

GIT BRANCH, MERGE AND REBASE

Action	Command Used
Clone a git repository	Git clone <remote-git-repo-url>
Create branch	git checkout -b <branch-name>
Check status	git status
Add untracked files to staging area	git add .
Commit	git commit -m "message"
Add files to staging area and commit in one go	git commit -am "message"
Push all changes to remote	git push origin --all
Push changes of a branch to remote	git push origin <branch-name>
Switch branch	git checkout <branch-name>
Check difference	git diff <file-name> or git diff head
Merge branch	git merge <branch-name>
Rebase branch	git rebase <branch-name>
Pull changes from remote	git pull
Display all commits	git log
Create a track branch	git checkout --track origin/<branch-name>

1. Create two folders project1 and project2 locally. Create a repository in github or bitbucket, name it test_project.

Created remote repository on github with name 'test_project'.

URL :- https://github.com/naresh226/test_project

2. Switch to project1

```
C:\Users\Naresh Sharma>cd C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1>git clone https://github.com/naresh226/test_project.git
Cloning into 'test_project'...
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.
```

3. Switch to a new branch - 'staging'.
4. Add a file in it - 'test1' and add content to it 'This is first commit'.

```

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git checkout -b staging
Switched to a new branch 'staging'

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git status
On branch staging
Untracked files:
  (use "git add <file>..." to include in what will be committed)

    test1.txt

nothing added to commit but untracked files present (use "git add" to track)

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git add .

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -m "First commit"
[staging e742a6b] First commit
 1 file changed, 1 insertion(+)
 create mode 100644 test1.txt

```

5. Push it to github.

```

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git push origin --all
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 299 bytes | 299.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'staging' on GitHub by visiting:
remote:   https://github.com/naresh226/test_project/pull/new/staging
remote:
To https://github.com/naresh226/test_project.git
 * [new branch]      staging -> staging

```

6. Move to folder project2.

7. Clone the repo in project2.

```

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3>cd project2

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project2>git clone https://github.com/naresh226/test_project.git
Cloning into 'test_project'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 6 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (6/6), done.

```

8. Switch to staging.

9. Change the text in file 'test1' to 'This is second commit'.

10. Commit and push to remote branch.

```

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project2\test_project>git checkout staging
Switched to a new branch 'staging'
Branch 'staging' set up to track remote branch 'staging' from 'origin'.

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project2\test_project>git status
On branch staging
Your branch is up to date with 'origin/staging'.

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:   test1.txt

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

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project2\test_project>git add .

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project2\test_project>git commit -m "second commit"
[staging 8c08655] second commit
 1 file changed, 1 insertion(+), 1 deletion(-)

```

```

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project2\test_project>git push origin --all
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 297 bytes | 297.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/naresh226/test_project.git
   e742a6b..8c08655  staging -> staging

```

11. Move to project1.
12. Switch to staging branch.

```

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3>cd project1\test_project

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git checkout staging
Already on 'staging'

```

13. Change the text in file 'test1' to 'This is third commit'.

```

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git status
On branch staging
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:   test1.txt

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

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git add .

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -m "Third commit"
[staging edeef3c] Third commit
 1 file changed, 1 insertion(+), 1 deletion(-)

```

14. Commit and push to remote branch. (Explain what happened here).

There were changes pushed to the same reference by the other repository i.e from project2. So, to push the changes to remote first we need to pull the changes to current repository then push the combined changes.

If we use force push (git push -f) then, the current changes will be pushed overwriting the existing changes on remote.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git push origin --all
To https://github.com/naresh226/test_project.git
! [rejected]        staging -> staging (fetch first)
error: failed to push some refs to 'https://github.com/naresh226/test_project.git'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
```

15. Switch to master.

16. Merge staging branch into master.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git merge staging
Updating ce33838..edeef3c
Fast-forward
 test1.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 test1.txt
```

17. Create a new branch testing.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git checkout -b testing
Switched to a new branch 'testing'
```

18. Change the text to 'A is an alphabet' and commit.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 17256bc..60db777 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-This is third commit.
\ No newline at end of file
+A is an alphabet.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "A is an alphabet"
[testing 7eda53f] A is an alphabet
 1 file changed, 1 insertion(+), 1 deletion(-)
```

19. Repeat the 'step 18' seven times and each time update the alphabet 'A' to 'B' to 'C' etc.(Don't forget to commit the change everytime)

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 60db777..da96232 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-A is an alphabet.
\ No newline at end of file
+B is an alphabet.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "B is an alphabet"
[testing 8c2c602] B is an alphabet
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index da96232..2ea9286 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-B is an alphabet.
\ No newline at end of file
+C is an alphabet.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "C is an alphabet"
[testing 09acc59] C is an alphabet
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 2ea9286..66e0e19 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-C is an alphabet.
\ No newline at end of file
+D is an alphabet.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "D is an alphabet"
[testing 267c2f3] D is an alphabet
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 66e0e19..12559b7 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-D is an alphabet.
\ No newline at end of file
+E is an alphabet.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "E is an alphabet"
[testing eb5b911] E is an alphabet
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 12559b7..2902f85 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-E is an alphabet.
\ No newline at end of file
+F is an alphabet.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "F is an alphabet"
[testing 4029674] F is an alphabet
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 2902f85..ca570de 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-F is an alphabet.
\ No newline at end of file
+G is an alphabet.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "G is an alphabet"
[testing cd202d1] G is an alphabet
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index ca570de..b3a5b4a 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-G is an alphabet.
\ No newline at end of file
+H is an alphabet.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "H is an alphabet"
[testing d78dd8f] H is an alphabet
1 file changed, 1 insertion(+), 1 deletion(-)
```

● testing	remotes/origin/testing	H is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:32:16
●		G is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:31:36
●		F is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:30:47
●		E is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:28:16
●		D is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:27:41
●		C is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:26:59
●		B is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:26:04
●		A is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:25:07
●	staging	Third commit	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:16:55
●		First commit	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:06:44
●		Initial commit	naresh226 <53910107+naresh226@u>	2019-11-04 12:54:30

20. Push the branch to github.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git push origin testing
Enumerating objects: 31, done.
Counting objects: 100% (31/31), done.
Delta compression using up to 8 threads
Compressing objects: 100% (20/20), done.
Writing objects: 100% (30/30), 2.64 KiB | 386.00 KiB/s, done.
Total 30 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'testing' on GitHub by visiting:
remote:   https://github.com/naresh226/test_project/pull/new/testing
remote:
To https://github.com/naresh226/test_project.git
 * [new branch]      testing -> testing
```

21. Checkout to master.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git checkout master
Switched to branch 'master'
Your branch is ahead of 'origin/master' by 2 commits.
(use "git push" to publish your local commits)
```

22. Change the text '1 is a number' and commit.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 17256bc..3eb1552 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-This is third commit.
\ No newline at end of file
+1 is a Number.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "1 is a Number"
[master 5209f88] 1 is a Number
1 file changed, 1 insertion(+), 1 deletion(-)
```

23. Repeat the 'step 22' seven times and each time update the number '1' to '2' to '3' etc.(Don't forget to commit the change everytime)

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 3eb1552..f2712ed 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-1 is a Number.
\ No newline at end of file
+2 is a Number.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "2 is a Number"
[master f42b7d8] 2 is a Number
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index f2712ed..b4481f1 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-2 is a Number.
\ No newline at end of file
+3 is a Number.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "3 is a Number"
[master 47da000] 3 is a Number
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index b4481f1..81cd0af 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-3 is a Number.
\ No newline at end of file
+4 is a Number.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "4 is a Number"
[master d6c1a78] 4 is a Number
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 81cd0af..e070fcd 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-4 is a Number.
\ No newline at end of file
+5 is a Number.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "5 is a Number"
[master 4e8eb03] 5 is a Number
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index e070fcd..245ea6e 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-5 is a Number.
\ No newline at end of file
+6 is a Number.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "6 is a Number"
[master ac6b5e3] 6 is a Number
1 file changed, 1 insertion(+), 1 deletion(-)
```



```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 245ea6e..2c130cf 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-6 is a Number.
\ No newline at end of file
+7 is a Number.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "7 is a Number"
[master 6f3b1d7] 7 is a Number
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git diff test1.txt
diff --git a/test1.txt b/test1.txt
index 2c130cf..3299a78 100644
--- a/test1.txt
+++ b/test1.txt
@@ -1,1 @@
-7 is a Number.
\ No newline at end of file
+8 is a Number.
\ No newline at end of file

C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git commit -am "8 is a Number"
[master 12b37f5] 8 is a Number
1 file changed, 1 insertion(+), 1 deletion(-)
```

<ul style="list-style-type: none"> ● master 8 is a Number ● 7 is a Number ● 6 is a Number ● 5 is a Number ● 4 is a Number ● 3 is a Number ● 2 is a Number ● 1 is a Number ● staging Third commit ● First commit ● Initial commit 	<table border="0"> <tr> <td>Naresh Sharma <naresh@vinsol.com></td> <td>2019-11-04 13:42:55</td> </tr> <tr> <td>Naresh Sharma <naresh@vinsol.com></td> <td>2019-11-04 13:42:16</td> </tr> <tr> <td>Naresh Sharma <naresh@vinsol.com></td> <td>2019-11-04 13:41:46</td> </tr> <tr> <td>Naresh Sharma <naresh@vinsol.com></td> <td>2019-11-04 13:41:12</td> </tr> <tr> <td>Naresh Sharma <naresh@vinsol.com></td> <td>2019-11-04 13:40:35</td> </tr> <tr> <td>Naresh Sharma <naresh@vinsol.com></td> <td>2019-11-04 13:40:02</td> </tr> <tr> <td>Naresh Sharma <naresh@vinsol.com></td> <td>2019-11-04 13:39:24</td> </tr> <tr> <td>Naresh Sharma <naresh@vinsol.com></td> <td>2019-11-04 13:38:30</td> </tr> <tr> <td>Naresh Sharma <naresh@vinsol.com></td> <td>2019-11-04 13:16:55</td> </tr> <tr> <td>Naresh Sharma <naresh@vinsol.com></td> <td>2019-11-04 13:06:44</td> </tr> <tr> <td>naresh226 <53910107+naresh226@u></td> <td>2019-11-04 12:54:30</td> </tr> </table>	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:42:55	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:42:16	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:41:46	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:41:12	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:40:35	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:40:02	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:39:24	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:38:30	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:16:55	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:06:44	naresh226 <53910107+naresh226@u>	2019-11-04 12:54:30
Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:42:55																						
Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:42:16																						
Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:41:46																						
Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:41:12																						
Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:40:35																						
Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:40:02																						
Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:39:24																						
Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:38:30																						
Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:16:55																						
Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:06:44																						
naresh226 <53910107+naresh226@u>	2019-11-04 12:54:30																						

24. Push master branch to github.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git push origin master
Enumerating objects: 26, done.
Counting objects: 100% (26/26), done.
Delta compression using up to 8 threads
Compressing objects: 100% (16/16), done.
Writing objects: 100% (24/24), 2.06 KiB | 352.00 KiB/s, done.
Total 24 (delta 0), reused 0 (delta 0)
To https://github.com/naresh226/test_project.git
ce33838..12b37f5 master -> master
```

25. Now, rebase testing into master(and don't push the new master and testing branch).

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git checkout testing
Switched to branch 'testing'
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git rebase master
First, rewinding head to replay your work on top of it...
```

```
Applying: A is an alphabet
```

```
Using index info to reconstruct a base tree...
```

```
M      test1.txt
```

```
Falling back to patching base and 3-way merge...
```

```
Auto-merging test1.txt
```

```
CONFLICT (content): Merge conflict in test1.txt
```

```
error: Failed to merge in the changes.
```

```
hint: Use 'git am --show-current-patch' to see the failed patch
```

```
Patch failed at 0001 A is an alphabet
```

```
Resolve all conflicts manually, mark them as resolved with
```

```
"git add/rm <conflicted_files>", then run "git rebase --continue".
```

```
You can instead skip this commit: run "git rebase --skip".
```

```
To abort and get back to the state before "git rebase", run "git rebase --abort".
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git add .
```

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project1\test_project>git rebase --continue
```

```
Applying: A is an alphabet
```

```
Applying: B is an alphabet
```

```
Using index info to reconstruct a base tree...
```

```
M      test1.txt
```

```
Falling back to patching base and 3-way merge...
```

```
Auto-merging test1.txt
```

```
CONFLICT (content): Merge conflict in test1.txt
```

```
error: Failed to merge in the changes.
```

```
hint: Use 'git am --show-current-patch' to see the failed patch
```

```
Patch failed at 0002 B is an alphabet
```

```
Resolve all conflicts manually, mark them as resolved with
```

```
"git add/rm <conflicted_files>", then run "git rebase --continue".
```

```
You can instead skip this commit: run "git rebase --skip".
```

```
To abort and get back to the state before "git rebase", run "git rebase --abort".
```

● testing	H is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:32:16
●	G is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:31:36
●	F is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:30:47
●	E is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:28:16
●	D is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:27:41
●	C is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:26:59
●	B is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:26:04
●	A is an alphabet	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:25:07
● master	8 is a Number	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:42:55
●	7 is a Number	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:42:16
●	6 is a Number	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:41:46
●	5 is a Number	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:41:12
●	4 is a Number	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:40:35
●	3 is a Number	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:39:24
●	2 is a Number	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:38:30
●	1 is a Number	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:36:55
● staging	Third commit	Naresh Sharma <naresh@vinsol.com>	2019-11-04 13:06:44
●	First commit	Naresh Sharma <naresh@vinsol.com>	2019-11-04 12:54:30
●	Initial commit	naresh226 <53910107+naresh226@users.noreply>	

26. Move to project2.

27. Track testing branch.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project2\test_project>git checkout --track origin/testing
Switched to a new branch 'testing'
Branch 'testing' set up to track remote branch 'testing' from 'origin'.
```

28. Checkout to master.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project2\test_project>git checkout master
Switched to branch 'master'
Your branch is behind 'origin/master' by 10 commits, and can be fast-forwarded.
(use "git pull" to update your local branch)
```

29. Merge branch testing into master.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project2\test_project>git merge testing
Updating ce33838..d78dd8f
Fast-forward
 test1.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 test1.txt
```

30. Share your views about the difference between master and testing.

Master branch is the default branch when we create a new repository and push changes to repository without specifying any branch whereas testing is new branch that is created from the master branch.

Changes in the master branch are combination of master and testing (when testing is merged with master) while the changes in the testing branch are specific to itself.

Testing branch is now tagged with a tracked branch which means that it will keep track of git push and pull from remote branch i.e it automatically push or pull changes from remote branch to which it is connected.

```
C:\Users\Naresh Sharma\Documents\gitTrack\Exercise3\project2\test_project>git hist
* d78dd8f 2019-11-04 | H is an alphabet (HEAD -> master, origin/testing, testing) [Naresh Sharma]
* cd202d1 2019-11-04 | G is an alphabet [Naresh Sharma]
* 4029674 2019-11-04 | F is an alphabet [Naresh Sharma]
* eb5b911 2019-11-04 | E is an alphabet [Naresh Sharma]
* 267c2f3 2019-11-04 | D is an alphabet [Naresh Sharma]
* 09acc59 2019-11-04 | C is an alphabet [Naresh Sharma]
* 8c2c602 2019-11-04 | B is an alphabet [Naresh Sharma]
* 7eda53f 2019-11-04 | A is an alphabet [Naresh Sharma]
* edeef3c 2019-11-04 | Third commit [Naresh Sharma]
* e742a6b 2019-11-04 | First commit [Naresh Sharma]
* ce33838 2019-11-04 | Initial commit [naresh226]
```