

Version Control using Git - Task 1

Initial steps

- Creating a new folder

```
mkdir git-task1
```

```
cd git-task1
```

- Initializing git

```
git init
```

- Creating new files

```
echo "Hello Git!" > file1.txt
```

```
echo "This is Task 1 of Version Control using Git" > file2.txt
```

```
git status
```

```
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   file1.txt
        new file:   file2.txt
```

- Adding files to staging

```
git add file1.txt file2.txt
```

- Commit operation

```
git commit -m "Initial commit with file1 and file2"
```

```
C:\Users\karur\git-task1>git commit -m "Initial commit with file1 and file2"
[master (root-commit) 011c562] Initial commit with file1 and file2
 2 files changed, 2 insertions(+)
 create mode 100644 file1.txt
 create mode 100644 file2.txt
```

- Creating and switching to a new branch

```
git branch new-feature
```

```
git checkout new-feature
```

Making changes in the branch

- Creating and adding a new file in the branch

```
echo "Adding changes in new-feature branch" > file3.txt
```

```
git add file3.txt
```

```
git commit -m "Added file3 in new-feature branch"
```

```
C:\Users\karur\git-task1>git commit -m "Added file3 in new-feature branch"
[new-feature 9d8848a] Added file3 in new-feature branch
 1 file changed, 1 insertion(+)
 create mode 100644 file3.txt
```

- Merging new branch into the main branch

```
git checkout master
```

```
git merge new-feature
```

```
C:\Users\karur\git-task1>git merge new-feature
Updating 011c562..9d8848a
Fast-forward
 file3.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 file3.txt
```

- git log –oneline

```
C:\Users\karur\git-task1>git log --oneline
9d8848a (HEAD -> master, new-feature) Added file3 in new-feature branch
011c562 Initial commit with file1 and file2
```

Making changes to existing file (file2.txt)

- View changes made to file2.txt

```
git diff file2.txt
```

```
C:\Users\karur\git-task1>git diff file2.txt
diff --git a/file2.txt b/file2.txt
index bc0cad9..ddfcf06 100644
--- a/file2.txt
+++ b/file2.txt
@@ -1,2 @@
 "This is Task 1 of Version Control using Git"
+Now I am adding new content to this file.
\ No newline at end of file
```

- Stage and commit the changes

```
git add file2.txt
```

```
git commit -m "Updated file2.txt"
```

```
C:\Users\karur\git-task1>git commit -m "Updated file2.txt"
[master c57d28f] Updated file2.txt
1 file changed, 1 insertion(+)
```

- Display commit history

```
git log -- file2.txt
```

```
C:\Users\karur\git-task1>git log -- file2.txt
commit c57d28f37a6d1999bfbf231b1055016af189f5e2 (HEAD -> master)
Author: Karunya <rvrkaruv@gmail.com>
Date:   Sun Mar 23 12:17:23 2025 +0530

    Updated file2.txt

commit 011c5624d0278379c47c38d2e4b070287ad66a12
Author: Karunya <rvrkaruv@gmail.com>
Date:   Sun Mar 23 11:26:41 2025 +0530

    Initial commit with file1 and file2
```

- List all commits affecting file2.txt

```
git log --oneline file2.txt
```

```
C:\Users\karur\git-task1>git log --oneline file2.txt
c57d28f (HEAD -> master) Updated file2.txt
011c562 Initial commit with file1 and file2
```

- View previous and current versions of the file

```
C:\Users\karur\git-task1>git show c57d28f:file2.txt
"This is Task 1 of Version Control using Git"
Now I am adding new content to this file.

C:\Users\karur\git-task1>git show 011c562:file2.txt
"This is Task 1 of Version Control using Git"
```