Ans 1. sudo apt install git

Ans.2 git init

```
ttn@ttn:/home$ sudo mkdir Dir
ttn@ttn:/home$ cd Dir/
ttn@ttn:/home/Dir$ git init
/home/Dir/.git: Permission denied
ttn@ttn:/home/Dir$ sudo git init
Initialized empty Git repository in /home/Dir/.git/
```

Ans.3 sudo touch sampleFile

```
ttn@ttn:/home/Dir$ sudo touch sampleFile
[sudo] password for ttn:
ttn@ttn:/home/Dir$ git add sampleFile
fatal: Unable to create '/home/Dir/.git/index.lock': Permission denied
ttn@ttn:/home/Dir$ sudo git add sampleFile
ttn@ttn:/home/Dir$
```

Ans.4

```
ttn@ttn:/home/Dir$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   file3

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

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        intro_to_git/

no changes added to commit (use "git add" and/or "git commit -a")
ttn@ttn:/home/Dir$ sudo git rm --cached file3
rm 'file3'
ttn@ttn:/home/Dir$ git status
On branch master
Your branch is up to date with 'origin/master'.

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

        deleted:    file3

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

        BootCamp-Assessment-Abhishek-Pandya/
        file3
        intro_to_git/

ttn@ttn:/home/Dir$
```

Ans.5

```
ttn@ttn:/home/Dir$ sudo git add sampleFile
ttn@ttn:/home/Dir$ sudo git commit -m "first commit"
[newbranch 57409f0] first commit
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 sampleFile
ttn@ttn:/home/Dir$
```

Ans. 6

```
ttn@ttn:/home/Dir$ sudo git remote add origin https://github.com/abhishekpandya5/BootCamp-Assessment-Abhishek-Pandya.git
ttn@ttn:/home/Dir$ sudo git remote -v
origin  https://github.com/abhishekpandya5/BootCamp-Assessment-Abhishek-Pandya.git (fetch)
origin  https://github.com/abhishekpandya5/BootCamp-Assessment-Abhishek-Pandya.git (push)
ttn@ttn:/home/Dir$
```

Ans.7 sudo git reset --hard

```
ttn@ttn:/home/Dir$ gedit sampleFile
ttn@ttn:/home/Dir$ git add sampleFile
fatal: Unable to create '/home/Dir/.git/index.lock': Permission denied
ttn@ttn:/home/Dir$ sudo git add sampleFile
ttn@ttn:/home/Dir$ sudo git status
On branch newbranch
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        modified:   sampleFile

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

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ttn@ttn:/home/Dir$ sudo git reset --hard
HEAD is now at 57409f0 first commit
ttn@ttn:/home/Dir$ cat newFile
cat: newFile: No such file or directory
ttn@ttn:/home/Dir$ cat sampleFile
ttn@ttn:/home/Dir$ 
```

Ans.8

```
ttn@ttn:/home/Dir$ sudo git push -u origin master
Username for 'https://github.com': abhishekpandya5
Password for 'https://abhishekpandya5@github.com':
Counting objects: 11, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (11/11), 838 bytes | 838.00 KiB/s, done.
Total 11 (delta 0), reused 0 (delta 0)
To https://github.com/abhishekpandya5/BootCamp-Assessment-Abhishek-Pandya.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
ttn@ttn:/home/Dir$ 
```

Ans.9

```
ttn@ttn:/home/Dir$ sudo git clone https://github.com/abhishekpandya5/BootCamp-Assessment-Abhishek-Pandya.git
Cloning into 'BootCamp-Assessment-Abhishek-Pandya'...
remote: Enumerating objects: 11, done.
remote: Counting objects: 100% (11/11), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 11 (delta 0), reused 11 (delta 0), pack-reused 0
Unpacking objects: 100% (11/11), done.
ttn@ttn:/home/Dir$ 
```

Ans.10

Step 1: <u>In the cloned directory edit file3 with some text as:</u>

             sudo echo "Adding some text" >> file3

Step 2: <u>Commit and push the modified file on the server.</u>

             sudo git add file3

             sudo git commit -m "commiting for ques 10"

             sudo git push

Step 3: <u>Now change directory and pull the last modified file from repository to the local directory.</u>

             sudo git fetch

             sudo git pull

```
ttn@ttn:/home/Dir/BootCamp-Assessment-Abhishek-Pandya$ sudo echo "Adding new lines to file 3" >> file3
ttn@ttn:/home/Dir/BootCamp-Assessment-Abhishek-Pandya$ sudo git add file3
ttn@ttn:/home/Dir/BootCamp-Assessment-Abhishek-Pandya$ sudo git commit -m "commiting for ques 10"
[master 1a6b6ac] commiting for ques 10
 1 file changed, 3 insertions(+), 1 deletion(-)
ttn@ttn:/home/Dir/BootCamp-Assessment-Abhishek-Pandya$ sudo git push
Username for 'https://github.com': abhishekpandya5
Password for 'https://abhishekpandya5@github.com':
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 287 bytes | 287.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/abhishekpandya5/BootCamp-Assessment-Abhishek-Pandya.git
   789ea59..1a6b6ac  master -> master
ttn@ttn:/home/Dir/BootCamp-Assessment-Abhishek-Pandya$ cd ..
```

```
ttn@ttn:/home/Dir$ cat file3
text in file3 by master
ttn@ttn:/home/Dir$ sudo git fetch
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 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/abhishekpandya5/BootCamp-Assessment-Abhishek-Pandya
   789ea59..1a6b6ac  master     -> origin/master
```

```
ttn@ttn:/home/Dir$ sudo git checkout master
Switched to branch 'master'
Your branch is behind 'origin/master' by 1 commit, and can be fast-forwarded.
  (use "git pull" to update your local branch)
ttn@ttn:/home/Dir$ sudo git fetch
ttn@ttn:/home/Dir$ sudo git pull
Updating 789ea59..1a6b6ac
Fast-forward
 file3 | 4 +++-
 1 file changed, 3 insertions(+), 1 deletion(-)
ttn@ttn:/home/Dir$ ls -al
total 24
drwxr-xr-x 5 root root 4096 Feb  5 20:33 .
drwxr-xr-x 6 root root 4096 Feb  5 10:52 ..
drwxr-xr-x 3 root root 4096 Feb  5 17:38 BootCamp-Assessment-Abhishek-Pandya
-rwxr-xr-x 1 root root   61 Feb  5 20:33 file3
drwxr-xr-x 8 root root 4096 Feb  5 20:33 .git
drwxr-xr-x 3 root root 4096 Feb  5 15:51 intro_to_git
ttn@ttn:/home/Dir$ cat file3
Adding some text
Adding some text
Adding new lines to file 3
ttn@ttn:/home/Dir$
```

Ans.11

```
ttn@ttn:/home/Dir$ sudo git diff --staged
diff --git a/file3 b/file3
deleted file mode 100755
index d00a0df..0000000
--- a/file3
+++ /dev/null
@@ -1,3 +0,0 @@
-Adding some text
-Adding some text
-Adding new lines to file 3
```

Ans.12

Ans.13

```
ttn@ttn:~/repo$ git branch
* master
ttn@ttn:~/repo$ git branch abhishek
ttn@ttn:~/repo$ git branch
  abhishek
* master
ttn@ttn:~/repo$
```

Ans.14

```
ttn@ttn:~/repo$ git branch
  abhishek
* master
ttn@ttn:~/repo$ ls
f1  f2  f3
ttn@ttn:~/repo$ git branch b1
ttn@ttn:~/repo$ git checkout b1
Switched to branch 'b1'
ttn@ttn:~/repo$ touch fileb1
ttn@ttn:~/repo$ git add f
f3      fileb1
ttn@ttn:~/repo$ git add fileb1
ttn@ttn:~/repo$ git commit -m "file added"
[b1 45ba35c] file added
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 fileb1
```

```
ttn@ttn:~/repo$ git checkout master
Switched to branch 'master'
ttn@ttn:~/repo$ git branch b2
ttn@ttn:~/repo$ git checkout b2
Switched to branch 'b2'
ttn@ttn:~/repo$ touch fileb2
ttn@ttn:~/repo$ git add fileb2
ttn@ttn:~/repo$ git commit -m "file added in branch b2"
[b2 c7a0521] file added in branch b2
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 fileb2
ttn@ttn:~/repo$ git log --graph --decorate --oneline --all
* c7a0521 (HEAD -> b2) file added in branch b2
| * 45ba35c (b1) file added
|/
* 6625f34 (master, abhishek) first commit
ttn@ttn:~/repo$
```

Ans.15

```
                              ttn@ttn: ~/repo

 File  Edit  View  Search  Terminal  Help
ttn@ttn:~/repo$ git branch
  abhishek
  b1
* b2
  master
ttn@ttn:~/repo$ vi f1
ttn@ttn:~/repo$ git add f1
ttn@ttn:~/repo$ git commit -m "on branch b2"
[b2 c8c6ff8] on branch b2
 1 file changed, 2 insertions(+)
ttn@ttn:~/repo$ git checkout b1
Switched to branch 'b1'
ttn@ttn:~/repo$ vi f1
ttn@ttn:~/repo$ git add f1
ttn@ttn:~/repo$ git commit -m "on branch b1"
[b1 c33f1ea] on branch b1
 1 file changed, 1 insertion(+), 2 deletions(-)
ttn@ttn:~/repo$ cat f1
A
Y
ttn@ttn:~/repo$ git checkout b2
Switched to branch 'b2'
ttn@ttn:~/repo$ cat f1
A
B
ttn@ttn:~/repo$
```

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```
ttn@ttn:~/repo$ cat f1
A
Y
ttn@ttn:~/repo$ git checkout b2
Switched to branch 'b2'
ttn@ttn:~/repo$ cat f1
A
B
ttn@ttn:~/repo$ git merge b1
Auto-merging f1
CONFLICT (content): Merge conflict in f1
Automatic merge failed; fix conflicts and then commit the result.
ttn@ttn:~/repo$ git merge b2
error: Merging is not possible because you have unmerged files.
hint: Fix them up in the work tree, and then use 'git add/rm <file>'
hint: as appropriate to mark resolution and make a commit.
fatal: Exiting because of an unresolved conflict.
ttn@ttn:~/repo$ vi f1
ttn@ttn:~/repo$ git add f1
ttn@ttn:~/repo$ cat f1
A
B
Y
ttn@ttn:~/repo$ 
```

17.

```
ttn@ttn:~/repo$ git status
On branch b2
All conflicts fixed but you are still merging.
  (use "git commit" to conclude merge)

Changes to be committed:

        modified:   f1
        new file:   fileb1

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

        f3

ttn@ttn:~/repo$ git stash
Saved working directory and index state WIP on b2: c8c6ff8 on branch b2
ttn@ttn:~/repo$ git status
On branch b2
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        f3

nothing added to commit but untracked files present (use "git add" to track)
ttn@ttn:~/repo$ rm f3
ttn@ttn:~/repo$ git status
On branch b2
nothing to commit, working tree clean
```

```
ttn@ttn:~/repo$ rm f3
ttn@ttn:~/repo$ git status
On branch b2
nothing to commit, working tree clean
ttn@ttn:~/repo$ git stash pop
On branch b2
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   fileb1

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
```

18.