STEPS FOR BRANCHING AND MERGING ON A SHARED REPOSITORY

1. Clone the repository as always - git clone <repository ssh code>

**git clone git@github.com:amalini10j/Covid19-Data-Analysis.git**

1. Change directory to the repository folder cloned in Step 1

**cd Covid19-Data-Analysis**

1. After the initial cloning, once we start working on our codes for all collaborators it is best practice to start in the main branch and do a pull. This will bring the latest code to your local repository and will avoid any overwrites:

**git checkout main**

**git pull**

1. Create a new branch and switch to it. I have named my branch as readme\_update\_anshu. You can choose any name accordingly but lets have our names within the branch

**git checkout -b readme\_update\_anshu**

1. Modify the ReadMe on your system within the cloned local repository folder as needed
2. Navigate back to terminal, cd to repository folder and type **git add .**

(If you need to add only one file then mention the file name instead of .)

1. Perform **git status** here to see whether you are in your local branch
2. Commit the files modified. The following will commit the changes only in your local branch

**git commit -m “Added files in local branch”**

1. Push your modified files to the new branch. (Your branch name should be mentioned instead of readme\_update\_anshu)

**git push --set-upstream origin readme\_update\_anshu**

1. Navigate to GitHub and then to the shared repository. You will be able to see a message with the branch name as shown below:

Graphical user interface, application

Description automatically generated

1. Click on **Compare and pull request**. A screen will be opened as shown below.

Graphical user interface, text, application, email

Description automatically generated

In the above screen do the following:

* Add details/comments in the write section with a brief description of the changes
* On the right-hand side, click Reviewers to ddd reviewer to the pull request. A list of all repository collaborators (except you) will be displayed. For the initial commit for Readme you can make me (anshu10j) as reviewer. Later we will decide reviewers for each activity.
* Click on **Create pull request** after selecting reviewer

1. After step 10 another page should be displayed with an option to merge the changes but here lets follow the practice of the reviewer first approving and then merging the pull request
2. An email should be triggered to the reviewer assigned. The reviewer has to login to GitHub, review the pull request and click on **Merge pull request**. This will merge back the changes into the main branch. In case the reviewer has issues then it can be mentioned in the comments on the page shown below.

Graphical user interface, text, application, email

Description automatically generated

1. For the reviewer as well as pull request creator, if you wish to see the change in files, you need click on Files Changed in the merge request screen and that will show the differences in the old and new file. See screen shot below:

Graphical user interface, text, application

Description automatically generated

1. Once the merge is done, an email is sent to the pull request creator too. After merge there is also an option to delete the branch and it can safely be deleted if the branch owner no longer needs it. (We can start by not deleting the branches and then once we get comfortable, we can delete)

Graphical user interface, text, application, email

Description automatically generated

1. After the merge, the original developer of the branch can either reuse the same branch (if not deleted) to make further changes or you can create another branch and repeat the steps above.
2. You can navigate back to main branch by the command **- git checkout main**