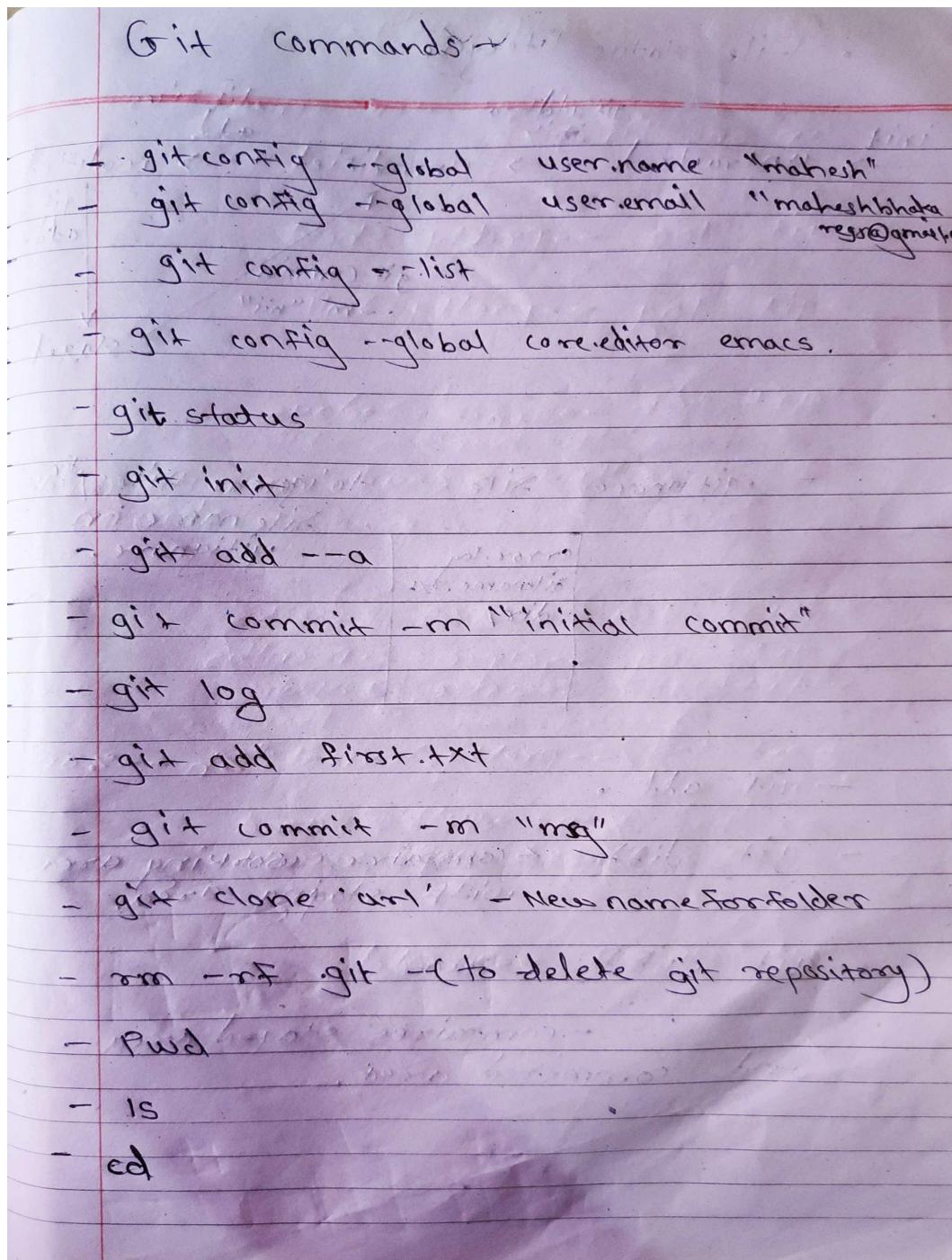
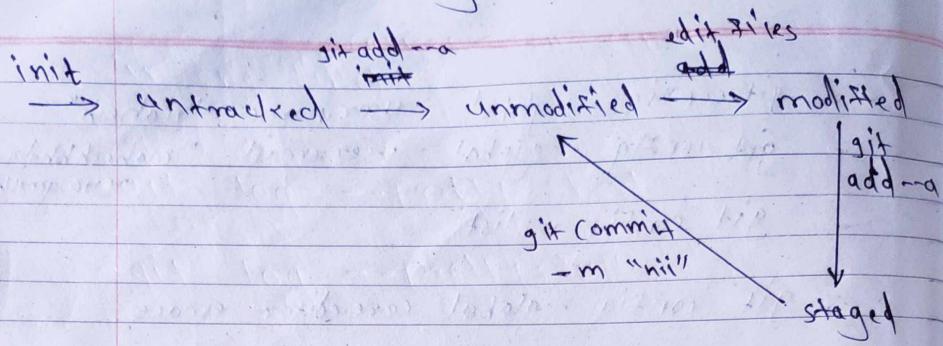


Title: 1 Write a case study on GIT and GITHUB. Use Demo Screenshots to represent steps.

Case Study:



- File status lifecycle -



- .gitignore file - to ignore files/whose file name in .gitignore.

|               |
|---------------|
| error.log     |
| filename.ext. |
| dir/          |

- git add .

- git diff ← compares working area with staging area.

- git diff --staged

- compares staged area and committed area.

## • Skipping Staging Area in git -

- git commit -a -m "commitmsg"

- all tracked files will go into commit.

- untracked files cannot commit.

- git rm filename. ( $\leftarrow$  to remove)

- git mv first.txt first-new.txt

( $\leftarrow$  to rename)

• To untrack files which are added in .gitignore.

- git rm --cached filename.

- git log -p

(it shows what are changes made in files at the time of commit)

- git log -p -3

(it shows only 3 commits)

- git log -short

(shows in short what is committed in files)

- git log --pretty=oneline

--- gives you commits list  
in one line

- git log --pretty=short

- git log --pretty=full

- git log --since=2.days

--- (last 2 days commits will  
shown)

- git log --since=2.weeks

- git log --since=2.months

- git log --since=2.years

- git log --pretty=format:"%h --%an"

%an - author name

%ae - author email

- git commit --amend

Author - who created file  
Commitors what changes in files

- Unstaging & Unmodifying files —



- git restore --staged <filename>

- git restore <filename>

- git checkout --<filename>

-- (To revert the changes made  
in file - unmodify)

- git checkout -f

-- (to loose all changes  
upto last commit in files)

- To add the another name to git command

- git config --global alias.st status

- git st

- To create New branch in github.

- git checkout -b developed



new branch name

switch to other branch.

- git checkout master.

- To merge into master branch

- git merge developed

↑  
(New branch  
name)

## • Merge Conflict & Branch management -

- git branch

- git branch -v

| branchname | last commit hash | last commit message |
|------------|------------------|---------------------|
|------------|------------------|---------------------|

- git branch --merged

- (shows the branches which are already merged)

- git branch --no-merged

- (not already merged branches)

\* how to delete branch.

- git branch -d <branchname>

- - (warning raise if branch not merged)

\* have to

- git branch -D <branch name>

- - (forcefully delete branch)

## • Remotely pulling & pushing files -

### • Pushing files →

- git remote add origin <repository>

- git push -u origin main

• To delete branch from git repository

- git push -d origin <branchname>

• To delete any folder of repository

git rm -r --cached <filename>

git commit -m "removed folder"

git push -u origin <branchname>

## Demo Screenshots -

```

[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ git config --global user.name "mahesh_bhakare_16"
[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ git config --global user.email "mahesh.s.bhakare@apisero.com"
[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ git config --global core.editor kwrite
[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ git config --list
user.email=mahesh.s.bhakare@apisero.com
user.name=mahesh_bhakare_16
core.editor=kwrite
core.repositoryformatversion=0
core.filemode=true
core.bare=false
core.logallrefupdates=true
remote.origin.url=https://github.com/API2309/MAHESH-BHAKARE.git
remote.origin.fetch=+refs/heads/*:refs/remotes/origin/*
branch.main.remote=origin
branch.main.merge=refs/heads/main
[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ 

```

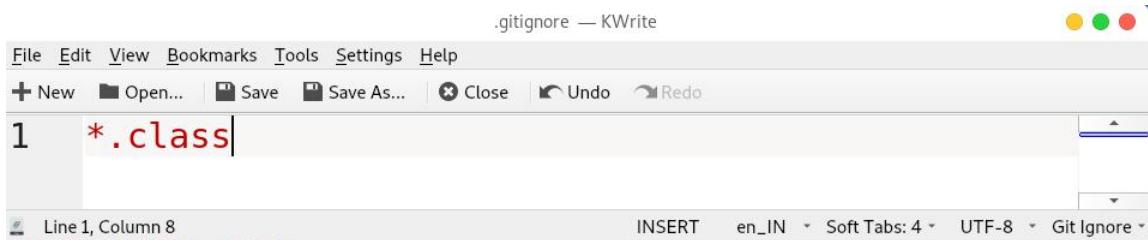
```

[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ git status
  On branch main
Your branch is up to date with 'origin/main'.

Changes not staged for commit:
  (use "git add <file>..." to include in what will be committed)
    new file:   Hello.java

no changes added to commit (use "git add" and/or "git commit -a")
[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ git status
[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ 

```



```

[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ git commit -m "Updated Hello.java"
[main ca424e4] Updated Hello.java
 2 files changed, 6 insertions(+), 1 deletion(-)
 create mode 100644 .gitignore
[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ git push -u origin main
Username for 'https://github.com': API2309
Password for 'https://API2309@github.com':
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 455 bytes | 25.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0)
To https://github.com/API2309/MAHESH-BHAKARE.git
  afe792a..ca424e4 main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
[sai@mahesh-hp-laptop-15-bs1xx] -[~/GreenField-Training/DveOps/GITDEMO]
└─ $ 

```

```
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$ git log
commit ca424e42b690a1235dbc6f12932542134e7f053 (HEAD -> main, origin/main)
Author: mahesh_bhakare_16 <mahesh.s.bhakare@apisero.com>
Date: Tue Oct 26 09:19:28 2021 +0530

    Updated Hello.java

commit afe792a54581a33c0990458fde85d8129dd2b551 (tag: v1.1)
Author: mahesh_bhakare_16 <mahesh.s.bhakare@apisero.com>
Date: Mon Oct 25 16:39:33 2021 +0530

    Added Hello.java
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$ git diff
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$ git diff --staged
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$ git mv Hello.java HelloName.java
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$
```

```
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$ git diff
diff --git a>HelloName.java b>HelloName.java
index 5e5d3b9..fcc8c5d 100644
a/HHelloName.java
+++ b/HHelloName.java
@@ -1,5 +1,5 @@
import java.util.Scanner;
-public class Hello
+public class HelloName
{
    public static void main(String[] args)
    {
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$ git diff --staged
diff --git a>Hello.java b>HelloName.java
similarity index 100%
rename from Hello.java
rename to HelloName.java
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$
```

```
Tue Oct 26 09:26:37 AM
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$ git show
commit ca424e42b690a1235dbc6f12932542134e7f053 (HEAD -> main, tag: v1.2, origin/main)
Author: mahesh_bhakare_16 <mahesh.s.bhakare@apisero.com>
Date: Tue Oct 26 09:19:28 2021 +0530

    Updated Hello.java

diff --git a/.gitignore b/.gitignore
new file mode 100644
index 0000000..6b468b6
--- /dev/null
+++ b/.gitignore
@@ -0,0 +1 @@
+.class
diff --git a>Hello.java b>Hello.java
index 51d241..5e5d3b9 100644
--- Hello.java
+++ b>Hello.java
@@ -1,7 +1,11 @@
+import java.util.Scanner;
+public class Hello
{
    public static void main(String[] args)
    {
        System.out.println("Hello World!");
        Scanner sc = new Scanner(System.in);
        String s;
        s = sc.nextLine();
        System.out.println("Hello "+s);
    }
}
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$ git tag v1.2
fatal: tag v1.2 already exists
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$ git tag v1.1
v1.1
v1.2
[sai@mahesh-hp-laptop-15-bs1xx](-[~/GreenField-Training/DveOps/GITDEMO]
└─$
```

```
[~/sa|naheesh-hp-laptop-15-bs1xx]-[~/GreenField-Training/DveOps/GITDEMO]
  ↵  git log --stat
commit e4d24ed2b90a125bdc6f1353542134e7f053 (HEAD -> main, tag: v1.2, origin/main)
  author: naheesh_bhakare <s.bhakare@applerio.com>
  Date:  Tue Oct 26 09:18:28 2021 +0530

    Updated Hello.java

      gitignore | 1
      README.md | 1
      ... 2 files changed, 2 insertions(+), 1 deletion(-)

commit afef792a54581a32e0990458fe85d126d2b551 (tag: v1.1)
  author: naheesh_bhakare <s.bhakare@applerio.com>
  Date:  Mon Oct 25 16:39:33 2021 +0530

    Added Hello.java

Hello.java | 7 new, 0 edits, 0 deletes, 0 insertions(+)
[~/sa|naheesh-hp-laptop-15-bs1xx]-[~/GreenField-Training/DveOps/GITDEMO]
  ↵  git log --pretty=oneline
commit afef792a54581a32e0990458fe85d126d2b551 (tag: v1.1) Updated Hello.java
commit e4d24ed2b90a125bdc6f1353542134e7f053 (tag: v1.2, origin/main) Updated Hello.java
[~/sa|naheesh-hp-laptop-15-bs1xx]-[~/GreenField-Training/DveOps/GITDEMO]
  ↵  git log --stat
commit e4d24ed2b90a125bdc6f1353542134e7f053 (HEAD -> main, tag: v1.2, origin/main)
  author: naheesh_bhakare <s.bhakare@applerio.com>

    Updated Hello.java

commit afef792a54581a32e0990458fe85d126d2b551 (tag: v1.1)
  author: naheesh_bhakare <s.bhakare@applerio.com>

    Added Hello.java
[~/sa|naheesh-hp-laptop-15-bs1xx]-[~/GreenField-Training/DveOps/GITDEMO]
```

```
salimahesh-hp-laptop-15-bx1xx:~/GreenField-Training/DiveOps/GITDEMO
```

```
git log --since=2 days
```

```
commit e424edc26090a1235d0bd12955d42134ef053 (HEAD -> main, tag: v1.2, origin/main)
```

```
Author: salimahesh <s.alimahesh@optisero.com>
```

```
Date: Tue Oct 26 09:10:28 2021 +0530
```

```
    Updated Hello.java
```

```
commit afe792ea4581a3cc990458fded8d8129dd2b551 (tag: v1.1)
```

```
Author: salimahesh <s.alimahesh@optisero.com>
```

```
Date: Mon Oct 25 10:30:33 2021 +0530
```

```
    Added Hello.java
```

```
salimahesh-hp-laptop-15-bx1xx:~/GreenField-Training/DiveOps/GITDEMO
```

```
└── S
```

```
[~/git/nahesh-hp-laptop-15-bz1xx|~/GreenField-Training/DveOps/GITDEMO]
└─$ git status
On branch Demo
Your branch is up-to-date with 'origin/Demo'.
nothing to commit, working tree clean

[~/git/nahesh-hp-laptop-15-bz1xx|~/GreenField-Training/DveOps/GITDEMO]
└─$ git restore -staged <file>...
(use "git restore" --staged <file>..." to unstage)
renamed:   Hello.java => Helloname.java

[~/git/nahesh-hp-laptop-15-bz1xx|~/GreenField-Training/DveOps/GITDEMO]
└─$ git commit -m "Renamed Hello.java to Helloname.java"
(Done, this just pushed the last commit to the origin)
[master 9093e3d] Renamed Hello.java to Helloname.java (90%)
 1 file changed, 1 insertion(+), 1 deletion(-)
renamed: Hello.java => Helloname.java (90%)
[~/git/nahesh-hp-laptop-15-bz1xx|~/GreenField-Training/DveOps/GITDEMO]
└─$ git checkIndex
error: pathspec 'Hello' did not match any files known to git
[~/git/nahesh-hp-laptop-15-bz1xx|~/GreenField-Training/DveOps/GITDEMO]
```

```
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git merge Demo
Updating ca424e4..14d9b6f
Fast-forward
Hello.java => HelloName.java | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)
 rename Hello.java => HelloName.java (99%)
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $
```

```
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git merge Demo
Updating ca424e4..14d9b6f
Fast-forward
Hello.java => HelloName.java | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)
 rename Hello.java => HelloName.java (99%)
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git branch -v
Demo 14d9b6f Renamed Hello.java->HelloName.java
* main 14d9b6f [ahead 1] Renamed Hello.java->HelloName.java
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git branch --merged
  Demo
* main
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
```

```
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git branch -no-merged
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git branch -d Demo
Deleted branch Demo (was 14d9b6f).
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $git branch
* main
[sai@mahesh-hp-laptop-15-bs1xx](-~/GreenField-Training/DveOps/GITDEMO)
└── $
```