

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

```
$ git remote remove origin
```

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

```
$ git remote add origin https://github.com/shrey-tsec/EXP3.git
```

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

```
$ git branch -M main
```

```
15L@2023-06 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@2023-06 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.
```

CONCLUSION:

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