Git Assignment – I

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2023UCP1605

Q1. Configure git with your name and email.

```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git config --list
user.name=Diya Chhawal
user.email=diya.chhawal@gmail.com
```

Q2. Initialize a new git repository.

```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git init
Initialized empty Git repository in /home/mnit/2023ucp1605/.git/
```

Q3. Create a new file and add it to repository.

```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   q3text
```

Q4. Commit changes:

```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git commit -m "Adding first file"
[master (root-commit) 2a78cd5] Adding first file
 1 file changed, 2 insertions(+)
 create mode 100644 q3text
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git status
On branch master
nothing to commit, working tree clean
```

Q5. Modify the file and view changes using git diff.

```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git diff
diff --git a/q3text b/q3text
index ddffd94..a1edd42 100644
--- a/q3text
+++ b/q3text
@@ -1,2 +1,3 @@
 III Semester
 Malaviya National Institute of Technology
+Jaipur
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ 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:   q3text

no changes added to commit (use "git add" and/or "git commit -a")
```

Q6.
Before restore:

```
1 III Semester
2 Malaviya National Institute of Technology
3 Jaipur
4 Rajasthan
```

After restore:

```
1 III Semester
2 Malaviya National Institute of Technology
```

Q7. View the commit history.

```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git log
commit 2a78cd552f1d3c7f045c65aa5cf9ee527c6116ff (HEAD -> master)
Author: Diya Chhawal <diya.chhawal@gmail.com>
Date:   Thu Oct 10 11:56:58 2024 +0530

    Adding first file
```

Q8. Undo the changes made by previous commit.

```
  GNU nano 4.8        /home/mnit/2023ucp1605/.git/COMMIT_EDITMSG
Revert "Adding first file"

This reverts commit 2a78cd552f1d3c7f045c65aa5cf9ee527c6116ff.

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch master
# Changes to be committed:
#       deleted:    q3text
#
```

Q9. Remove a file and commit the change.

```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git rm q3text
rm 'q3text'
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git commit -m "Removing first file"
[master 0b07f08] Removing first file
 1 file changed, 2 deletions(-)
 delete mode 100644 q3text
```

Q10.

```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git checkout 2a78cd552f1d3c7f045c65aa5cf9
ee527c6116ff
Note: switching to '2a78cd552f1d3c7f045c65aa5cf9ee527c6116ff'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by switching back to a branch.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -c with the switch command. Example:

  git switch -c <new-branch-name>

Or undo this operation with:

  git switch -

Turn off this advice by setting config variable advice.detachedHead to false

HEAD is now at 2a78cd5 Adding first file
```
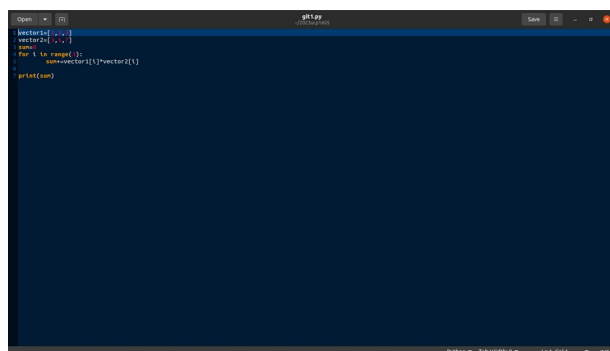
Q11. Return to latest commit.

```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git checkout master
Previous HEAD position was 2a78cd5 Adding first file
Switched to branch 'master'
```

Q12. Check in your python code.


```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ python3 git1.py
34
```

```
mnit@mnit-OptiPlex-5040:~/2023ucp1605$ git log
commit 0b07f08ad4e90d05927db0d7cff05a8846b5f070 (HEAD -> master)
Author: Diya Chhawal <diya.chhawal@gmail.com>
Date:   Thu Oct 10 12:21:20 2024 +0530

    Removing first file

commit 99d18c729b3f3f88575621d0103b175f265b4af6
Author: Diya Chhawal <diya.chhawal@gmail.com>
Date:   Thu Oct 10 12:19:34 2024 +0530

    Adding first file

commit bbf28c2e1cac9273063cf59acf92e484b45d81d3
Author: Diya Chhawal <diya.chhawal@gmail.com>
Date:   Thu Oct 10 12:10:36 2024 +0530

    Revert "Adding first file"

    This reverts commit 2a78cd552f1d3c7f045c65aa5cf9ee527c6116ff.

commit 2a78cd552f1d3c7f045c65aa5cf9ee527c6116ff
Author: Diya Chhawal <diya.chhawal@gmail.com>
Date:   Thu Oct 10 11:56:58 2024 +0530
:...skipping...
commit 0b07f08ad4e90d05927db0d7cff05a8846b5f070 (HEAD -> master)
Author: Diya Chhawal <diya.chhawal@gmail.com>
Date:   Thu Oct 10 12:21:20 2024 +0530

    Removing first file

commit 99d18c729b3f3f88575621d0103b175f265b4af6
Author: Diya Chhawal <diya.chhawal@gmail.com>
Date:   Thu Oct 10 12:19:34 2024 +0530

    Adding first file

commit bbf28c2e1cac9273063cf59acf92e484b45d81d3
Author: Diya Chhawal <diya.chhawal@gmail.com>
Date:   Thu Oct 10 12:10:36 2024 +0530

    Revert "Adding first file"

    This reverts commit 2a78cd552f1d3c7f045c65aa5cf9ee527c6116ff.
```