**GIT HOL Week-8**

GIT-hol-1

KIIT@BT-2228044 MINGW64 ~

$ git version

git version 2.49.0.windows.1

KIIT@BT-2228044 MINGW64 ~

$ git config --global --list

user.name=Pratistha\_6360502

user.email=Pratistha6360502@gmail.com

KIIT@BT-2228044 MINGW64 ~

$ notepad++

KIIT@BT-2228044 MINGW64 ~

$ notepad++.exe bash -profile

KIIT@BT-2228044 MINGW64 ~

$ git config --global core.editor "notepad++.exe -multiInst -nosession"

KIIT@BT-2228044 MINGW64 ~

$ git config --global -e

KIIT@BT-2228044 MINGW64 ~

$ git init GitDemo

Initialized empty Git repository in C:/Users/KIIT/GitDemo/.git/

KIIT@BT-2228044 MINGW64 ~

$ ls -al

total 27228

drwxr-xr-x 1 KIIT 197121 0 Aug 10 22:13 **.**/

drwxr-xr-x 1 KIIT 197121 0 Dec 22 2024 **..**/

drwxr-xr-x 1 KIIT 197121 0 Jun 10 09:44 **.VirtualBox**/

drwxr-xr-x 1 KIIT 197121 0 Mar 25 13:39 **.android**/

-rw-r--r-- 1 KIIT 197121 602 Aug 10 21:48 .bash\_history

drwxr-xr-x 1 KIIT 197121 0 Jun 29 23:25 **.cache**/

drwxr-xr-x 1 KIIT 197121 0 Aug 6 14:26 **.dotnet**/

-rw-r--r-- 1 KIIT 197121 16 Mar 20 16:01 .emulator\_console\_auth\_token

-rw-r--r-- 1 KIIT 197121 122 Aug 10 22:00 .gitconfig

drwxr-xr-x 1 KIIT 197121 0 Mar 20 15:54 **.gradle**/

drwxr-xr-x 1 KIIT 197121 0 Apr 16 2023 **.idlerc**/

drwxr-xr-x 1 KIIT 197121 0 Oct 28 2024 **.ipython**/

-rw-r--r-- 1 KIIT 197121 20 Aug 10 21:59 .lesshst

drwxr-xr-x 1 KIIT 197121 0 Apr 29 12:29 **.matplotlib**/

drwxr-xr-x 1 KIIT 197121 0 Sep 8 2022 **.ms-ad**/

drwxr-xr-x 1 KIIT 197121 0 Jul 24 2022 **.nbi**/

drwxr-xr-x 1 KIIT 197121 0 Jun 21 23:37 **.nuget**/

-rw-r--r-- 1 KIIT 197121 174 Jul 14 23:06 .packettracer

drwxr-xr-x 1 KIIT 197121 0 Jun 21 23:37 **.templateengine**/

drwxr-xr-x 1 KIIT 197121 0 May 1 22:43 **.u2net**/

drwxr-xr-x 1 KIIT 197121 0 Aug 20 2023 **.vscode**/

drwxr-xr-x 1 KIIT 197121 0 Mar 25 23:03 **AndroidStudioProjects**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **AppData**/

lrwxrwxrwx 1 KIIT 197121 29 Dec 22 2024 **'Application Data'** -> **/c/Users/KIIT/AppData/Roaming**/

drwxr-xr-x 1 KIIT 197121 0 Jul 12 17:22 **'Cisco Packet Tracer 8.2.2'**/

drwxr-xr-x 1 KIIT 197121 0 Jun 19 16:27 **Congizant\_practice\_repo**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Contacts**/

lrwxrwxrwx 1 KIIT 197121 57 Dec 22 2024 **Cookies** -> **/c/Users/KIIT/AppData/Local/Microsoft/Windows/INetCookies**/

drwxr-xr-x 1 KIIT 197121 0 Aug 6 17:59 **Desktop**/

drwxr-xr-x 1 KIIT 197121 0 Jul 21 18:29 **Documents**/

drwxr-xr-x 1 KIIT 197121 0 Aug 10 22:05 **Downloads**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Favorites**/

drwxr-xr-x 1 KIIT 197121 0 Jun 5 23:27 **GNS3**/

drwxr-xr-x 1 KIIT 197121 0 Aug 10 22:13 **GitDemo**/

drwxr-xr-x 1 KIIT 197121 0 Aug 3 18:47 **IntelGraphicsProfiles**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Links**/

lrwxrwxrwx 1 KIIT 197121 27 Dec 22 2024 **'Local Settings'** -> **/c/Users/KIIT/AppData/Local**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Music**/

lrwxrwxrwx 1 KIIT 197121 23 Dec 22 2024 **'My Documents'** -> **/c/Users/KIIT/Documents**/

-rw-r--r-- 1 KIIT 197121 18087936 Jul 24 23:53 NTUSER.DAT

-rw-r--r-- 1 KIIT 197121 1048576 Aug 3 18:47 NTUSER.DAT{2ad838bb-efea-11ee-a54d-000d3a94eaa1}.TxR.0.regtrans-ms

-rw-r--r-- 1 KIIT 197121 1048576 Jul 11 17:44 NTUSER.DAT{2ad838bb-efea-11ee-a54d-000d3a94eaa1}.TxR.1.regtrans-ms

-rw-r--r-- 1 KIIT 197121 1048576 Jul 11 17:44 NTUSER.DAT{2ad838bb-efea-11ee-a54d-000d3a94eaa1}.TxR.2.regtrans-ms

-rw-r--r-- 1 KIIT 197121 65536 Aug 3 18:47 NTUSER.DAT{2ad838bb-efea-11ee-a54d-000d3a94eaa1}.TxR.blf

-rw-r--r-- 1 KIIT 197121 65536 Jul 11 17:42 NTUSER.DAT{2ad838bc-efea-11ee-a54d-000d3a94eaa1}.TM.blf

-rw-r--r-- 1 KIIT 197121 524288 Apr 11 22:35 NTUSER.DAT{2ad838bc-efea-11ee-a54d-000d3a94eaa1}.TMContainer00000000000000000001.regtrans-ms

-rw-r--r-- 1 KIIT 197121 524288 Jul 11 17:42 NTUSER.DAT{2ad838bc-efea-11ee-a54d-000d3a94eaa1}.TMContainer00000000000000000002.regtrans-ms

lrwxrwxrwx 1 KIIT 197121 65 Dec 22 2024 **NetHood** -> **'/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/Network Shortcuts'**/

drwxr-xr-x 1 KIIT 197121 0 Jul 25 2022 **OneDrive**/

drwxr-xr-x 1 KIIT 197121 0 Sep 8 2022 **Oracle**/

drwxr-xr-x 1 KIIT 197121 0 Jul 8 10:25 **PDFEditor**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Pictures**/

lrwxrwxrwx 1 KIIT 197121 65 Dec 22 2024 **PrintHood** -> **'/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/Printer Shortcuts'**/

lrwxrwxrwx 1 KIIT 197121 54 Dec 22 2024 **Recent** -> **/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/Recent**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **'Saved Games'**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Searches**/

lrwxrwxrwx 1 KIIT 197121 54 Dec 22 2024 **SendTo** -> **/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/SendTo**/

lrwxrwxrwx 1 KIIT 197121 58 Dec 22 2024 **'Start Menu'** -> **'/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/Start Menu'**/

lrwxrwxrwx 1 KIIT 197121 57 Dec 22 2024 **Templates** -> **/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/Templates**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Videos**/

drwxr-xr-x 1 KIIT 197121 0 Feb 14 12:55 **'VirtualBox VMs'**/

drwxr-xr-x 1 KIIT 197121 0 Jun 4 22:17 **'WPS Cloud Files'**/

-rw-r--r-- 1 KIIT 197121 16704 Aug 20 2023 a.out

drwxr-xr-x 1 KIIT 197121 0 Jan 1 2024 **files**/

drwxr-xr-x 1 KIIT 197121 0 Jul 27 18:21 **myfirstreact**/

-rw-r--r-- 1 KIIT 197121 4554752 Dec 22 2024 ntuser.dat.LOG1

-rw-r--r-- 1 KIIT 197121 294912 Dec 22 2024 ntuser.dat.LOG2

-rw-r--r-- 1 KIIT 197121 20 Dec 31 2024 ntuser.ini

-rw-r--r-- 1 KIIT 197121 0 Aug 19 2023 pointer

-rw-r--r-- 1 KIIT 197121 73 Aug 19 2023 pointer.c

-rw-r--r-- 1 KIIT 197121 73 Aug 19 2023 pointer.txt

drwxr-xr-x 1 KIIT 197121 0 Jul 27 23:43 **scorecalculatorapp**/

drwxr-xr-x 1 KIIT 197121 0 Jun 29 23:21 **source**/

drwxr-xr-x 1 KIIT 197121 0 Jul 27 22:57 **studentapp**/

KIIT@BT-2228044 MINGW64 ~

$ echo "welcome to the version control" >> welcome.txt

KIIT@BT-2228044 MINGW64 ~

$ ls -al

total 28093

drwxr-xr-x 1 KIIT 197121 0 Aug 10 22:15 **.**/

drwxr-xr-x 1 KIIT 197121 0 Dec 22 2024 **..**/

drwxr-xr-x 1 KIIT 197121 0 Jun 10 09:44 **.VirtualBox**/

drwxr-xr-x 1 KIIT 197121 0 Mar 25 13:39 **.android**/

-rw-r--r-- 1 KIIT 197121 602 Aug 10 21:48 .bash\_history

drwxr-xr-x 1 KIIT 197121 0 Jun 29 23:25 **.cache**/

drwxr-xr-x 1 KIIT 197121 0 Aug 6 14:26 **.dotnet**/

-rw-r--r-- 1 KIIT 197121 16 Mar 20 16:01 .emulator\_console\_auth\_token

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drwxr-xr-x 1 KIIT 197121 0 Oct 28 2024 **.ipython**/

-rw-r--r-- 1 KIIT 197121 20 Aug 10 21:59 .lesshst

drwxr-xr-x 1 KIIT 197121 0 Apr 29 12:29 **.matplotlib**/

drwxr-xr-x 1 KIIT 197121 0 Sep 8 2022 **.ms-ad**/

drwxr-xr-x 1 KIIT 197121 0 Jul 24 2022 **.nbi**/

drwxr-xr-x 1 KIIT 197121 0 Jun 21 23:37 **.nuget**/

-rw-r--r-- 1 KIIT 197121 174 Jul 14 23:06 .packettracer

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drwxr-xr-x 1 KIIT 197121 0 May 1 22:43 **.u2net**/

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drwxr-xr-x 1 KIIT 197121 0 Mar 25 23:03 **AndroidStudioProjects**/

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drwxr-xr-x 1 KIIT 197121 0 Jul 21 18:29 **Documents**/

drwxr-xr-x 1 KIIT 197121 0 Aug 10 22:05 **Downloads**/

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drwxr-xr-x 1 KIIT 197121 0 Jun 5 23:27 **GNS3**/

drwxr-xr-x 1 KIIT 197121 0 Aug 10 22:13 **GitDemo**/

drwxr-xr-x 1 KIIT 197121 0 Aug 3 18:47 **IntelGraphicsProfiles**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Links**/

lrwxrwxrwx 1 KIIT 197121 27 Dec 22 2024 **'Local Settings'** -> **/c/Users/KIIT/AppData/Local**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Music**/

lrwxrwxrwx 1 KIIT 197121 23 Dec 22 2024 **'My Documents'** -> **/c/Users/KIIT/Documents**/

-rw-r--r-- 1 KIIT 197121 18087936 Jul 24 23:53 NTUSER.DAT

-rw-r--r-- 1 KIIT 197121 1048576 Aug 3 18:47 NTUSER.DAT{2ad838bb-efea-11ee-a54d-000d3a94eaa1}.TxR.0.regtrans-ms

-rw-r--r-- 1 KIIT 197121 1048576 Jul 11 17:44 NTUSER.DAT{2ad838bb-efea-11ee-a54d-000d3a94eaa1}.TxR.1.regtrans-ms

-rw-r--r-- 1 KIIT 197121 1048576 Jul 11 17:44 NTUSER.DAT{2ad838bb-efea-11ee-a54d-000d3a94eaa1}.TxR.2.regtrans-ms

-rw-r--r-- 1 KIIT 197121 65536 Aug 3 18:47 NTUSER.DAT{2ad838bb-efea-11ee-a54d-000d3a94eaa1}.TxR.blf

-rw-r--r-- 1 KIIT 197121 65536 Jul 11 17:42 NTUSER.DAT{2ad838bc-efea-11ee-a54d-000d3a94eaa1}.TM.blf

-rw-r--r-- 1 KIIT 197121 524288 Apr 11 22:35 NTUSER.DAT{2ad838bc-efea-11ee-a54d-000d3a94eaa1}.TMContainer00000000000000000001.regtrans-ms

-rw-r--r-- 1 KIIT 197121 524288 Jul 11 17:42 NTUSER.DAT{2ad838bc-efea-11ee-a54d-000d3a94eaa1}.TMContainer00000000000000000002.regtrans-ms

lrwxrwxrwx 1 KIIT 197121 65 Dec 22 2024 **NetHood** -> **'/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/Network Shortcuts'**/

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drwxr-xr-x 1 KIIT 197121 0 Sep 8 2022 **Oracle**/

drwxr-xr-x 1 KIIT 197121 0 Jul 8 10:25 **PDFEditor**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Pictures**/

lrwxrwxrwx 1 KIIT 197121 65 Dec 22 2024 **PrintHood** -> **'/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/Printer Shortcuts'**/

lrwxrwxrwx 1 KIIT 197121 54 Dec 22 2024 **Recent** -> **/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/Recent**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **'Saved Games'**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Searches**/

lrwxrwxrwx 1 KIIT 197121 54 Dec 22 2024 **SendTo** -> **/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/SendTo**/

lrwxrwxrwx 1 KIIT 197121 58 Dec 22 2024 **'Start Menu'** -> **'/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/Start Menu'**/

lrwxrwxrwx 1 KIIT 197121 57 Dec 22 2024 **Templates** -> **/c/Users/KIIT/AppData/Roaming/Microsoft/Windows/Templates**/

drwxr-xr-x 1 KIIT 197121 0 Dec 31 2024 **Videos**/

drwxr-xr-x 1 KIIT 197121 0 Feb 14 12:55 **'VirtualBox VMs'**/

drwxr-xr-x 1 KIIT 197121 0 Jun 4 22:17 **'WPS Cloud Files'**/

-rw-r--r-- 1 KIIT 197121 16704 Aug 20 2023 a.out

drwxr-xr-x 1 KIIT 197121 0 Jan 1 2024 **files**/

drwxr-xr-x 1 KIIT 197121 0 Jul 27 18:21 **myfirstreact**/

-rw-r--r-- 1 KIIT 197121 4554752 Dec 22 2024 ntuser.dat.LOG1

-rw-r--r-- 1 KIIT 197121 1179648 Dec 22 2024 ntuser.dat.LOG2

-rw-r--r-- 1 KIIT 197121 20 Dec 31 2024 ntuser.ini

-rw-r--r-- 1 KIIT 197121 0 Aug 19 2023 pointer

-rw-r--r-- 1 KIIT 197121 73 Aug 19 2023 pointer.c

-rw-r--r-- 1 KIIT 197121 73 Aug 19 2023 pointer.txt

drwxr-xr-x 1 KIIT 197121 0 Jul 27 23:43 **scorecalculatorapp**/

drwxr-xr-x 1 KIIT 197121 0 Jun 29 23:21 **source**/

drwxr-xr-x 1 KIIT 197121 0 Jul 27 22:57 **studentapp**/

-rw-r--r-- 1 KIIT 197121 31 Aug 10 22:15 welcome.txt

KIIT@BT-2228044 MINGW64 ~

$ cat welcome.txt

welcome to the version control

KIIT@BT-2228044 MINGW64 ~

$ git status

On branch main

No commits yet

Untracked files:

(use "git add <file>..." to include in what will be committed)

welcome.txt

nothing added to commit but untracked files present (use "git add" to track)

KIIT@BT-2228044 MINGW64 ~

$ git add welcome.txt

warning: in the working copy of 'welcome.txt', LF will be replaced by CRLF the next time Git touches it

KIIT@BT-2228044 MINGW64 ~

$ git commit

Aborting commit due to empty commit message.

KIIT@BT-2228044 MINGW64 ~

$ git commit

[main (root-commit) 26000a8] hi hello

1 file changed, 1 insertion(+)

create mode 100234 welcome.txt

KIIT@BT-2228044 MINGW64 ~

$ git status

On branch main

nothing to commit, working tree clean

GIT-hol-2

### 1. ****Explain**** .gitignore****:****

.gitignore is a special file in Git that specifies which files or directories should be ignored by Git. Files listed in .gitignore will not be tracked, staged, or committed to the repository, helping to avoid adding unnecessary or sensitive files like temporary files, logs, or build outputs.

### 2. ****Explain How to Ignore Unwanted Files Using**** .gitignore****:****

To ignore unwanted files in Git:

1. Create or open the .gitignore file in the repository’s root directory.
2. Add file names, directory names, or patterns to specify what should be ignored (e.g., \*.log for all log files).
3. Save the .gitignore file.
4. If the file was already tracked, remove it from Git using git rm --cached <filename> before it will be ignored.

# KIIT@BT-2228044 MINGW64 ~

$ echo "This is a Demo log" > error.log mkdir log

echo "Log entry" > log/logfile.log

# KIIT@BT-2228044 MINGW64 ~

$ notepad++ .gitignore

bash: notepad++: command not found

# KIIT@BT-2228044 MINGW64 ~

$ notepad .gitignore

# KIIT@BT-2228044 MINGW64 ~

$ git status On branch main

Untracked files:

(use "git add <file>..." to include in what will be committed)

.gitignore

nothing added to commit but untracked files present (use "git add" to track) KIIT@BT-2228044 MINGW64 ~

$ git add .gitignore

git commit -m "Add .gitignore to exclude log files and folders" [main 64a0f21] Add .gitignore to exclude log files and folders

1 file changed, 2 insertions(+) create mode 100644 .gitignore

# KIIT@BT-2228044 MINGW64 ~

$ git status On branch main

nothing to commit, working tree clean

GIT-hol-3

### 1. ****Explain Branching and Merging:****

**Branching:** In Git, branching is the process of creating a separate line of development from the main codebase. It allows developers to work on new features or fixes without affecting the main branch.

**Merging:** Merging is the process of integrating changes from one branch into another, usually from a feature branch into the main branch, combining their commit histories.

2. **Explain About Creating a Branch Request in GitLab:**

In GitLab, creating a branch request means creating a new branch in the repository to work on specific tasks. This can be done via the GitLab UI or Git commands. In the UI, navigate to the repository, select **Branches**, and click **New Branch**, specifying a branch name and source branch.

3. **Explain About Creating a Merge Request in GitLab:**

A merge request (MR) in GitLab is used to propose changes from one branch to another. It allows code review, discussion, and approval before merging. To create one, go to the repository, click **Merge Requests**, choose **New Merge Request**, select the source and target branches, fill in details, and submit for review.

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git branch GitNewBranch

fatal: a branch named 'GitNewBranch' already exists

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git branch -a GitNewBranch

\* main

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git checkout GitNewBranch Switched to branch 'GitNewBranch'

KIIT@BT-2228044 MINGW64 ~/GitDemo (GitNewBranch)

$ echo "Changes in GitNewBranch" > branchfile.txt git add branchfile.txt

git commit -m "Add branchfile.txt in GitNewBranch"

warning: in the working copy of 'branchfile.txt', LF will be replaced by CRLF the next time Git touches it

On branch GitNewBranch

nothing to commit, working tree clean

KIIT@BT-2228044 MINGW64 ~/GitDemo (GitNewBranch)

$ git status

On branch GitNewBranch

nothing to commit, working tree clean

KIIT@BT-2228044 MINGW64 ~/GitDemo (GitNewBranch)

$ git checkout master

error: pathspec 'master' did not match any file(s) known to git

KIIT@BT-2228044 MINGW64 ~/GitDemo (GitNewBranch)

$ git checkout main Switched to branch 'main'

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$

git diff main GitNewBranch

diff --git a/branchfile.txt b/branchfile.txt new file mode 100644

index 0000000..817435c

--- /dev/null

+++ b/branchfile.txt @@ -0,0 +1 @@

+Changes in GitNewBranch

KIIT@BT-2228044MINGW64 ~/GitDemo (main)

$ git difftool main GitNewBranch

Viewing (1/1): 'branchfile.txt' Launch 'p4merge' [Y/n]? y

The diff tool p4merge is not available as 'C:/Program Files/Perforce/p4merge.exe'

fatal: external diff died, stopping at branchfile.txt

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git merge GitNewBranch Updating 64a0f21..44e688b Fast-forward

branchfile.txt | 1 +

1 file changed, 1 insertion(+) create mode 100644 branchfile.txt

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git mergetool

No files need merging

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git log --oneline --graph --decorate

* 44e688b (HEAD -> main, GitNewBranch) Add branchfile.txt in GitNewBranch
* 64a0f21 Add .gitignore to exclude log files and folders
* 26000a4 hi hello

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git branch -d GitNewBranch

Deleted branch GitNewBranch (was 44e688b).

KIIT@BT-2228044 MINGW64 ~/GitDemo(main)

$ git status On branch main

nothing to commit, working tree clean KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

GIT-hol-4

When merging branches in Git, a **merge conflict** occurs if changes in the same part of a file differ between branches. To resolve it:

* **Identify Conflicted Files** – Git marks them with <<<<<<<, =======, and >>>>>>> in the code.
* **Open and Edit Files** – Manually choose which changes to keep, or merge both logically.
* **Remove Conflict Markers** – Delete the conflict indicators after resolving the differences.
* **Stage the Files** – Use git add <filename> to mark conflicts as resolved.
* **Commit the Merge** – Run git commit to complete the merge process.

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git checkout main git status

Already on 'main'

On branch main

nothing to commit, working tree clean

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git checkout -b GitWork

echo "<greeting>Hello from branch</greeting>" > hello.xml Switched to a new branch 'GitWork'

KIIT@BT-2228044 MINGW64 ~/GitDemo (GitWork)

$ echo "<update>Branch version</update>" >> hello.xml git status

On branch GitWork Untracked files:

(use "git add <file>..." to include in what will be committed) hello.xml

nothing added to commit but untracked files present (use "git add" to track) KIIT@BT-2228044 MINGW64 ~/GitDemo (GitWork)

$ git add hello.xml

git commit -m "Added hello.xml in GitWork branch"

warning: in the working copy of 'hello.xml', LF will be replaced by CRLF the next time Git touches it

[GitWork 5d218fc] Added hello.xml in GitWork branch

1 file changed, 2 insertions(+) create mode 100644 hello.xml

KIIT@BT-2228044 MINGW64 ~/GitDemo (GitWork)

$ git checkout main Switched to branch 'main'

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ echo "<greeting>Hello from master</greeting>" > hello.xml git add hello.xml

git commit -m "Added hello.xml in main branch with different content" warning: in the working copy of 'hello.xml', LF will be replaced by CRLF the next time Git touches it

[main 14c3e92] Added hello.xml in main branch with different content

1 file changed, 1 insertion(+) create mode 100644 hello.xml

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git log --oneline --graph --decorate --all

* 14c3e92 (HEAD -> main) Added hello.xml in main branch with different content

| \* 5d218fc (GitWork) Added hello.xml in GitWork branch

|/

* 44e688b Add branchfile.txt in GitNewBranch
* 64a0f21 Add .gitignore to exclude log files and folders
* 26000a4 hi hello

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git diff GitWork

diff --git a/hello.xml b/hello.xml index 11f5ba8..9d60142 100644

--- a/hello.xml

+++ b/hello.xml @@ -1,2 +1 @@

-<greeting>Hello from branch</greeting>

-<update>Branch version</update>

+<greeting>Hello from master</greeting>

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git difftool GitWork

Viewing (1/1): 'hello.xml' Launch 'p4merge' [Y/n]? y

fatal: external diff died, stopping at hello.xml

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git merge GitWork Auto-merging hello.xml

CONFLICT (add/add): Merge conflict in hello.xml

Automatic merge failed; fix conflicts and then commit the result.

KIIT@BT-2228044 MINGW64 ~/GitDemo (main|MERGING)

$ notepad++ hello.xml

bash: notepad++: command not found

KIIT@BT-2228044 MINGW64 ~/GitDemo (main|MERGING)

$ notepad hello.xml

KIIT@BT-2228044 MINGW64 ~/GitDemo (main|MERGING)

$ git mergetool Merging:

hello.xml

Normal merge conflict for 'hello.xml':

{local}: created file

{remote}: created file

The merge tool p4merge is not available as 'C:/Program Files/Perforce/p4merge.exe'

KIIT@BT-2228044 MINGW64 ~/GitDemo (main|MERGING)

$ git add hello.xml

git commit -m "Resolved merge conflict in hello.xml" [main 23f7a1c] Resolved merge conflict in hello.xml

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git status On branch main

Untracked files:

(use "git add <file>..." to include in what will be committed) hello\_BACKUP\_1154.xml

hello\_BASE\_1154.xml hello\_LOCAL\_1154.xml hello\_REMOTE\_1154.xml

nothing added to commit but untracked files present (use "git add" to track) KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ echo "\*.BACKUP.\*" >> .gitignore git add .gitignore

git commit -m "Ignored P4Merge backup files"

warning: in the working copy of '.gitignore', LF will be replaced by CRLF the next time Git touches it

[main 21407d6] Ignored P4Merge backup files

1 file changed, 1 insertion(+)

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git branch GitWork

* main

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git branch -d GitWork

Deleted branch GitWork (was 5d218fc).

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git log --oneline --graph --decorate

* 21407d6 (HEAD -> main) Ignored P4Merge backup files
* 23f7a1c Resolved merge conflict in hello.xml

|\

| \* 5d218fc Added hello.xml in GitWork branch

* | 14c3e92 Added hello.xml in main branch with different content

|/

* 44e688b Add branchfile.txt in GitNewBranch
* 64a0f21 Add .gitignore to exclude log files and folders
* 26000a4 hi hello

GIT-hol-5

Here are the key points to clean up a local Git repository and push changes back to the remote:

* Check repository status with git status.
* Remove untracked files and directories with git clean -fd (use carefully).
* Stage your changes using git add . to add all updated files.
* Review staged changes if needed.
* Commit staged changes with git commit -m "Your message".
* Confirm remote repository URL with git remote -v.
* Push commits to the remote branch using git push origin branch-name.
* Use git push -u origin branch-name if pushing a branch for the first time.
* Optionally, pull latest changes from remote before pushing to avoid conflicts.
* Use .gitignore to prevent tracking unwanted files.
* Regularly clean and commit to keep repository organized and up-to-date.

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git checkout main

git status

Already on 'main'

On branch main

Untracked files:

(use "git add <file>..." to include in what will be committed)

hello\_BACKUP\_1154.xml

hello\_BASE\_1154.xml

hello\_LOCAL\_1154.xml

hello\_REMOTE\_1154.xml

nothing added to commit but untracked files present (use "git add" to track)

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git add .

git commit -m "Final cleanup before push"

[main 7e6a456] Final cleanup before push

4 files changed, 9 insertions(+)

create mode 100644 hello\_BACKUP\_1154.xml

create mode 100644 hello\_BASE\_1154.xml

create mode 100644 hello\_LOCAL\_1154.xml

create mode 100644 hello\_REMOTE\_1154.xml

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git branch -a

\* main

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git pull origin main

info: please complete authentication in your browser...

KIIT@BT-2228044 MINGW64 ~/GitDemo (main)

$ git push origin main

info: please complete authentication in your browser...