Github Session 08

Summary 05-03-2022

- The workspace, also known as the working directory, is where you modify, create, and delete files for your project. It's the directory on your local machine where you have all your project files.

- The Staging area is the middle ground between what you have done to your files (also known as the working directory) and what you had last committed (the HEAD commit). The staging maintains the index for what changes has been made in the files.

- The commit area is where your changes are permanently stored in the Git repository.

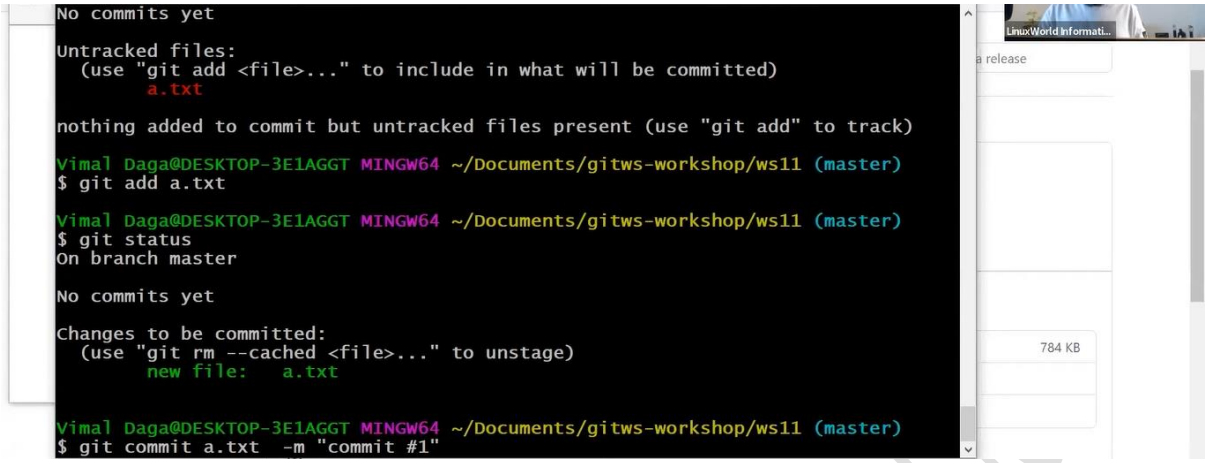
- Whenever we last commit, the information about it is stored in a variable known as the HEAD variable,

- If you are doing any operations in the commit area, that operation will always check where your HEAD is.

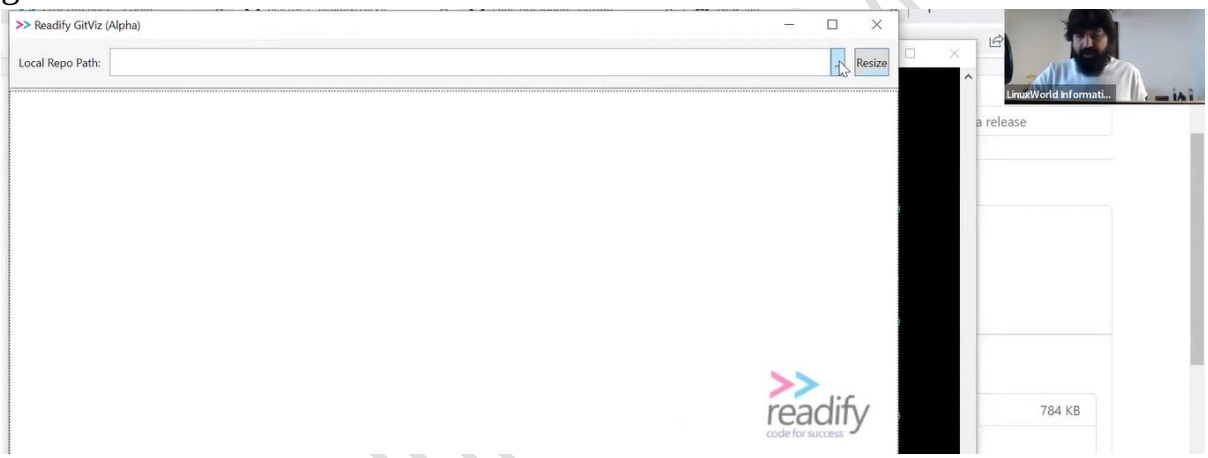
- GitViz is a tool that provides a graphical representation of branches, commits, and their relationships, making it easier to understand the branching structure and the evolution of a project over time.

- To download the zip file of gitviz you can visit to the link https://github.com/Readify/gitViz/releases .

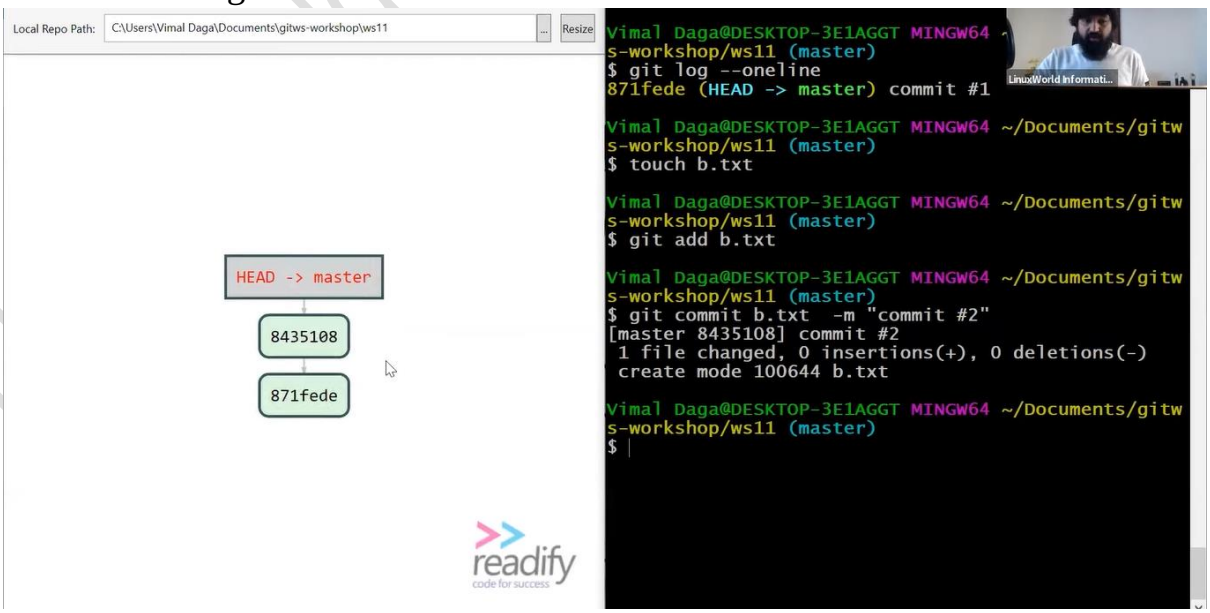
- To understand the GitViz, lets create a new file and commit it to the github.



- Add the file location in the GitViz to visualize what we have done in the git.

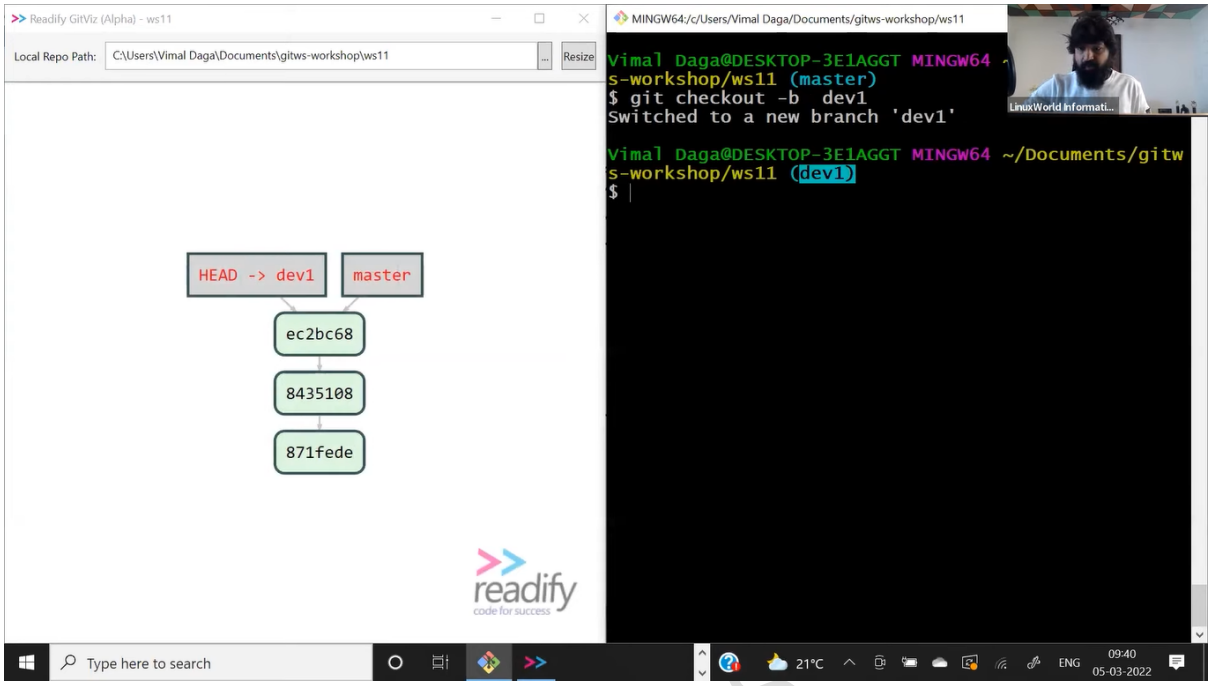


- Lets create one more file b.txt, as soon as we commit this file, we can see some live changes in the GitViz.

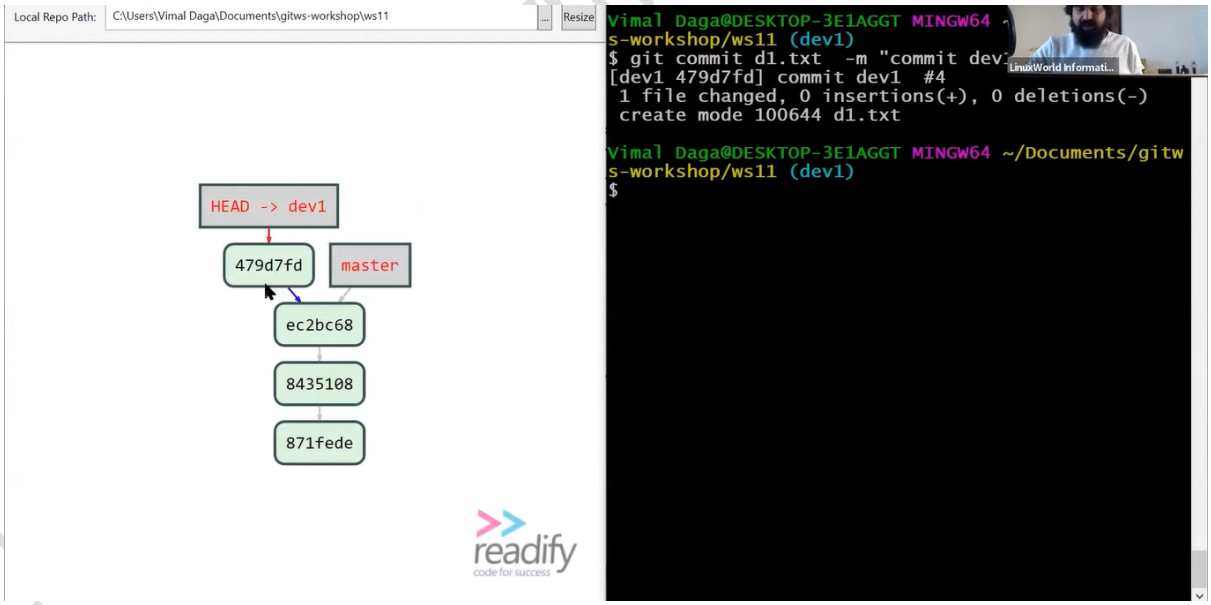


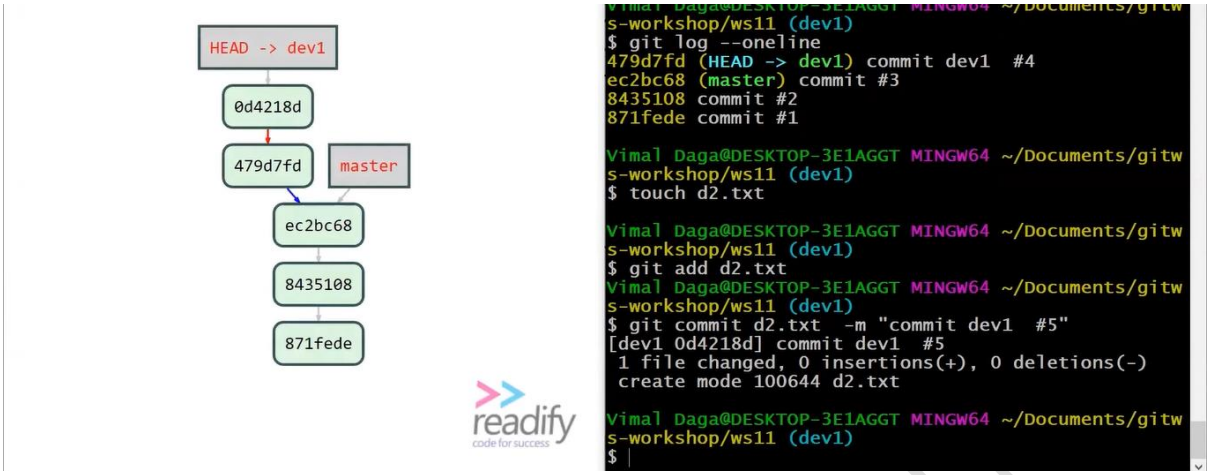
  - We can see that a new branch is added now.

- Now if we create a new branch(dev1), the entire timeline or the master branch in the commit area will come to this new branch also.



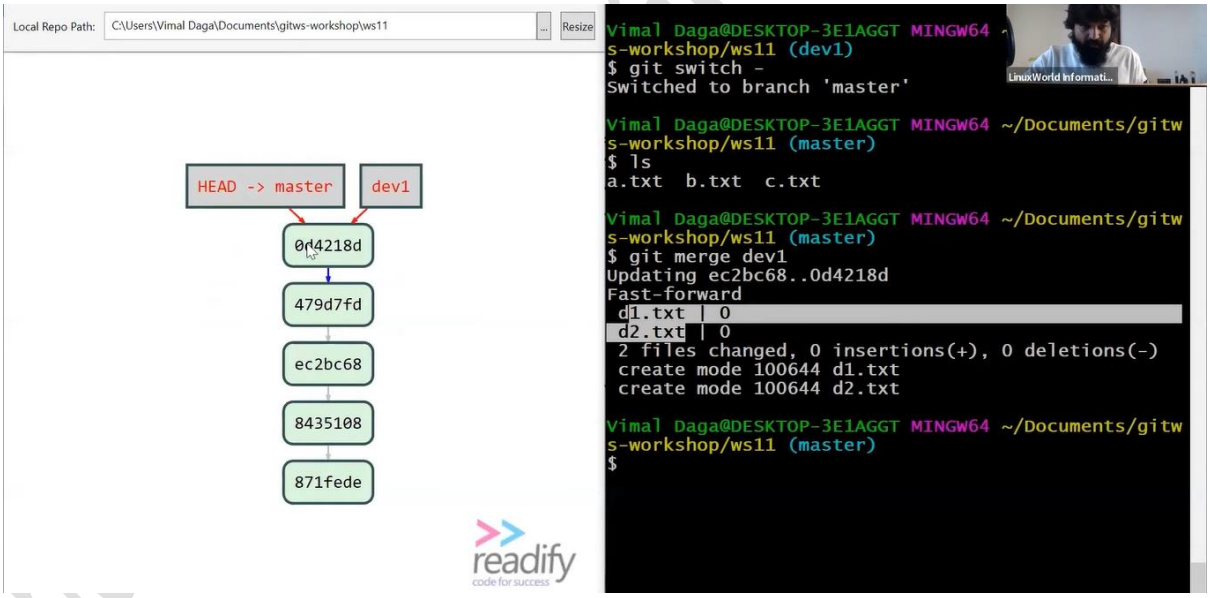
- Now if we commit a new file from the new branch, what we will see is that the master branch will still point to the previous commit and the new branch(dev1) is one commit ahead from the master.



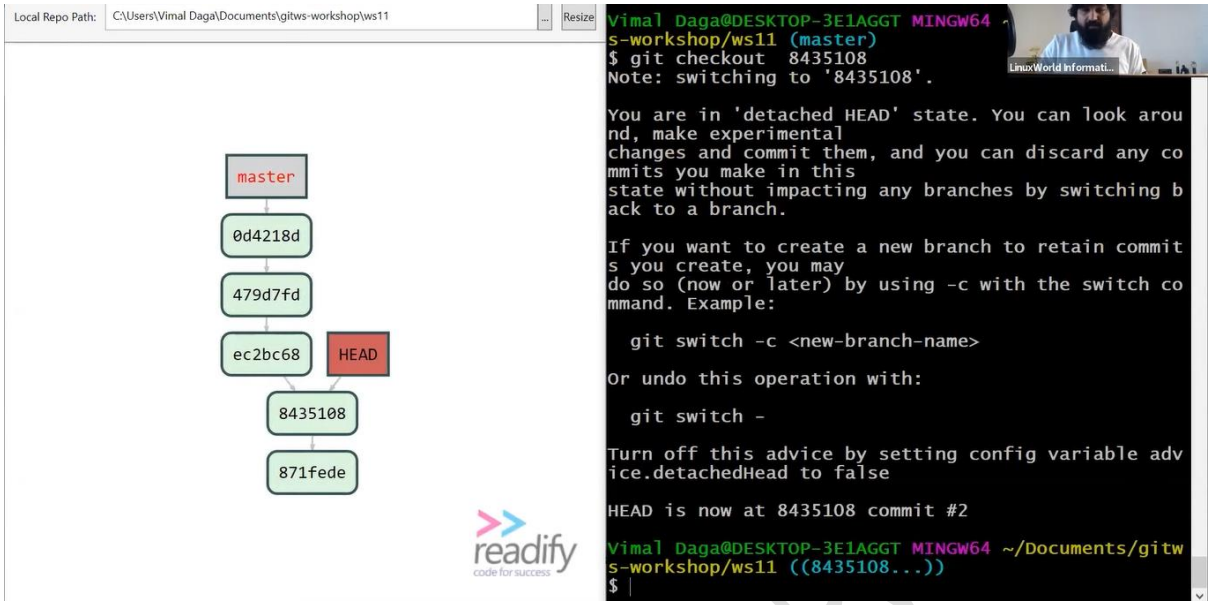


- The ***git switch*** – command is used to switch the branch with the previous branch.

- To merge the new branch and the master branch we use the command ***git merge <new branch name>***

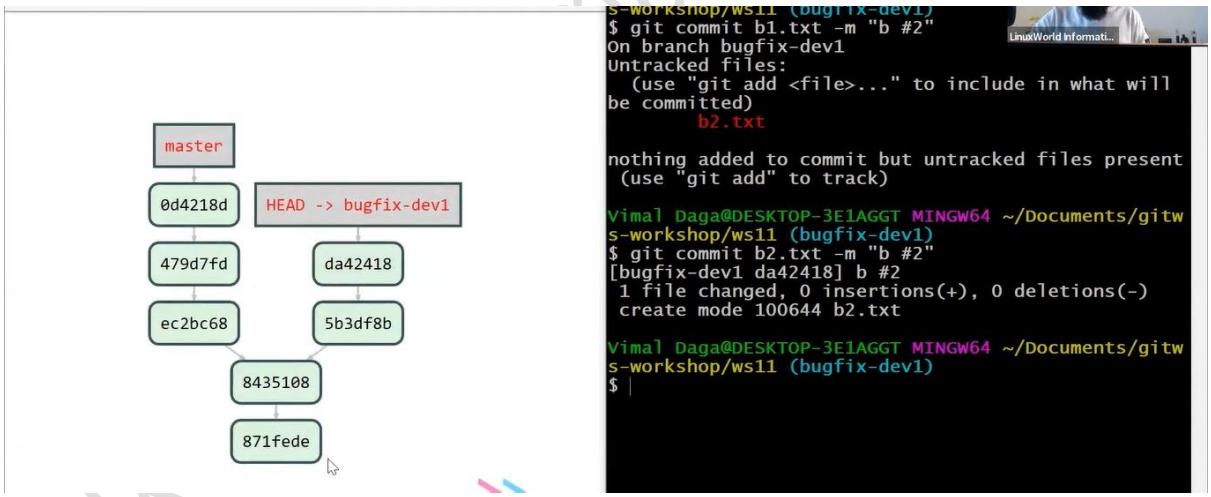


- We can change the HEAD pointer position by using ***git checkout <commit id>***

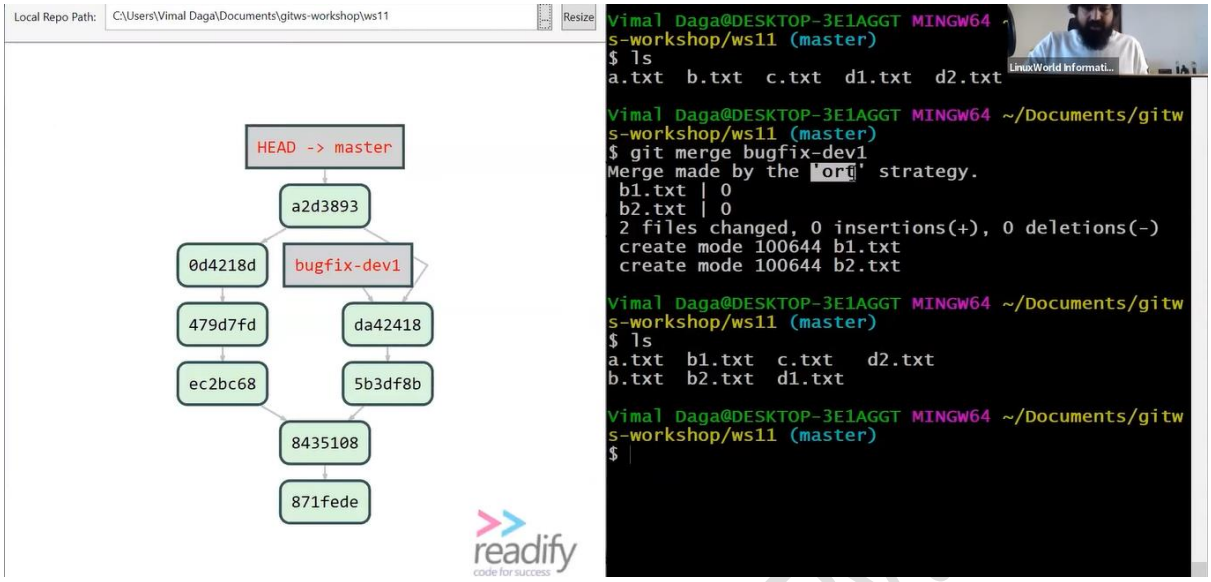


- We can see that the HEAD is pointing to the 8435108.

- Now if we create a new branch from the new HEAD position and add some new files in it, we can see that a diversion is created in the tree and files will be added in the new branch.



- If we merge both the branches now, we will see a different kind of Tree with a special merging.



- This kind of merging strategy is known as the ort strategy.