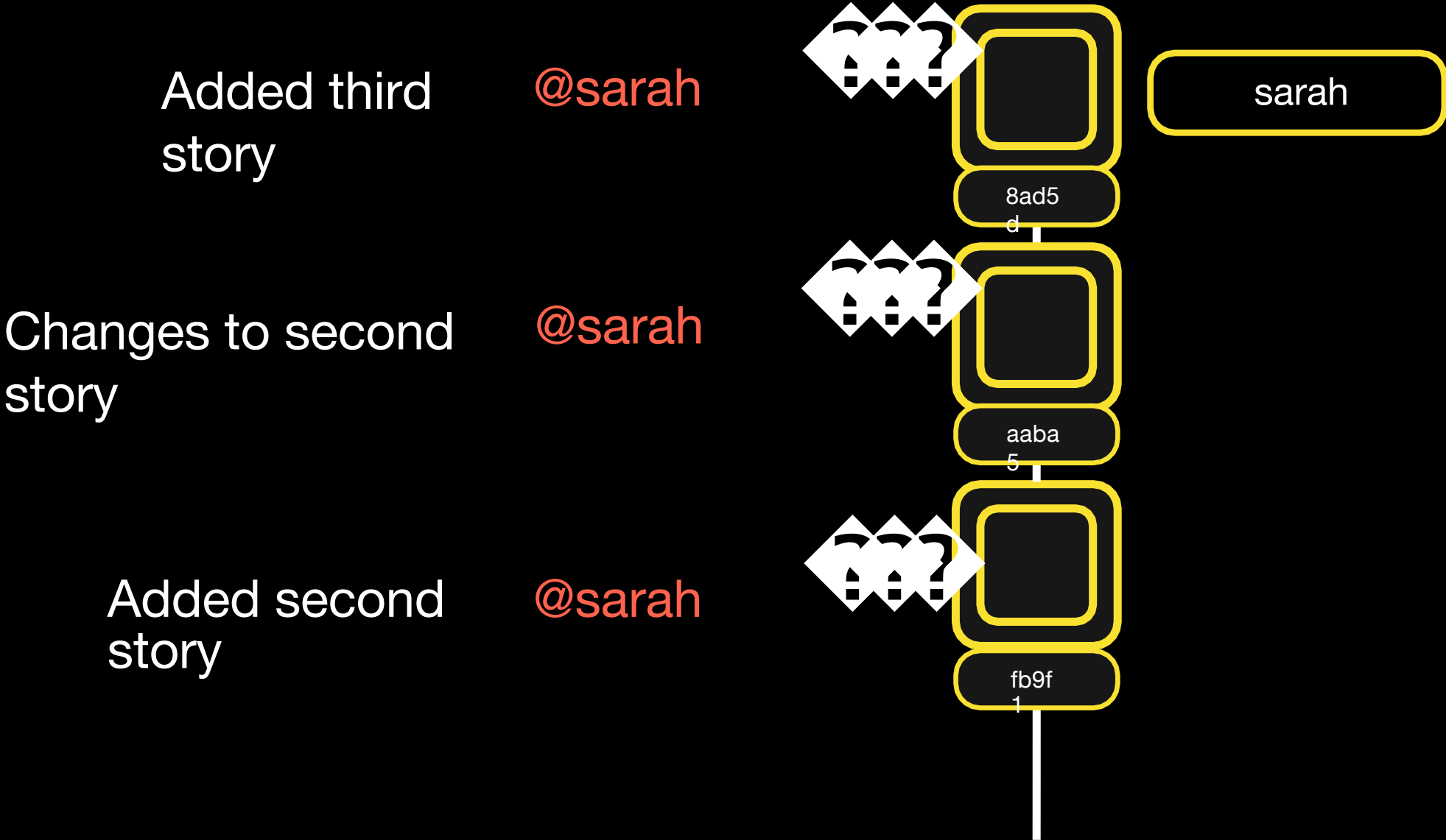
```
$ git rebase sarah
```





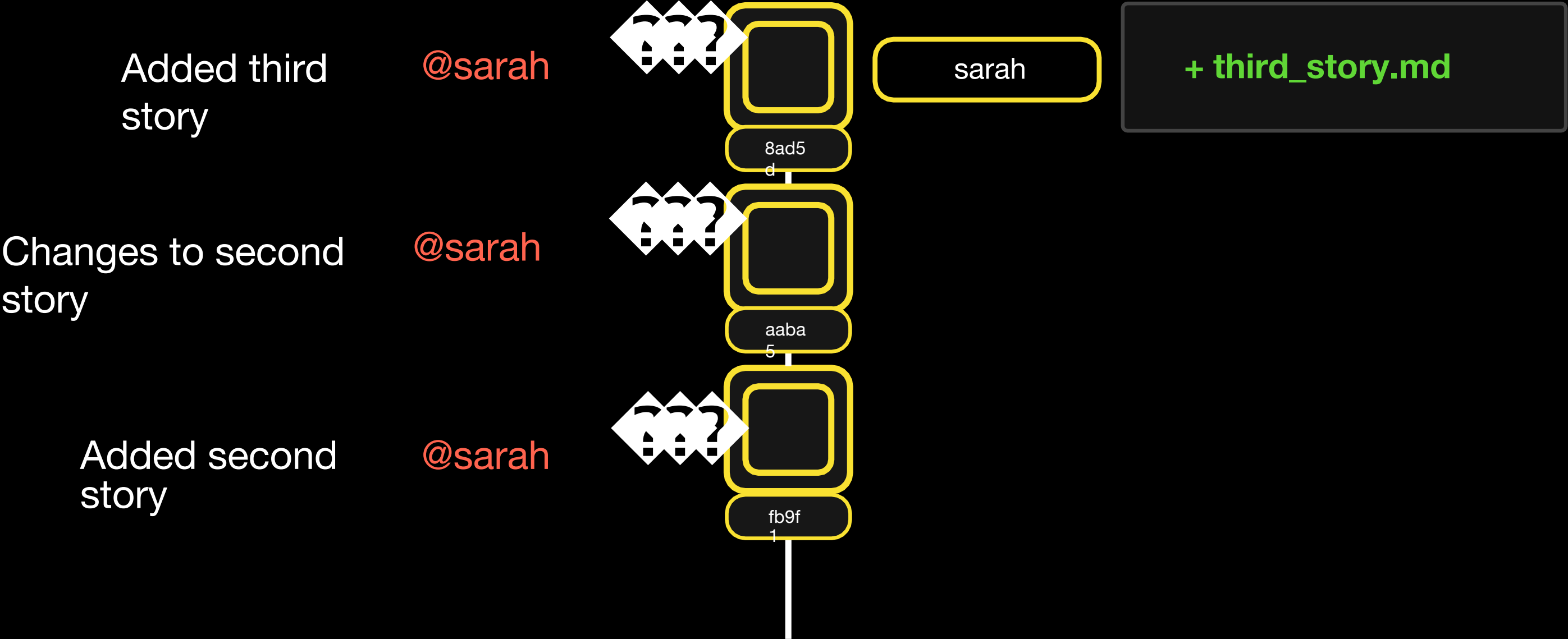
Resetting and Reverting

\$



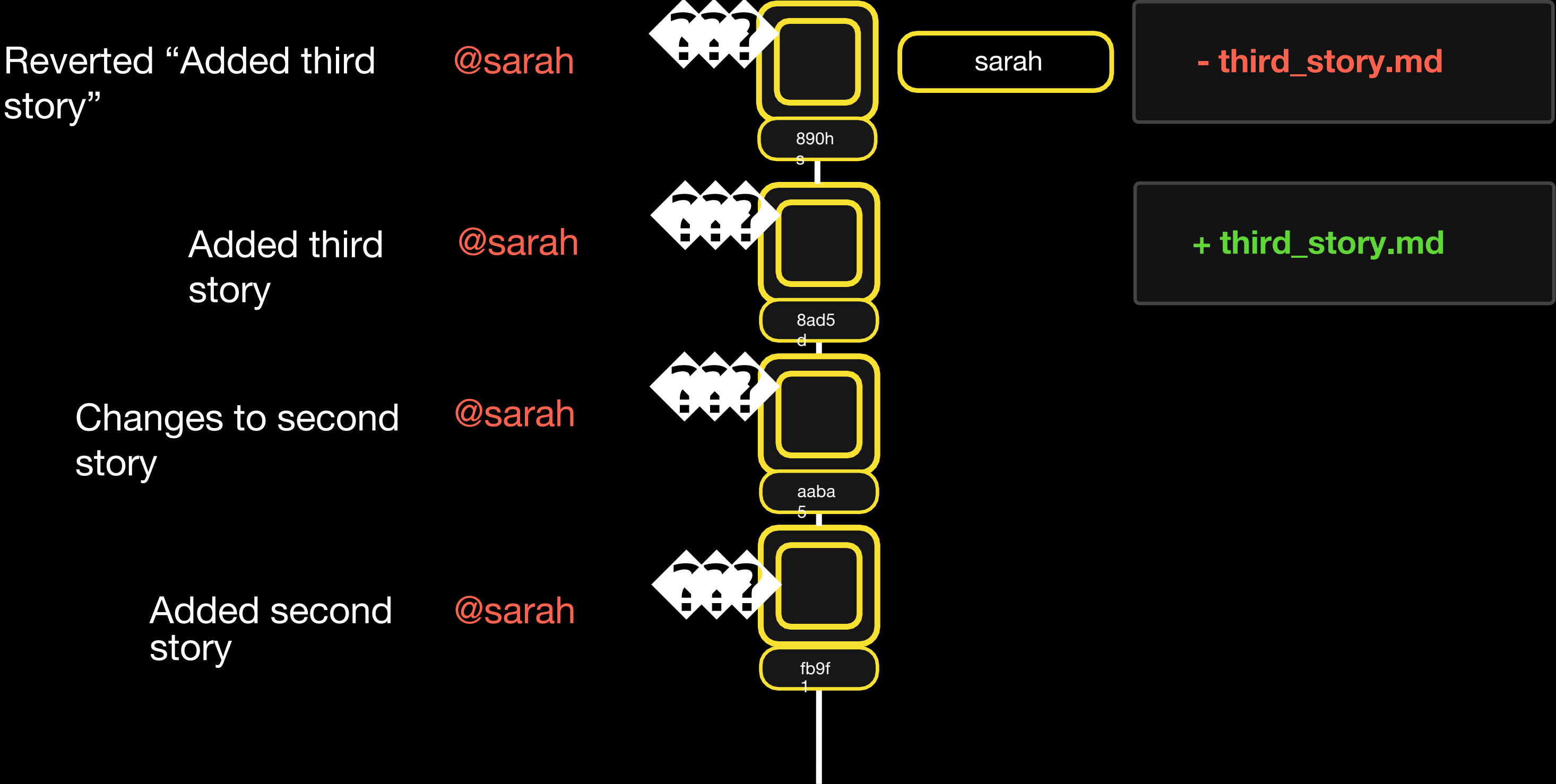
bash

```
$ git revert 8ad5d
```

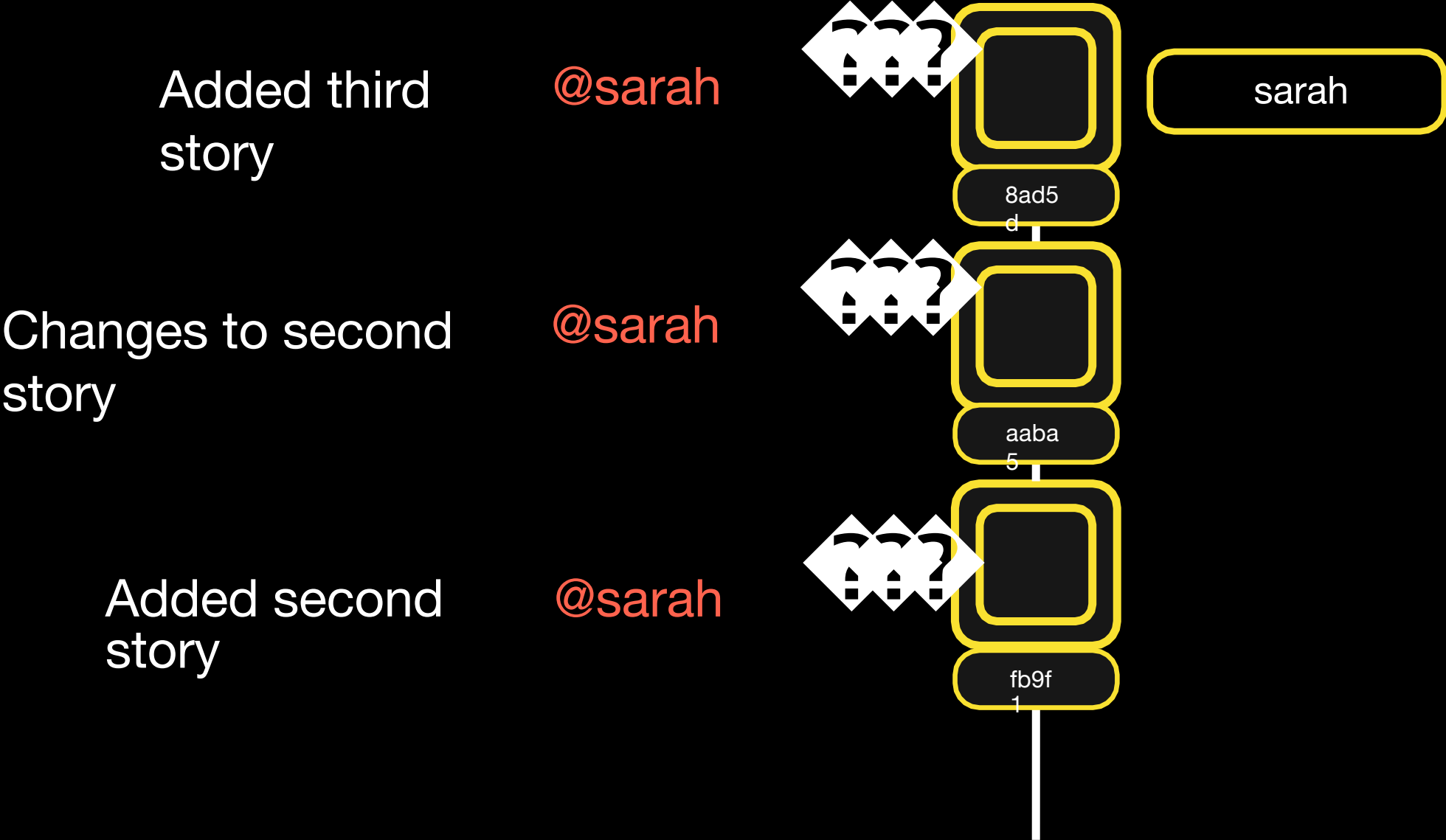


bash

```
$ git revert 8ad5d
```

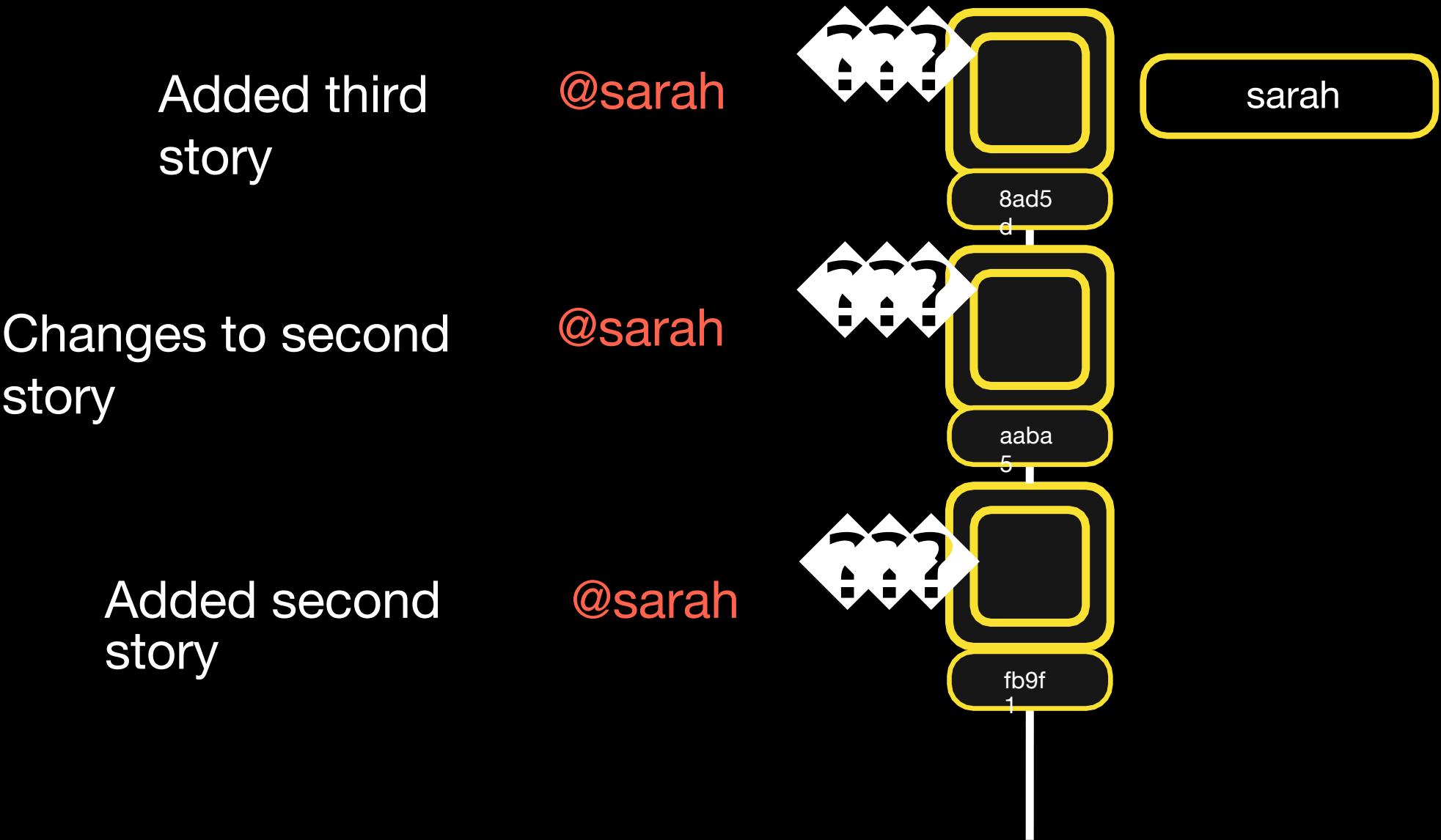


\$





\$ git reset --soft HEAD~1





```
$ git reset --soft HEAD~1
```

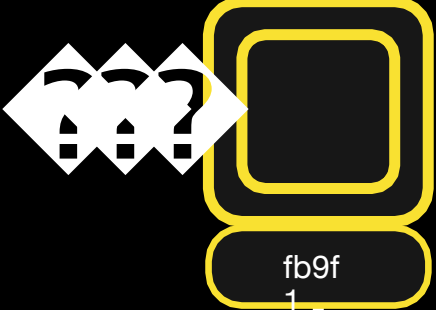
Changes to second story

@sarah



Added second story

@sarah





bash

```
$ git reset --soft HEAD~1
```

```
$ git status
```

On branch **sarah**

Changes to be committed:

added: **third_story.md**

Changes to second story

@sarah



sarah

aaba
5

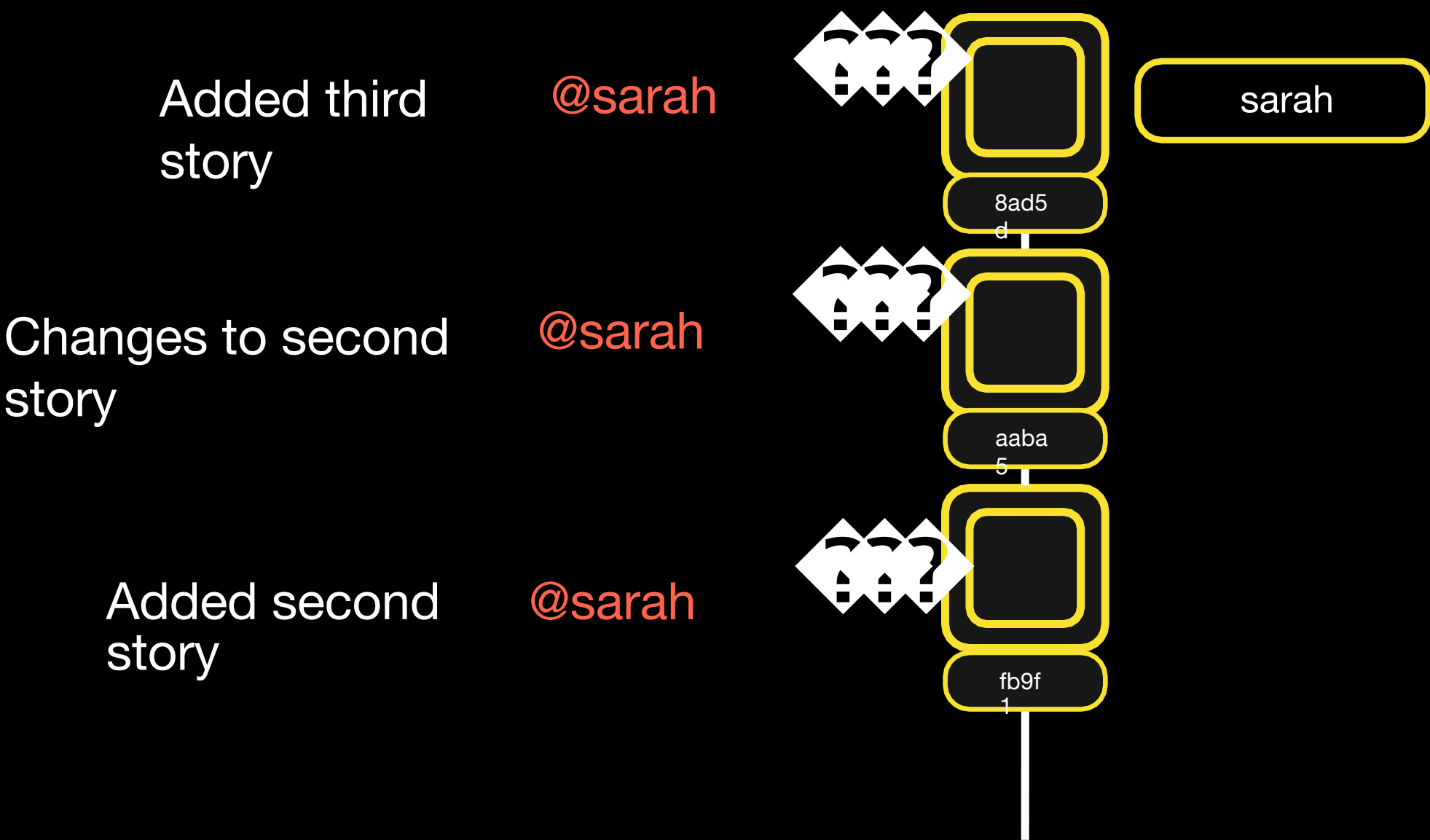
Added second story

@sarah



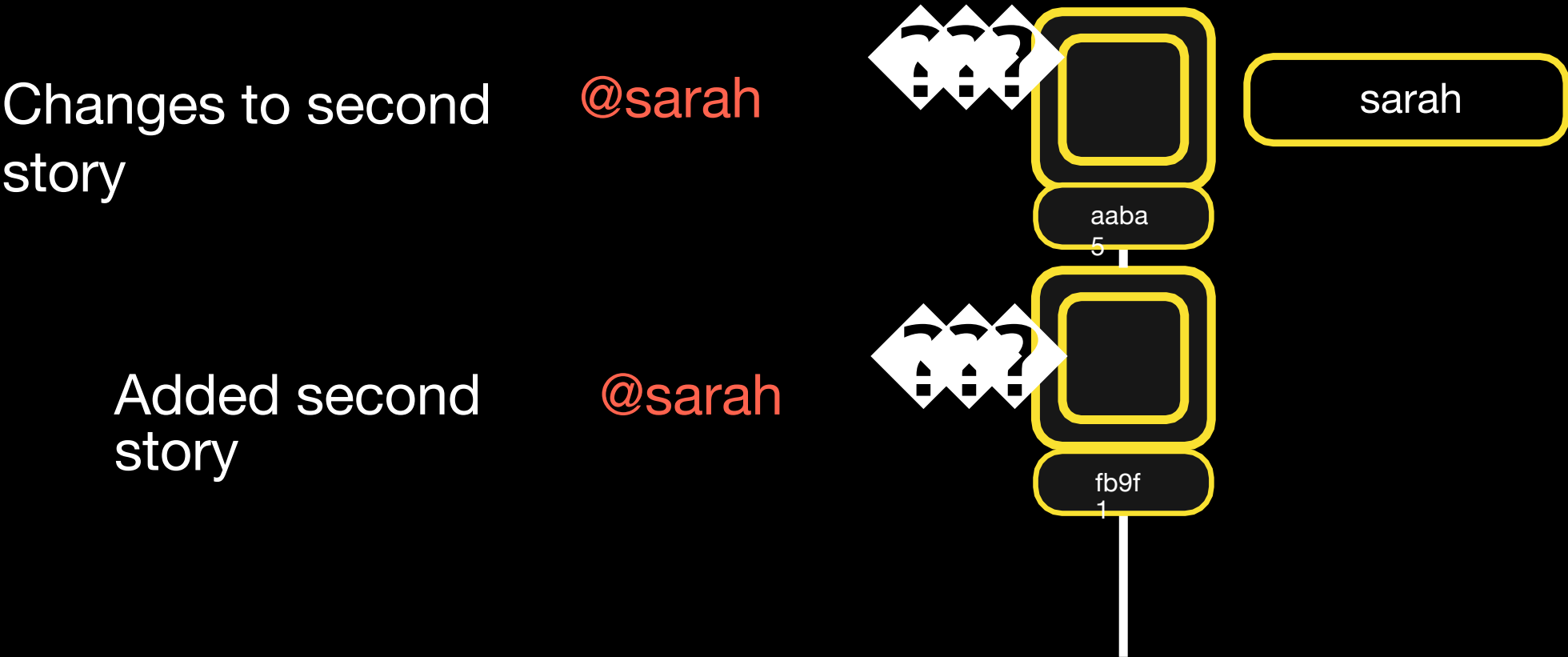
fb9f
1

```
$ git reset --hard HEAD~1
```



bash

```
$ git reset --hard HEAD~1
```





```
$ git reset --hard HEAD~1
```

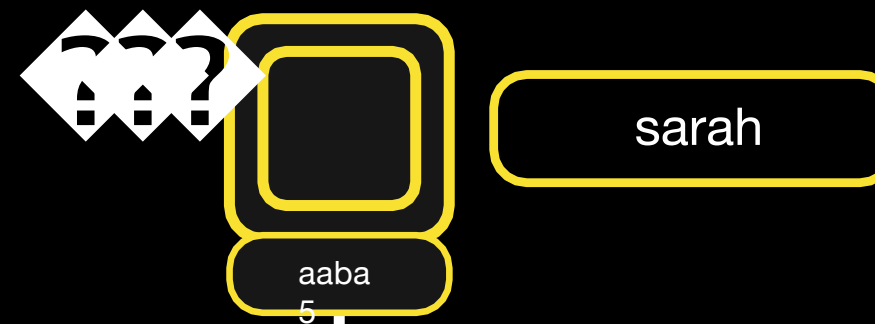
```
$ git status
```

On branch **sarah**

Nothing to
commit

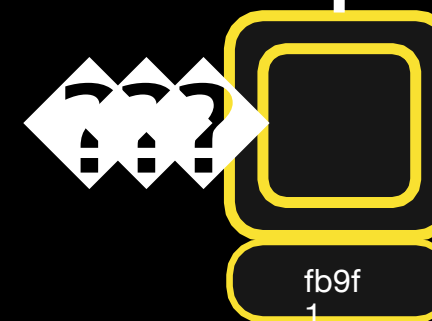
Changes to second
story

@sarah



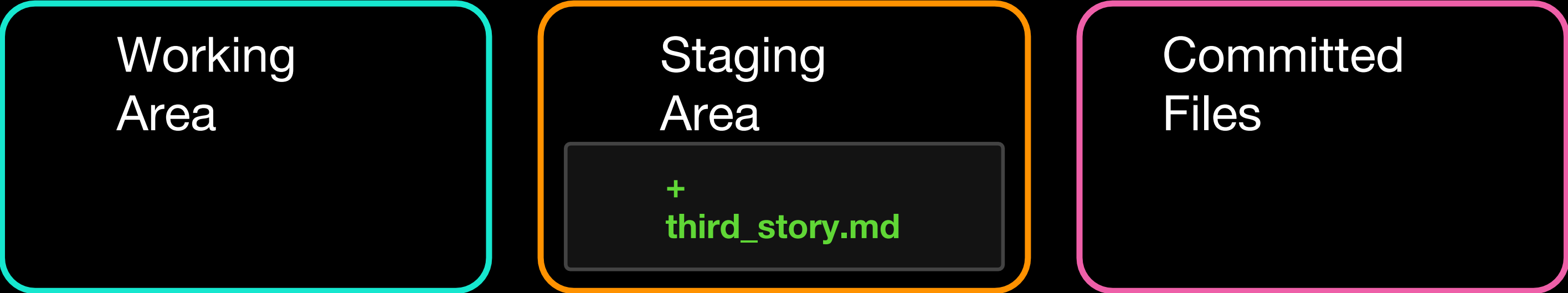
Added second
story

@sarah



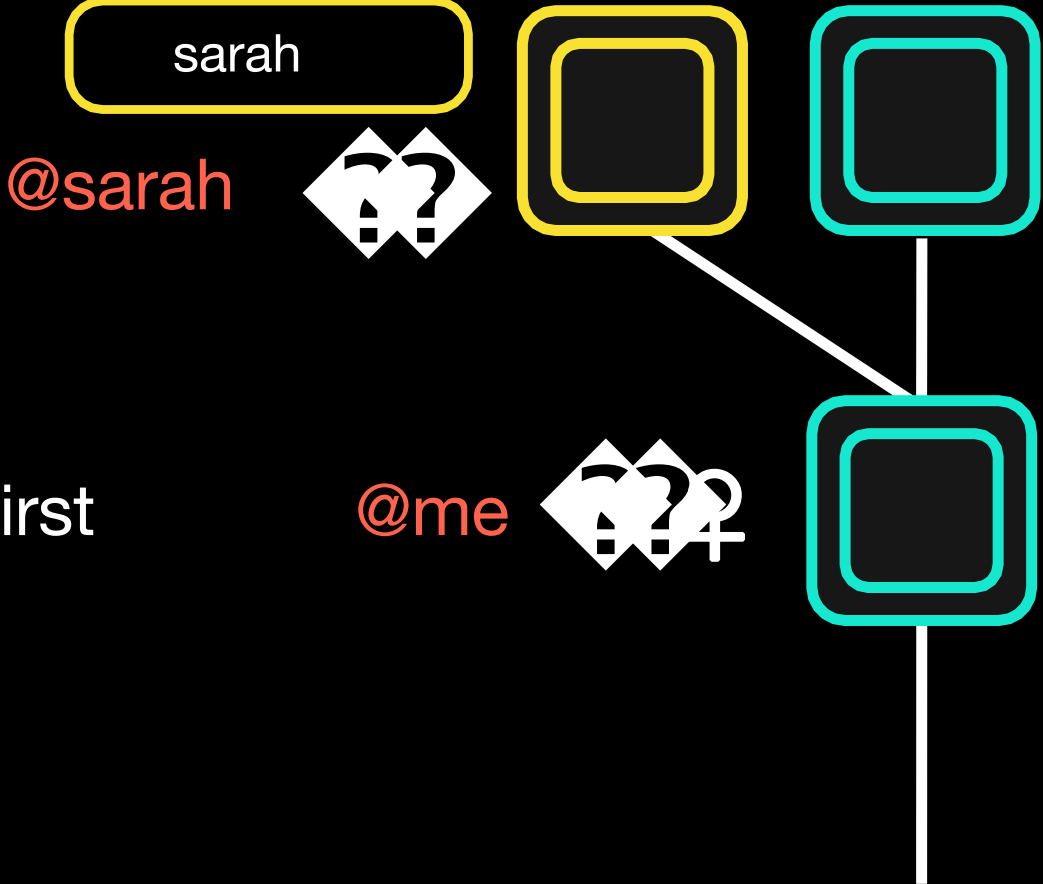


Git Stash



Added second story

Added first story



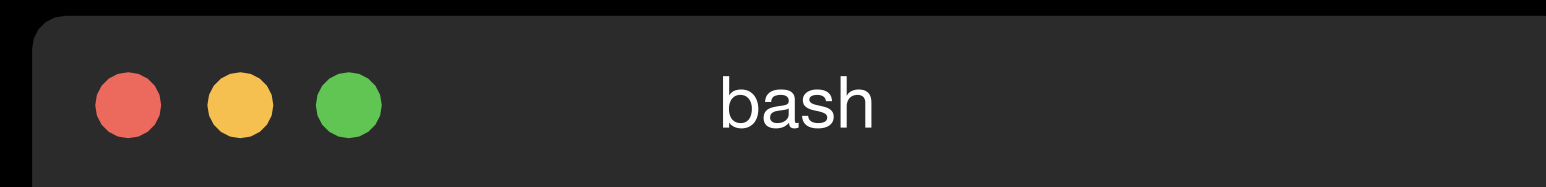
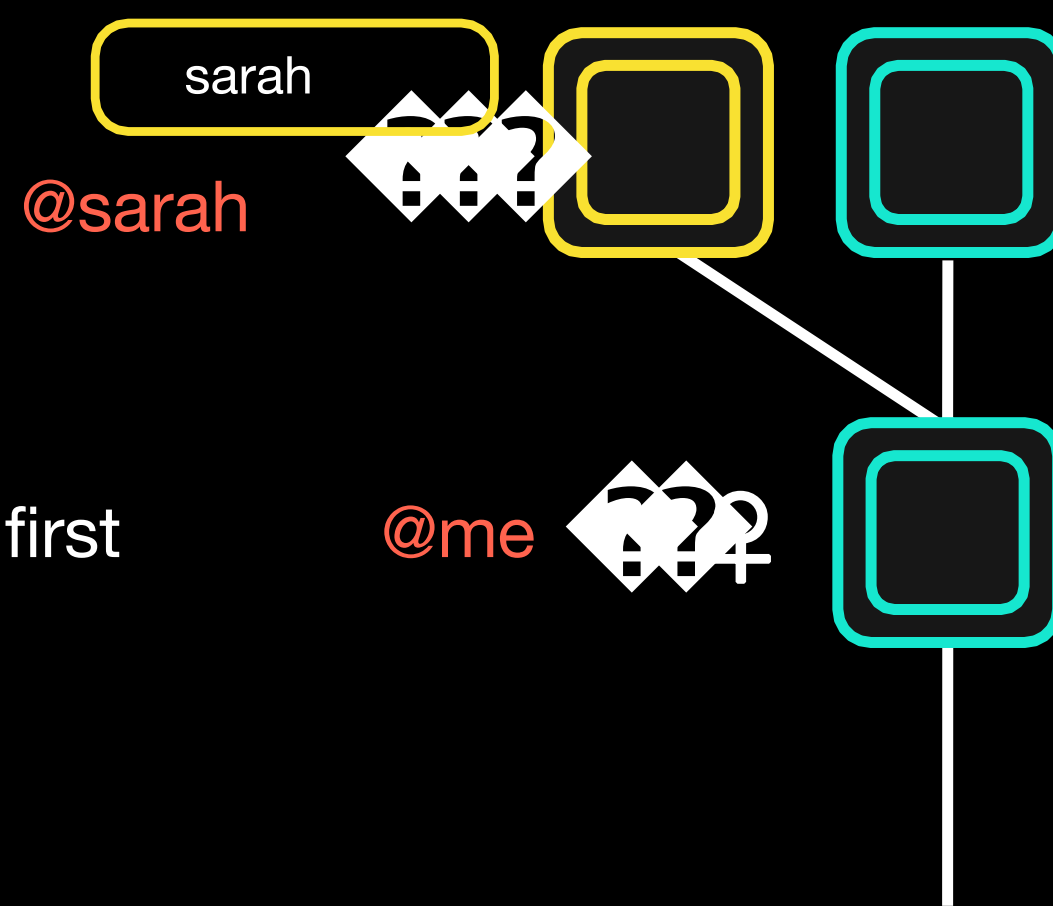
```
bash
```

```
$ git stash
```

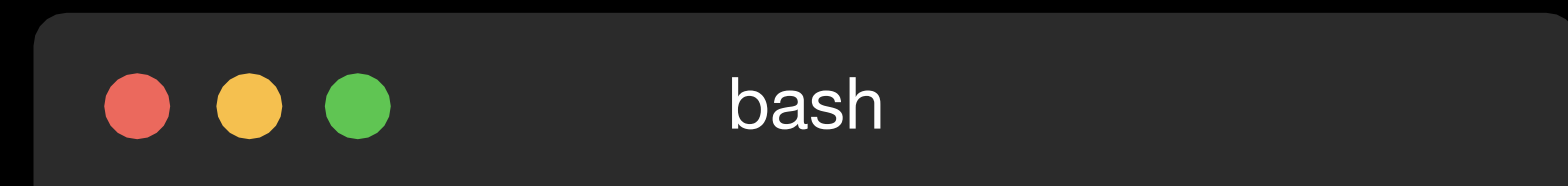
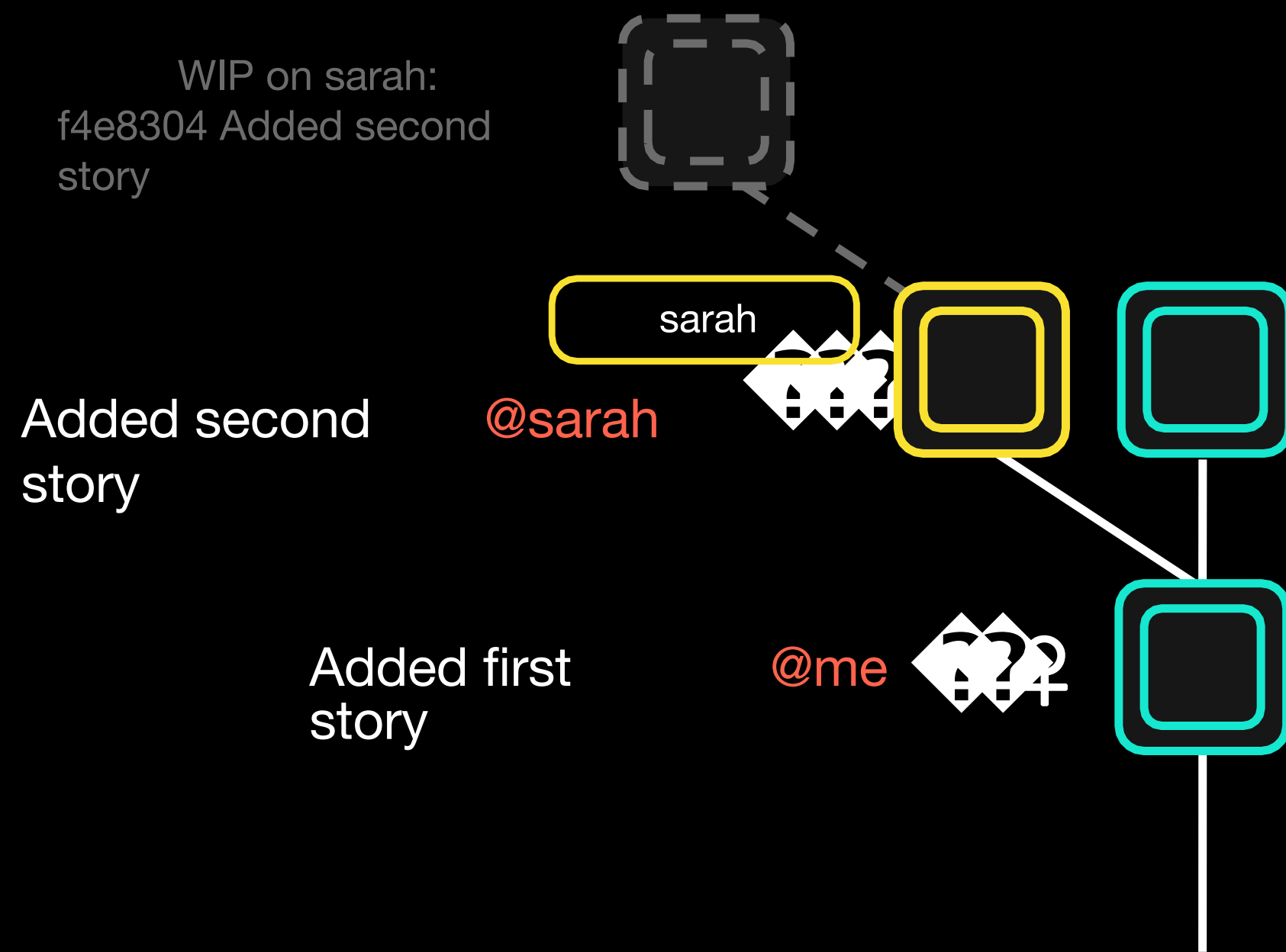


Added second story

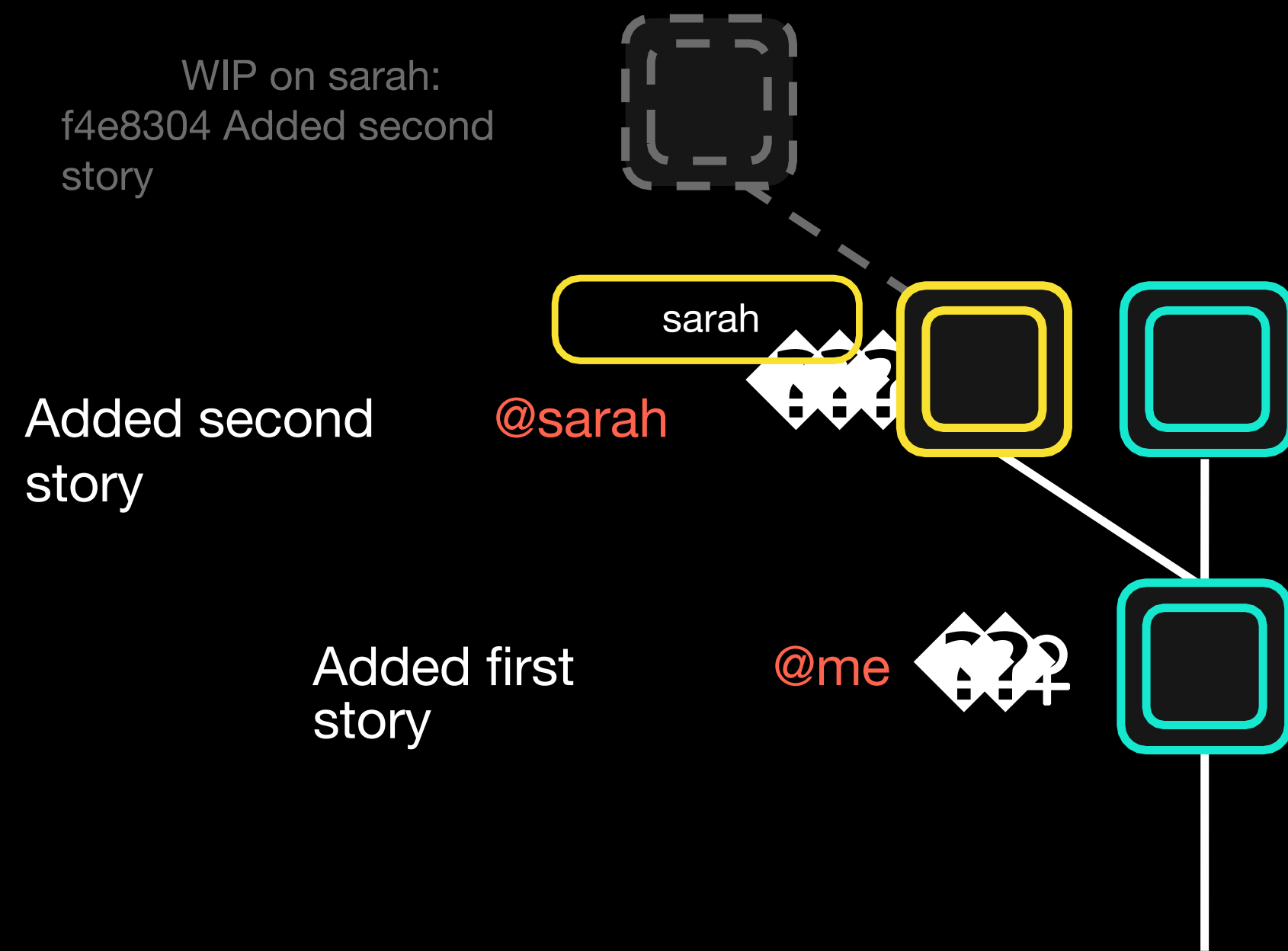
Added first story



\$ git stash

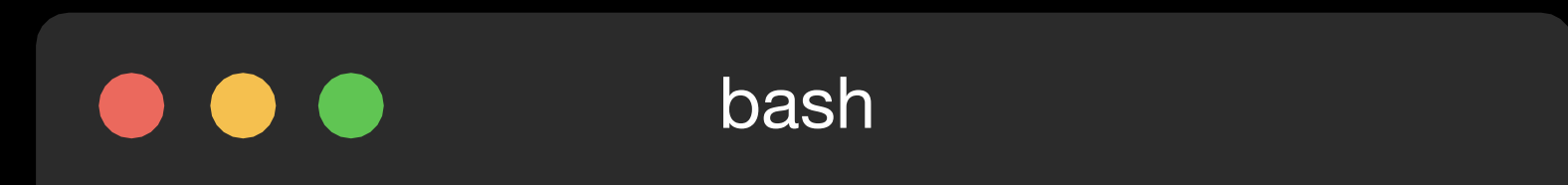
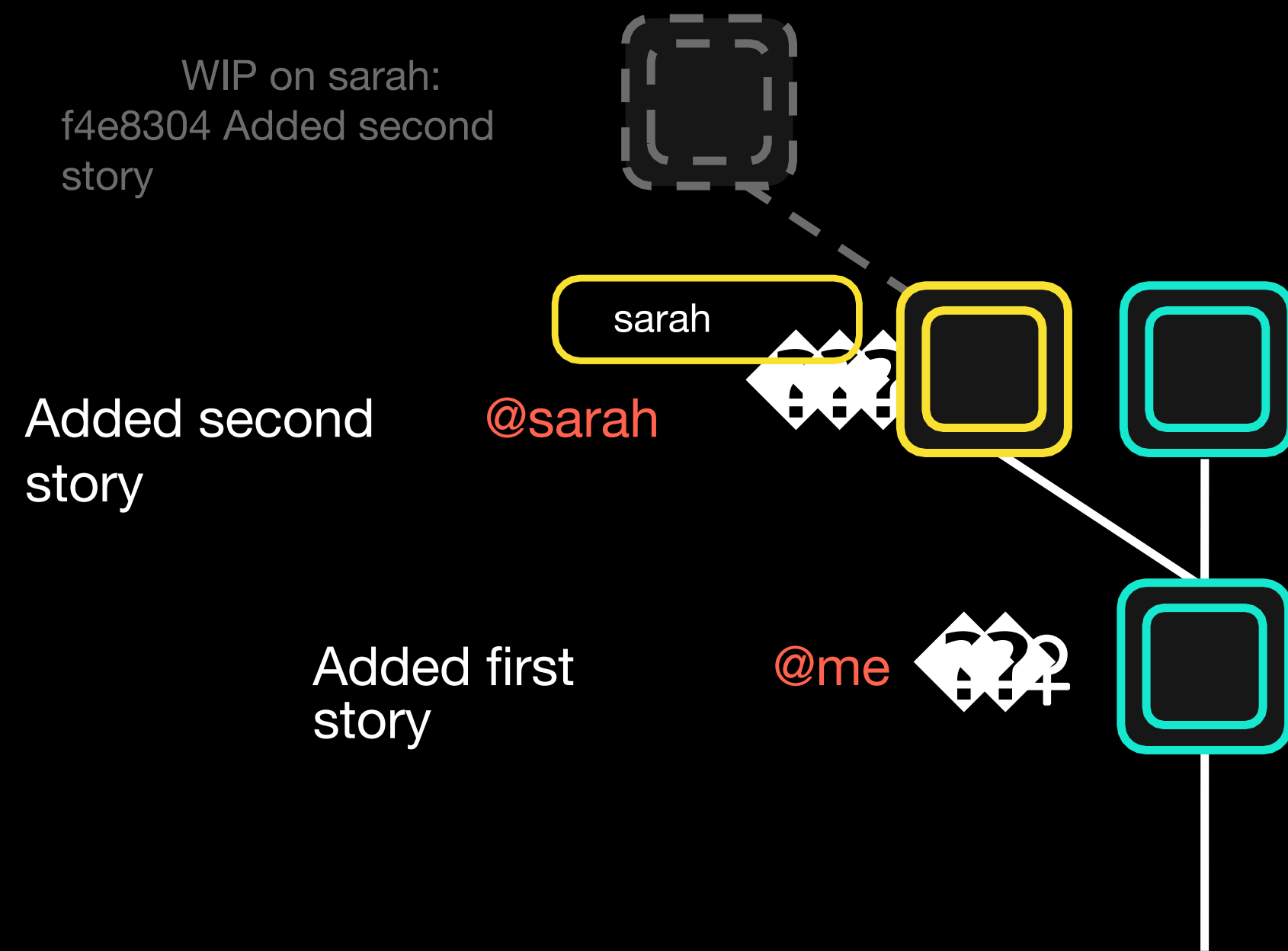


\$ git stash



```
bash

$ git stash pop
```



```
$ git stash pop
```



\$ git stash

Staging Area

+ **third_story.md**

Stash



bash

\$ git stash

Staging Area

Stash

+ third_story.md



bash

\$ git stash

Staging Area

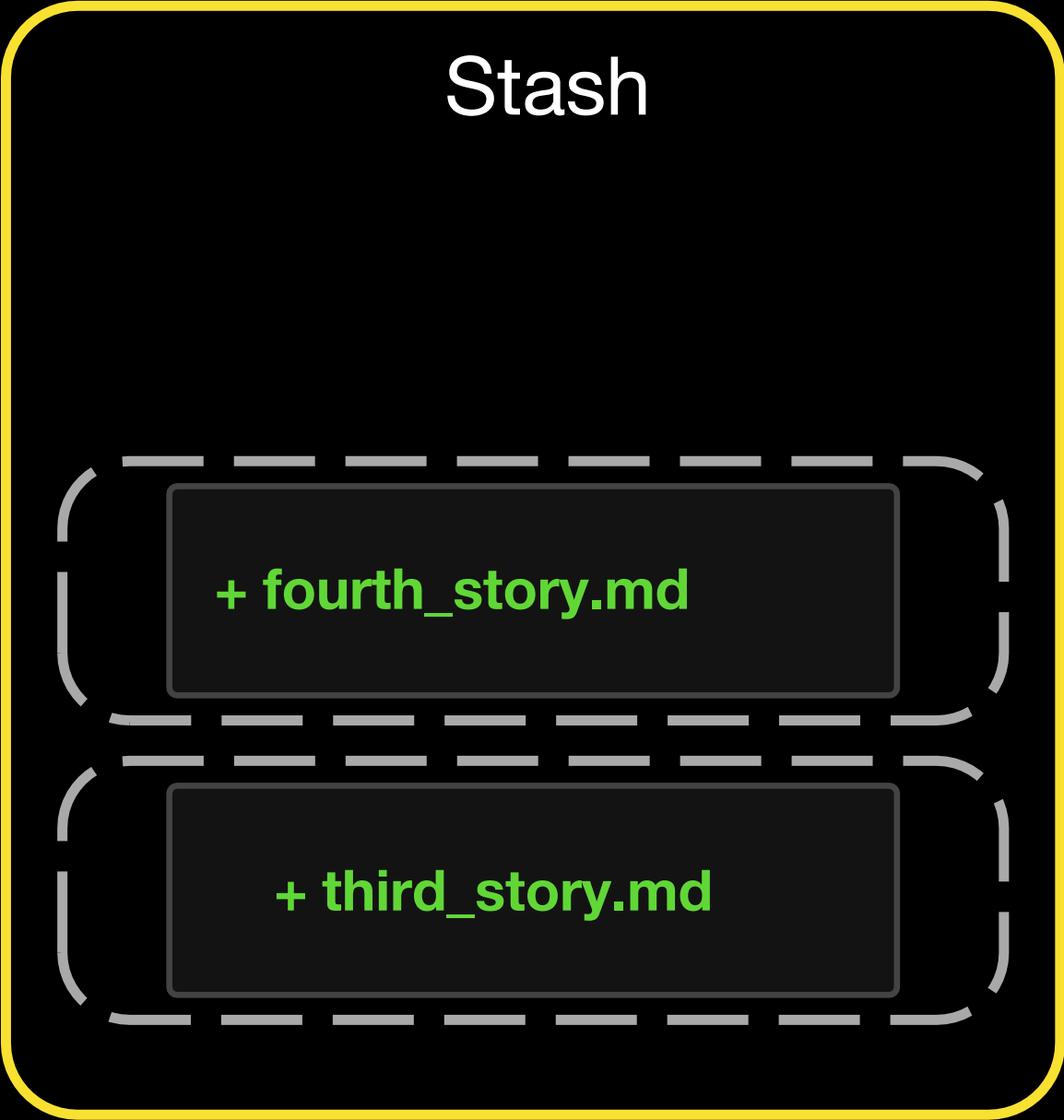
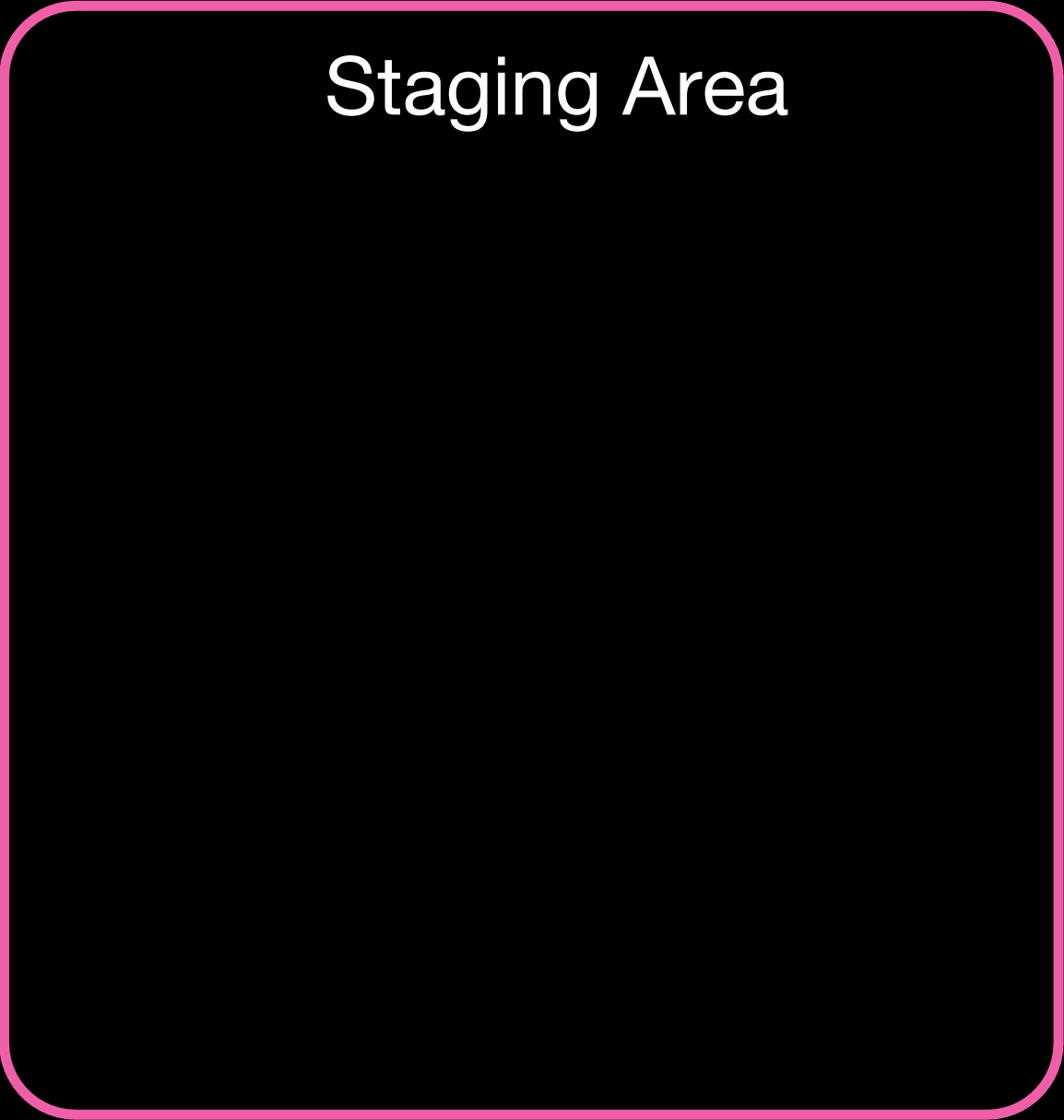
+ fourth_story.md

Stash

+ third_story.md



\$ git stash





bash

\$ git stash

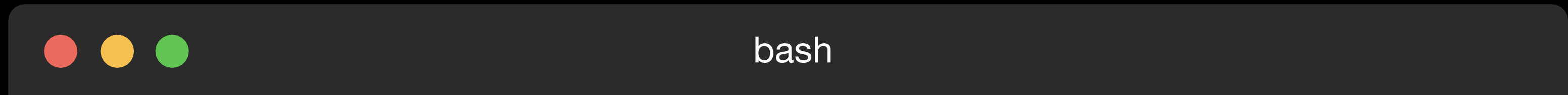
Staging Area

+ fifth_story.md

Stash

+ fourth_story.md

+ third_story.md



\$ git stash

Staging Area

Stash

+
fifth_story.md

+
fourth_story.md

+
third_story.md



bash

\$ git stash list

stash@{0}: WIP on sarah: f4e8304 Added second
story stash@{1}: WIP on sarah: f4e8304 Added
second story stash@{2}: WIP on sarah: f4e8304
Added second story



bash

```
$ git stash list
```

```
stash@{0}: WIP on sarah: f4e8304 Added second story
```

```
stash@{1}: WIP on sarah: f4e8304 Added second story
```

```
stash@{2}: WIP on sarah: f4e8304 Added second story
```

```
$ git stash show stash@{1}
```

```
fourth_story.md | 1 +
```

```
1 file changed, 1 addition(+)
```



bash

```
$ git stash list
```

```
stash@{0}: WIP on sarah: f4e8304 Added second story
```

```
stash@{1}: WIP on sarah: f4e8304 Added second story
```

```
stash@{2}: WIP on sarah: f4e8304 Added second story
```

```
$ git stash show stash@{1}
```

```
fourth_story.md | 1 +
```

```
1 file changed, 1 addition(+)
```

```
$ git stash pop stash@{1} Dropped
```

```
stash@{1} (2cfe...)
```