

What is a branch ? What is branching ?

- A branch is an “alternative universe” of your project, where you can experiment with new ideas (e.g. new data analyses, new data transformations, new statistical methods). After experimenting, you can then “merge” your changes back into the master branch.
- Branching isn’t just for group collaborations, you can use branching to collaborate with yourself, e.g., if you have a new idea you want to play with but do not want to have that idea in master yet.
- The “master” branch (the default in GitHub) is your best draft. You should consider anything in “master” as the best thing you’ve got.
- The workflow using branches consists of
 1. Create a branch with an informative title describing its goal(s).
 2. Add commits to this new branch.
 3. Merge the commits to master

Branching Overview:

Make changes, additions, improvements on a branch; once you are satisfied merge the content or files of that branch to you Master. (The Master, or Master branch is the original file document that you may want to modify).

STEP 1 Create a new Github repository

STEP 2 Go to the Bash terminal and create a README.md file

```
12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (master)
```

```
$ touch README7.md
```

Step 3 Go to the README7.md file and edit it. (When you go to the README7.md file click on it and choose a text editor, I chose note pad) Enter and save the message "This is good Branching practice"

Step 4 Now enter the command ls. You should see the README7.md file

```
12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (master)
```

```
$ ls
```

```
Diamondsfile.Rmd README7.md
```

```
README5.md "UTF-8"STAT412612CLASSWORK1.pdf"
```

```
README6.md irisfile.R
```

Step 5

```
12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (master)
```

```
$ git init
```

Reinitialized existing Git repository in C:/Users/12407/Documents/Folder11/.git/

Step 6

```
12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (master)
```

```
$ git add README7.md
```

Step 7

```
12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (master)
```

```
$ git commit -m "README7.md push"
```

Step 8

12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (master)

```
$ git remote add forty https://github.com/spingarn1974/repo2.git
```

Step 9

12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (master)

```
$ git remote -v
```

12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (master)

```
$ git push -u forty master    You have now pushed the README7.md file to GitHub
```

Now create a branch

Step 10

12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (master)

```
$ git branch branch9    I have created a new branch called branch9 (Use your last name followed by the number 1 for your branch name)
```

Now move to the branch

Step 11

12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (master)

```
$ git checkout branch9    I have now switched to branch9
```

12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (branch9)

Note above that you are now on the newly created branch instead of the master

Step 12

Now create the following Rmarkdown file and save it to the your Bash Directory location. This is the file that will be merged to your master branch. I named it Diamondsfile2

```
```${r}
```

```
library(tidyverse)
```

```
library(dplyr)
```

```
diamonds%>%
```

```
 select(price, color, x)
```

```
```\n`
```

Step 13

Run the command ls and you should see it saved.

12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (branch9)

```
$ ls
```

```
Diamondsfile.Rmd  README7.md
```

```
Diamondsfile2.Rmd "UTF-8"STAT412612CLASSWORK1.pdf"
```

```
README5.md      irisfile.R
```

```
README6.md
```

Step 14

12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (branch9)

```
$ git add Diamondsfile2.Rmd
```

Step 15

12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (branch9)

```
$ git commit -m "branch9 push"
```

Step 16

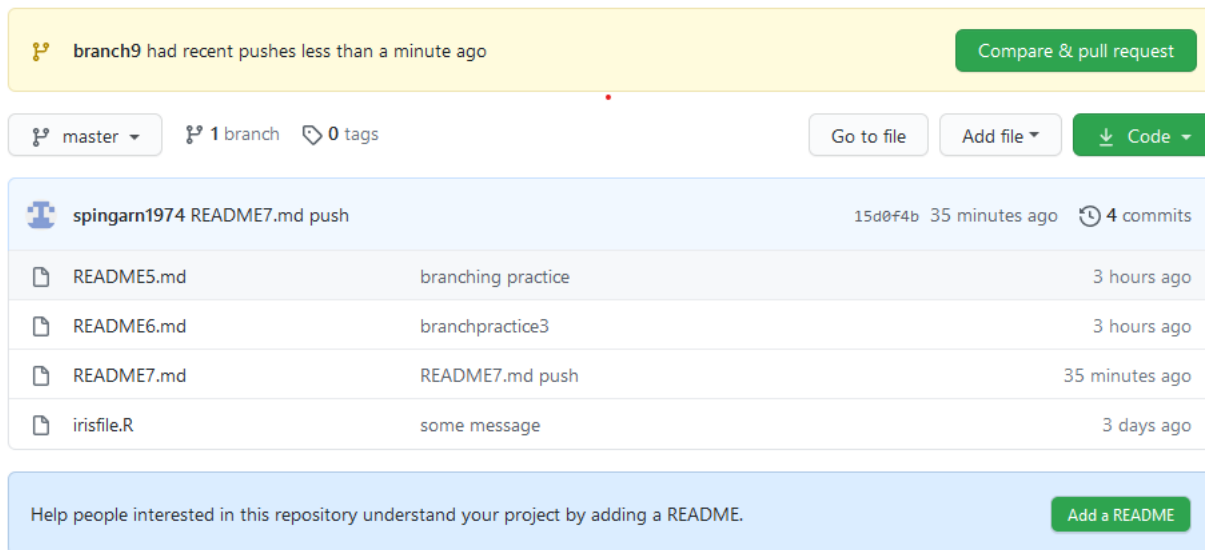
12407@DESKTOP-M8SMUFL MINGW64 ~/Documents/Folder11 (branch9)

```
$ git push forty branch9
```

Now go to GitHub

Image 1

Click the green tab **Compare & Pull request**



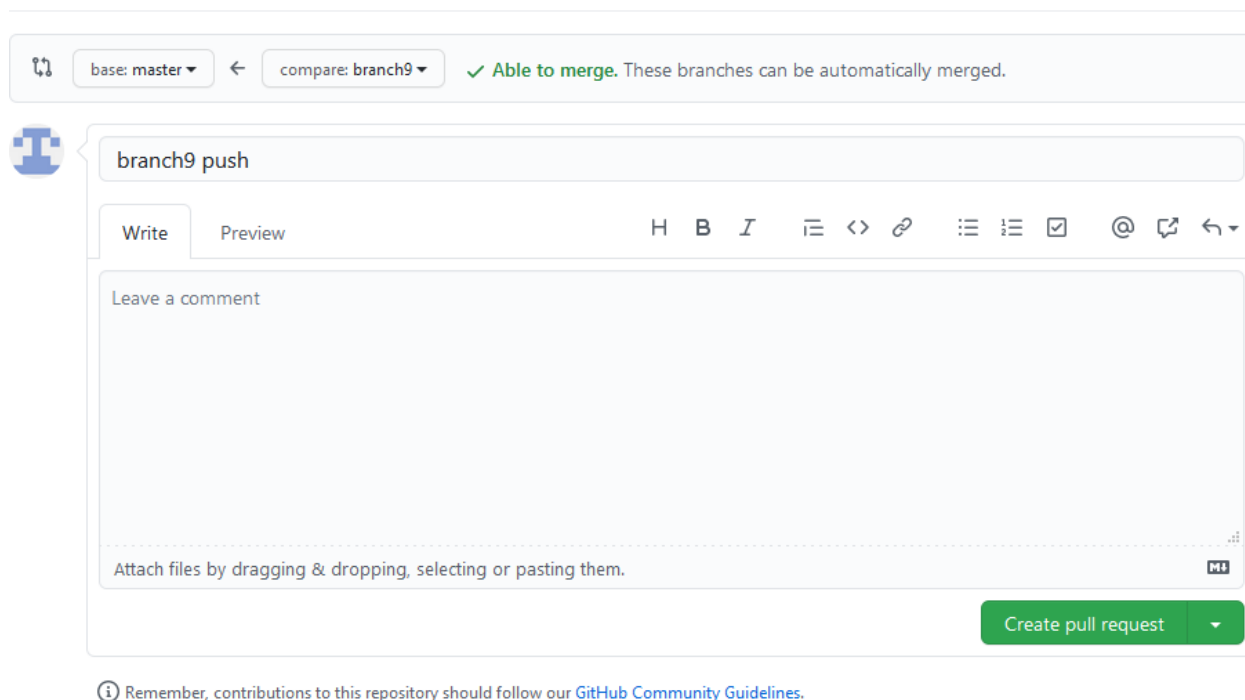
This screenshot shows the top of a GitHub repository page. At the top, a yellow banner indicates that 'branch9' has recent pushes less than a minute ago, with a green 'Compare & pull request' button. Below this, navigation links for 'master', '1 branch', and '0 tags' are visible, along with buttons for 'Go to file', 'Add file', and 'Code'. A list of recent commits is shown, including a push to 'README7.md' by 'spingarn1974' 35 minutes ago. At the bottom, there is a light blue box with a message about adding a README and a corresponding 'Add a README' button.

Image 2

Click the green tab **Create pull request** at the bottom of the screen

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#).





This screenshot shows the 'Create pull request' interface on GitHub. At the top, it displays the comparison between 'base: master' and 'compare: branch9', with a green checkmark indicating 'Able to merge'. Below this, the 'branch9 push' is highlighted. The main area has tabs for 'Write' and 'Preview', with a rich text editor toolbar. A large text area for comments is present, with a placeholder 'Leave a comment'. At the bottom, there is a green 'Create pull request' button. A footer note mentions the GitHub Community Guidelines.

Click on the **Merge pull request** green tab at the bottom

Image 3

branch9 push #1

 Open

 spingarn1974 wants to merge 1 commit into `master` from `branch9` 

 Conversation 0

 Commits 1

 Checks 0

 Files changed 1

 spingarn1974 commented now Owner  

No description provided.

  branch9 push

22b2a96



 Continuous integration has not been set up

GitHub Actions and several other apps can be used to automatically catch bugs and enforce style.

 This branch has no conflicts with the base branch

Merging can be performed automatically.


Merge pull request 


You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Click on the **Confirm merge** green tab at the bottom

Image 4

branch9 push #1

 Open

 spingarn1974 wants to merge 1 commit into `master` from `branch9` 

Conversation 0

Commits 1

Checks 0

Files changed 1

 spingarn1974 commented 3 minutes ago

Owner 😊 ...

No description provided.

  branch9 push 22b2a96Add more commits by pushing to the `branch9` branch on `spingarn1974/repo2`.

Merge pull request #1 from spingarn1974/branch9


branch9 push


Confirm merge


Cancel


Image 5


branch9 push #1


 Merged


spingarn1974 merged 1 commit into `master` from `branch9`  now

 Conversation 0



 Commits 1

 Checks 0


 Files changed 1




spingarn1974 commented 8 minutes ago


Owner  


No description provided.




 branch9 push

22b2a96



 spingarn1974 merged commit `1b213b8` into `master` now


Revert












Pull request successfully merged and closed

You're all set—the `branch9` branch can be safely deleted.


Delete branch



WritePreview

H B I         

Leave a comment

Attach files by dragging & dropping, selecting or pasting them. 

Comment

Email the url for this page (Image 5)