

1. Establish a local repository for your project with a descriptive name. Set up Git configurations by adding a username and email address.

Display and modify the Git configurations, and verify if the changes are reflected in the .git/config file post-editing. Showcase the utilization of

both Git Local and Global configurations.

LOCAL

=====

```
root@DESKTOP-DA2RDP0:~# pwd
```

```
/root
```

```
root@DESKTOP-DA2RDP0:~# git init
```

```
hint: Using 'master' as the name for the initial branch. This default branch name
```

```
hint: is subject to change. To configure the initial branch name to use in all
```

```
hint: of your new repositories, which will suppress this warning, call:
```

```
hint:
```

```
hint: git config --global init.defaultBranch <name>
```

```
hint:
```

```
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
```

```
hint: 'development'. The just-created branch can be renamed via this command:
```

```
hint:
```

```
hint: git branch -m <name>
```

```
Initialized empty Git repository in /root/.git/
```

```
root@DESKTOP-DA2RDP0:~# cd /root/.git/
```

```
root@DESKTOP-DA2RDP0:~/.git# ls -a
```

. .. .git HEAD branches config description hooks info objects refs

```
root@DESKTOP-DA2RDP0:~/.git# git config user.name Smile
```

```
root@DESKTOP-DA2RDP0:~/.git# git config user.email harshita.meshram22@gmail.com
```

```
root@DESKTOP-DA2RDP0:~/.git# cat .git/config
```

```
[core]
```

```
    repositoryformatversion = 0
```

```
    filemode = true
```

```
    bare = false
```

```
    logallrefupdates = true
```

```
[user]
```

```
    name = Smile
```

```
    email = harshita.meshram22@gmail.com
```

```
root@DESKTOP-DA2RDP0:~/.git#
```

GLOBAL

=====

```
root@DESKTOP-DA2RDP0:~/.git# git config --global user.name Kshitij
```

```
root@DESKTOP-DA2RDP0:~/.git#
```

```
root@DESKTOP-DA2RDP0:~/.git# git config --global user.email kshitij.meshram05@gmail.com
```

```
root@DESKTOP-DA2RDP0:~/.git#
```

```
root@DESKTOP-DA2RDP0:~/.git# git config --global --list
```

```
user.name=Kshitij
```

```
user.email=kshitij.meshram05@gmail.com
```

```
root@DESKTOP-DA2RDP0:~/.git#
```

```
root@DESKTOP-DA2RDP0:~/.git#
```

```
root@DESKTOP-DA2RDP0:.git# git config --global user.name
```

```
Kshitij
```

```
root@DESKTOP-DA2RDP0:.git#
```

```
root@DESKTOP-DA2RDP0:.git# git config --global user.email
```

```
kshitij.meshram05@gmail.com
```

```
root@DESKTOP-DA2RDP0:.git#
```

```
root@DESKTOP-DA2RDP0:.git# git config user.name
```

```
Smile
```

```
root@DESKTOP-DA2RDP0:.git#
```

```
root@DESKTOP-DA2RDP0:.git# git config user.email
```

```
harshita.meshram22@gmail.com
```

```
root@DESKTOP-DA2RDP0:.git#
```

2. Set up a local repository for your project with a meaningful name. Explore the default branch in the local Git repository. Sequentially create five files,

committing each with informative messages. Share the Git log output through multiple methods once the process is complete.

```
root@DESKTOP-DA2RDP0:.git#
```

```
root@DESKTOP-DA2RDP0:.git# git init Developer
```

```
hint: Using 'master' as the name for the initial branch. This default branch name
```

```
hint: is subject to change. To configure the initial branch name to use in all
```

```
hint: of your new repositories, which will suppress this warning, call:
```

```
hint:
```

```
hint: git config --global init.defaultBranch <name>
```

```
hint:
```

hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and

hint: 'development'. The just-created branch can be renamed via this command:

hint:

hint: git branch -m <name>

Initialized empty Git repository in /root/.git/Repo/.git/Developer/.git/

```
root@DESKTOP-DA2RDP0:~#
```

```
root@DESKTOP-DA2RDP0:~# cd /root/.git/Repo/.git/Developer/
```

```
root@DESKTOP-DA2RDP0:Developer# ll
```

```
total 12
```

```
drwxr-xr-x 3 root root 4096 Jan  3 13:53 ./
```

```
drwxr-xr-x 9 root root 4096 Jan  3 13:53 ../
```

```
drwxr-xr-x 7 root root 4096 Jan  3 13:56 .git/
```

```
root@DESKTOP-DA2RDP0:Developer# git status
```

```
On branch master
```

```
No commits yet
```

nothing to commit (create/copy files and use "git add" to track)

```
root@DESKTOP-DA2RDP0:Developer#
```

```
root@DESKTOP-DA2RDP0:Developer# vim file01
```

```
root@DESKTOP-DA2RDP0:Developer# vim file02
```

```
root@DESKTOP-DA2RDP0:Developer#
```

```
root@DESKTOP-DA2RDP0:Developer# vim file03
```

```
root@DESKTOP-DA2RDP0:Developer# vim file04
```

```
root@DESKTOP-DA2RDP0:Developer# vim file05
```

```
root@DESKTOP-DA2RDP0:Developer#
```

```
root@DESKTOP-DA2RDP0:Developer# git add .
```

```
root@DESKTOP-DA2RDP0:Developer#
```

```
root@DESKTOP-DA2RDP0:Developer# git commit -m "Initial Commit"
```

```
[master (root-commit) c92731b] Initial Commit
```

```
5 files changed, 5 insertions(+)
```

```
create mode 100644 file01
```

```
create mode 100644 file02
```

```
create mode 100644 file03
```

```
create mode 100644 file04
```

```
create mode 100644 file05
```

```
root@DESKTOP-DA2RDP0:Developer#
```

1 - METHOD

```
root@DESKTOP-DA2RDP0:Developer# git log
```

```
commit c92731bdd1f3831037fb4cfd5083bde06c820d09 (HEAD -> master)
```

```
Author: Kshitij <kshitij.meshram05@gmail.com>
```

```
Date: Wed Jan 3 14:25:57 2024 +0530
```

Initial Commit

```
root@DESKTOP-DA2RDP0:Developer#
```

2 - METHOD

```
root@DESKTOP-DA2RDP0:Developer# git log >OUTPUT_FILE
```

```
root@DESKTOP-DA2RDP0:Developer# cat OUTPUT_FILE
```

commit c92731bdd1f3831037fb4cfd5083bde06c820d09

Author: Kshitij <kshitij.meshram05@gmail.com>

Date: Wed Jan 3 14:25:57 2024 +0530

Initial Commit

root@DESKTOP-DA2RDP0:Developer#

3. Open a GitHub account and initiate a remote Git repository. Examine the default branch in the remote repository. Create and commit the following files

one by one with meaningful commit messages:

- i. README.md
- ii. send_disk_alert.sh
- iii. create_users.sh
- iv. check_service.sh.

4. Establish a local repository for your project with a descriptive name. Illustrate the implementation of a Git-Ignore file by committing multiple

files to the local repository.

root@DESKTOP-DA2RDP0:Developer# cd

root@DESKTOP-DA2RDP0:~# mkdir Cloud

root@DESKTOP-DA2RDP0:~# cd Cloud/

root@DESKTOP-DA2RDP0:Cloud#

root@DESKTOP-DA2RDP0:Cloud# git init

hint: Using 'master' as the name for the initial branch. This default branch name

hint: is subject to change. To configure the initial branch name to use in all

hint: of your new repositories, which will suppress this warning, call:

hint:

hint: git config --global init.defaultBranch <name>

hint:

hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and

hint: 'development'. The just-created branch can be renamed via this command:

hint:

hint: git branch -m <name>

Initialized empty Git repository in /root/Cloud/.git/

root@DESKTOP-DA2RDP0:Cloud#

root@DESKTOP-DA2RDP0:Cloud# cd /root/Cloud/.git/

root@DESKTOP-DA2RDP0:.git# cd Cloud

bash: cd: Cloud: No such file or directory

root@DESKTOP-DA2RDP0:.git# cd

root@DESKTOP-DA2RDP0:~# cd /root/Cloud

root@DESKTOP-DA2RDP0:Cloud#

root@DESKTOP-DA2RDP0:Cloud# touch file01 file02 file03

root@DESKTOP-DA2RDP0:Cloud#

root@DESKTOP-DA2RDP0:Cloud# vim .gitignore

root@DESKTOP-DA2RDP0:Cloud#

root@DESKTOP-DA2RDP0:Cloud# git add .

root@DESKTOP-DA2RDP0:Cloud#

root@DESKTOP-DA2RDP0:Cloud# git commit -m "Initial ignore file02"

[master (root-commit) 8feb581] Initial ignore file02

3 files changed, 1 insertion(+)

create mode 100644 .gitignore

create mode 100644 file02

create mode 100644 file03

root@DESKTOP-DA2RDP0:Cloud#

root@DESKTOP-DA2RDP0:Cloud# git status

On branch master

```
nothing to commit, working tree clean
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# cat .gitignore
file01
root@DESKTOP-DA2RDP0:Cloud#
```

Q.5 Create a local repository with a meaningful project name. Demonstrate the utilization of GIT working area, staging area, and commit area.

Experiment with committing, deleting, and restoring files from the repository. Additionally, add files to the staging area and restore them from the

staging area.

```
root@DESKTOP-DA2RDP0:Developer# cd
root@DESKTOP-DA2RDP0:~# mkdir Cloud
root@DESKTOP-DA2RDP0:~# cd Cloud/
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint: git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint: git branch -m <name>
Initialized empty Git repository in /root/Cloud/.git/
```



```
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# cd /root/Cloud/.git/
root@DESKTOP-DA2RDP0:.git# cd Cloud
bash: cd: Cloud: No such file or directory
root@DESKTOP-DA2RDP0:.git# cd
root@DESKTOP-DA2RDP0:~# cd /root/Cloud
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# touch file01 file02 file03
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# vim .gitignore
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# git add .
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# git commit -m "Initial ignore file02"
[master (root-commit) 8feb581] Initial ignore file02
3 files changed, 1 insertion(+)
create mode 100644 .gitignore
create mode 100644 file02
create mode 100644 file03
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# git status
On branch master
nothing to commit, working tree clean
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# cat .gitignore
file01
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# ll
total 16
```

```
drwxr-xr-x 3 root root 4096 Jan 3 14:48 ./
drwx----- 10 root root 4096 Jan 3 14:48 ../
drwxr-xr-x 8 root root 4096 Jan 3 14:49 .git/
-rw-r--r-- 1 root root 7 Jan 3 14:48 .gitignore
-rw-r--r-- 1 root root 0 Jan 3 14:47 file01
-rw-r--r-- 1 root root 0 Jan 3 14:47 file02
-rw-r--r-- 1 root root 0 Jan 3 14:47 file03
root@DESKTOP-DA2RDP0:Cloud# rm file02
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# 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:    file02
```

```
no changes added to commit (use "git add" and/or "git commit -a")
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# git checkout file02

Updated 1 path from the index
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# git log
commit 8feb581d6413db79968dcda74171897002a4dc71 (HEAD -> master)
Author: Kshitij <kshitij.meshram05@gmail.com>
Date: Wed Jan 3 14:48:45 2024 +0530
```

Initial ignore file02

```
root@DESKTOP-DA2RDP0:Cloud# vi read1
root@DESKTOP-DA2RDP0:Cloud# vi read2
root@DESKTOP-DA2RDP0:Cloud# git add read1 read2
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# git status
```

On branch master

Changes to be committed:

(use "git restore --staged <file>..." to unstage)

new file: read1

new file: read2

```
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# vi read1
root@DESKTOP-DA2RDP0:Cloud# vi read1
root@DESKTOP-DA2RDP0:Cloud# vi read2
root@DESKTOP-DA2RDP0:Cloud#
root@DESKTOP-DA2RDP0:Cloud# git status
```

On branch master

Changes to be committed:

(use "git restore --staged <file>..." to unstage)

new file: read1

new file: read2

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: read1

modified: read2

```
root@DESKTOP-DA2RDP0:Cloud#
```

```
root@DESKTOP-DA2RDP0:Cloud# git restore read1
```

```
root@DESKTOP-DA2RDP0:Cloud#
```

```
root@DESKTOP-DA2RDP0:Cloud# git status
```

On branch master

Changes to be committed:

(use "git restore --staged <file>..." to unstage)

new file: read1

new file: read2

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: read2

```
root@DESKTOP-DA2RDP0:Cloud#
```

```
root@DESKTOP-DA2RDP0:Cloud#
```