**Name : Divya Suresh Mahajan**

**Roll no. : 69**

**Practical no. : 9**

**Title : Demonstrate the use of git Diff command**

**Scenerio1: Track the changes that have not been staged.**

comp@comp140 MINGW64 ~ (master)

$ cd Imageprocessing

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ ls

README.md about.html h1.html

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ vi README.md

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git status

On branch main

Your branch is up to date with 'origin/main'.

Changes not staged for commit:

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

(use "git restore <file>..." to discard changes in working directory)

modified: README.md

Untracked files:

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

about.html

h1.html

no changes added to commit (use "git add" and/or "git commit -a")

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git diff

**diff --git a/README.md b/README.md**

**index a441dab..4e28dae 100644**

**--- a/README.md**

**+++ b/README.md**

@@ -1,2 +1,3 @@

+This is my first repository

# Imageprocessing

This is my repository

**Scenerio2: Track the changes that have staged but not committed:**

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git add .

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git status

On branch main

Your branch is up to date with 'origin/main'.

Changes to be committed:

(use "git restore --staged <file>..." to unstage)

modified: README.md

new file: about.html

new file: h1.html

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git diff --staged

**diff --git a/README.md b/README.md**

**index a441dab..4e28dae 100644**

**--- a/README.md**

**+++ b/README.md**

@@ -1,2 +1,3 @@

+This is my first repository

# Imageprocessing

This is my repository

**diff --git a/about.html b/about.html**

**new file mode 100644**

**index 0000000..e69de29**

**diff --git a/h1.html b/h1.html**

**new file mode 100644**

**index 0000000..e69de29**

**Scenerio3: Track the changes after committing a file:**

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git commit -m "Done"

[main 9a03dc8] Done

3 files changed, 1 insertion(+)

create mode 100644 about.html

create mode 100644 h1.html

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ vi README.md

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git diff HEAD

**diff --git a/README.md b/README.md**

**index d5766c1..6999c17 100644**

**--- a/README.md**

**+++ b/README.md**

@@ -6,8 +6,4 @@ This is my first repository

<h1>this is README file</h1>

</html># Imageprocessing

This is my repository

**Scenario4: Track the changes between two commits:**

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git commit -m "Done"

On branch main

Your branch is ahead of 'origin/main' by 1 commit.

(use "git push" to publish your local commits)

Changes not staged for commit:

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

(use "git restore <file>..." to discard changes in working directory)

modified: README.md

no changes added to commit (use "git add" and/or "git commit -a")

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git add .

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git commit -m "Done"

[main e60f68f] Done

1 file changed, 6 insertions(+), 1 deletion(-)

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git log

commit e60f68ff70a37ffb7a0e58edc43b2a4fbc8000ff (HEAD -> main)

Author: sakshi10102002 <sakshispatil101002@gmail.com>

Date: Tue Apr 2 19:06:03 2024 +0530

Done

commit 9a03dc8918034932dadfe0fa7efaa496bbd8cc04

Author: sakshi10102002 <sakshispatil101002@gmail.com>

Date: Tue Apr 2 19:01:40 2024 +0530

Done

commit 80603e1ba77f45feeb6925cbd62c02ff74dc5c4e (origin/main, origin/HEAD)

Author: Vmr1110 <159420099+Vmr1110@users.noreply.github.com>

Date: Wed Mar 27 13:59:08 2024 +0530

Initial commit

(END)...skipping...

commit e60f68ff70a37ffb7a0e58edc43b2a4fbc8000ff (HEAD -> main)

Author: sakshi10102002 <sakshispatil101002@gmail.com>

Date: Tue Apr 2 19:06:03 2024 +0530

Done

commit 9a03dc8918034932dadfe0fa7efaa496bbd8cc04

Author: sakshi10102002 <sakshispatil101002@gmail.com>

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(END)

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Date: Wed Mar 27 13:59:08 2024 +0530

Initial commit

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Date: Wed Mar 27 13:59:08 2024 +0530

Initial commit

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comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git log -p --follow-- README.md

fatal: unrecognized argument: --follow--

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git log -p --follow -- README.md

commit e60f68ff70a37ffb7a0e58edc43b2a4fbc8000ff (HEAD -> main)

Author: sakshi10102002 <sakshispatil101002@gmail.com>

Date: Tue Apr 2 19:06:03 2024 +0530

Done

**diff --git a/README.md b/README.md**

**index 4e28dae..a5658c9 100644**

**--- a/README.md**

**+++ b/README.md**

@@ -1,3 +1,8 @@

This is my first repository

-# Imageprocessing

+<html>

+ <head>

+ <title>README file</title>

+ </head>

+ <h1>this is README file</h1>

+</html># Imageprocessing

This is my repository

commit 9a03dc8918034932dadfe0fa7efaa496bbd8cc04

Author: sakshi10102002 <sakshispatil101002@gmail.com>

Date: Tue Apr 2 19:01:40 2024 +0530

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git diff e60f68ff70 9a03dc8918

**diff --git a/README.md b/README.md**

**index a5658c9..4e28dae 100644**

**--- a/README.md**

**+++ b/README.md**

@@ -1,8 +1,3 @@

This is my first repository

-<html>

- <head>

- <title>README file</title>

- </head>

- <h1>this is README file</h1>

-</html># Imageprocessing

+# Imageprocessing

This is my repository

**Scenario5: Track the changes between two branches:**

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git branch

\* main

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git diff main newbranch

fatal: ambiguous argument 'newbranch': unknown revision or path not in the working tree.

Use '--' to separate paths from revisions, like this:

'git <command> [<revision>...] -- [<file>...]'

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git branch branch2

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git branch

branch2

\* main

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git diff main branch2

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git diff branch2 main

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git checkout main

Already on 'main'

Your branch is ahead of 'origin/main' by 2 commits.

(use "git push" to publish your local commits)

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ ls

README.md about.html h1.html

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ vi README.md

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git add .

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git diff main branch2

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git branch

branch2

\* main

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git commit -m "Done"

[main 3394f95] Done

1 file changed, 5 insertions(+)

comp@comp140 MINGW64 ~/Imageprocessing (main)

$ git diff main branch2

**diff --git a/README.md b/README.md**

**index d5766c1..a5658c9 100644**

**--- a/README.md**

**+++ b/README.md**

@@ -6,8 +6,3 @@ This is my first repository

<h1>this is README file</h1>

</html># Imageprocessing

This is my repository

-names

-pranjal

-vaishnavi

-arpita

-sneha

comp@comp140 MINGW64 ~/Imageprocessing (main)

$