GIT - Exercises 181209

Exercises on gitkatas, should be finished before 190210

- configure-git > DONE
- basic-commits > DONE
- basic-staging
- basic-branching
- basic-cleaning
- ignore
- commit-on-wrong-branch
- commit-on-wrong-branch-2

BASIC-COMMITS

Setup:

Run . setup.sh (or .\setup.ps1 in PowerShell)

Answer

```
$ . setup.sh
// Initialized empty Git repository in ../gitkatas/basic-commits/exercise/.git/
```

The task:

1. **Use git status to see which branch you are on.**

   Answer

   ```
   $ git status
   On branch master
   ```

2. **What does git log look like?**

   Answer

   ```
   $ git log
   fatal: your current branch 'master' does not have any commits yet
   ```

3. **Create a file**

   Answer

   ```
   $ touch basic.txt
   ```

4. **What does the output from git status look like now?**

   Answer

   ```
   $ git status
   On branch master
   No commits yet
   new file: basic.txt
   ```

5. **add the file to the staging area**

   Answer

   ```
   $ git add basic.txt
   ```

6. **How does git status look now?**

   Answer

   ```
   $ git status
   On branch master
   No commits yet
   new file: basic.txt
   ```

7. **commit the file to the repository**

   Answer

   ```
   $ commit basic.txt
   bash: commit: command not found

   $ git commit basic.txt
   ```

```
hint: Waiting for your editor to close the file... unix2dos: converting
file ../gitkatas/basic-commits/exercise/.git/COMMIT_EDITMSG to DOS
format...
dos2unix: converting file ../gitkatas/basic-commits/exercise
/.git/COMMIT_EDITMSG to Unix format...
[master (root-commit) 976ab22] Create new file basic.txt
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 basic.txt
```

8. **How does git status look now?**

   Answer

```
$ git status
On branch master
nothing to commit, working tree clean
```

9. **Change the content of the file you created earlier**

   Answer

```
$ echo "Hello World!" > basic.txt
```

10. **What does git status look like now?**

    Answer

```
$ git status
On branch master
Changes not staged for commit:
(use "git add ..." to update what will be committed)
(use "git checkout -- ..." to discard changes in working directory)

modified: basic.txt

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

11. **add the file change**

    Answer

```
$ git commit basic.txt
warning: LF will be replaced by CRLF in basic.txt.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in basic.txt.
The file will have its original line endings in your working directory
hint: Waiting for your editor to close the file... unix2dos: converting
file ../gitkatas/basic-commits/exercise/.git/COMMIT_EDITMSG to DOS
format...
dos2unix: converting file ../gitkatas/basic-commits/exercise
/.git/COMMIT_EDITMSG to Unix format...
[master 971ac7a] write "Hello World!" into basic.txt
1 file changed, 1 insertion(+)
```

12. **What does git status look like now?**

    Answer

```
$ git status
On branch master
nothing to commit, working tree clean
```

13. **Change the file again**

    Answer

```
$ echo -e "\nBonjour tout le monde!" >> basic.txt $ echo -e "\nHej
världen!" >> basic.txt
```

14. **Make a commit**

    Answer

```
$ git commit basic.txt
warning: LF will be replaced by CRLF in basic.txt.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in basic.txt.
The file will have its original line endings in your working directory
hint: Waiting for your editor to close the file... unix2dos: converting
```

```
file ../gitkatas/basic-commits/exercise/.git/COMMIT_EDITMSG to DOS
format...
dos2unix: converting file ../gitkatas/basic-commits/exercise
/.git/COMMIT_EDITMSG to Unix format...
[master 7941912] Write some more text, same message in french and swedish
1 file changed, 4 insertions(+)
```

15. **What does the status look like now? The log?**

    Answer

```
$ git status
On branch master
nothing to commit, working tree clean

$ git log
commit 7941912cd294be79a1a035581d68e4f5ef255ef1 (HEAD -> master)
Author: Kiki
Date: Sun Jan 27 23:50:54 2019 +0100

Write some more text, same message in french and swedish

commit 971ac7abcc8f1fc70970ce47cd60c6ade0315983
Author: Kiki
Date: Sun Jan 27 23:28:05 2019 +0100

write "Hello World!" into basic.txt

commit 976ab229ce782aa20011e653f66f4cc5a63ae0d6
Author: Kiki
Date: Sun Jan 27 23:13:27 2019 +0100

Create new file basic.txt
```

16. **Commit the newest change**

    Answer

```
$ git commit
On branch master
nothing to commit, working tree clean
```

basic-staging

Setup:

Run . setup.sh (or .\setup.ps1 in PowerShell)

Answer

```
$ . setup.sh
//Initialized empty Git repository in ../git/gitkatas/basic-staging/exercise/.git/
// warning: LF will be replaced by CRLF in file.txt.
// The file will have its original line endings in your working directory
// [master (root-commit) 59a6e72] 1
// 1 file changed, 1 insertion(+)
// create mode 100644 file.txt
```

The Task:

You live in your own repository. There is a file called file.txt

1. **What's the content of file.txt?**

   Answer

```
$ git show file.txt
commit 59a6e72eff8dd7f9bfbc3569818586f5a705324d (HEAD -> master)
Author: Kiki
Date: Mon Jan 28 11:49:29 2019 +0100

1
```

2. **Overwrite the content in file.txt: echo 2 > file.txt to change the state of your file in the working directory (or sc file.txt '2' in PowerShell)**

Answer
```
echo 2 > file.txt
```

3. **What does git diff tell you?**

Answer
```
$ get diff
bash: get: command not found
```

4. **What does git diff --staged tell you? why is this blank?**

Answer
```
// No answer, it's blank because I did not stage file.txt
```

5. **Run git add file.txt to stage your changes from the working directory.**

Answer
```
$ git add file.txt
warning: LF will be replaced by CRLF in file.txt.
The file will have its original line endings in your working directory
```

6. **What does git diff tell you?**

Answer
```
// Still no answer
```

7. **What does git diff --staged tell you?**

Answer
```
$ git diff --staged
diff --git a/file.txt b/file.txt
index d00491f..0cfbf08 100644
--- a/file.txt
+++ b/file.txt
@@ -1 +1 @@
-1 // red
+2 // green
```

8. **Overwrite the content in file.txt: echo 3 > file.txt to change the state of your file in the working directory (or sc file.txt '3' in PowerShell).**

Answer
```
$ echo 3 > file.txt
```

9. **What does git diff tell you?**

Answer
```
$ git diff
warning: LF will be replaced by CRLF in file.txt.
The file will have its original line endings in your working directory
diff --git a/file.txt b/file.txt
index 0cfbf08..00750ed 100644
--- a/file.txt
+++ b/file.txt
@@ -1 +1 @@
-2 // red
+3 // green
```

10. **What does git diff --staged tell you?**

Answer
```
$ git diff --staged
diff --git a/file.txt b/file.txt
index d00491f..0cfbf08 100644
--- a/file.txt
+++ b/file.txt
@@ -1 +1 @@
-1 // red
+2 // green
```

11. **Explain what is happening**

Answer

```
// It shows the last staged state
```

12. Run git status and observe that file.txt are present twice in the output.

Answer

```
$ git status
On branch master
Changes to be committed:
(use "git reset HEAD ..." to unstage)

modified: file.txt // green

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

modified: file.txt // red
```

13. Run git reset HEAD file.txt to unstage the change

Answer

```
$ reset HEAD file.txt
Usage: reset [options] [terminal]

Options:
-c set control characters
-e ch erase character
-I no initialization strings
-i ch interrupt character
-k ch kill character
-m mapping map identifier to type
-Q do not output control key settings
-q display term only, do no changes
-r display term on stderr
-s output TERM set command
-V print curses-version
-w set window-size

If neither -c/-w are given, both are assumed.
```

14. What does git status tell you now?

Answer

```
$ git status
On branch master
Changes to be committed:
(use "git reset HEAD ..." to unstage)

modified: file.txt // green

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

modified: file.txt // red
```

15. Stage the change and make a commit

Answer

```
$ git add file.txt
warning: LF will be replaced by CRLF in file.txt.
The file will have its original line endings in your working directory

$ git commit file.txt
warning: LF will be replaced by CRLF in file.txt.
The file will have its original line endings in your working directory
hint: Waiting for your editor to close the file... unix2dos: converting
file ../gitkatas/basic-staging/exercise/.git/COMMIT_EDITMSG to DOS
format...
```

```
dos2unix: converting file ../gitkatas/basic-staging/exercise
/.git/COMMIT_EDITMSG to Unix format...
[master 111e94e] Change content in file.txt
1 file changed, 1 insertion(+), 1 deletion(-)
```

16. **What does the log look like?**

    Answer

```
$ git log
commit 111e94e8fe011d4c7b25a104dc945e6b7565ab84 (HEAD -> master)
Author: Kiki
Date: Mon Jan 28 12:28:33 2019 +0100

Change content in file.txt

commit 59a6e72eff8dd7f9bfbc3569818586f5a705324d
Author: Kiki
Date: Mon Jan 28 11:49:29 2019 +0100

1
```

17. **Overwrite the content in file.txt: echo 4 > file.txt (or sc file.txt '4' in PowerShell)**

    Answer

```
echo 4 > file.txt
```

18. **What is the content of file.txt?**

    Answer

```
$ git diff
warning: LF will be replaced by CRLF in file.txt.
The file will have its original line endings in your working directory
diff --git a/file.txt b/file.txt
index 00750ed..b8626c4 100644
--- a/file.txt
+++ b/file.txt
@@ -1 +1 @@
-3 // red
+4 // green
```

19. **What does git status tell us?**

    Answer

```
$ git status
On branch master
Changes not staged for commit:
(use "git add ..." to update what will be committed)
(use "git checkout -- ..." to discard changes in working directory)

modified: file.txt // red

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

20. **Run git checkout file.txt**

    Answer

```
git checkout file.txt
```

21. **What is the content of file.txt?**

    Answer

```
$ git show file.txt
commit 111e94e8fe011d4c7b25a104dc945e6b7565ab84 (HEAD -> master)
Author: Kiki
Date: Mon Jan 28 12:28:33 2019 +0100

Change content in file.txt
diff --git a/file.txt b/file.txt
index d00491f..00750ed 100644
--- a/file.txt
```

```
+++ b/file.txt
@@ -1 +1 @@
-1
+3
```

22. What does git status tell us?

Answer

```
$ git status
On branch master
nothing to commit, working tree clean
// back to previous state
```