

## EXPERIMENT – 3

**AIM** - 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)
```

```
$ ls -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)
```

```
$ ls -al
```

```
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@2023-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git add .
```

```
15L@2023-06 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@2023-06 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@2023-06 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@2023-06 MINGW64 ~/Desktop/shrey-git/git-demo-project (master)
$ git add .
```

```
15L@2023-06 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@2023-06 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 <branch>	create and checkout a new branch
-B <branch>	create/reset and checkout a branch
-l	create reflog for new branch
--guess	second guess 'git checkout <no-such-branch>' (default)
--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
--overwrite-ignore	update ignored files (default)
--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  
--pathspec-file-nul        with --pathspec-from-file, pathspec elements are separated 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>
Date: Tue Jan 23 13:48:37 2024 +0530
```

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:
```

```
'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.
```



```

MINGW64~/Users/TSU/git-dvcs/git-dem-project
15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ ls
ISRO/ index.html teststatus
15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git remote add origin https://github.com/Adityadikonda/ISRO.git
15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git remote show origin
* remote origin
  Fetch URL: https://github.com/Adityadikonda/ISRO.git
  Push URL: https://github.com/Adityadikonda/ISRO.git
  HEAD branch: main
  Remote branch:
    main new (next fetch will store in remotes/origin)
15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git push -u origin master

15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git remote add origin
usage: git remote add [<options>] <name> <url>

    -f, --fetch           fetch the remote branches
    --tags               import all tags and associated objects when fetching
                        or do not fetch any tag at all (--no-tags)
    -t, --track <branch> branch(es) to track
    -m, --master <branch> master branch
    --mirror[=(push|fetch)]
                        set up remote as a mirror to push to or fetch from

15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git remote rm origin
15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git push -u origin master
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.
15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git pull
There is no tracking information for the current branch.
Please specify which branch you want to merge with.
See git-pull(1) for details.

```

```

MINGW64~/Users/TSU/git-dvcs/git-dem-project
15L0203-010 MINGW64 ~/git-dvcs (master)
$ git config --global user.name "Aditya"
15L0203-010 MINGW64 ~/git-dvcs (master)
$ git config --global user.email "adikonda8@gmail.com"
15L0203-010 MINGW64 ~/git-dvcs (master)
$ git config --global --list
color.ui=true
user.name=Aditya
user.email=adikonda8@gmail.com
15L0203-010 MINGW64 ~/git-dvcs (master)
$ mkdir git-demo-project
mkdir: cannot create directory 'git-demo-project': File exists
15L0203-010 MINGW64 ~/git-dvcs (master)
$ rm git-demo-project
rm: cannot remove 'git-demo-project': Is a directory
15L0203-010 MINGW64 ~/git-dvcs (master)
$ rmdir git-demo-project
rmdir: failed to remove 'git-demo-project': Directory not empty
15L0203-010 MINGW64 ~/git-dvcs (master)
$ rmdir -f git-demo-project
rmdir: unknown option -- f
Try 'rmdir --help' for more information.
15L0203-010 MINGW64 ~/git-dvcs (master)
$ rmdir --help
Usage: rmdir [OPTION]... DIRECTORY...
Remove the DIRECTORY(ies), if they are empty.

    --ignore-fail-on-non-empty
                        ignore each failure that is solely because a directory
                        is non-empty
    -p, --parents       remove DIRECTORY and its ancestors; e.g., 'rmdir -p a/b/c' is
                        similar to 'rmdir a/b/c a/b a'
    -v, --verbose       output a diagnostic for every directory processed
    --help              display this help and exit
    --version            output version information and exit

GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Report any translation bugs to <https://translationproject.org/team/>
Full documentation <https://www.gnu.org/software/coreutils/rmdir>
or available locally via: info '(coreutils) rmdir invocation'

15L0203-010 MINGW64 ~/git-dvcs (master)
$ rm -rf git-demo-project
15L0203-010 MINGW64 ~/git-dvcs (master)

```

```
MINGW64/C:/Users/TSU/git-dvcs/git-dem-project
15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git pull
There is no tracking information for the current branch.
Please specify which branch you want to merge with.
See git-pull(1) for details.

    git pull <remote> <branch>

If you wish to set tracking information for this branch you can do so with:

    git branch --set-upstream-to=<remote>/<branch> master

15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git push -u origin master
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.

15L0203-010 MINGW64 ~/git-dvcs/git-dem-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.

15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git remote add origin https://github.com/Adityadikonda/ISR0.git

15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git remote show origin
* remote origin
  Fetch URL: https://github.com/Adityadikonda/ISR0.git
  Push URL: https://github.com/Adityadikonda/ISR0.git
  HEAD branch: main
  Remote branch:
    main new (next fetch will store in remotes/origin)

15L0203-010 MINGW64 ~/git-dvcs/git-dem-project (master)
$ git pull
remote: Enumerating objects: 26, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (25/25), done.
remote: Total 26 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (26/26), 461.85 KiB | 1.68 MiB/s, done.
From https://github.com/Adityadikonda/ISR0
 * [new branch]      main      -> origin/main
There is no tracking information for the current branch.
Please specify which branch you want to merge with.
See git-pull(1) for details.
```

## CONCLUSION:

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