

Day 4 – Section II

Demo Document – I (a)

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Demo – I (a): Git Common Commands

- Set up username for your repository

Syntax: `git config --global user.name "username"`

- Set up user-email for your repository

Syntax: `git config --global user.email "useremail@example.com"`

```
[centos@ip-172-31-20-57 ~]$ git config --global user.name "DebasisN"
[centos@ip-172-31-20-57 ~]$ git config --global user.email "██████████@edureka.co"
[centos@ip-172-31-20-57 ~]$ █
```

- Select or create the Directory where you want to initialize Git

```
[centos@ip-172-31-20-57 ~]$ mkdir demo
[centos@ip-172-31-20-57 ~]$ cd demo
```

- **Initialize Git** in the Directory

Syntax: `git init`

```
[centos@ip-172-31-20-57 demo]$ git init
Initialized empty Git repository in /home/centos/demo/.git/
[centos@ip-172-31-20-57 demo]$ █
```

- To **add** a file to the **staging area**

Syntax: `git add <filename>`

```
[centos@ip-172-31-20-57 demo]$ touch demo.java
[centos@ip-172-31-20-57 demo]$ git add demo.java
[centos@ip-172-31-20-57 demo]$ █
```

- To check the working tree **status**

Syntax: `git status`

```
[centos@ip-172-31-20-57 demo]$ git status
On branch master
```

No commits yet

Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: demo.java

```
[centos@ip-172-31-20-57 demo]$ █
```

- To **commit** the **staged** files to you **local repository**:

Syntax: `git commit`

```
[centos@ip-172-31-20-57 demo]$ git commit
[master (root-commit) 0e17f6c] 1st demo file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 demo.java
[centos@ip-172-31-20-57 demo]$ █
```

- The **git diff** command displays all the changes made to the **tracked** files

Syntax: `git diff`

```
[centos@ip-172-31-20-57 demo]$ git diff
diff --git a/demo.java b/demo.java
index e69de29..3385147 100644
--- a/demo.java
+++ b/demo.java
@@ -0,0 +1 @@
+This is the first demo file
[centos@ip-172-31-20-57 demo]$ █
```

- To **stage and commit** multiple files at once we use **-a** flag with the commit command

Syntax: `git commit -a -m "message"`

```
[centos@ip-172-31-20-57 demo]$ git commit -a -m "new file added and demo.java modified"
[master 9a84df4] new file added and demo.java modified
1 file changed, 3 insertions(+)
[centos@ip-172-31-20-57 demo]$ █
```

- The **git rm** command deletes the file from git repository as well as users system

Syntax: `git rm <filename>`

```
[centos@ip-172-31-20-57 demo]$ git rm demo.java
rm 'demo.java'
[centos@ip-172-31-20-57 demo]$
```

- To remove the file from git repository but not from the system --**cached** option

Syntax: `git rm --cached <filename>`

```
[centos@ip-172-31-20-57 demo]$ git rm --cached demo.class
rm 'demo.class'
[centos@ip-172-31-20-57 demo]$
```

- You can force remove a staged file by using **-f** flag

Syntax: `git rm -f <filename>`

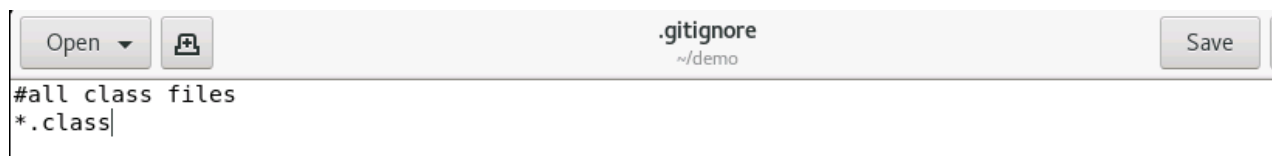
```
[centos@ip-172-31-20-57 demo]$ git rm -f demo1.java
rm 'demo1.java'
[centos@ip-172-31-20-57 demo]$
```

Git Ignore:

- Create a gitignore file inside the git repo using

Syntax: `gedit .gitignore`

```
[centos@ip-172-31-20-57 demo]$ gedit .gitignore
```



Git Log:

- The **git log** command shows all the commits so far on the current branch

Syntax: `git log`

```
commit 585a6a2f123107a3cfbbc09d083cb27305e83c54 (HEAD -> master)
Author: DebasisN <[REDACTED]@edureka.co>
Date: Mon Jul 13 07:56:07 2020 +0000
```

added 3rd file

```
commit 85bd387b8c2084c8d67289c2865b534b36209dec
Author: DebasisN <[REDACTED]@edureka.co>
Date: Mon Jul 13 07:52:53 2020 +0000
```

2nd file

```
commit 9a84df4e7a0d892b04aa916135ccaa95c749820e
Author: DebasisN <[REDACTED]@edureka.co>
Date: Mon Jul 13 07:07:28 2020 +0000
```

new file added and demo.java modified

```
commit 0e17f6cd6c46712d9b793062ff818828379a32ed
Author: DebasisN <[REDACTED]@edureka.co>
Date: Mon Jul 13 05:32:14 2020 +0000
```

1st demo file

Git Amend:

- Git amend can be used to make changes to the last commit message

Syntax: `git commit --amend`

```
[centos@ip-172-31-20-57 demo]$ git commit --amend
[master 70410ba] added 3rd file
Date: Mon Jul 13 07:56:07 2020 +0000
1 file changed, 1 insertion(+)
create mode 100644 demo2.java
[centos@ip-172-31-20-57 demo]$
```

- Commit tags provide an alias for commitID
Syntax: `git tag --a <annotation> -m <message>`
- You can also view all the tags you have created
Syntax: `git tag`

```
[centos@ip-172-31-20-57 demo]$ git tag --a v1.1 -m "Version 1.1"
[centos@ip-172-31-20-57 demo]$ git tag
v1.1
[centos@ip-172-31-20-57 demo]$ █
```

- Adding a tag to one of the previous commits

Syntax:

`git tag --a <annotation for tag name> <commit id> --m "<message>"`

- <Commit id> can be obtained from git logs

Syntax: `git log`

- All these tags can be viewed in git

Syntax: `git show <tag-name>`

```
[centos@ip-172-31-20-57 demo]$ git log
commit 70410ba936c95ec3677dd2acb57d74145937237f (HEAD -> master, tag: v1.1)
Author: DebasisN <debasis.nayak@edureka.co>
Date: Mon Jul 13 07:56:07 2020 +0000

    added 3rd file

commit 85bd387b8c2084c8d67289c2865b534b36209dec
Author: DebasisN <debasis.nayak@edureka.co>
Date: Mon Jul 13 07:52:53 2020 +0000

    2nd file

commit 9a84df4e7a0d892b04aa916135ccaa95c749820e
Author: DebasisN <debasis.nayak@edureka.co>
Date: Mon Jul 13 07:07:28 2020 +0000

    new file added and demo.java modified
```

```
[centos@ip-172-31-20-57 demo]$ git tag --a v1.3 70410ba936c95ec3677dd2acb57d74145937237f -m "added a tag to previous commit"
[centos@ip-172-31-20-57 demo]$ git show v1.3
tag v1.3
Tagger: DebasisN <debasis.nayak@edureka.co>
Date: Mon Jul 13 08:21:59 2020 +0000

added a tag to previous commit

commit 70410ba936c95ec3677dd2acb57d74145937237f (HEAD -> master, tag: v1.3, tag: v1.2, tag: v1.1)
Author: DebasisN <debasis.nayak@edureka.co>
Date: Mon Jul 13 07:56:07 2020 +0000

    added 3rd file

diff --git a/demo2.java b/demo2.java
new file mode 100644
index 0000000..7f53c2b
--- /dev/null
+++ b/demo2.java
@@ -0,0 +1 @@
+this is 3rd file
```