WEEK 8 HANDS ON-GIT

1.

Step 1: Setup your machine with Git Configuration

To create a new repository, signup with GitLab and register your credentials Login to GitLab and create a "GitDemo" project

1. To check if Git client is installed properly: Open Git bash shell and execute

If output shows Git with its version information that indicates, that Git Client installs properly.

To configure user level configuration of user ID and email ID execute.

To check if the configuration is properly set, execute the following command.

- 1. Open Git bash shell and create a new project "GitDemo" by executing the command
 - Git bash initializes the "GitDemo" repository. To verify, execute the command
 It will display all the hidden files in the Git "working directory".
 - 2. To create a file "welcome.txt" and add content to the file, execute the command

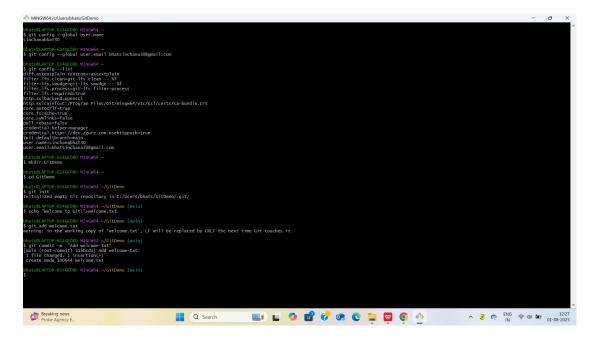
welcome.txt is added to the local repository.

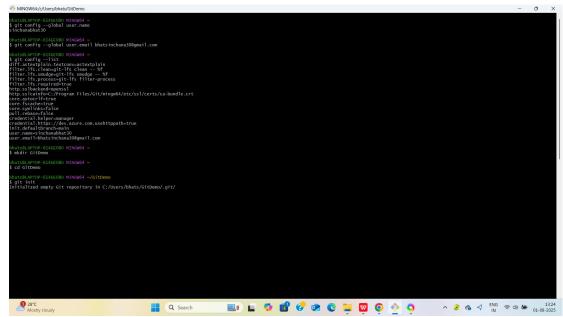
- 3. Signup with GitLab and create a remote repository "GitDemo"
- **4.** To pull the remote repository, execute

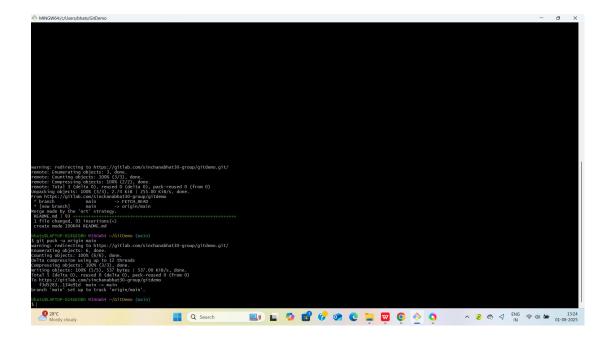
git pull origin master

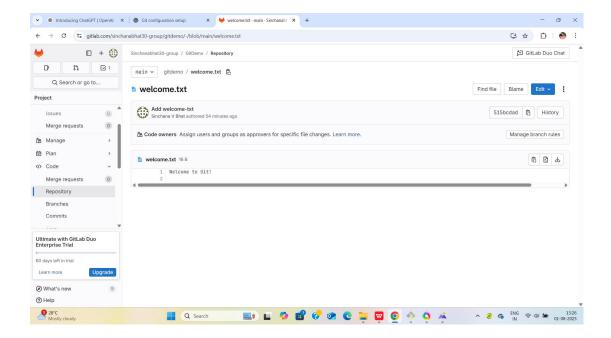
To push the local to remote repository, execute git push origin master

OUTPUT:





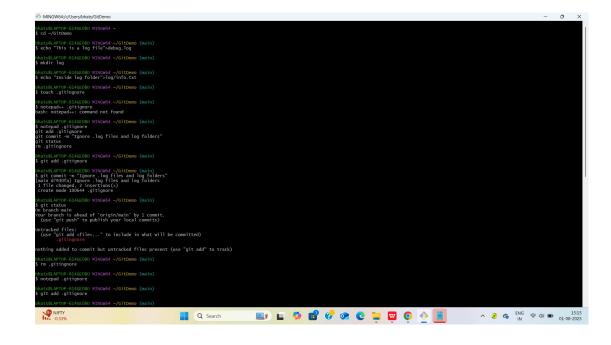


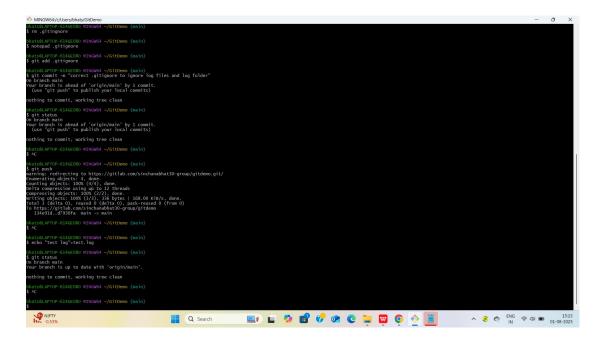


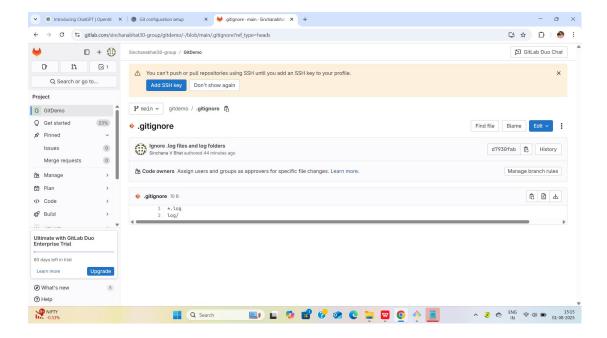
2.

Create a ".log" file and a log folder in the working directory of Git. Update the .gitignore file in such a way that on committing, these files (.log extensions and log folders) are ignored. Verify if the git status reflects the same about working directory, local repository and git repository

OUTPUTS:





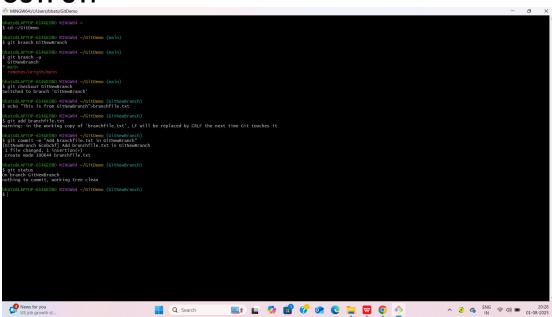


3.

Branching:

- 1. Create a new branch "GitNewBranch".
- 2. List all the local and remote branches available in the current trunk. Observe the "*" mark which denote the current pointing branch.
- 3. Switch to the newly created branch. Add some files to it with some contents.
- 4. Commit the changes to the branch.
- 5. Check the status with "git status" command.

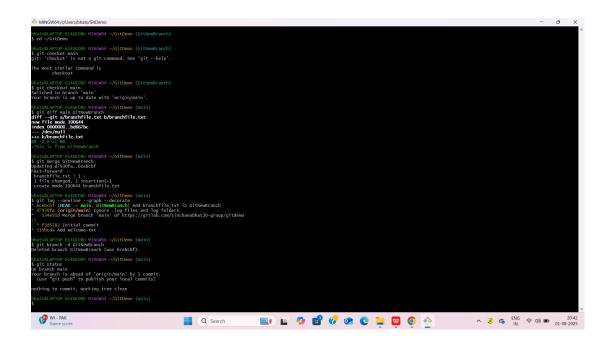
OUTPUT:



Merging:

- 1. Switch to the master
- 2. List out all the differences between trunk and branch. These provide the differences in command line interface.
- 3. List out all the visual differences between master and branch using P4Merge tool.
- 4. Merge the source branch to the trunk.
- 5. Observe the logging after merging using "git log -oneline -graph -decorate"
- **6.** Delete the branch after merging with the trunk and observe the git status.

OUTPUT:

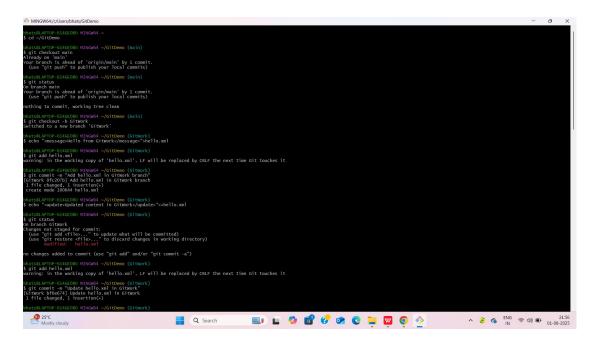


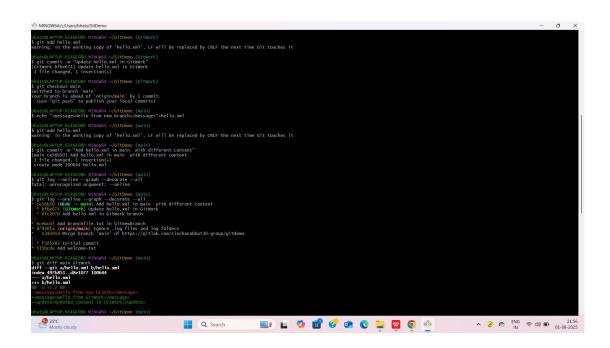
4.

- 1. Verify if master is in clean state.
- 2. Create a branch "GitWork". Add a file "hello.xml".
- 3. Update the content of "hello.xml" and observe the status
- 4. Commit the changes to reflect in the branch
- 5. Switch to master.
- 6. Add a file "hello.xml" to the master and add some different content than previous.
- 7. Commit the changes to the master
- 8. Observe the log by executing "git log -oneline -graph -decorate -all"
- 9. Check the differences with Git diff tool
- **10.** For better visualization, use P4Merge tool to list out all the differences between master and branch
- 11. Merge the bran to the master
- **12.** Observe the git mark up.
- 13. Use 3-way merge tool to resolve the conflict

- 14. Commit the changes to the master, once done with conflict
- 15. Observe the git status and add backup file to the .gitignore file.
- 16. Commit the changes to the .gitignore
- 17. List out all the available branches
- 18. Delete the branch, which merge to master.
- 19. Observe the log by executing "git log -oneline -graph -decorate"

OUTPUTS:





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5.

Please follow the instructions to complete the hands-on. Each instruction expects a command for the Git Bash.

Verify if master is in clean state.

List out all the available branches.

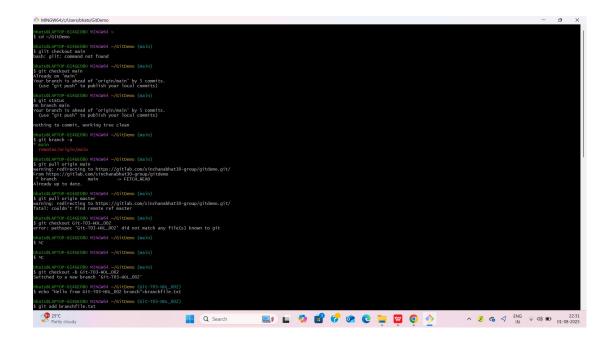
Pull the remote git repository to the master

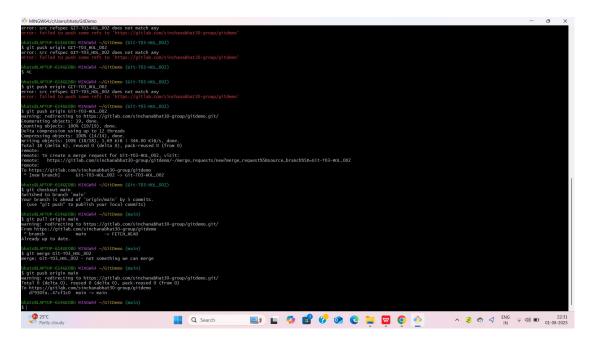
Push the changes, which are pending from "Git-T03-HOL_002" to the remote repository.

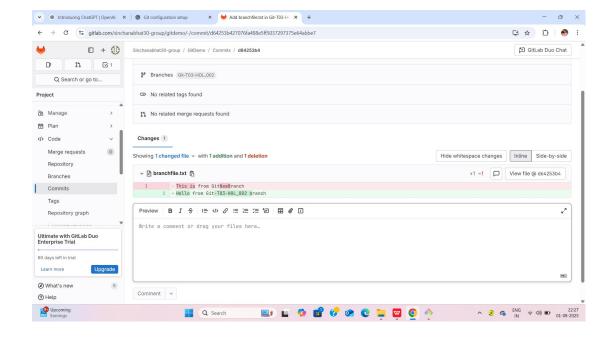
Hands-on ID: "Git-T03-HOL_002"

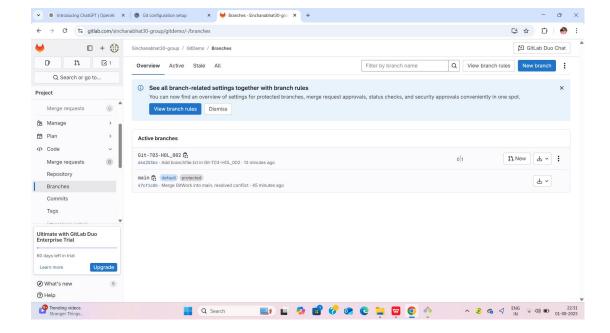
Observe if the changes are reflected in the remote repository.

OUTPUTS:









Description about this Hands On 5:

After pushing the branch to GitLab, verify the changes by checking that the branch name appears under **Repository** → **Branches** in GitLab.

Open the branch and confirm that the committed files are present.

Check the file contents to ensure they match your local changes.

View the branch's commit history to confirm your latest commit is recorded.

This ensures yor push was successful and the remote repository is up to date