

EXERCISE 1 MERGE

Note: I use Notepad++ hence the command npp. Plus additional typos/accidents.

Create a repository labs2

```
mkdir labs2
```

```
cd labs2
```

```
git init
```

```
npp
```

Add a text file with content:

The student is able to write solution algorithms for the given problem with the chosen programming language. The student is able to identify the typical phases and activities in the software development process.

The student knows the high level differences of the most common processes.

The student recognizes the need and use of different tools during software development.

```
git add labs2.txt
```

```
git commit -m "Original message added"
```

Create branch b1

```
git branch b1
```

Change to branch b1

```
git checkout b1
```

Add word Line 1 in end of line1

```
npp
```

Add and commit

```
git add labs2.txt
```

```
git commit -m "Committing changes in line1"
```

Change to master branch

```
git checkout master
```

Add word Line 5 in end of line 5

```
npp
```

```
git add labs.txt
```

```
git commit -m "Committing changes in line5"
```

```
merge b1 to master
```

```
git merge b1
```

Check that both changes are in master branch file

```
npp
```

Delete branch b1

```
git branch -d b1
```

```
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~  
$ mkdir labs2  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~  
$ cd labs2  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2  
$ git init  
Initialized empty Git repository in C:/Users/OMISTAJA/labs2/.git/  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ npp  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ git add labs2.txt  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ git commit -m "Original message added"  
[master (root-commit) a49ee90] Original message added  
1 file changed, 7 insertions(+)  
create mode 100644 labs2.txt  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ git branch b1  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ git checkout b1  
Switched to branch 'b1'  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (b1)  
$ npp  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (b1)  
$ git add labs2.txt  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (b1)  
$ git commit -m "Committing changes in line1"  
[b1 fea45e2] Committing changes in line1  
1 file changed, 1 insertion(+), 1 deletion(-)  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (b1)  
$ git checkout master  
Switched to branch 'master'  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ npp
```

```

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ git add labs2.txt

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ git commit -m "Committing changes in line5"
[master 1741c59] Committing changes in line5
1 file changed, 1 insertion(+), 1 deletion(-)

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ git merge b1
Auto-merging labs2.txt
hint: Waiting for your editor to close the file... C:\Program Fil
es\notepad++\notepad++.exe: line 1: C:Program: command not found
error: There was a problem with the editor 'C:\Program Files\Note
pad++\notepad++.exe'.
Not committing merge; use 'git commit' to complete the merge.

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master|MERGING)
$ git commit -m "Another try"
[master 3ad6694] Another try

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ git merge b1
Already up to date.

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ npp

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ git branch -d b1
Deleted branch b1 (was fea45e2).

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ git status
On branch master
nothing to commit, working tree clean

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$

```

EXERCISE 2 MERGE AND CONFLICT

Use same repository and file as in exercise 1

Create branch b2

```
git branch b2
```

Change to branch b2

```
git checkout b2
```

Add a new line with text 'Software Development' as 1st line

```
npp
```

Add and commit

```
git add labs2.txt
```

```
git commit -m "Line Software Development"
```

Change to master branch

```
git checkout master
```

Add a new line with text 'SW Development' as 1st line

```
npp
```

merge b2 to master

```
git merge b2
```

Git shows conflict ☒ Resolve

Add + commit

```
git add labs2.txt
```

```
git commit -m "Committing changes"
```

Delete branch b2
git branch -d b2
Check master file content
npp

```
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~  
$ cd labs2  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ git init  
Reinitialized existing Git repository in C:/Users/OMISTAJA/labs2/.git/  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ git branch b2  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ git checkout b2  
Switched to branch 'b2'  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (b2)  
$ npp  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (b2)  
$ git add labs2.txt  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (b2)  
$ git commit -m "Line Software Development"  
[b2 740d3af] Line Software Development  
1 file changed, 1 insertion(+)  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (b2)  
$ git checkout master  
Switched to branch 'master'  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ npp  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ git merge b2  
error: Your local changes to the following files would be overwritten by merge:  
    labs2.txt  
Please commit your changes or stash them before you merge.  
Aborting  
Updating 9d0d652..740d3af  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ git add labs2.txt  
  
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)  
$ git commit -m "Committing changes"  
[master 6286b3f] Committing changes  
1 file changed, 1 insertion(+)
```

```
OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ git merge b2
Auto-merging labs2.txt
CONFLICT (content): Merge conflict in labs2.txt
Automatic merge failed; fix conflicts and then commit the result.

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master|MERGING)
$ git add labs.txt
fatal: pathspec 'labs.txt' did not match any files

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master|MERGING)
$ git add labs2.txt

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master|MERGING)
$ git commit -m "Commit"
[master 6d1b309] Commit

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ git branch -d b2
Deleted branch b2 (was 740d3af).

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ npp

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ git status
On branch master
nothing to commit, working tree clean

OMISTAJA@DESKTOP-F85VKHS MINGW64 ~/labs2 (master)
$ |
```