

Exercise 1

Repository cloned and pushed to GitLab remote repository.

```
root@Ubuntu: /home/popelouis/Desktop/git-exercises
289 git rebase --skip
290 git push origin main
291 ls
292 ls -a
293 cd ..
294 rm -r git-exercises
295 ls
296 git clone https://gitlab.com/twn-devops-bootcamp/latest/03-git/git-exercises
297 ls
298 cd git-exercises
299 ls
300 git fetch
301 ls
302 git remote remove origin
303 git remote add origin git@gitlab.com:mydevops2545442/DevOpsMasterclass.git
304 ls
305 git fetch
306 ls
307 git rebase origin/main
308 ls
309 git add .
310 git rebase --continue
311 ls
312 git push origin main
```

MyDevOps > DevOpsMasterclass

DevOpsMasterclass

Project ID: 51281335

🔔

☆ Star 0

🍴 Forks 0

2 Commits 1 Branch 0 Tags 68 KIB Project Storage

Initial commit

Nana Janashia authored 1 month ago

37f4c892

main

 DevOpsMasterclass /

+

History

Find file

Edit

Download

Clone

README

Add LICENSE

Add CHANGELOG

Add CONTRIBUTING

Add Kubernetes cluster

Set up CI/CD

Add Wiki

Configure Integrations

Name	Last commit	Last update
gradle	Initial commit	in 1 minute
idea	Initial commit	in 1 minute
gradle/wrapper	Initial commit	in 1 minute

Figure Error! No text of specified style in document.:1: Screenshots of commands and content pushed to Gitlab remote(DevOpsMasterclass)

Exercise 2

Created and added IDE specific folders .idea and .DS_Store files to .gitignore

```
root@Ubuntu:/home/popelouis/Desktop/git-exercises# ls -al
total 68
drwxr-xr-x 7 root      root      4096 Oct 21 00:24 .
drwxr-xr-x 5 popelouis popelouis 4096 Oct 20 22:27 ..
-rw-r--r-- 1 root      root      500 Oct 20 22:31 build.gradle
-rw-r--r-- 1 root      root     6148 Oct 20 22:31 .DS_Store
drwxr-xr-x 8 root      root      4096 Oct 21 00:30 .git
-rw-r--r-- 1 root      root      17 Oct 21 00:24 .gitignore
drwxr-xr-x 5 root      root      4096 Oct 20 22:31 gradle
drwxr-xr-x 3 root      root      4096 Oct 20 22:31 gradlew
-rw-r--r-- 1 root      root     5296 Oct 20 22:31 gradlew.bat
drwxr-xr-x 2 root      root      4096 Oct 20 22:31 .idea
-rw-r--r-- 1 root      root     6329 Oct 20 22:31 README.md
-rw-r--r-- 1 root      root       43 Oct 20 22:31 settings.gradle
drwxr-xr-x 4 root      root      4096 Oct 20 22:31 src
root@Ubuntu:/home/popelouis/Desktop/git-exercises#
```

MyDevOps > DevOpsMasterclass

Name	Last commit
.gradle	Initial commit
gradle/wrapper	Initial commit
src	Initial commit
.gitignore	added IDE specific files to .gitignore
README.md	Initial commit
build.gradle	Initial commit
gradlew	Initial commit
gradlew.bat	Initial commit
settings.gradle	Initial commit

README.md

Figure.2: Local repository compared with remote to appreciate gitignore (best practice)

Exercise 3

Feature branch with image added

```
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git push --set-upstream origin feature
Enumerating objects: 13, done.
Counting objects: 100% (13/13), done.
Delta compression using up to 2 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (7/7), 685 bytes | 685.00 KiB/s, done.
Total 7 (delta 3), reused 0 (delta 0)
remote:
remote: To create a merge request for feature, visit:
remote: https://gitlab.com/mydevops2545442/DevOpsMasterclass/-/merge_requests/new?merge_request%5Bsource_branch%5D=feature
remote:
To gitlab.com:mydevops2545442/DevOpsMasterclass.git
 * [new branch] feature -> feature
Branch 'feature' set up to track remote branch 'feature' from 'origin'.
root@Ubuntu:/home/popelouis/Desktop/git-exercises# ls
build.gradle  gradle  gradlew  gradlew.bat  README.md  settings.gradle  src
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git branch
* feature
main
```

MyDevOps > DevOpsMasterclass > Repository

Feature DevOpsMasterclass / + v History Compare

Name	Last commit
gradle/wrapper	Initial commit
src	Added image to index.html
.gitignore	added IDE specific files to .gitignore
README.md	Initial commit
build.gradle	Added image to index.html
gradlew	Initial commit
gradlew.bat	Initial commit
settings.gradle	Initial commit
README.md	

Figure.3: Feature branch created, changes made, pushed and reflected on gitlab

Exercise 4

Bugfix branch

```
root@Ubuntu:/home/popelouis/Desktop/git-exercises
GNU nano 4.8 src/main/java/com/example/Application.java
package com.example;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

import javax.annotation.PostConstruct;

@SpringBootApplication
public class Application {

    public static void main(String[] args)
    {
        SpringApplication.run(Application.class, args);
    }

    @PostConstruct
    public void init()
    {
        Logger log = LoggerFactory.getLogger(Application.class);
        log.info("Java app started");
    }

}

+++ b/src/main/java/com/example/Application.java
@@ -19,7 +19,7 @@ public class Application {
     public void init()
     {
         Logger log = LoggerFactory.getLogger(Application.class);
-        log.info("Java app start");
+        log.info("Java app started");
     }
}
```

MyDevOps > DevOpsMasterclass > Repository

You pushed to bugfix in 1 minute

Create merge request

Spelling correction done in Application.java file
root authored 1 minute ago

bugfix DevOpsMasterclass / + v History Compare

Name	Last commit
gradle/wrapper	Initial commit
src	Spelling correction done in Application.java ...
.gitignore	added IDE specific files to .gitignore
README.md	Initial commit
build.gradle	Added image to index.html
gradlew	Initial commit

Figure.4: Bug fixed, commented and pushed successfully.

Exercise 5

Merge request creation and merging feature branch to main

MyDevOps > DevOpsMasterclass > Merge requests > 11

Added image to index.html

[Edit](#)[Code](#) 

 **Open** Vector-Gru requested to merge `feature` into `main` in 1 minute

[Overview](#) **0**[Commits](#) **-**[Pipelines](#) **0**[Changes](#) **-**[Add a to do](#)

The feature added is an image to the index.html file, I think it is time to merge now!!

 0  0 

8 [Approve](#)Approval is optional **Ready to merge!**

☐ Delete source branch ☐ Squash commits  ☐ Edit commit message

1 commit and 1 merge commit will be added to main.

[Merge](#)**Assignee**[Edit](#) Nditafon Hyson**Reviewer**[Edit](#) Frank Takang**Labels**[Edit](#)

None

Milestone[Edit](#)

None

Time tracking [+](#)

No estimate or time spent

3 Participants  

Activity

[All activity](#) 

Vector-Gru requested review from [@ft11kn](#) in 1 minute

8 **Approved by** **Merged by**  [Vector-Gru](#) in 2 minutes[Revert](#)[Cherry-pick](#)**Merge details**

- Changes merged into main with [28ca650e](#).
- Deleted the source branch.

Activity

[All activity](#) 



- Vector-Gru requested review from [@ft11kn](#) 2 minutes ago
- Vector-Gru assigned to [@Hyson-Wayne](#) 2 minutes ago
-  Nditafon Hyson approved this merge request in 24 seconds
- Vector-Gru mentioned in commit [28ca650e](#) in 2 minutes
-  Vector-Gru merged in 2 minutes

Figure.5: Feature branch merged to main

Exercise 6

Fixing merge conflict

```
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git branch
* bugfix
  feature
  main
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git merge main
Merge made by the 'recursive' strategy.
root@Ubuntu:/home/popelouis/Desktop/git-exercises#
```

✔ You pushed to **bugfix** in 2 minutes

Create merge request



Merge branch 'main' into bugfix

root authored 6 minutes ago

bugfix ▾

DevOpsMasterclass /

+ ▾

History

Compare

Exercise 7

Making changes and referting

```
root@Ubuntu:/home/popelouis/Desktop/git-exercises/src/main/webapp# git diff
diff --git a/src/main/webapp/index.html b/src/main/webapp/index.html
index 006f55f..e7b3164 100644
--- a/src/main/webapp/index.html
+++ b/src/main/webapp/index.html
@@ -9,7 +9,7 @@
<!-- add image here <img src="" width="" /> -->

<ul>
-   <li>Sarah - Full stack developer</li>
+   <li>Sarah - Full stack developer</li>
   <li>Bobby - React developer</li>
   <li>Ari - Java developer</li>
   <li>Andrea - DevOps engineer</li>
```

Figure.6: spelling corrected

```
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git diff
diff --git a/src/main/webapp/index.html b/src/main/webapp/index.html
index e7b3164..4ae88d7 100644
--- a/src/main/webapp/index.html
+++ b/src/main/webapp/index.html
@@ -7,7 +7,7 @@
<body>
  <h1>Team member roles</h1>
  <!-- add image here <img src="" width="" /> -->
-  
+  
```

Figure. Error! No text of specified style in document..7: image url changed

✔ You pushed to **bugfix** in 1 minute

Create merge request

Revert "Updated the image url" ... 07438b81

bugfix ▾ DevOpsMasterclass / + ▾ History Compare Find file Edit ▾ ▾ Clone ▾

Name	Last commit	Last update
gradle/wrapper	Initial commit	16 hours ago
src	Revert "Updated the image url"	1 minute ago

Figure ..8: Image change and commit reverted

Exercise 8

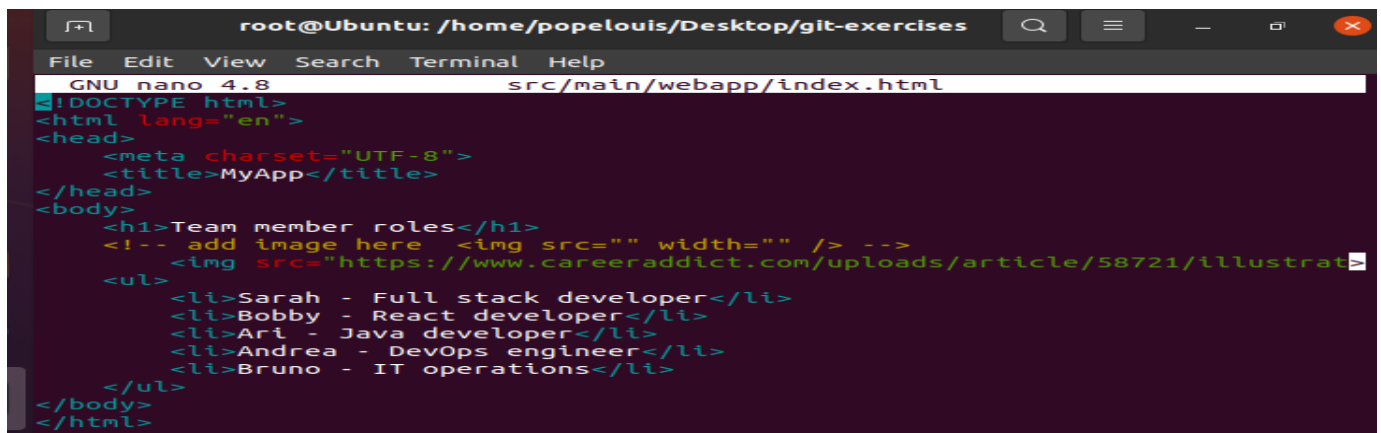
Making and resetting commits

```
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git diff
diff --git a/src/main/webapp/index.html b/src/main/webapp/index.html
index e7b3164..8562107 100644
--- a/src/main/webapp/index.html
+++ b/src/main/webapp/index.html
@@ -13,7 +13,7 @@
     <li>Bobby - React developer</li>
     <li>Ari - Java developer</li>
     <li>Andrea - DevOps engineer</li>
-    <li>Bruno - IT operations</li>
+    <li>Bruno - DevOps team</li>
   </ul>
 </body>
</html>
```

Figure.9: Showing changes done to the role of Bruno, now in DevOps team

```
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git reset --hard HEAD~1
HEAD is now at 07438b8 Revert "Updated the image url"
root@Ubuntu:/home/popelouis/Desktop/git-exercises#
```

Figure.10: using git reset --hard HEAD~1 command to reset commit and local changes



```
root@Ubuntu:/home/popelouis/Desktop/git-exercises
File Edit View Search Terminal Help
GNU nano 4.8 src/main/webapp/index.html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>MyApp</title>
</head>
<body>
  <h1>Team member roles</h1>
  <!-- add image here <img src="" width="" /> -->
  <img src="https://www.careeraddict.com/uploads/article/58721/illustrat
  <ul>
    <li>Sarah - Full stack developer</li>
    <li>Bobby - React developer</li>
    <li>Ari - Java developer</li>
    <li>Andrea - DevOps engineer</li>
    <li>Bruno - IT operations</li>
  </ul>
</body>
</html>
```

Figure.11: Changes reset and reflected in the file

Exercise 9

Merging

```
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git branch
* bugfix
  feature
  main
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git branch
  bugfix
  feature
* main
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git fetch
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git pull
Already up to date.
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git push
```

Figure 12: Switched to main from bugfix and ensuring that main is up to date with remote using git fetch, git pull and git push

```

root@Ubuntu:/home/popelouis/Desktop/git-exercises# git branch
  bugfix
  feature
* main
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git merge bugfix
Updating bad048c..07438b8
Fast-forward
 src/main/java/com/example/Application.java | 2 + -
 src/main/webapp/index.html                 | 2 + -
 2 files changed, 2 insertions(+), 2 deletions(-)

```

Figure.13: Merging bugfix to main using git merge

Exercise 10

Deleting the feature and bugfix branches

```

root@Ubuntu:/home/popelouis/Desktop/git-exercises# git branch
  bugfix
  feature
* main
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git branch -d feature
Deleted branch feature (was d8008f9).
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git branch -d bugfix
Deleted branch bugfix (was 07438b8).

```

Figure 14: feature and bugfix branches deleted

```

root@Ubuntu:/home/popelouis/Desktop/git-exercises# ssh -T git@gitlab.com
Welcome to GitLab, @vector-gru!
root@Ubuntu:/home/popelouis/Desktop/git-exercises# git push origin --delete bugfix
To gitlab.com:mydevops2545442/DevOpsMasterclass.git
- [deleted]          bugfix
root@Ubuntu:/home/popelouis/Desktop/git-exercises#

```

Figure Error! No text of specified style in document..15: Remote delete using 'git push origin --delete bug'

MyDevOps > DevOpsMasterclass

D

DevOpsMasterclass

Project ID: 51281335

Free

🔔

☆ Star 0

🍴 Forks 0

Tags 69 KiB Project Storage

Select Git revision

🔍 Search by Git revision

Branches 1

main default

main DevOpsMasterclass / +

History Find file Edit ⌵ ⬇ Clone ⌵

📄 README

📄 Add LICENSE

📄 Add CHANGELOG

📄 Add CONTRIBUTING

🔧 Enable Auto DevOps

🔧 Add Kubernetes cluster

🔧 Set up CI/CD

🔧 Add Wiki

🔧 Configure Integrations

Name	Last commit	Last update
📁 gradle/wrapper	Initial commit	22 hours ago

Figure Error! No text of specified style in document..16: Deletions reflected at remote, only main can be found