Ramya Vemuru

(1) Make a repository on GitHub with the name “InnovationPython_yourname”
eg: “InnovationPython_Ankush”.
Practice on following commands:

Git Clone:

```
[Ramya $
[Ramya $ls
[Ramya $git clone https://github.com/ramya-creator/InnovationPython_Ramya.git
Cloning into 'InnovationPython_Ramya'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
[Ramya $
```

Git Diff:

```
[InnovationPython_Ramya $git diff README.md
diff --git a/README.md b/README.md
index 7cbd0fc..8d63661 100644
--- a/README.md
+++ b/README.md
@@ -1 +1,2 @@
-# innovation_python
\ No newline at end of file
+# innovation_python
+This is a sample change for diff.
InnovationPython_Ramya $
```

Git Add, Git Status:

```
[InnovationPython_Ramya $git add README.md
[InnovationPython_Ramya $git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        modified:   README.md

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        newfile

InnovationPython_Ramya $
```

Git Commit:

```
[InnovationPython_Ramya $git commit -m "Modified git readme file"
[main 316c774] Modified git readme file
 1 file changed, 2 insertions(+), 1 deletion(-)
[InnovationPython_Ramya $git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        newfile

nothing added to commit but untracked files present (use "git add" to track)
InnovationPython_Ramya $8
```

Git Log:

```
InnovationPython_Ramya $git log
commit 316c77487983228e2110cdea0e28b2d5fe7bf2d4 (HEAD -> main)
Author: Varun Thalluru <vthalluru2@apple.com>
Date:   Sat Oct 31 21:13:43 2020 -0500

    Modified git readme file

commit 460e072fe324c4c6af818f7f33e0317feadf8ce3 (origin/main, origin/HEAD)
Author: ramya-creator <73764994+ramya-creator@users.noreply.github.com>
Date:   Sat Oct 31 20:38:50 2020 -0500

    Initial commit
```

Git Branch:

```
InnovationPython_Ramya $git branch
* main
InnovationPython_Ramya $
```

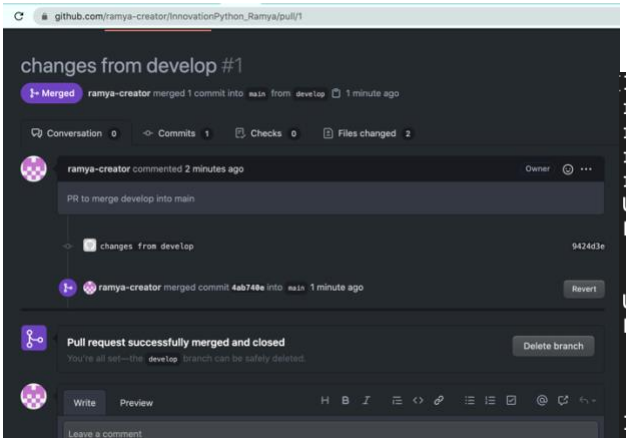
Git Push:

```
InnovationPython_Ramya $git push -u origin main
Username for 'https://github.com': ramya-creator
Password for 'https://ramya-creator@github.com':
Counting objects: 3, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 308 bytes | 308.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/ramya-creator/InnovationPython_Ramya.git
   460e072..316c774  main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
InnovationPython_Ramya $
```

Git Checkout:

```
InnovationPython_Ramya $git branch
* main
InnovationPython_Ramya $git checkout -b develop
Switched to a new branch 'develop'
InnovationPython_Ramya $git branch
* develop
  main
```

Git Pull:




```
InnovationPython_Ramya $git pull
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (4/4), done.
From https://github.com/ramya-creator/InnovationPython_Ramya
   9424d3e..dab41fd  develop    -> origin/develop
   316c774..4ab740e  main       -> origin/main
Updating 9424d3e..dab41fd
Fast-forward
 demofileforpull.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 demofileforpull.txt
InnovationPython_Ramya $
```

(2) Read about difference between Git and Github.

Git is a revision control system, a tool to manage your source code history. **GitHub** is a hosting service for Git repositories.

(3) Read about Git Workflow.

Git Workflow is a recipe or recommendation for how to use Git to accomplish work in a consistent and productive manner. Git workflows encourage users to leverage Git effectively and consistently. Git can be used effectively and consistently by the developers because of the Git Workflows.

(4) How many types of version control systems are there?

-Local version control system
-Centralized version control system
-Distributed version control system

(5) Explain Branching concept in Git.

A branch in Git is simply a lightweight movable pointer to one of these commits. The default branch name in Git is master. As you start making commits, you're given a master branch that points to the last commit you made.

(6) Explain Forking Workflow in Git.

The Forking Workflow is fundamentally different than other popular Git workflows. Instead of using a single server-side repository to act as the “central” codebase, it gives every developer their own server-side repository. This means that each contributor has not one, but two Git repositories: a private local one and a public server-side one. The Forking Workflow is most often seen in public open source projects.