

# Branch

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**Repository Link -->**

***[https://github.com/Rashmigarg1608/Git\\_Assignment\\_G3.git](https://github.com/Rashmigarg1608/Git_Assignment_G3.git)***

# Agenda



Introduction



What is Git Branch



How it works

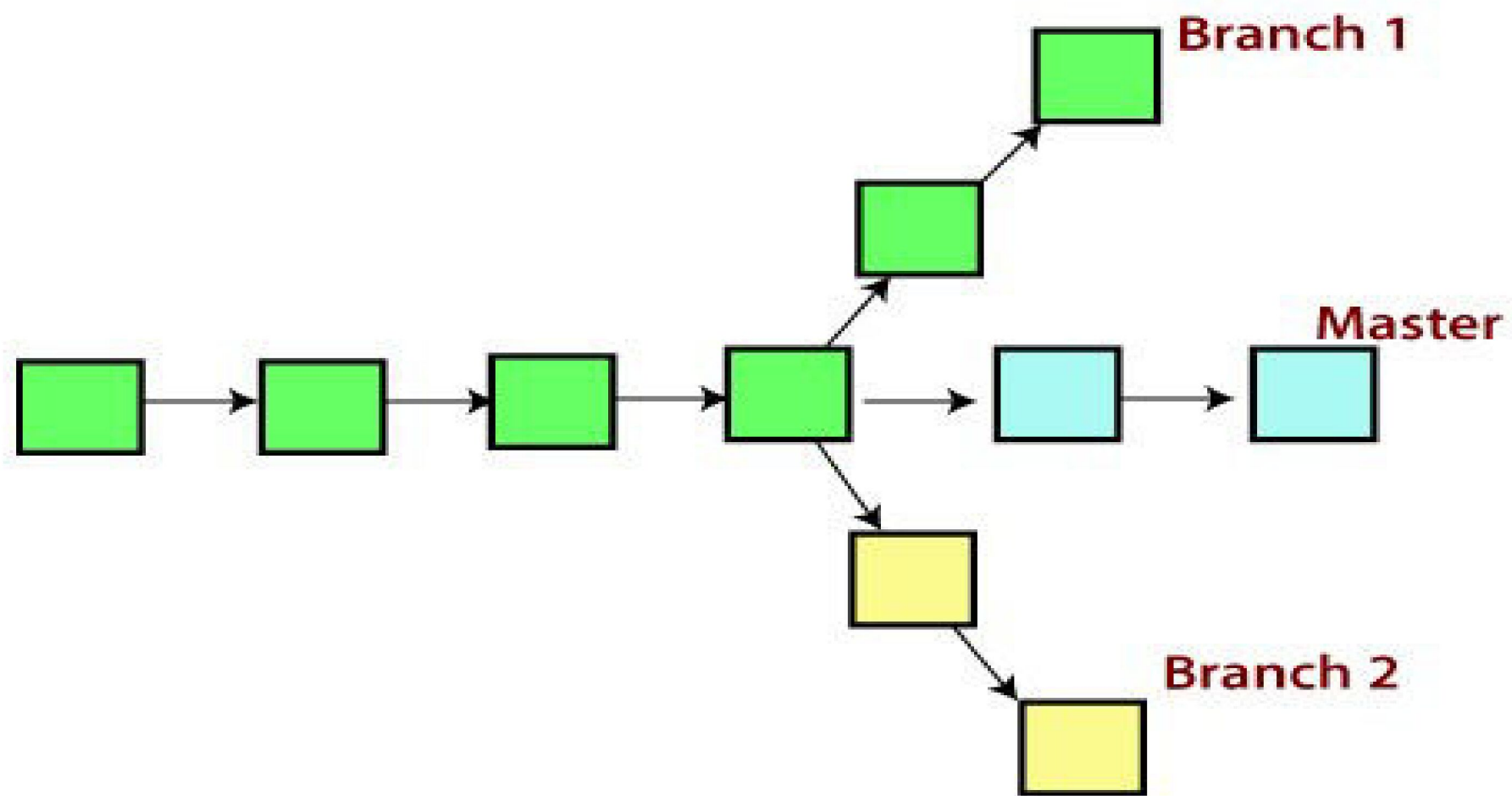


Operations on  
Branches



# **Introduction**

- ◆ A branch is a version of the repository that diverges from the main working project.
- ◆ It is a feature available in most modern version control systems.
- ◆ A Git project can have more than one branch.
- ◆ These branches are a pointer to a snapshot of your changes.
- ◆ In Git, branches are a part of your everyday development process. Git branches are effectively a pointer to a snapshot of your changes.
- ◆ When we want to add a new feature or fix a bug, we spawn a new branch to summarize our changes.





# **How Git Branch Works**

- A branch represents an independent line of development. Branches serve as an abstraction for the edit/stage/commit process.
- New commits are recorded in the history for the current branch, which results in a fork in the history of the project.
- The git branch command lets you create, list, rename, and delete branches. It doesn't let you switch between branches or put a forked history back together again.
- git branch is tightly integrated with the git checkout and git merge commands.



# **Git Master Branch**

- **The master branch is a default branch in Git.**
  - **It is instantiated when first commit made on the project.**
  - **When we make the first commit, we're given a master branch to the starting commit point.**
  - **When we start making a commit, then master branch pointer automatically moves forward.**
  - **A repository can have only one master branch.**
  - **Master branch is the branch in which all the changes eventually get merged back.**
  - **It can be called as an official working version of your project.**
- 



# **Operations on Branches**

- **Create Branch**
- **List Branch**
- **Delete Branch**
- **Delete a Remote Branch**
- **Switch Branch**
- **Rename Branch**
- **Merge Branch**

# **Create Branch**

**We can create a new branch with the help of the git branch command.**

**Syntax:**

```
$ git branch <branch name>
```

# **List Branch**

**Either we can use git branch - list or git branch command to list the available branches in the repository.**

**Syntax:**

```
$ git branch --list
```

```
$ git branch
```





# **Delete Branch**

**In this command, Git prevents us from deleting the branch if it has unmerged changes.**

**Syntax:**

```
$ git branch -d<branch name>
```

**For specified branch**

```
$ git branch -D <branch name>
```



# **Delete a Remote Branch**

**We can delete a remote branch from Git desktop application.**

**Syntax:**

```
$ git push origin -delete <branch name>
```

# **Switch Branch**

**Git allows us to switch between the branches without making a commit. We can switch between two branches with the git checkout command.**

**Syntax:**

```
$ git checkout<branch name>
```



# **Rename Branch**

**We can rename the branch with the help of the git branch command.**

**Syntax:**

```
$ git branch -m <old branch name><new  
branch name>
```

# **Merge Branch**

**Git allows us to merge the other branch with the currently active branch. We can merge two branches with the help of git merge command.**

**Syntax:**

```
$ git merge <branch name>
```



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Overview

Yours

Active

Stale

All branches

Search branches...

Default branch

main

Updated 19 minutes ago by Rashmigarg1608

Default

Your branches

Ranu-Rajput

Updated 8 minutes ago by ranurajput

3

2

New pull request

Active branches

Ranu-Rajput

Updated 8 minutes ago by ranurajput

3

2

New pull request

ayush

Updated 19 minutes ago by Rashmigarg1608

0

0

New pull request

rashmi

Updated 1 hour ago by ranurajput

3

0

New pull request

pavneet

Updated 1 hour ago by ranurajput

3

0

New pull request





# Thank You!