

Exercise 1

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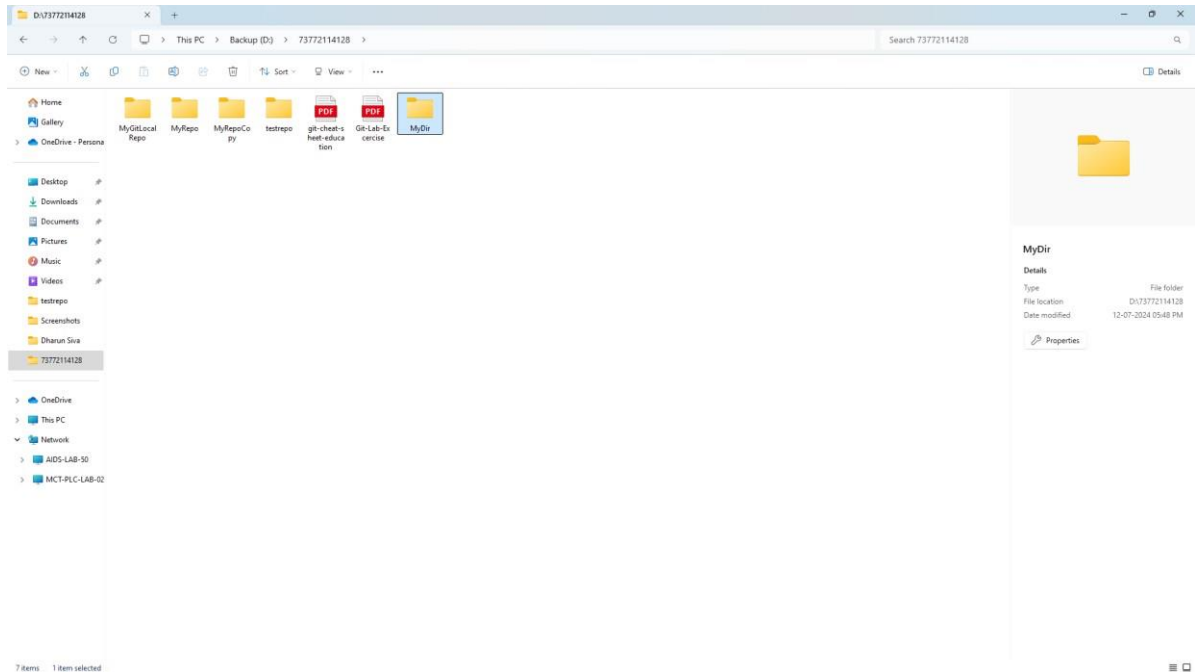
Reg No : 73772114153

Dept : B.E_Computer Science and Engineering

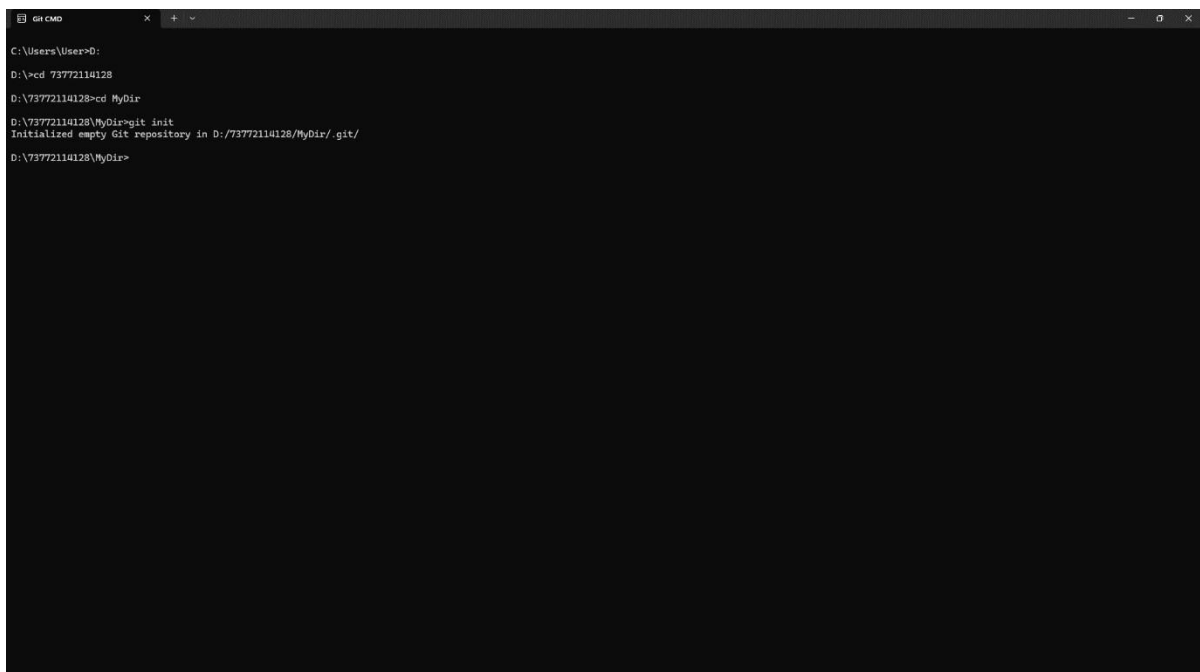
College: K S Rangasamy college of Technology

Screenshots

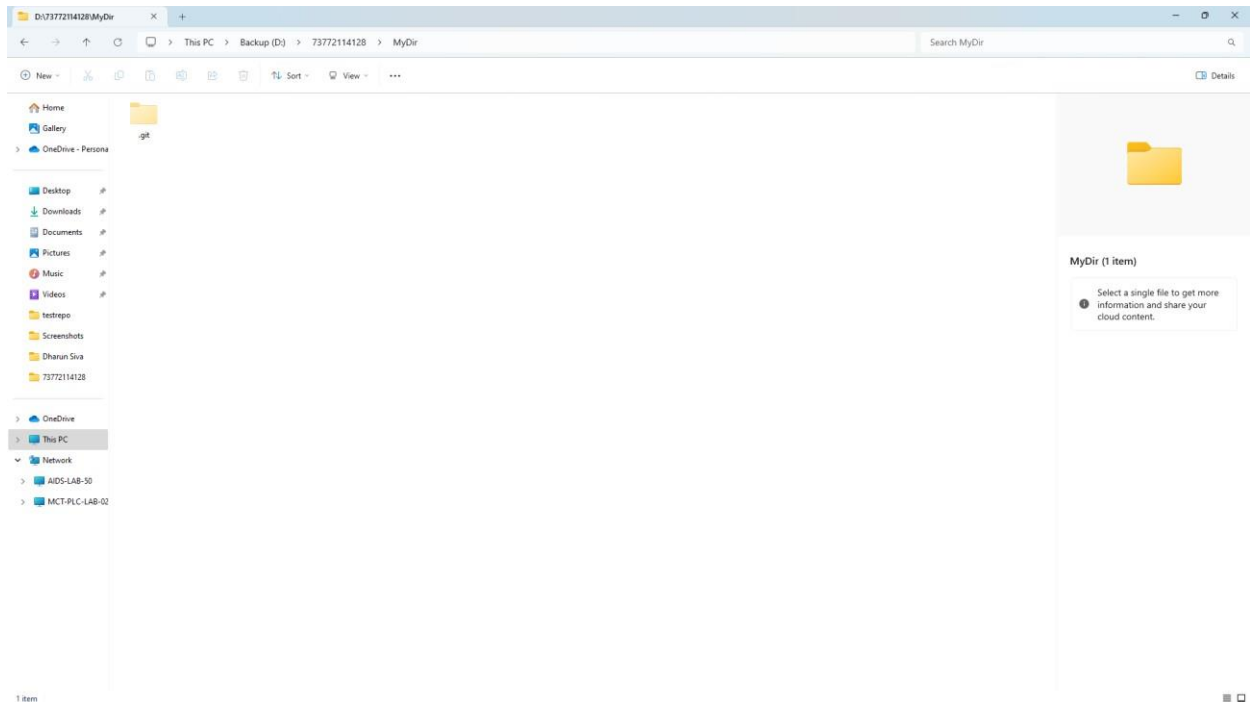
1. Create a new directory and change into it.



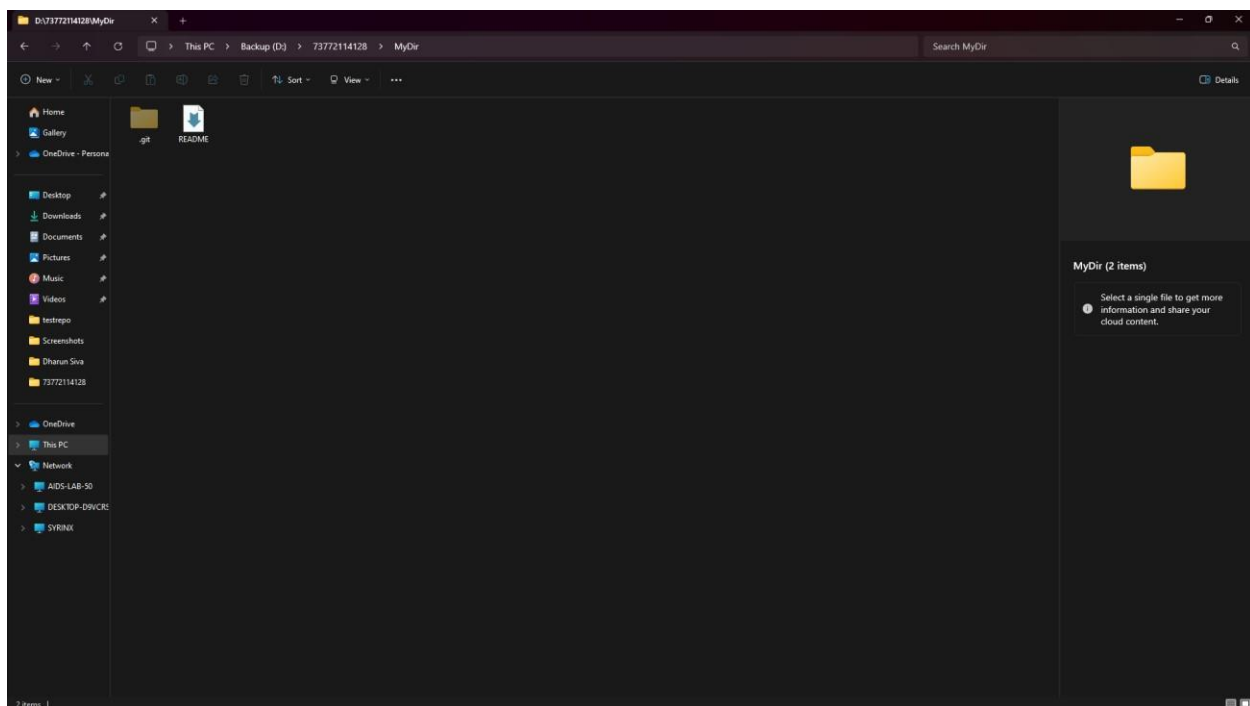
2. Use the init command to create a Git repository in that directory.



3. Observe that there is now a .git directory.



4. Create a README file.



5. Look at the output of the status command; the README you created should appear as an untracked file.

```
Git CMD
C:\Users\User>D:
D:\>cd 73772114128
D:\73772114128>cd MyDir
D:\73772114128\MyDir>git status
On branch main
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        README.md
nothing added to commit but untracked files present (use "git add" to track)
D:\73772114128\MyDir>
```

6. Use the add command to add the new file to the staging area. Again, look at the output of the status command.

```
Git CMD
C:\Users\User>D:
D:\>cd 73772114128
D:\73772114128>cd MyDir
D:\73772114128\MyDir>git status
On branch main
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        README.md
nothing added to commit but untracked files present (use "git add" to track)
D:\73772114128\MyDir>git add README.md
D:\73772114128\MyDir>
```

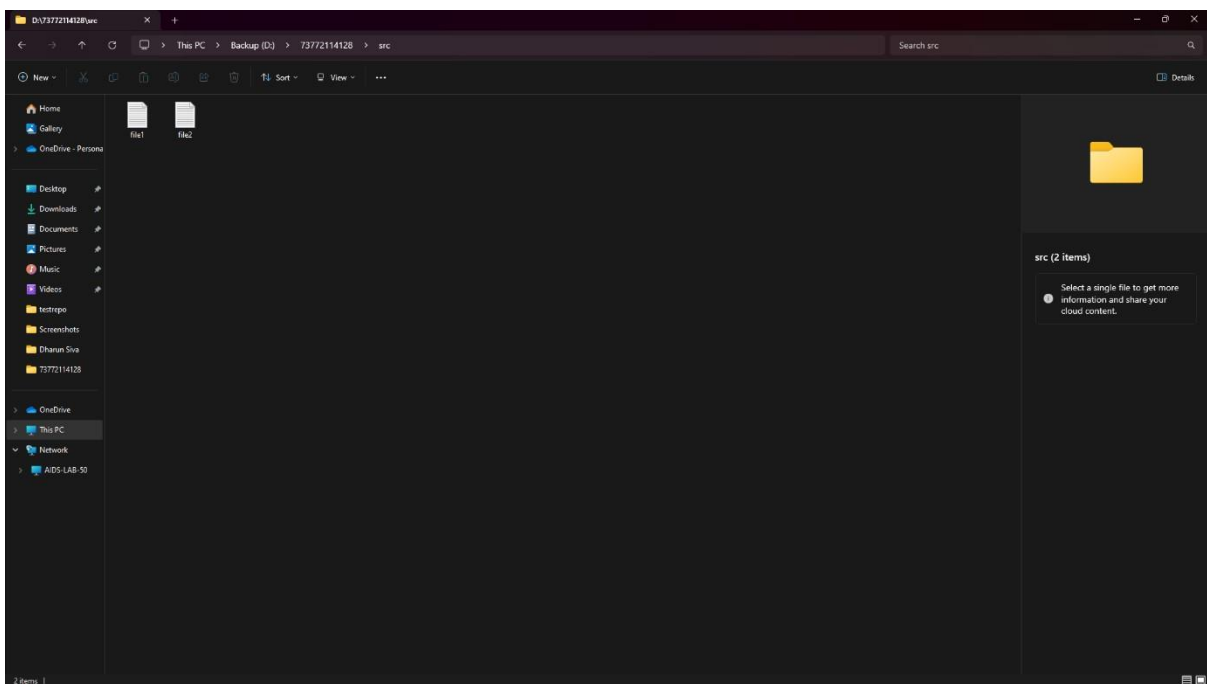
7. Now use the commit command to commit the contents of the staging area.

```
git CMD
C:\Users\User>D:
D:\>cd 73772114128
D:\73772114128>cd MyDir
D:\73772114128\MyDir>git status
On branch main
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        README.md

nothing added to commit but untracked files present (use "git add" to track)
D:\73772114128\MyDir>git add README.md
D:\73772114128\MyDir>git status
On branch main
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   README.md

D:\73772114128\MyDir>
```

8. Create a src directory and add a couple of files to it.



9. Use the add command, but name the directory, not the individual files. Use the status command. See how both files have been staged. Commit them.

```
git CMD
D:\73772114128>cd MyDir
D:\73772114128\MyDir>git status
On branch main
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)
  README.md
nothing added to commit but untracked files present (use "git add" to track)
D:\73772114128\MyDir>git add README.md
D:\73772114128\MyDir>git status
On branch main
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
  new file:   README.md
D:\73772114128\MyDir>git commit -m"File could be moved to Staging Area"
[main (root-commit) e516dde] File could be moved to Staging Area
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 README.md
D:\73772114128\MyDir>cd ..
D:\73772114128>cd src
D:\73772114128\src>git add .
fatal: not a git repository (or any of the parent directories): .git
D:\73772114128\src>git init
Initialized empty Git repository in D:/73772114128/src/.git/
D:\73772114128\src>git add .
D:\73772114128\src>git status
On branch main
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
  new file:   file1.txt
  new file:   file2.txt
D:\73772114128\src>
```

10. Make a change to one of the files. Use the diff command to view the details of the change.

```
git CMD
D:\73772114128\src>git status
On branch main
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
  new file:   README.md
D:\73772114128\src>git commit -m"File could be moved to Staging Area"
[main (root-commit) e516dde] File could be moved to Staging Area
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 README.md
D:\73772114128\src>cd ..
D:\73772114128>cd src
D:\73772114128\src>git add .
fatal: not a git repository (or any of the parent directories): .git
D:\73772114128\src>git init
Initialized empty Git repository in D:/73772114128/src/.git/
D:\73772114128\src>git add .
D:\73772114128\src>git status
On branch main
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
  new file:   file1.txt
  new file:   file2.txt
D:\73772114128\src>git diff file1.txt
diff --git a/file1.txt b/file1.txt
index e69de29..5ef322b 100644
--- a/file1.txt
+++ b/file1.txt
@@ -0,0 +1 @@
+My name is Dharm S
\ No newline at end of file
D:\73772114128\src>
```

11. Next, add the changed file, and notice how it moves to the staging area in the status output. Also observe that the diff command you did before using add now gives no output.

```
Git CMD
D:\73772114128\MyGit>git commit -m"File could be moved to Staging Area"
[main (root-commit) e516dd6] File could be moved to Staging Area
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 README.md

D:\73772114128\MyGit>cd ..
D:\73772114128>cd src
D:\73772114128\src>git add .
fatal: not a git repository (or any of the parent directories): .git

D:\73772114128\src>git init
Initialized empty Git repository in D:/73772114128/src/.git/
D:\73772114128\src>git add .
D:\73772114128\src>git status
On branch main

No commits yet

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

D:\73772114128\src>git diff file1.txt
diff --git a/file1.txt b/file1.txt
index e69de29..5ef8220 100644
--- a/file1.txt
+++ b/file1.txt
@@ -0,0 +1 @@
+My name is Dharun S
+ \ No newline at end of file

D:\73772114128\src>git add file1.txt
D:\73772114128\src>git status
On branch main

No commits yet

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

D:\73772114128\src>git diff file1.txt
D:\73772114128\src>
```

12. Now – without committing – make another change to the same file you changed in step 10. Observe the difference when you use the add command to stage the latest round of changes. Finally, commit them. You should now have started to get a feel for the staging area.

```
Git CMD

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

D:\73772114128\src>git diff file1.txt
D:\73772114128\src>git status
On branch main

No commits yet

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

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:   file1.txt

D:\73772114128\src>git diff file1.txt
diff --git a/file1.txt b/file1.txt
index 5ef8220..b72bd2b 100644
--- a/file1.txt
+++ b/file1.txt
@@ -1,3 @@
-My name is Dharun S
+ \ No newline at end of file
+My name is Dharun S
+
+I am from Marur
+ \ No newline at end of file

D:\73772114128\src>git add file1.txt
D:\73772114128\src>git commit -m "New Changes were Added"
[main (root-commit) 2e8e188] New Changes were Added
 2 files changed, 3 insertions(+)
 create mode 100644 file1.txt
 create mode 100644 file2.txt

D:\73772114128\src>git log
commit 2e8e188f6697ef9f3b2e1520211903d9aef0b98e (HEAD -> main)
Author: dharun-siva <dharunsiva33@gmail.com>
Date:   Mon Jul 15 09:33:53 2024 +0530

    New Changes were Added

D:\73772114128\src>
```

13. Use the log command in order to see all of the commits you made so far.

```

git CMD
(use "git restore <file>..." to discard changes in working directory)
modified:   file1.txt

D:\V3772114128\src>git diff file1.txt
diff --git a/file1.txt b/file1.txt
index 5ef822b..b728d2b 100644
--- a/file1.txt
+++ b/file1.txt
@@ -1,3 @@
-My name is Dharun S
\ No newline at end of file
+My name is Dharun S
+
+I am from Marur
\ No newline at end of file

D:\V3772114128\src>git add file1.txt

D:\V3772114128\src>git commit -m "New Changes were Added"
[main (root-commit) 2e8e188] New Changes were Added
2 files changed, 3 insertions(+)
create mode 100644 file1.txt
create mode 100644 file2.txt

D:\V3772114128\src>git log
commit 2e8e188f8697ef0f3b2e1520211983d9aef0b98e (HEAD -> main)
Author: dharun-Siva <dharunsiva333@gmail.com>
Date:   Mon Jul 15 09:33:53 2024 +0530

    New Changes were Added

D:\V3772114128\src>git show
commit 2e8e188f8697ef0f3b2e1520211983d9aef0b98e (HEAD -> main)
Author: dharun-Siva <dharunsiva333@gmail.com>
Date:   Mon Jul 15 09:33:53 2024 +0530

    New Changes were Added

diff --git a/file1.txt b/file1.txt
new file mode 100644
index 8000000..b728d2b
--- /dev/null
+++ b/file1.txt
@@ -0,0 +1,3 @@
+My name is Dharun S
+
+I am from Marur
\ No newline at end of file
diff --git a/file2.txt b/file2.txt
new file mode 100644
index 0000000..e69de29

```

14. Use the show command to look at an individual commit. How many characters of the commit identifier can you get away with typing at a minimum?

```

--- a/file1.txt
+++ b/file1.txt
@@ -1,3 @@
-My name is Dharun S
\ No newline at end of file
+My name is Dharun S
+
+I am from Marur
\ No newline at end of file

D:\V3772114128\src>git add file1.txt

D:\V3772114128\src>git commit -m "New Changes were Added"
[main (root-commit) 2e8e188] New Changes were Added
2 files changed, 3 insertions(+)
create mode 100644 file1.txt
create mode 100644 file2.txt

D:\V3772114128\src>git log
commit 2e8e188f8697ef0f3b2e1520211983d9aef0b98e (HEAD -> main)
Author: dharun-Siva <dharunsiva333@gmail.com>
Date:   Mon Jul 15 09:33:53 2024 +0530

    New Changes were Added

D:\V3772114128\src>git show
commit 2e8e188f8697ef0f3b2e1520211983d9aef0b98e (HEAD -> main)
Author: dharun-Siva <dharunsiva333@gmail.com>
Date:   Mon Jul 15 09:33:53 2024 +0530

    New Changes were Added

diff --git a/file1.txt b/file1.txt
new file mode 100644
index 8000000..b728d2b
--- /dev/null
+++ b/file1.txt
@@ -0,0 +1,3 @@
+My name is Dharun S
+
+I am from Marur
\ No newline at end of file
diff --git a/file2.txt b/file2.txt
new file mode 100644
index 0000000..e69de29

D:\V3772114128\src>git commit -m "New Files were added"
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file3.txt

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

D:\V3772114128\src>

```


15. Make a couple more commits, at least one of which should add an extra file.

```
Date: Mon Jul 15 09:33:53 2024 +0530

New Changes were Added

D:\V3772114128\src>git show
commit 2e8e186f8697ef9f3b2e1520211903d9aef9b98e (HEAD -> main)
Author: dharun-Siva <dharunsiva333@gmail.com>
Date: Mon Jul 15 09:33:53 2024 +0530

    New Changes were Added

diff --git a/file1.txt b/file1.txt
new file mode 100644
index 0000000..b728d2b
--- /dev/null
+++ b/file1.txt
@@ -0,0 +1,3 @@
+My name is Dharun S
+
+I am from Mazur
\ No newline at end of file
diff --git a/file2.txt b/file2.txt
new file mode 100644
index 0000000..e59dc29

D:\V3772114128\src>git commit -m "New Files were added"
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file3.txt

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

D:\V3772114128\src>git status
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file3.txt

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

D:\V3772114128\src>git add file3.txt

D:\V3772114128\src>git commit -m "New Files were added"
[main 54dc257] New Files were added
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file3.txt

D:\V3772114128\src>git add file2.txt

D:\V3772114128\src>git commit -m "second file could be modified"
[main 4b0f8be] second file could be modified
1 file changed, 1 insertion(+)
```