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# **Commands**

* **git clone <URL> -> To clone the Project from Remote to Local Repository**
* **git log –> git history**
* **git add . 🡪 To add all the newly created or modified files into Staging area in local repository**
* **git add <filename> 🡪 To add the single file name that is created or modified into Staging area in local repository**
* **git commit -m “Test Message” 🡪 To add the modified files from staging area to local repository**
* **You have to Identify yourself to Add files to Remote Repository by executing below commands**
  + **git config --global user.name "<Github Username>"**
  + **git config --global user.email=”<Github User email>”**
* **git push 🡪 To Push the changes from local repository to remote repository**
* **git init 🡪 git init** creates an empty Git repository or re-initializes an existing one. It basically creates a**.git** directory with sub directories and template files. Running a **git init** in an existing repository will not overwrite things that are already there. It rather picks up the newly added templates.
  + **git remote –> to see remote repository attached to it**
  + **git remote -v**
  + **git remote add origin** <<https://github.com/skatta3/TestRole.git>> --> To map local repository to remote repository
  + **git push origin master**

Here we need to create a empty repository in github without initialization of README file

* **git status** -> The git status command lists all the modified files which are ready to be added to the local or remote repository.
* **git pull -> To get latest version from Remote Repository**
  + **it auto merges the code from remote Repository into Local repository as long as there are no MERGE Conflicts**
  + **if there are any MERGE Conflicts it won’t auto merge, you have to resolve the Conflicts manually**
* **git reset --hard – To remove the committed changes**
* **git mv <Source> <Dest> 🡪 To Rename the file**

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# **BRANCHing**

* **git checkout -b uat - Creation of new Branch and switching into it**
  + **Equivalent to**
    - **git branch uat**
    - **git checkout uat**
* **git push --set-upstream origin <NEWBRANCH>** -- To Map the newly created branch in local to Remote

## Rename a Branch

To rename a branch, run the command:

git branch -m OLD-BRANCH-NAME **NEW**-BRANCH-NAME

*# Alternative*

git branch --move OLD-BRANCH-NAME **NEW**-BRANCH-NAME

## Delete a Branch

Git won’t let you delete a branch that you’re currently on. You first need to checkout a different branch, then run the command:

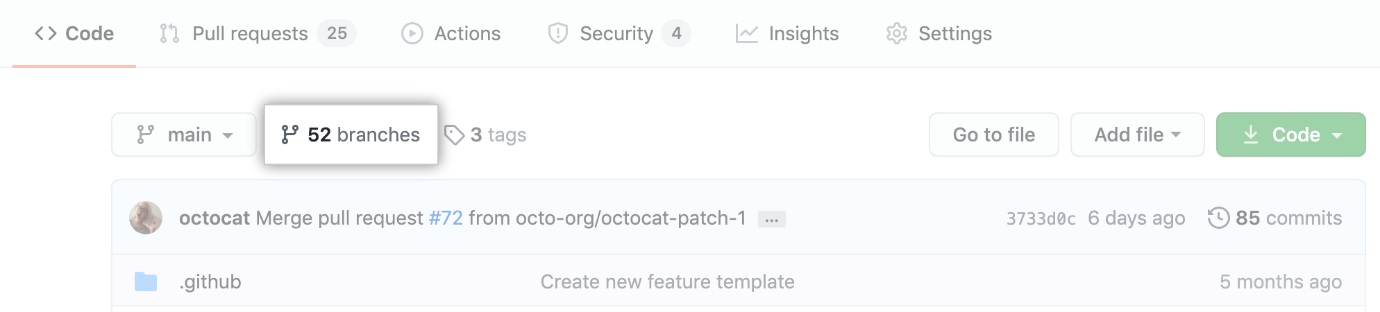
git branch -d <BRANCH-TO-**DELETE>**

*# Alternative:*

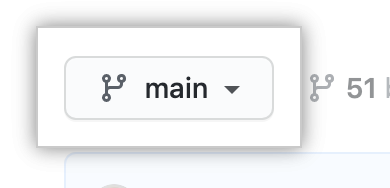
git branch *--delete <BRANCH-TO-DELETE>*

## Create Branch from GitHub

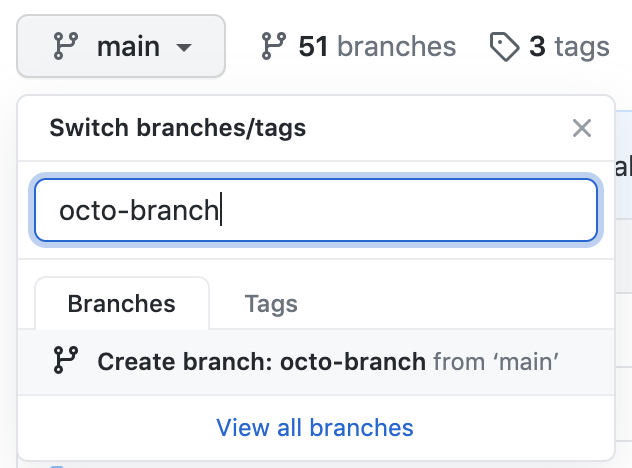
1. On GitHub, navigate to the main page of the repository.
2. Optionally, if you want to create your new branch from a branch other than the default branch for the repository, click  ***NUMBER* branches** then choose another branch:



1. Click the branch selector menu.



1. Type a unique name for your new branch, then select **Create branch**.



## Clone the Branch into Local repository

**git clone -b 20200922\_release** [**https://github.com/skatta3/terraform-aws-EC2-Instance.git**](https://github.com/skatta3/terraform-aws-EC2-Instance.git)

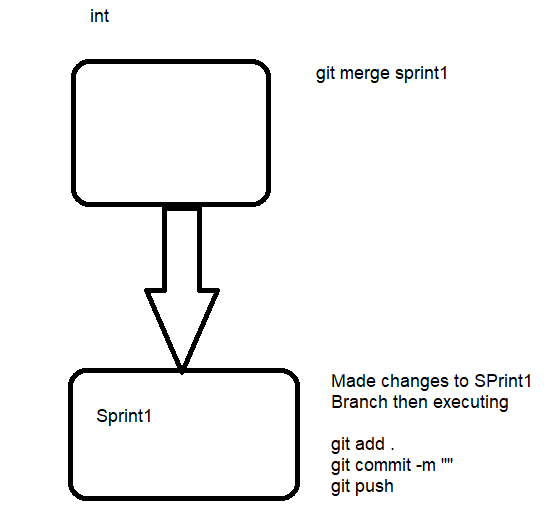
git diff TESTBRANCH moche2branching

**Git push**

* **pushes to default branch which is master branch**
* **Git push origin uat – to push to uat branch**

**From int branch**

**Git merge sprint1 (Sprint1 Branch created from int branch and added some changes in Sprint1 branch)**



**Main 🡪 20210615Release**

**We made the changes in Release Branch then pushed the changes**

**Git merge 20210615Release**

**Git push origin int**

**Sprint1 branch is merged into int**

**Git cat-file -t <commitID> - type**

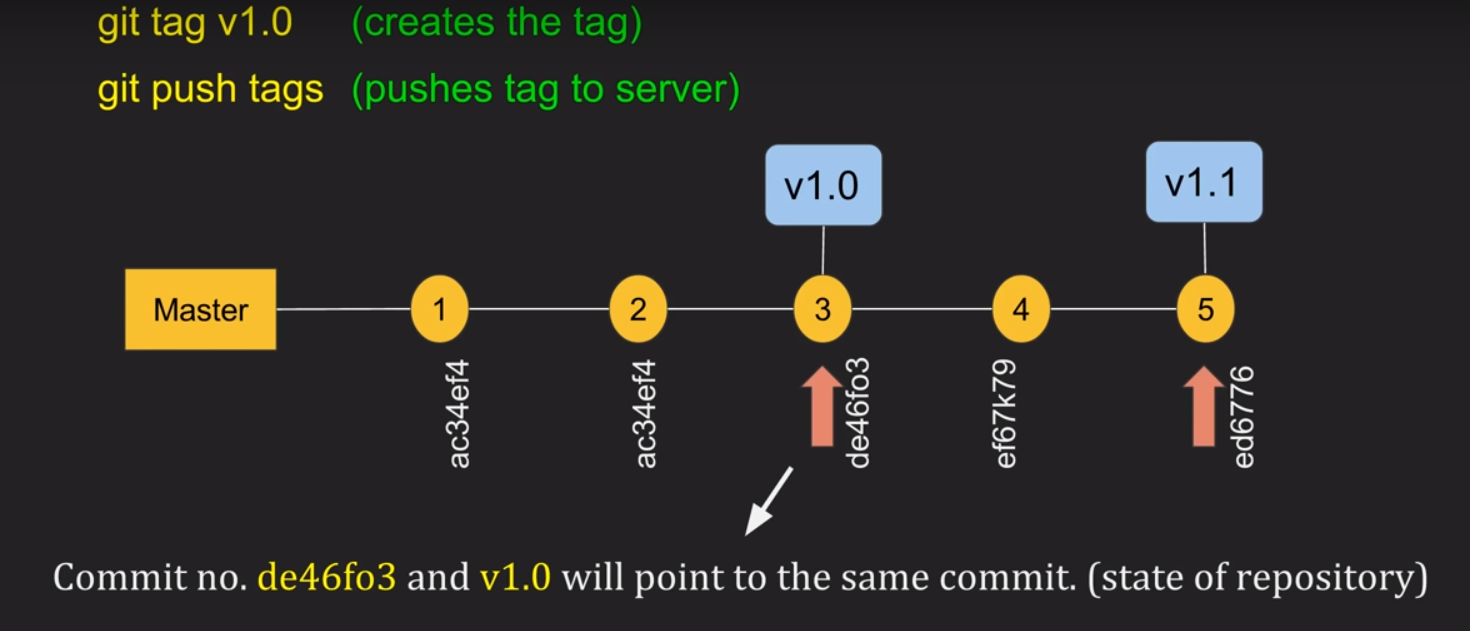
**Git cat-file -s <commitID> - size**

**Git cat-file -p <commitID>**

**Files Hash been changing when we modified that is how Git identifies as a change**

# **Tags**

* **git tag <tagname> -- To Create the Tags**
* **git tag or git show <tagname> -- To list the available tags**
* **git push origin <tagname> or git push –tags -- Push the tags to Remote Repository**
* **git tag –d <tagname> OR git push origin –d <tagname>**
* **git checkout –b <branchname> <tagname> -- Create the Branch from the tag**
* **git tag <tagname> <commitID> -- Create the tag from the commit ID**

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**Tagging is nothing but labelling**

**On this Branch Given Versioning to customer**

**Tagging will be done to commit**

**Git log –oneline -- Shows the logging one line per commit**

**Git log --stat – Display statistics**

**Git log --oneline –graph**

**Git log --graph**

**git reset –hard – goes back to last pull**

**Git client**

**Sourcetree**

**Pull = Fetch + Merge**

**Fetch – Fetch latest changes**

**Merge – Merge the changes to your local repo**

**Git branch -- lists all branches**

# **Stash**

* **git stash save <message>**
* **git stash list**
* **git stash show –p <stash-id>**
* **git stash drop <stash-id>**
* **git stash pop – Take the code from stash and apply to current repository**

**git stash – to record the state of current working directory when you want to work on other priority task**

**It will present in your local repo only**

**git stash apply – we will get our changes back**

**git stash apply <ID> if you have more than one stash**

**After applied it will not remove stash**

**git stash pop 🡪 it will apply and remove from stash**

# **Git Revert**

**Undo uncommitted Changes**

* **git checkout -- <filename> 🡪 undo single file**
* **git checkout -- . 🡪 undo all files**

**Undo Committed Changes**

* **git revert <commit ID> 🡪 Change is committed**
* **git revert –n <commit ID> 🡪 Change is not committed, You need to explicitly commit the change using git commit and git push commands**

**Resetting Committed Changes**

* **git reset --hard <Commit ID> 🡪 Remove all the changes after this commit ID**