

# The Branch Exists Only On The Remote

Learn how to deal with a branch that exists only on the remote repository.

We'll cover the following



- Branch on remote only
- Example
- Fetch branch to your repository
- Tracking remote branch

## Branch on remote only #

It is common to have a branch that exists on a remote repository but not in your local repository. Maybe someone else pushed a branch up or has made a pull request from a branch in that remote repository.

## Example #

Type the following out to simulate that state of affairs:

```
1  mkdir git_origin
2  cd git_origin
3  git init
4  echo 'first commit' > file1
5  git add file1
6  git commit -am file1
7  cd ..
8  git clone git_origin git_clone
9  cd git_origin
10 git checkout -b abranch
11 echo 'origin abranch commit' >> file1
12 git commit -am 'cloned abranch commit'
13 git branch -d abranch
```

```
13 git branch -a
```



Terminal 1



Terminal



Click to Connect...

```
14 cd ../git_clone
15 git branch -a
16 git remote -v
```

You will observe that the cloned repository does not have knowledge of the `abran` branch on the `origin` repository even though the `origin` is known to the cloned repository. There isn't any magic about the tracking of a remote repository. You have to trigger your repository to read the remote's state.

## Fetch branch to your repository #

To get the branch into your repository, you will need to fetch it.

```
17 git fetch origin
```

Note that you didn't need to specify a branch to get from the `origin`. By

default, Git will get all branches that may be of interest.



```
18 git branch -a
```

Terminal 1



Terminal



Now your cloned repository has knowledge that a branch called `abbranch` exists on the origin remote. But there isn't a branch in your local repository:

```
19 git branch
```

## Tracking remote branch #

If you check out an `abbranch` branch in your local repository, Git is smart enough to match the name and use this branch to track the remote branch from the origin:

```
20 git checkout abbranch
21 git branch -a -vv
```

Terminal 1



Terminal



Pay close attention to branch tracking, as it can be very confusing to Git newcomers!

Now if you `git push` any changes on this branch, Git will attempt to push those changes to the tracked branch, i.e, the `abbranch` branch on the remote repository.

Pushing to Repositories With Differen...

Tracking Remote Branches With Diffe...



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