

1a)

```
(base) MacBook-Pro ~ % git clone https://github.com/BI-DS/GRA-4152.git
Cloning into 'GRA-4152'...
remote: Enumerating objects: 106, done.
remote: Counting objects: 100% (58/58), done.
remote: Compressing objects: 100% (48/48), done.
remote: Total 106 (delta 20), reused 46 (delta 10), pack-reused 48
Receiving objects: 100% (106/106), 25.14 KiB | 3.59 MiB/s, done.
Resolving deltas: 100% (29/29), done.
(base) MacBook-Pro ~ % cd GRA-4152
(base) MacBook-Pro GRA-4152 % ls
Lecture-1      Lecture-2      Lecture-5      Lecture-7      Lecture_3
Lecture-10     Lecture-4      Lecture-6      Lecture-9      README.md
(base) MacBook-Pro GRA-4152 % git log --graph
```

```
* commit dc730e88e9e4ad1cf94c0511b50d4d3135eb7383 (HEAD -> master, origin/master, origin/HEAD)
Author: A1910329 <rogelio.mancisidor@gmail.com>
Date: Wed Oct 26 12:48:02 2022 +0200

    adding colab notebooks

* commit e5c1c97fa8aaeb1f3c377a1ecb403d16140212d5
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date: Wed Oct 26 11:54:47 2022 +0200

    adding material lec 10

* commit ff60de77f3c18f8d0a8ee3b6918cd4db24bdf721
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date: Wed Oct 19 11:19:43 2022 +0200

    adding material lecture 9

* commit e6ac53804aaa4bdcac8561c891e3013a8868de3c
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date: Wed Oct 5 11:32:15 2022 +0200

    material lecture 7

* commit b412adb63d22c9f1129f195db9cddbbc63f945fe3
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date: Wed Sep 28 11:49:30 2022 +0200

    adding material lecture 6

* commit 7e0089cd9e1ab59478521d31b15867377b54008f
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date: Wed Sep 28 11:06:03 2022 +0200

    adding material for lecture 6

* commit c26010d5096e570018e4328672c45e7d54cddc69
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date: Wed Sep 21 11:10:38 2022 +0200

    adding material for lec 5

* commit 1a4a2672f3ec0b08042a76cc54654619254a0204
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date: Wed Sep 14 11:34:12 2022 +0200

    adding material lecture 4

* commit 9222545035a3bad8eec2c70774d6fad07066e113
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date: Tue Sep 6 14:08:22 2022 +0200

    adding material for lecture 3
```

1b) The last time README.md was modified is : Date: Wed Aug 31 09:59:14 2022 +0200

1c) The commit message associated with the last modification to the README.md is : **added honor code**

```
(base) -MacBook-Pro GRA-4152 % git log -- README.md

commit 71f261f8dbb09c828dfd2be1ad664a14b1fbc498
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date:   Wed Aug 31 09:59:14 2022 +0200

    added honor code

commit 0fb7842d8311144c4d1941b8e9d828059e11c500
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date:   Mon Aug 22 08:50:07 2022 +0200

    adding instructions for UML

commit 20b88515dc1668bed7942359e3ad183f51961f62
Author: rogelioandrade <rogelio.a.mancisidor@bi.no>
Date:   Fri Aug 19 08:48:04 2022 +0200
```

2a)

```
(base) -Book-Pro GRA4152 % touch .gitignore

(base) -Book-Pro GRA4152 % foo.py
zsh: command not found: foo.py

(base) -Book-Pro GRA4152 % touch .gitignore

(base) -Book-Pro GRA4152 % vim .gitignore
(base) -Book-Pro GRA4152 % vim .gitignore
(base) -Book-Pro GRA4152 % git add .gitignore
(base) -Book-Pro GRA4152 % git commit -m "Add .gitignore file to exclude foo.py file"
[main 41c2625] Add .gitignore file to exclude foo.py file
1 file changed, 1 insertion(+)
create mode 100644 .gitignore
(base) -Book-Pro GRA4152 % git push origin main
```

3 a)

Stashing temporarily shelves changes so you can work on something else. It is especially useful if you need to work on something else and are not (or do not want) ready to commit. When you want to temporarily save changes without committing changes or switching to different branches you can use git stash

3b) When you run git log --all --oneline , Git displays the commit history for all branches in the repository.

```
(base) -MacBook-Pro GRA4152 % git log --all --oneline
41c2625 (HEAD -> main) Add .gitignore file to exclude foo.py file
307bd3a first commit
4f0b776 first commit
b548f0f Initial commit
(base) -MacBook-Pro GRA4152 %
```

```
(base) Book-Pro ~ % cd GRA4152
(base) Book-Pro GRA4152 % git checkout -b my_test_branch
Switched to a new branch 'my_test_branch'
(base) Book-Pro GRA4152 % git checkout master
error: pathspec 'master' did not match any file(s) known to git
(base) rongbingli@Rongbings-MacBook-Pro GRA4152 % git branch master

(base) Book-Pro GRA4152 % git checkout master

Switched to branch 'master'
(base) Book-Pro GRA4152 % git checkout my_test_branch
Switched to branch 'my_test_branch'
(base) Book-Pro GRA4152 % git add README.md
(base) Book-Pro GRA4152 % git commit -m "make some changes in my_test_branch"
On branch my_test_branch
nothing to commit, working tree clean
(base) Book-Pro GRA4152 % vim README.md
(base) Book-Pro GRA4152 % git add README.md
(base) Book-Pro GRA4152 % git commit -m "make some changes in my_test_branch"
[my_test_branch 02ec937] make some changes in my_test_branch
```

```
(base) s-MacBook-Pro GRA4152 % git checkout master

Switched to branch 'master'
(base) s-MacBook-Pro GRA4152 % git merge my_test_branch

Updating 6d2b96b..02ec937
Fast-forward
 README.md | 3 ++-
 1 file changed, 2 insertions(+), 1 deletion(-)
(base) s-MacBook-Pro GRA4152 % git commit -m "Merge into master"

On branch master
nothing to commit, working tree clean
(base) s-MacBook-Pro GRA4152 % git push origin master
```