

GIT LAB ASSIGNMENT → 02

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**DEPT : COMPUTER SCIENCE AND
ENGINEERING**

YEAR : IV - YEAR

COLLEGE : KSRIET

DATE : 12.07.2024

1. Create a new directory and change into it.

test

Users

.Getintopc.com_Revit_2021_G1_Win_64bi...

3D Objects - Shortcut

EmailApplication

Hello

InventoryManagement

InventoryManagements

InventorySystem

Local Disk (D) - Shortcut

Main

Mains

Music - Shortcut

Pictures - Shortcut (2)

Pictures - Shortcut

R2021a_Update_7_Windows

stage2

Videos - Shortcut

Repository

27-09-2023 10:28 AM

06-04-2023 01:56 PM

01-02-2024 10:51 AM

09-03-2023 12:07 PM

26-04-2024 05:54 PM

23-04-2024 11:52 AM

10-07-2024 12:13 PM

26-04-2024 09:16 AM

26-04-2024 05:49 PM

29-02-2024 05:15 PM

26-04-2024 12:10 PM

04-07-2024 09:48 AM

09-03-2023 12:07 PM

09-03-2023 12:07 PM

09-03-2023 12:07 PM

02-01-2023 07:43 PM

04-06-2023 06:10 PM

09-03-2023 12:07 PM

12-07-2024 01:49 PM

File folder

File folder

Disc Image File

Shortcut

JAVA File

JAVA File

JAVA File

JAVA File

JAVA File

Shortcut

JAVA File

JAVA File

Shortcut

Shortcut

Shortcut

Disc Image File

Disc Image File

Shortcut

File folder

1,62,07,776...

1 KB

4 KB

2 KB

3 KB

4 KB

6 KB

1 KB

1 KB

1 KB

1 KB

1 KB

1 KB

1,90,15,188...

1,85,064 KB

1 KB

Select a file to preview.

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

```
C:\Users\home>D:
D:\>cd Repository
D:\Repository>git init
Initialized empty Git repository in D:/Repository/.git/
D:\Repository>_
```

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

Repository

Name	Date modified	Type	Size
.git	12-07-2024 01:53 PM	File folder	

4. Create a **README** file.

 .git	12-07-2024 01:53 PM	File folder	
 README	12-07-2024 01:58 PM	Text Document	0 KB

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

```
C:\Users\home>D:
D:\>cd Repository
D:\Repository>git init
Initialized empty Git repository in D:/Repository/.git/
D:\Repository>git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        README.txt

nothing added to commit but untracked files present (use "git add" to track)
D:\Repository>
```

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

```
D:\Repository>git add README.txt
D:\Repository>git status
On branch master

No commits yet

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

D:\Repository>
```

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

```
D:\Repository>git commit -m "Commit-1"
[master (root-commit) 2aa51a2] Commit-1
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 README.txt

D:\Repository>
```

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

.git	12-07-2024 03:24 PM	File folder	
src	12-07-2024 03:23 PM	File folder	
readme	12-07-2024 02:48 PM	Markdown Source...	0 KB

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.

```
D:\Repository>git add readme.md

D:\Repository>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   readme.md

D:\Repository>git commit -m "Add-1"
[master (root-commit) fa6f297] Add-1
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 readme.md

D:\Repository>mkdir src

D:\Repository>cd src

D:\Repository\src>git add file1.txt
fatal: pathspec 'file1.txt' did not match any files

D:\Repository\src>cd..

D:\Repository>git add src

D:\Repository>git status
On branch master

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   src/file1.txt
    new file:   src/file2.txt
```

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

```
D:\Repository>git commit -m "source-1"
[master cbad250] source-1
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 src/file1.txt
 create mode 100644 src/file2.txt

D:\Repository>git log
commit cbad2501d5c142fadc2424c4c72ead90ada1ca4e (HEAD -> master)
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 14:51:26 2024 +0530

    source-1

commit fa6f297445fe8367834b3c4249c879f2f3ee758a
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 14:49:24 2024 +0530

    Add-1

D:\Repository>git diff fa6f297445fe8367834b3c4249c879f2f3ee758a cbad2501d5c142fadc2424c4c72ead90ada1ca4e
diff --git a/src/file1.txt b/src/file1.txt
new file mode 100644
index 0000000..e69de29
diff --git a/src/file2.txt b/src/file2.txt
new file mode 100644
index 0000000..e69de29

D:\Repository>cd src
D:\Repository\src>cd..
```

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. Why not? What do you have to do to see a **diff** of the things in the staging area? (Hint: review the slides if you can't remember.)

```
D:\Repository>git status
On branch master
Changes not staged for commit:
  (use "git add/rm <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        deleted:    src/file2.txt

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

D:\Repository>git log
commit cbad2501d5c142fadc2424c4c72ead90ada1ca4e (HEAD -> master)
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 14:51:26 2024 +0530

    source-1

commit fa6f297445fe8367834b3c4249c879f2f3ee758a
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 14:49:24 2024 +0530

    Add-1

D:\Repository>git diff fa6f297445fe8367834b3c4249c879f2f3ee758a cbad2501d5c142fadc2424c4c72ead90ada1ca4e
diff --git a/src/file1.txt b/src/file1.txt
new file mode 100644
index 0000000..e69de29
diff --git a/src/file2.txt b/src/file2.txt
new file mode 100644
index 0000000..e69de29

D:\Repository>git status
On branch master
Changes not staged for commit:
  (use "git add/rm <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        deleted:    src/file2.txt

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

12. Now – without committing – make another change to the same file you changed in step 10. Look at the **status** output, and the **diff** output. Notice how you can have both staged and unstaged changes, even when you're talking about a single file. 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.

```
D:\Repository>git commit -m "Delete"
[master a158d90] Delete
1 file changed, 0 insertions(+), 0 deletions(-)
delete mode 100644 src/file2.txt

D:\Repository>git log
commit a158d9037f84be3551b9ff94b10000f34a2f0624 (HEAD -> master)
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 15:17:27 2024 +0530

    Delete

commit cbad2501d5c142fadc2424c4c72ead90ada1ca4e
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 14:51:26 2024 +0530

    source-1

commit fa6f297445fe8367834b3c4249c879f2f3ee758a
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 14:49:24 2024 +0530

    Add-1

D:\Repository>git diff fa6f297445fe8367834b3c4249c879f2f3ee758a cbad2501d5c142fadc2424c4c72ead90ada1ca4e
diff --git a/src/file1.txt b/src/file1.txt
new file mode 100644
index 0000000..e69de29
diff --git a/src/file2.txt b/src/file2.txt
new file mode 100644
index 0000000..e69de29

D:\Repository>git status
On branch master
nothing to commit, working tree clean

D:\Repository>git show
```

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

```
D:\Repository>git log
commit 5a2bae9eb107a368d767d435fe9e7b637ac43304 (HEAD -> master)
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 15:24:11 2024 +0530

    Changed

commit a158d9037f84be3551b9ff94b10000f34a2f0624
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 15:17:27 2024 +0530

    Delete

commit cbad2501d5c142fadc2424c4c72ead90ada1ca4e
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 14:51:26 2024 +0530

    source-1

commit fa6f297445fe8367834b3c4249c879f2f3ee758a
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 14:49:24 2024 +0530

    Add-1
```

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?

```
D:\Repository>git show
commit a158d9037f84be3551b9ff94b10000f34a2f0624 (HEAD -> master)
Author: ShobnaSamukthaRaj <samukthasamuktha2@gmail.com>
Date:   Fri Jul 12 15:17:27 2024 +0530

    Delete

diff --git a/src/file2.txt b/src/file2.txt
deleted file mode 100644
index e69de29..0000000
```

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

```
Add-1

D:\Repository>git diff cbad2501d5c142fadc2424c4c72ead90ada1ca4e 5a2bae9eb107a368d767d435fe9e7b637ac43304
diff --git a/src/file2.txt b/src/file3.txt
similarity index 100%
rename from src/file2.txt
rename to src/file3.txt

D:\Repository>
```