## EXPERIMENT – 3

<u>AIM</u> - To Perform various GIT operations on local and Remote repositories using GIT Cheat-Sheet

```
15L@203-06 MINGW64 ~/Desktop/shrey-git (master)
$ git config --global user.name "shrey"
15L@203-06 MINGW64 ~/Desktop/shrey-git (master)
$ git config --global user.email sshrey30.shah@gmail.com
15L@203-06 MINGW64 ~/Desktop/shrey-git (master)
$ git config --global --list
user.name=shrey
user.email=sshrey30.shah@gmail.com
15L@203-06 MINGW64 ~/Desktop/shrey-git (master)
$ mkdir git-demo-project
15L@203-06 MINGW64 ~/Desktop/shrey-git (master)
$ cd git-demo-project
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git init
Initialized empty Git repository in C:/Users/15L/Desktop/shrey-git/git-demo-
project/.git/
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ 1s -a
./ ../ .git/
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ rm -rf .git/
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ rm -rf .git
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ 1s -a1
total 0
drwxr-xr-x 1 15L 197121 0 Jan 23 13:40 /
drwxr-xr-x 1 15L 197121 0 Jan 23 13:39 ../
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git init
```

```
Initialized empty Git repository in C:/Users/15L/Desktop/shrey-git/git-demo-
project/.git/
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git add .
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git status
On branch master
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:
                    sample.txt
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git commit -m "first commit"
[master (root-commit) d489bcf] first commit
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 sample.txt
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        index.html
nothing added to commit but untracked files present (use "git add" to track)
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git add .
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file: index.html
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git commit -am "express commit"
[master bef012b] express commit
1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index.html
```

```
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git status
On branch master
nothing to commit, working tree clean
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git log
commit bef012be210dc3856730420ce2228425d43e58f5 (HEAD -> master)
Author: shrey <sshrey30.shah@gmail.com>
Date: Tue Jan 23 13:43:06 2024 +0530
    express commit
commit d489bcf61da3943db131c6d0274d9eac00737319
Author: shrey <sshrey30.shah@gmail.com>
Date:
       Tue Jan 23 13:41:06 2024 +0530
    first commit
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ nano index.html
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git status
On branch master
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: index.html
no changes added to commit (use "git add" and/or "git commit -a")
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git log
commit bef012be210dc3856730420ce2228425d43e58f5 (HEAD -> master)
Author: shrey <sshrey30.shah@gmail.com>
Date: Tue Jan 23 13:43:06 2024 +0530
   express commit
commit d489bcf61da3943db131c6d0274d9eac00737319
Author: shrey <sshrey30.shah@gmail.com>
Date: Tue Jan 23 13:41:06 2024 +0530
    first commit
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
```

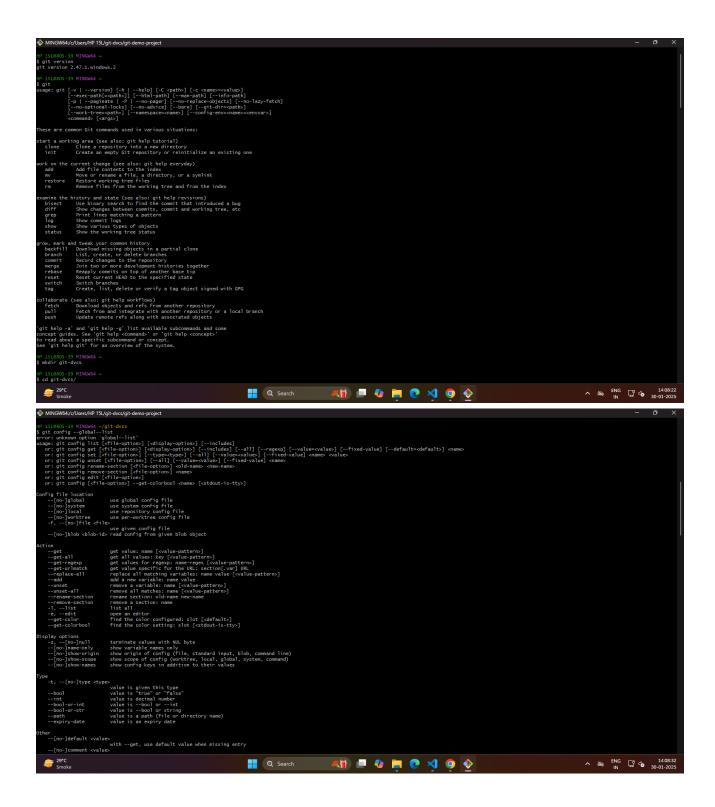
```
$ touch teststatus
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:
                    index.html
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        teststatus
no changes added to commit (use "git add" and/or "git commit -a")
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git checkout -- teststatus
error: pathspec 'teststatus' did not match any file(s) known to git
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git checkout --index.html
error: unknown option `index.html'
usage: git checkout [<options>] <branch>
   or: git checkout [<options>] [<branch>] -- <file>...
    -b <br/>branch>
                          create and checkout a new branch
    -в <br/>branch>
                          create/reset and checkout a branch
    -1
                          create reflog for new branch
                          second guess 'git checkout <no-such-branch>' (default)
    --guess
    --overlay
                          use overlay mode (default)
    -q, --quiet
                          suppress progress reporting
    --recurse-submodules[=<checkout>]
                          control recursive updating of submodules
    --progress
                          force progress reporting
    -m, --merge
                          perform a 3-way merge with the new branch
    --conflict <style>
                          conflict style (merge, diff3, or zdiff3)
    -d, --detach
                          detach HEAD at named commit
    -t, --track[=(direct|inherit)]
                          set branch tracking configuration
    -f, --force
                          force checkout (throw away local modifications)
    --orphan <new-branch>
                          new unparented branch
                          update ignored files (default)
    --overwrite-ignore
    --ignore-other-worktrees
                          do not check if another worktree is holding the given ref
    -2, --ours
                          checkout our version for unmerged files
    -3, --theirs
                          checkout their version for unmerged files
```

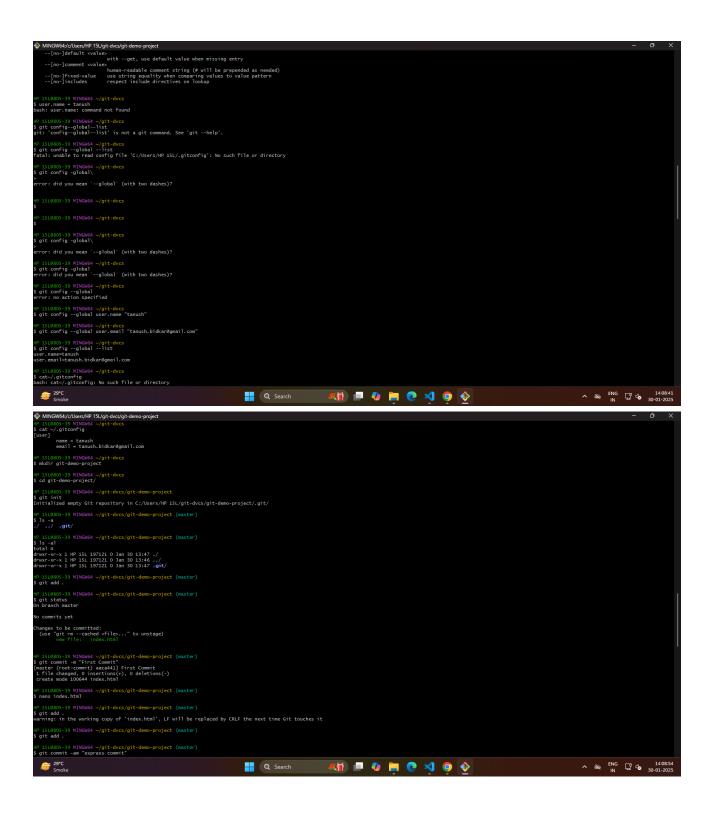
```
-p, --patch
                          select hunks interactively
    --ignore-skip-worktree-bits
                          do not limit pathspecs to sparse entries only
    --pathspec-from-file <file>
                          read pathspec from file
                         with --pathspec-from-file, pathspec elements are separated
    --pathspec-file-nul
with NUL character
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git add index.html
warning: in the working copy of 'index.html', LF will be replaced by CRLF the next
time Git touches it
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified: index.html
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        teststatus
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git add teststatus
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified: index.html
        new file: teststatus
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git commit -am "express commit"
[master 298a0e6] express commit
2 files changed, 1 insertion(+)
create mode 100644 teststatus
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git status
On branch master
nothing to commit, working tree clean
```

```
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git log
commit 298a0e6689dd8b9d98ebc4e5413441e244b1036d (HEAD -> master)
Author: shrey <sshrey30.shah@gmail.com>
       Tue Jan 23 13:48:37 2024 +0530
Date:
    express commit
commit bef012be210dc3856730420ce2228425d43e58f5
Author: shrey <sshrey30.shah@gmail.com>
Date:
       Tue Jan 23 13:43:06 2024 +0530
    express commit
commit d489bcf61da3943db131c6d0274d9eac00737319
Author: shrey <sshrey30.shah@gmail.com>
Date:
      Tue Jan 23 13:41:06 2024 +0530
    first commit
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git log --oneline
298a0e6 (HEAD -> master) express commit
bef012b express commit
d489bcf first commit
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git remote add origin https://github.com/shrey-tsec/SEPM.git
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ rm -rf ∧c
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ rm -rf https://github.com/shrey-tsec/SEPM.git
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git remote add origin https://github.com/shrey-tsec/EXP3.git
error: remote origin already exists.
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git origin
git: 'origin' is not a git command. See 'git --help'.
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git show origin
fatal: ambiguous argument 'origin': unknown revision or path not in the working tree.
Use '--' to separate paths from revisions, like this:
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```
'git <command> [<revision>...] -- [<file>...]'
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git remote show origin
* remote origin
 Fetch URL: https://github.com/shrey-tsec/SEPM.git
 Push URL: https://github.com/shrey-tsec/SEPM.git
 HEAD branch: (unknown)
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git remote remove origin
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git remote show origin
fatal: 'origin' does not appear to be a git repository
fatal: Could not read from remote repository.
Please make sure you have the correct access rights
and the repository exists.
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git remote add origin https://github.com/shrey-tsec/EXP3.git
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git remote show origin
* remote origin
 Fetch URL: https://github.com/shrey-tsec/EXP3.git
 Push URL: https://github.com/shrey-tsec/EXP3.git
 HEAD branch: (unknown)
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git branch -M main
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (main)
$ git push -u origin main
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 20 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (8/8), 691 bytes | 691.00 KiB/s, done.
Total 8 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/shrey-tsec/EXP3.git
* [new branch]
                     main -> main
branch 'main' set up to track 'origin/main'.
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (main)
$ git pull
Already up to date.
```

```
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (main)
$ git pull
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 957 bytes | 239.00 KiB/s, done.
From https://github.com/shrey-tsec/EXP3
   298a0e6..7242627 main
                                -> origin/main
Updating 298a0e6..7242627
Fast-forward
index.html | 2 +-
1 file changed, 1 insertion(+), 1 deletion(-)
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (main)
$ git log --oneline origin/main
7242627 (HEAD -> main, origin/main) Update index.html
298a0e6 express commit
bef012b express commit
d489bcf first commit
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (main)
$ $ git fetch
bash: $: command not found
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (main)
$ git fetch
15L@203-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (main)
$ git merge origin/main
Already up to date.
```





```
ced files:
"git add <file>..." to include in what will be committed)
P 15L0805-39 MINGW64 ~/git-dvcs/git-demo-project (master)
git checkout -- teststatus
rror: pathspec 'teststatus' did not match any file(s) known to git
 15L@805-39 MINGW64 ~/git-dvcs/git-demo-project (master) git add teststatus
P 1518805-39 MINGM64 ~/git-dvcs/git-demo-project (master)
git log
munit 53a68ec35cfce4cleeba7e9cld26d2795c23161c (HEAD -> ma
uthor: tanush stanush.bidkar@pmail.com
ster: Thu Jan 30 1357322 2025 +0530
         aaca441d45c28c06e5a3ea5a018c66f7416fa95c
: tanush <tanush.bidkar@gmail.com>
Thu Jan 30 13:52:11 2025 +0530
 15LB805-39 MINGW64 -/git-dvcs/git-demo-project (master) git log --oneline a68ec (HEAD -- mmaster) express commit ca441 First Commit
 15L8805-39 MINGW64 ~/git-dvcs/git-demo-project (master)
git log --uneline
sidec (HEAD -- succtor) express commit
sadd: First Commit
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IN ☐ 6 30-01-2025
       L0805-39 MINGW64 ~/git-dvcs/git-demo-project (master)
commit -m "Third Commit"
er 1084df4] Third Commit
le changed, 0 insertions(r), 0 deletions(-)
te mode 100644 teststatus
15L8805-39 MINGM64 -/git-dvcs/git-demo-project (master)
git log
mmit 1834df453b7b34831af9c1468a608a0c6bb3c809 (HEAD -> master)
thor: tanush ctanush.bidkar@gmail.com-
ter: Thu Jan 30 14:04:145 0205 +0530
 mmit 55a68ec35cfce4c1eeba7e9c1d26d2795c23161c
thor: tanush <tanush.bidkar@gmail.com>
te: Thu Jan 30 13:57:32 2025 +0530
         : tanush - tanush bidkar@gmail.com>
Thu Jan 30 13:52:11 2025 +0530
 15L8805-39 MINGW64 ~/git-dvcs/git-demo-project (master)
git log --oneline
34df4 (HAU -> master) Third Commit
a6Sec express commit
a6Sec express commit
           805-39 MINGW64 ~/git-dvcs/git-dem
og --oneline teststatus
(HEAD -> master) Third Commit
1518805-30 MINGHG4 -/git-dvcs/git-demo-project (master)
git log --oneline -n 2
33df4 (EMD) > muster) Third Commit
a68ec express commit
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                                                                                                                                                                                                                                                                                                                                                                                               ^ ≥ ENG ☐ 6 14:09:12
IN ☐ 6 30-01-2025
```

## **CONCLUSION:**

Thus, we have successfully studied and performed various GIT operations on local and Remote repositories using GIT Cheat-Sheet.