Sit in your assigned Zone + Table next to your partner!

Git Commit / Push & Pull

COMP423 / 2024 Fall / CL10

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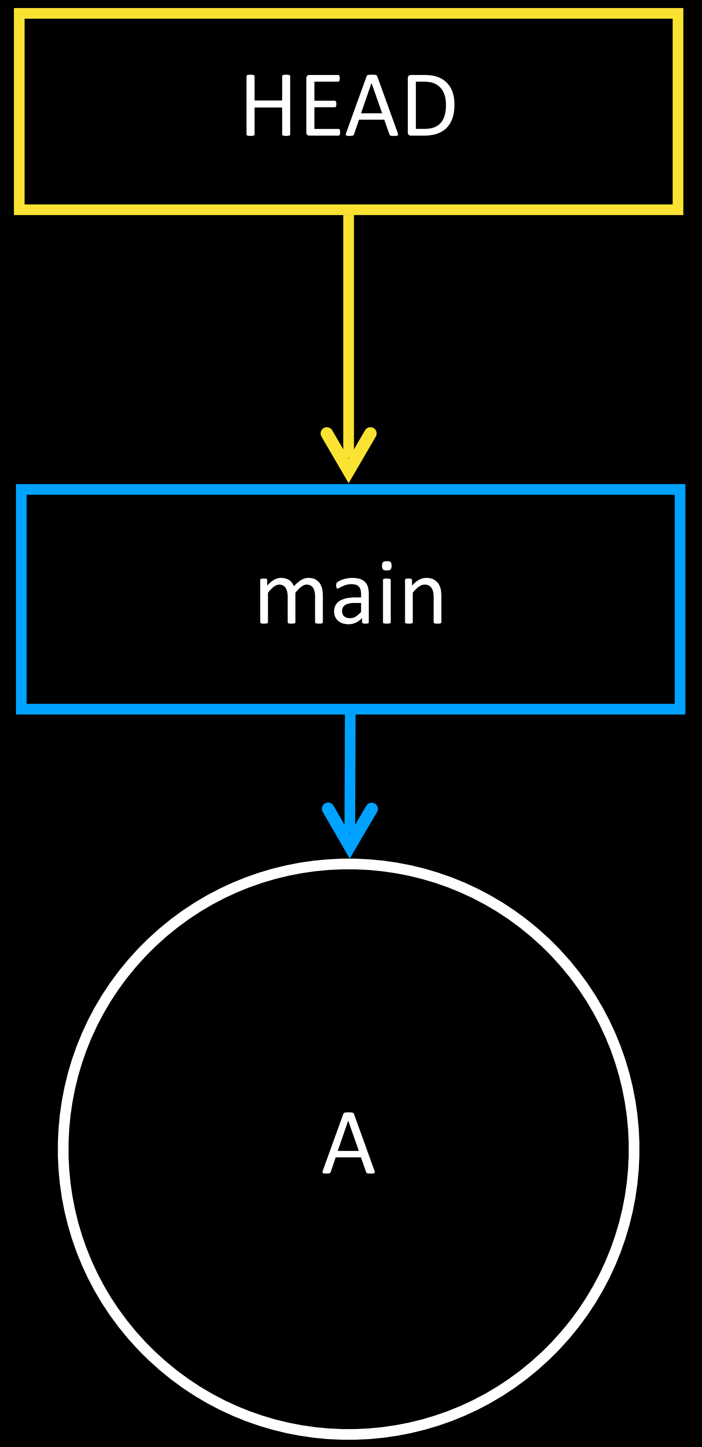
Draw the resulting state of this commit history after running the command:

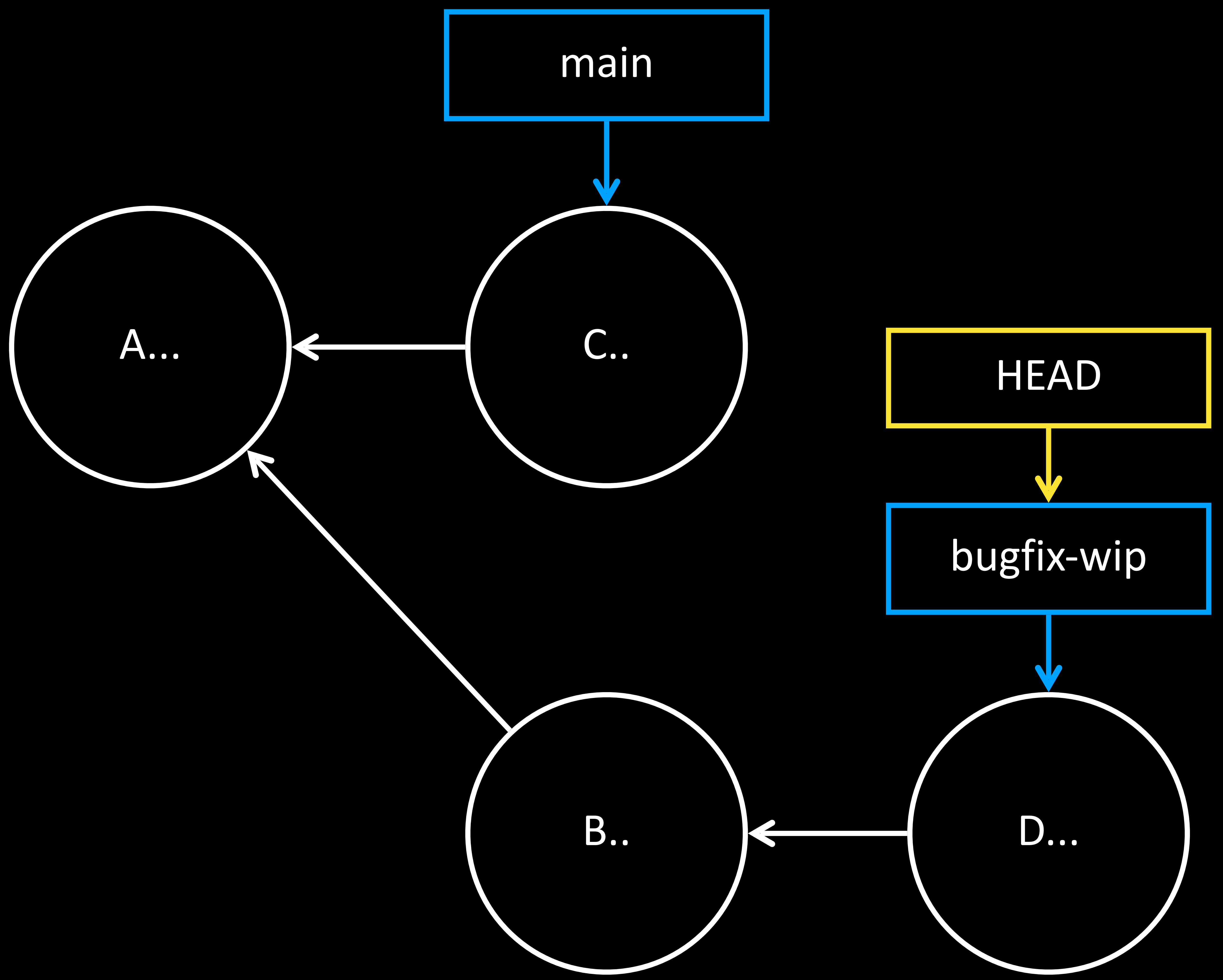
```
git merge main
git switch --create bugfix-wip
... assume git add / status ready to form commit...
git commit -m 'Commit ID is B...'
```



Draw the resulting state of this commit history after running the command:

```
git merge main
```

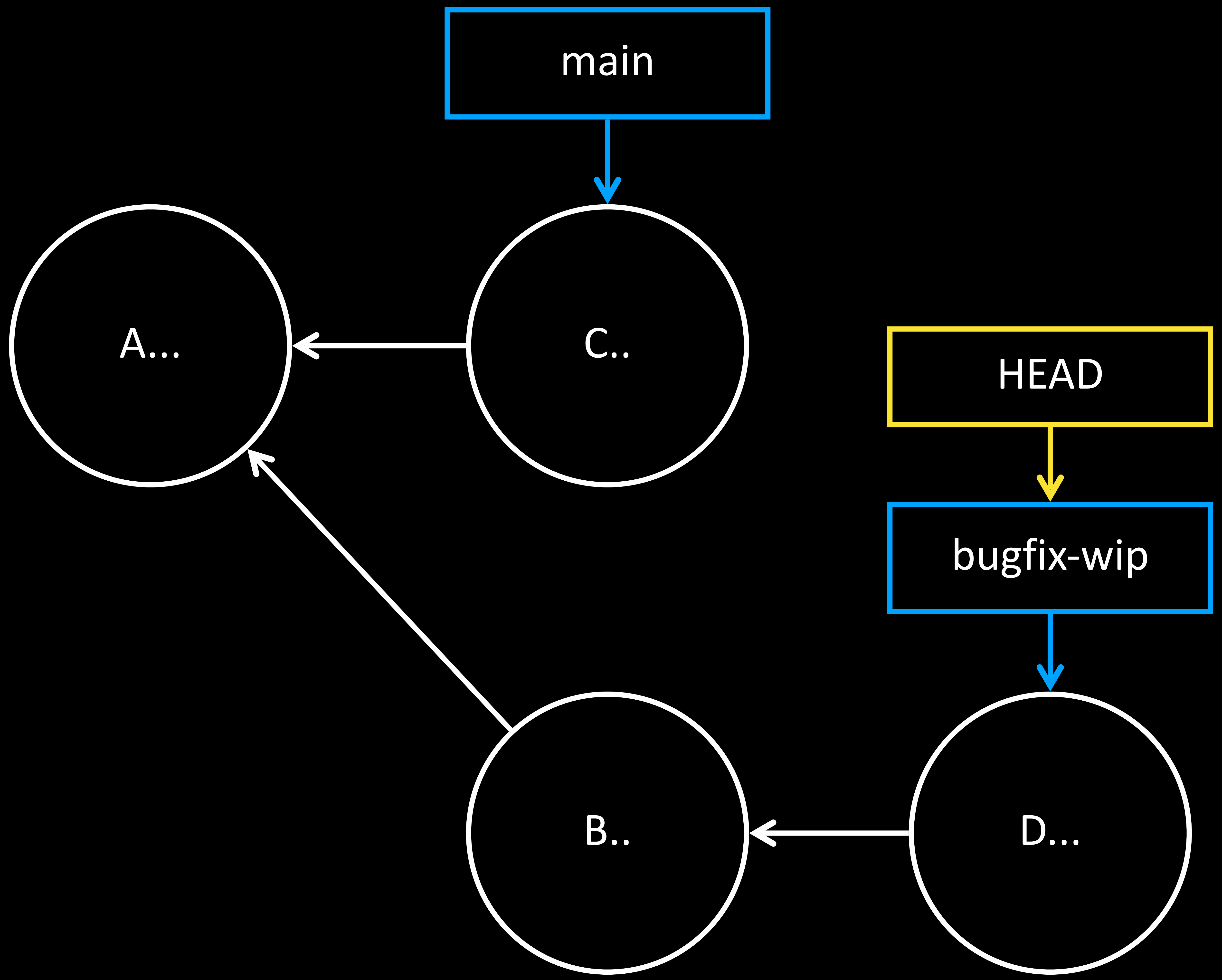
You can assume no merge conflicts exist.

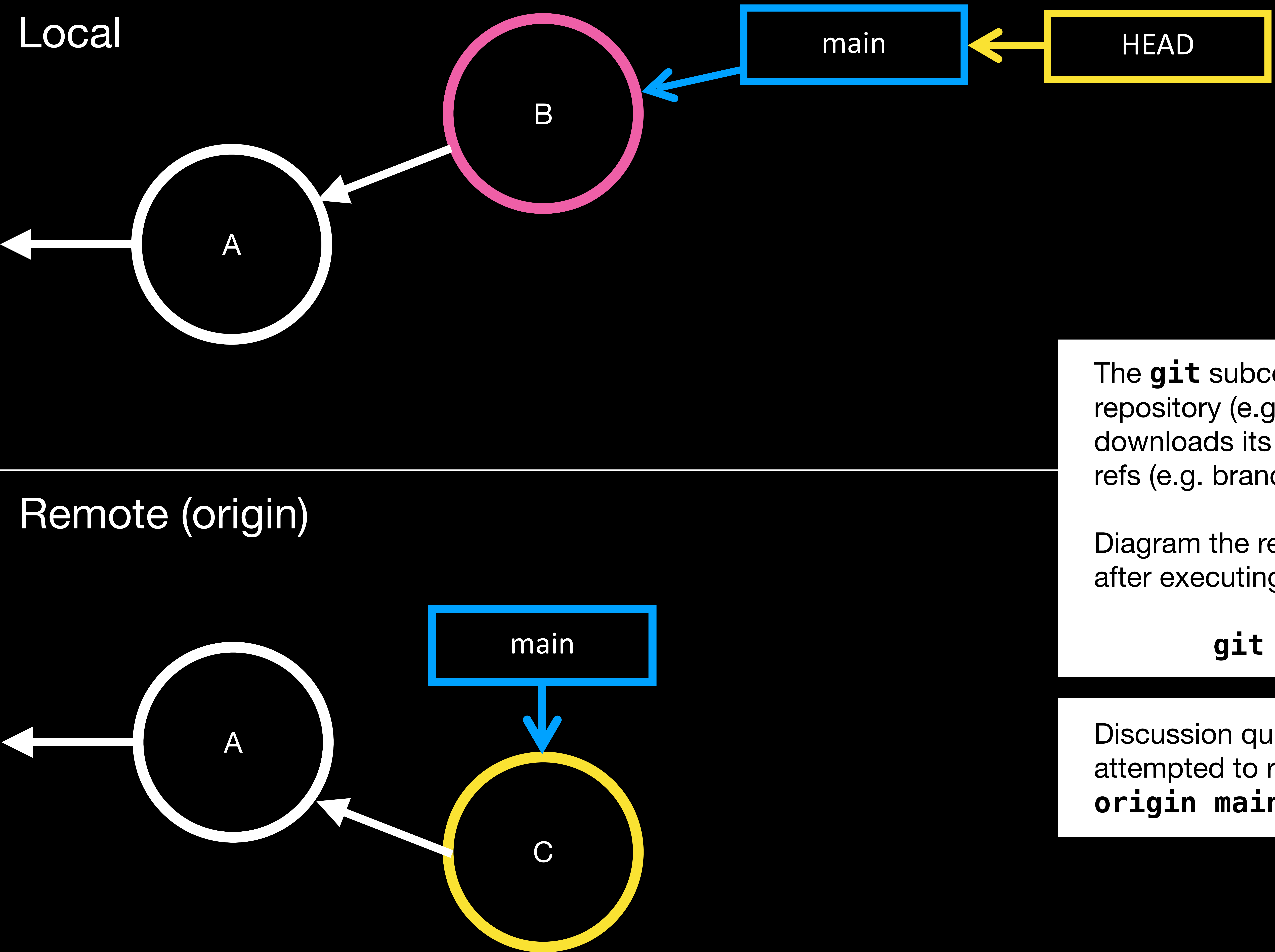


Draw the resulting state of this commit history after running the command:

```
git switch main
git merge bugfix-wip
```

You can assume no merge conflicts exist.



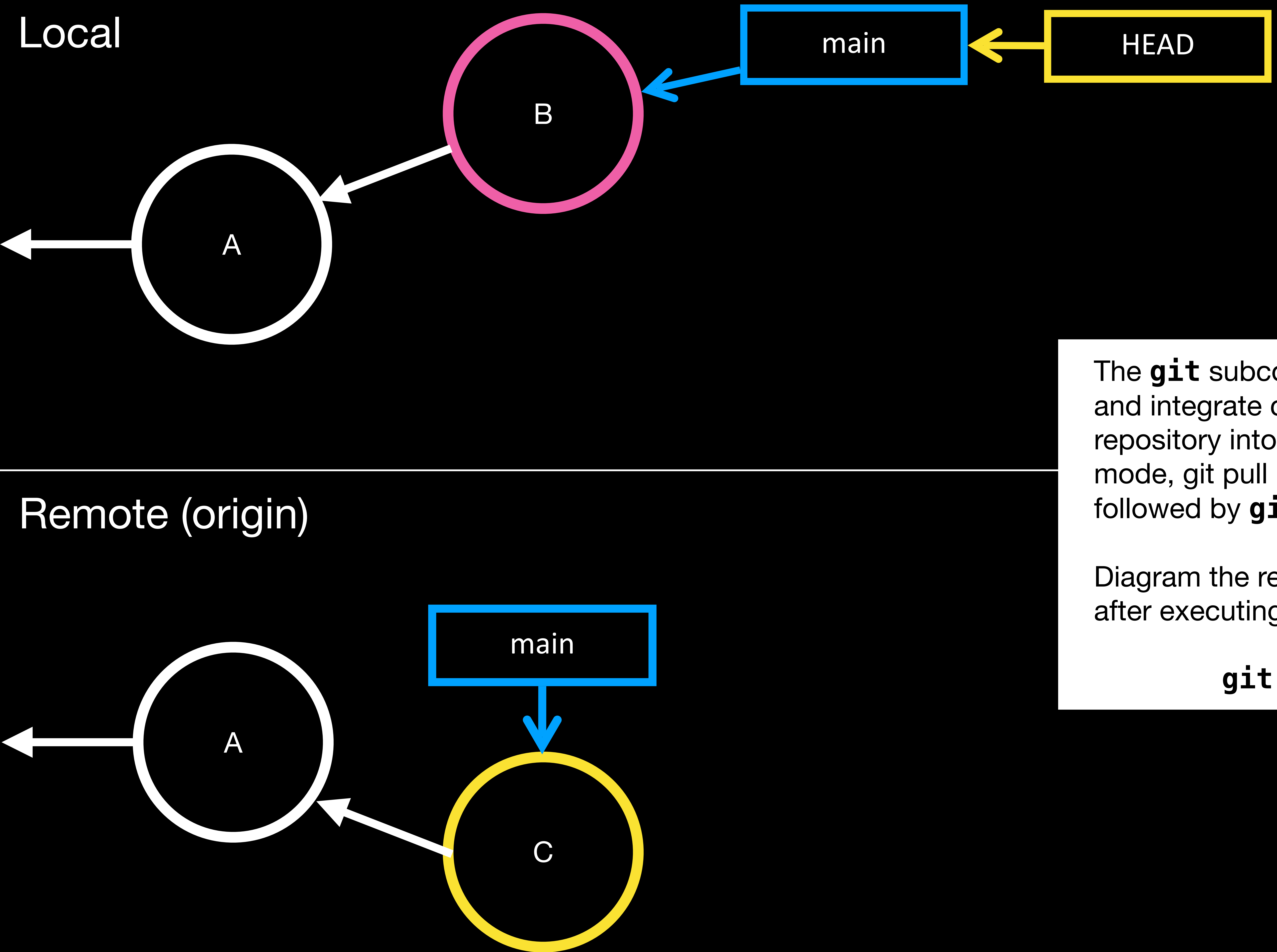


The **`git`** subcommand **`fetch`** takes a remote repository (e.g. origin) as an argument and downloads its objects (e.g. files/commits) and refs (e.g. branches/tags).

Diagram the resulting state of local and remote after executing the following command:

```
git fetch origin main
```

Discussion question: what would result if you attempted to run the command **`git push origin main`**?

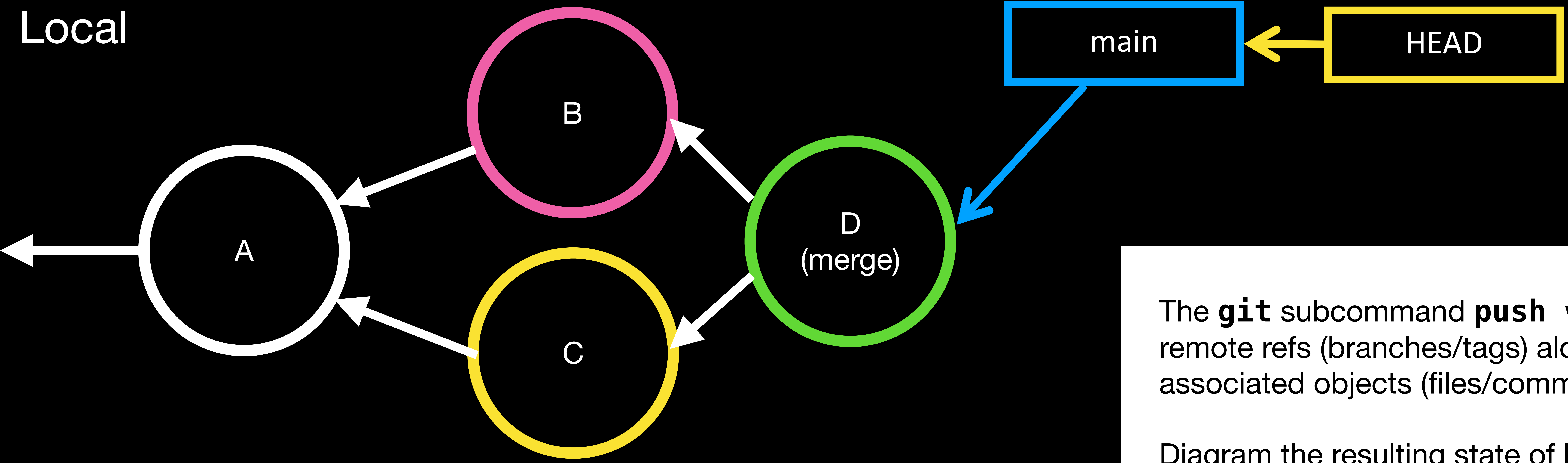


The **`git`** subcommand **`pull`** will “fetch from and integrate changes from a remote repository into the current branch. In its default mode, git pull is shorthand for `git fetch` followed by **`git merge FETCH_HEAD`**.”

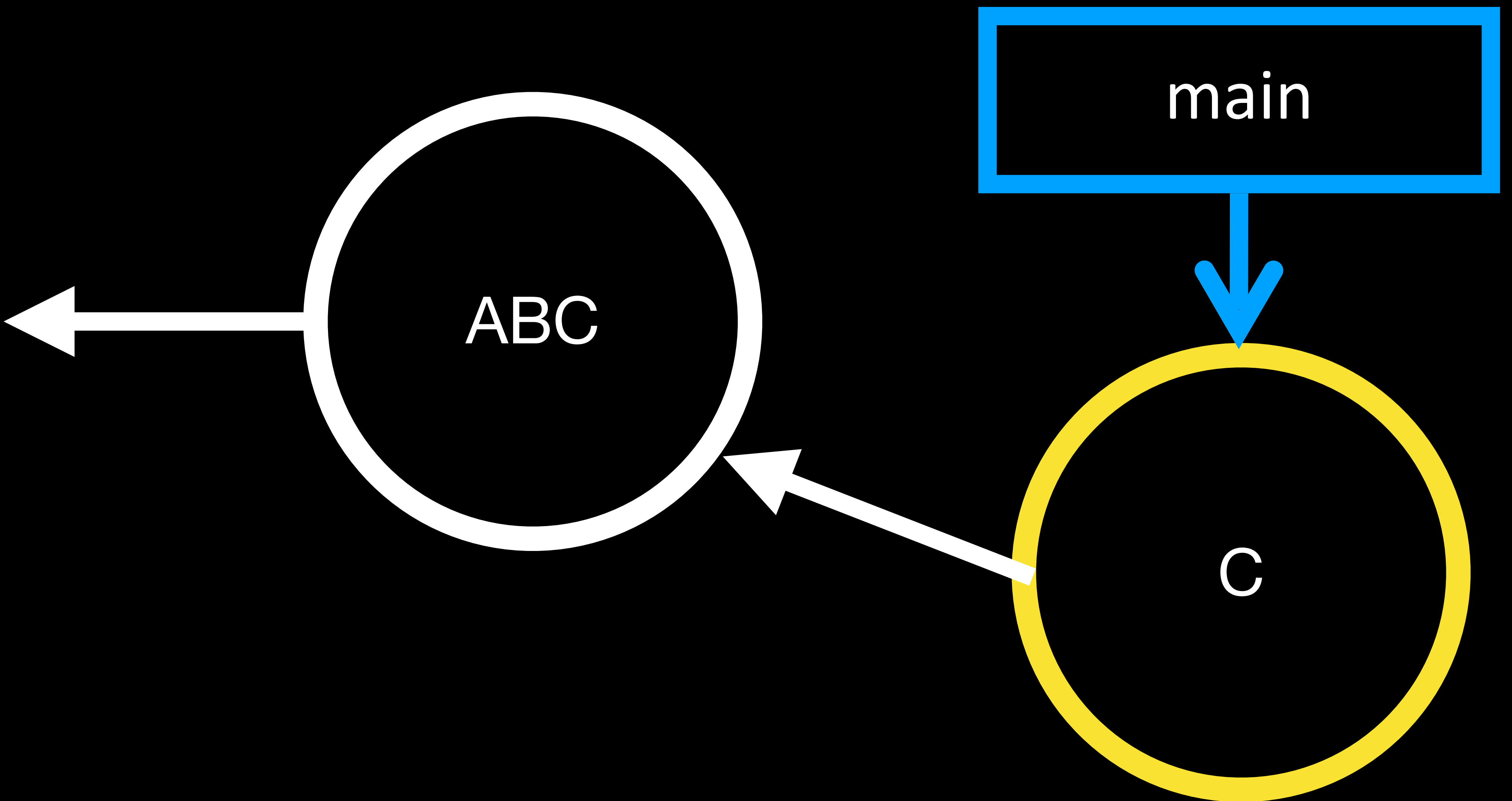
Diagram the resulting state of local and remote after executing the following command:

```
git pull origin main
```

Local



Remote (origin)



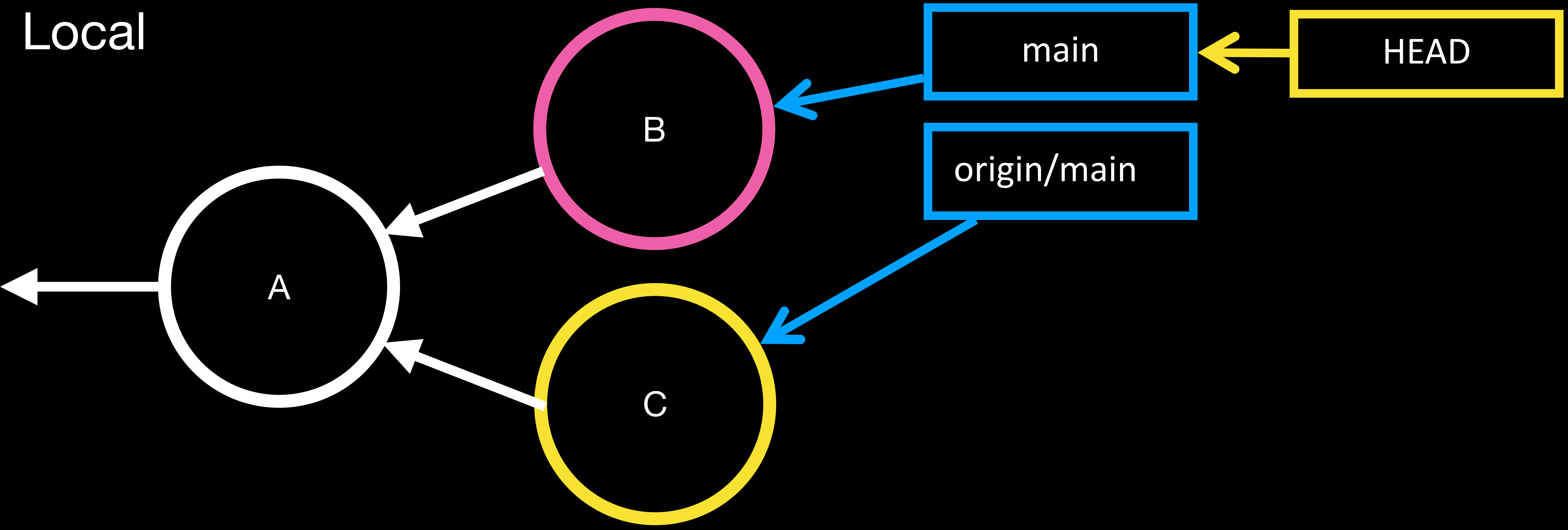
The **`git`** subcommand **`push`** will “update remote refs (branches/tags) along with associated objects (files/commits).”

Diagram the resulting state of local and remote after executing the following command:

```
git push origin main
```

Diagram the resulting state of local and remote after executing the following command.

Local



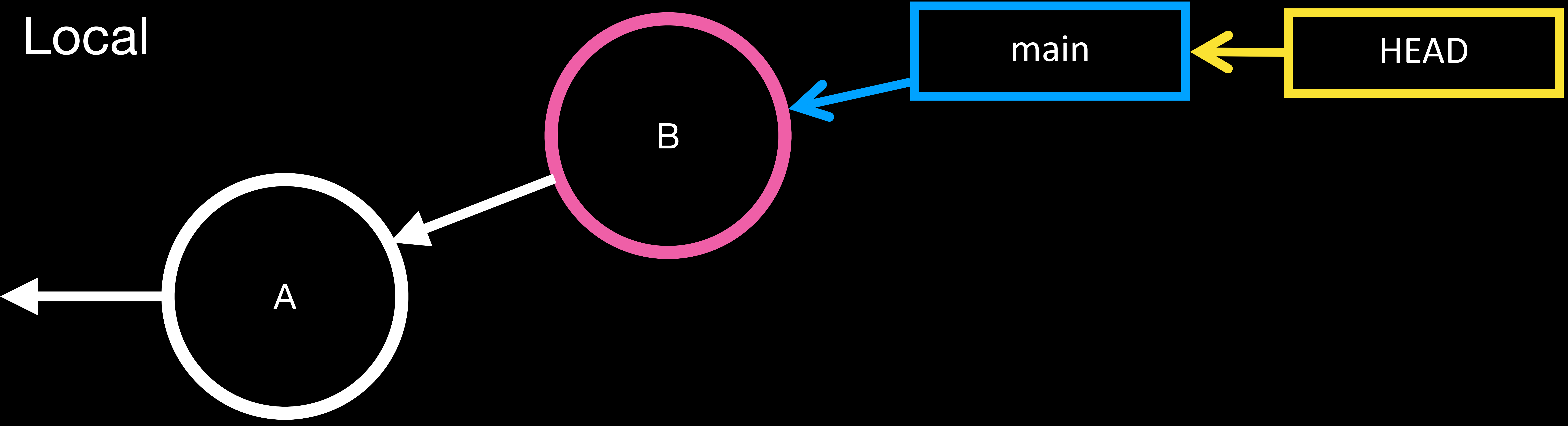
The **git** subcommand **rebase** will begin by “saving all changes made by commits in the current branch but that are not in <upstream> to a temporary area. [..] The current branch is reset to <upstream>. The commits that were previously saved into the temporary area are then reapplied to the current branch, one by one, in order.”

Diagram the resulting state of local and remote after executing the following command:

```
git rebase origin/main
```

In this case origin/main is <upstream>. Diagram the resulting state of local and remote after executing the following command.

Local



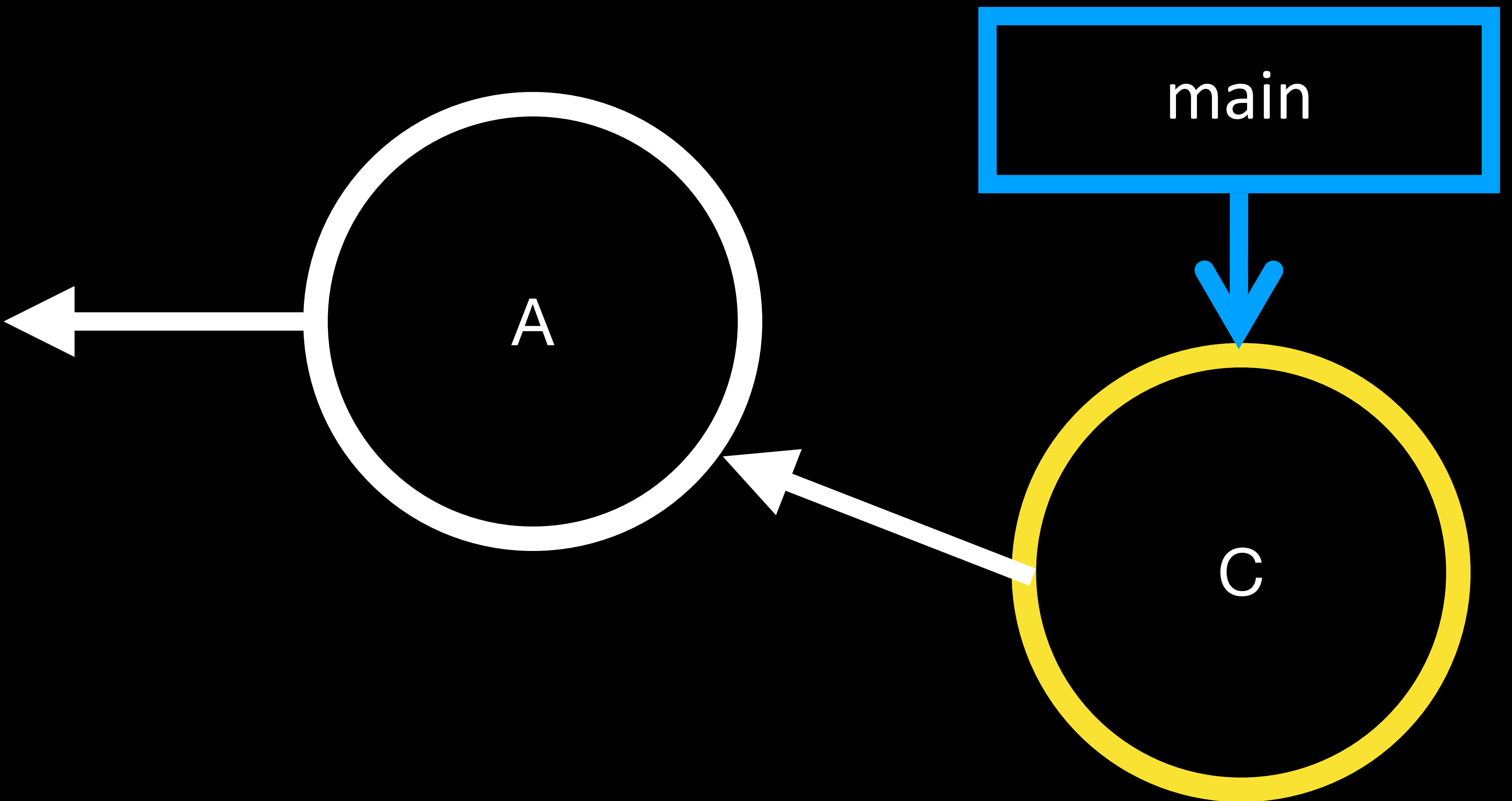
main

HEAD

B

A

Remote (origin)



main

A

C

The **`git`** subcommand **`pull`** will “fetch from and integrate changes from a remote repository into the current branch. If —rebase is specified, git pull is shorthand for `git fetch` followed by **`git rebase FETCH_HEAD`**.”

Diagram the resulting state of local and remote after executing the following command:

```
git pull --rebase origin main
```