

Ministerul Educației al Republicii Moldova
Universitatea Tehnică a Moldovei

RAPORT

La lucrarea de laborator nr. 2
la disciplina «MIDPS»

**«Version Control Systems si modul de setare a unui
server»**

A efectuat: studentul gr. T-145 Ialticenco A.
A verificat: lector univ. Cojocaru S.

Chisinau 2016

Obiectivele lucrării

- Intelegerea si folosirea CLI (basic level)
- Administrarea remote a masinilor linux machine folosind SSH (remote code editing)
- Version Control Systems (git || mercurial || svn)
- Compileaza codul C/C++/Java/Python prin intermediul CLI, folosind compilatoarele gcc/g++/javac/python

Sarcina lucrării

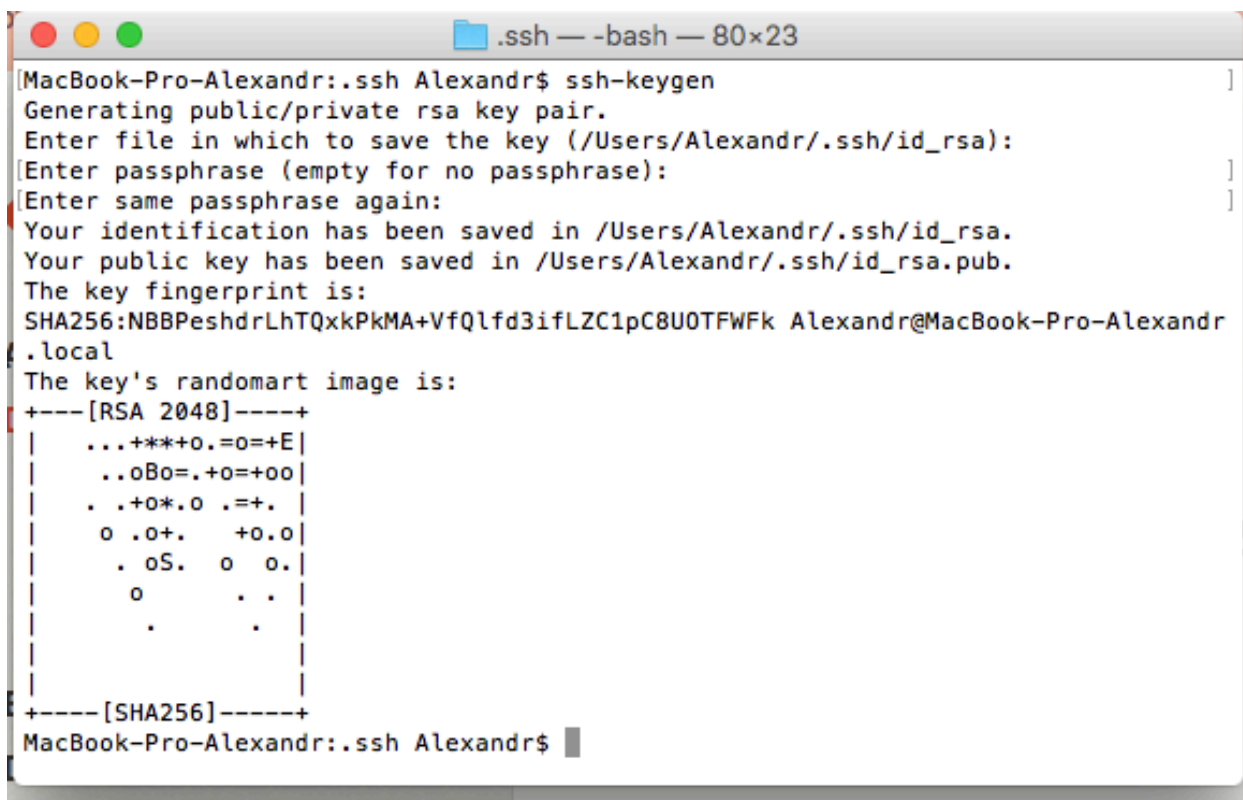
• **Advanced Level (nota 9 || 10):**

- setează un branch to track a remote origin pe care vei putea să faci push (ex. Github, Bitbucket or custom server)
- resetează un branch la commit-ul anterior
- merge 2 branches
- conflict solving between 2 branches

• **Bonus Point:**

Scrie un script care va compila HelloWorldPrograms projects.

1. Configurarea autentificarii ssh



```
MacBook-Pro-Alexandr:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/Users/Alexandr/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /Users/Alexandr/.ssh/id_rsa.
Your public key has been saved in /Users/Alexandr/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:NBBPeshdrLhTQxkPkMA+VfQlfd3ifLZC1pC8U0TFWfK Alexandr@MacBook-Pro-Alexandr
.local
The key's randomart image is:
+---[RSA 2048]-----+
|  ...+***+0.=0+=E|
|  ..oBo=.+0+=+oo|
|  . .+0*.0 .+=+. |
|  o .o+.  +0.o |
|  . oS.  o  o. |
|  o      .  . |
|  .      .  . |
+---[SHA256]-----+
MacBook-Pro-Alexandr:~$
```

```
.ssh — -bash — 80x23

The key fingerprint is:
SHA256:NBBPeshdrLhTQxkPkMA+VfQlfd3ifLZC1pC8U0TFWfK Alexandr@MacBook-Pro-Alexandr
.local
The key's randomart image is:
+----[RSA 2048]-----+
|  ...+**+0.=0+=E|
|  ..oBo=.+0+=00|
|  . .+0*.0 .+=. |
|  o .o+.   +o.o|
|  . oS.  o  o.|
|  o      .  .|
|  .      .  .|
+-----[SHA256]-----+
[MacBook-Pro-Alexandr:.ssh Alexandr$ cat id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDA01wESpNYRZZ/1PKHlnTeYSkZI20e030zxrZTYUYa
nUh2JVIMk0k7gYJdwqj6B9uRwRG0J/fzSjCaEQ0t22I5JhFtxnrxdxQTozNyGeBKjBpWFB0w/1JHa0wC6
naddIqhPSw/OjIUIre4MYcHhQM043yBn6Y05gnGzFKqogSGiAGrYBkJa0a83L3W38X0NStu/vcxJK3p5
R/1Cx8+waA0q7yVF2+drxjHmh/Nyn/dXB9w6p0/hPFTyfeX17o8l3ueRr0cw0MCTyK634ej09iSPWaeX
/30fNpM9HHTNRmTtoZxvNBsgrugDfsSuvAxv055RVBm2pY3t2AjnMJjPce9x Alexandr@MacBook-Pr
o-Alexandr.local
MacBook-Pro-Alexandr:.ssh Alexandr$
```

Search GitHub

Pull requestsIssuesGist

Personal settings

Profile

Account settings

Emails

Notification center

Billing

SSH keys

Security

OAuth applications

Personal access tokens

Repositories

Organizations

SSH keys

New SSH key

There are no SSH keys with access to your account.

Title

MIDPS_key

Key

ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQDA01wESpNYRZZ/1PKHlnTeYSkZI20e030zxrZTYUYanUh2JVIMk0k7gYJd
wqj6B9uRwRG0J/fzSjCaEQ0t22I5JhFtxnrxdxQTozNyGeBKjBpWFB0w/1JHa0wC6naddIqhPSw/OjIUIre4MYcHhQM043
yBn6Y05gnGzFKqogSGiAGrYBkJa0a83L3W38X0NStu/vcxJK3p5R/1Cx8+waA0q7yVF2+drxjHmh/Nyn/dXB9w6p0/hP
TyleX17o8l3ueRrOcw0MCTyK634ej09iSPWaeX/30fNpM9HHTNRmTtoZxvNBsgrugDfsSuvAxv055RVBm2pY3t2AjnMJ
Pce9x

Add SSH key

Check out our guide to [generating SSH keys](#) or [troubleshoot common SSH Problems](#).

SSH keys

New SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

key icon

MIDPS_key

ca:fe:fa:e3:59:15:c0:66:4e:74:58:55:2e:9c:76:8b

Added on Mar 3, 2016 — Never used

Delete

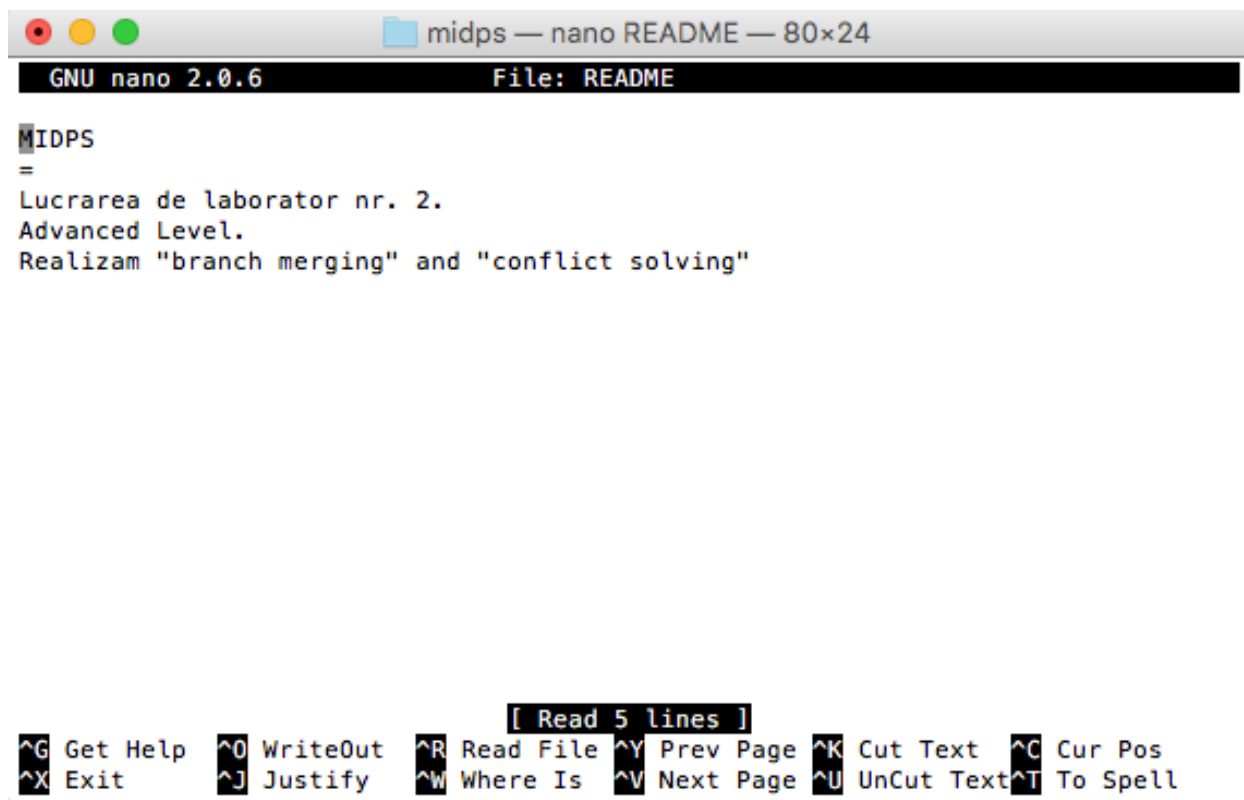
Check out our guide to [generating SSH keys](#) or [troubleshoot common SSH Problems](#).

```
.ssh — -bash — 80x23
nUh2JVIMk0k7gYJdwqj6B9uRwRG0J/fzSjCaEQ0t22I5JhFtxnrxdxQTozNyGeBKjBpWFB0w/1JHa0wC6
naddIqhPSw/0jIUIre4MYcHhQM043yBn6Y05gnGzFKqogSGiAGrYBkJa0a83L3W38X0NStu/vcxJK3p5
R/1Cx8+waA0q7yVF2+drxjHmh/Nyn/dXB9w6p0/hPFTyfeX17o8l3ueRr0cw0MCTyK634ej09iSPWaeX
/30fNpM9HHtNRmTtoZxvNBsgrugDfsSuvAxv055RVBm2pY3t2AjnMJjPce9x Alexandr@MacBook-Pro-
o-Alexandr.local
[MacBook-Pro-Alexandr:~ Alexandr$ ssh -T
usage: ssh [-1246AaCfGgKkMnNqsTtVvXxYy] [-b bind_address] [-c cipher_spec]
          [-D [bind_address:]port] [-E log_file] [-e escape_char]
          [-F configfile] [-I pkcs11] [-i identity_file]
          [-L [bind_address:]port:host:hostport] [-l login_name] [-m mac_spec]
          [-O ctl_cmd] [-o option] [-p port]
          [-Q cipher | cipher-auth | mac | kex | key]
          [-R [bind_address:]port:host:hostport] [-S ctl_path] [-W host:port]
          [-w local_tun[:remote_tun]] [user@]hostname [command]
[MacBook-Pro-Alexandr:~ Alexandr$ ssh -T git@github.com
The authenticity of host 'github.com (192.30.252.131)' can't be established.
RSA key fingerprint is SHA256:nThbg6kXUpJWGl7E1IGOCspRomTxdCARLviKw6E5SY8.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'github.com,192.30.252.131' (RSA) to the list of know
n hosts.
Hi AlexandrYaltychenko! You've successfully authenticated, but GitHub does not p
rovide shell access.
MacBook-Pro-Alexandr:~ Alexandr$
```

2. Clonarea repozitoriului gol creat pe github.com

```
Alexandr — -bash — 80x24
Last login: Wed Mar 16 15:43:33 on ttys000
[MacBook-Pro-Alexandr:~ Alexandr$ git clone https://github.com/AlexandrYaltychenko/midps.git
Cloning into 'midps'...
warning: You appear to have cloned an empty repository.
Checking connectivity... done.
MacBook-Pro-Alexandr:~ Alexandr$
```

3. Crearea fișierului README în nano



The screenshot shows a terminal window with the nano editor open. The title bar indicates the current directory is 'midps' and the file being edited is 'README'. The status bar at the bottom shows 'GNU nano 2.0.6' and 'File: README'. The content of the README file is as follows:

```
MIDPS
=
Lucrarea de laborator nr. 2.
Advanced Level.
Realizam "branch merging" and "conflict solving"
```

At the bottom of the editor, a status bar indicates '[Read 5 lines]'. Below this, a list of keyboard shortcuts is displayed in two rows:

^G Get Help	^O WriteOut	^R Read File	^Y Prev Page	^K Cut Text	^C Cur Pos
^X Exit	^J Justify	^W Where Is	^V Next Page	^U UnCut Text	^T To Spell

4. Crearea fișierului README în nano (ca sa fie ignorat fișierul .DS_Store generat de sistemul de operare Mac OS X)



The screenshot shows a terminal window with the nano editor open. The title bar indicates the current directory is 'midps' and the file being edited is '.gitignore'. The status bar at the bottom shows 'GNU nano 2.0.6' and 'File: .gitignore'. The content of the .gitignore file is as follows:

```
.DS_Store
```

At the bottom of the editor, a status bar indicates '[Read 2 lines]'. Below this, a list of keyboard shortcuts is displayed in two rows:

^G Get Help	^O WriteOut	^R Read File	^Y Prev Page	^K Cut Text	^C Cur Pos
^X Exit	^J Justify	^W Where Is	^V Next Page	^U UnCut Text	^T To Spell

5. Desfășurarea primului commit

```
midps — -bash — 80x24

On branch master

Initial commit

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        .gitignore
        README

nothing added to commit but untracked files present (use "git add" to track)
[MacBook-Pro-Alexandr:midps Alexandr$ git add .
[MacBook-Pro-Alexandr:midps Alexandr$ git status
On branch master

Initial commit

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   .gitignore
        new file:   README

MacBook-Pro-Alexandr:midps Alexandr$
```

6. Desfașurarea primului commit

```
midps — -bash — 80x24

  (use "git add <file>..." to include in what will be committed)

        .gitignore
        README

nothing added to commit but untracked files present (use "git add" to track)
[MacBook-Pro-Alexandr:midps Alexandr$ git add .
[MacBook-Pro-Alexandr:midps Alexandr$ git status
On branch master

Initial commit

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   .gitignore
        new file:   README

[MacBook-Pro-Alexandr:midps Alexandr$ git commit -m "Primul commit"
[master (root-commit) 01f9ec2] Primul commit
 2 files changed, 7 insertions(+)
 create mode 100644 .gitignore
 create mode 100644 README
MacBook-Pro-Alexandr:midps Alexandr$
```

7. Setarea unui branch to track a remote origin pe care va putea fi facut push

```
midps — -bash — 80x37
[MacBook-Pro-Alexandr:midps Alexandr$ git commit -m "Primul commit"
[master (root-commit) 01f9ec2] Primul commit
2 files changed, 7 insertions(+)
create mode 100644 .gitignore
create mode 100644 README
[MacBook-Pro-Alexandr:midps Alexandr$ git push
warning: push.default is unset; its implicit value has changed in
Git 2.0 from 'matching' to 'simple'. To squelch this message
and maintain the traditional behavior, use:

    git config --global push.default matching

To squelch this message and adopt the new behavior now, use:

    git config --global push.default simple

When push.default is set to 'matching', git will push local branches
to the remote branches that already exist with the same name.

Since Git 2.0, Git defaults to the more conservative 'simple'
behavior, which only pushes the current branch to the corresponding
remote branch that 'git pull' uses to update the current branch.

See 'git help config' and search for 'push.default' for further information.
(the 'simple' mode was introduced in Git 1.7.11. Use the similar mode
'current' instead of 'simple' if you sometimes use older versions of Git)

Counting objects: 4, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 362 bytes | 0 bytes/s, done.
Total 4 (delta 0), reused 0 (delta 0)
To https://github.com/AlexandrYaltychenko/midps.git
 * [new branch]      master -> master
MacBook-Pro-Alexandr:midps Alexandr$
MacBook-Pro-Alexandr:midps Alexandr$
```

8. Adăugarea unui nou fișier hello.java la repozitoriul github


```
midps — -bash — 80x26

(use "git add <file>..." to include in what will be committed)

    java/

nothing added to commit but untracked files present (use "git add" to track)
MacBook-Pro-Alexandr:midps Alexandr$ git add .
MacBook-Pro-Alexandr:midps Alexandr$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   java/hello.java

MacBook-Pro-Alexandr:midps Alexandr$ git commit -m "Am adaugat fisierul hello.java"
[master 80b3552] Am adaugat fisierul hello.java
 1 file changed, 5 insertions(+)
 create mode 100644 java/hello.java
MacBook-Pro-Alexandr:midps Alexandr$ git push
warning: push.default is unset; its implicit value has changed in
Git 2.0 from 'matching' to 'simple'. To squelch this message
and maintain the traditional behavior, use:

    git config --global push.default matching
```

```
midps — -bash — 80x26

git config --global push.default matching

To squelch this message and adopt the new behavior now, use:

    git config --global push.default simple

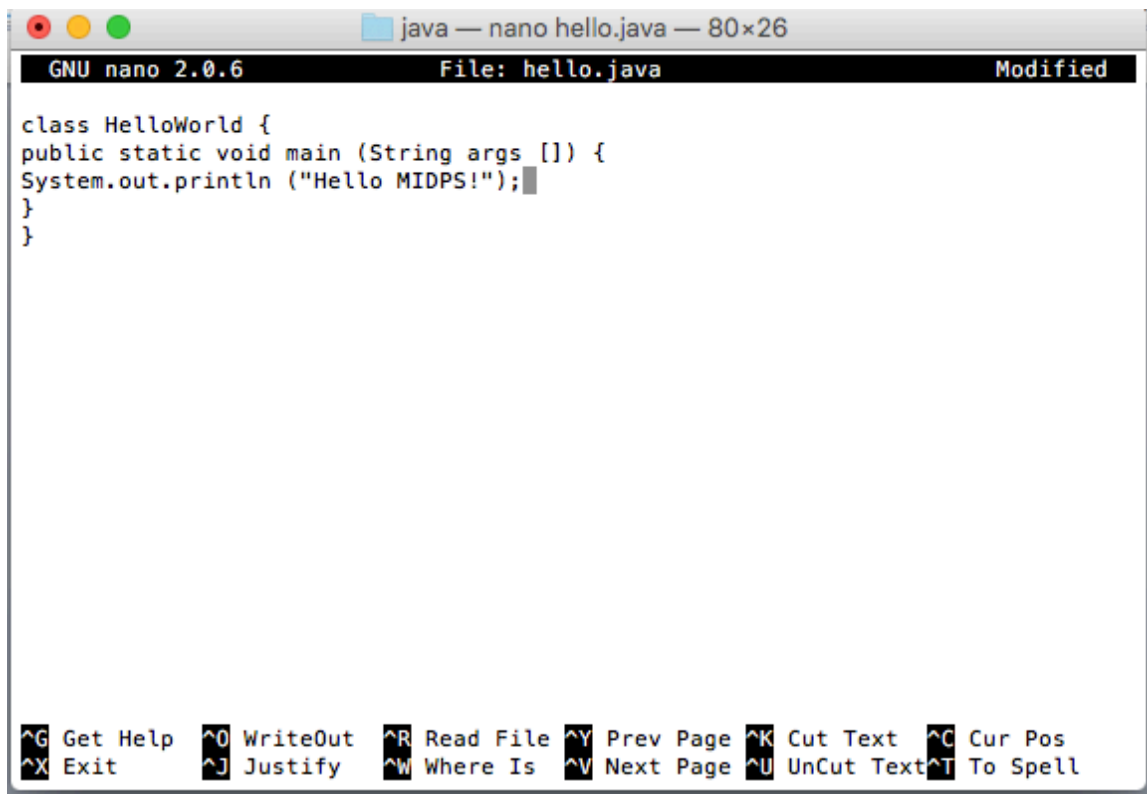
When push.default is set to 'matching', git will push local branches
to the remote branches that already exist with the same name.

Since Git 2.0, Git defaults to the more conservative 'simple'
behavior, which only pushes the current branch to the corresponding
remote branch that 'git pull' uses to update the current branch.

See 'git help config' and search for 'push.default' for further information.
(the 'simple' mode was introduced in Git 1.7.11. Use the similar mode
'current' instead of 'simple' if you sometimes use older versions of Git)

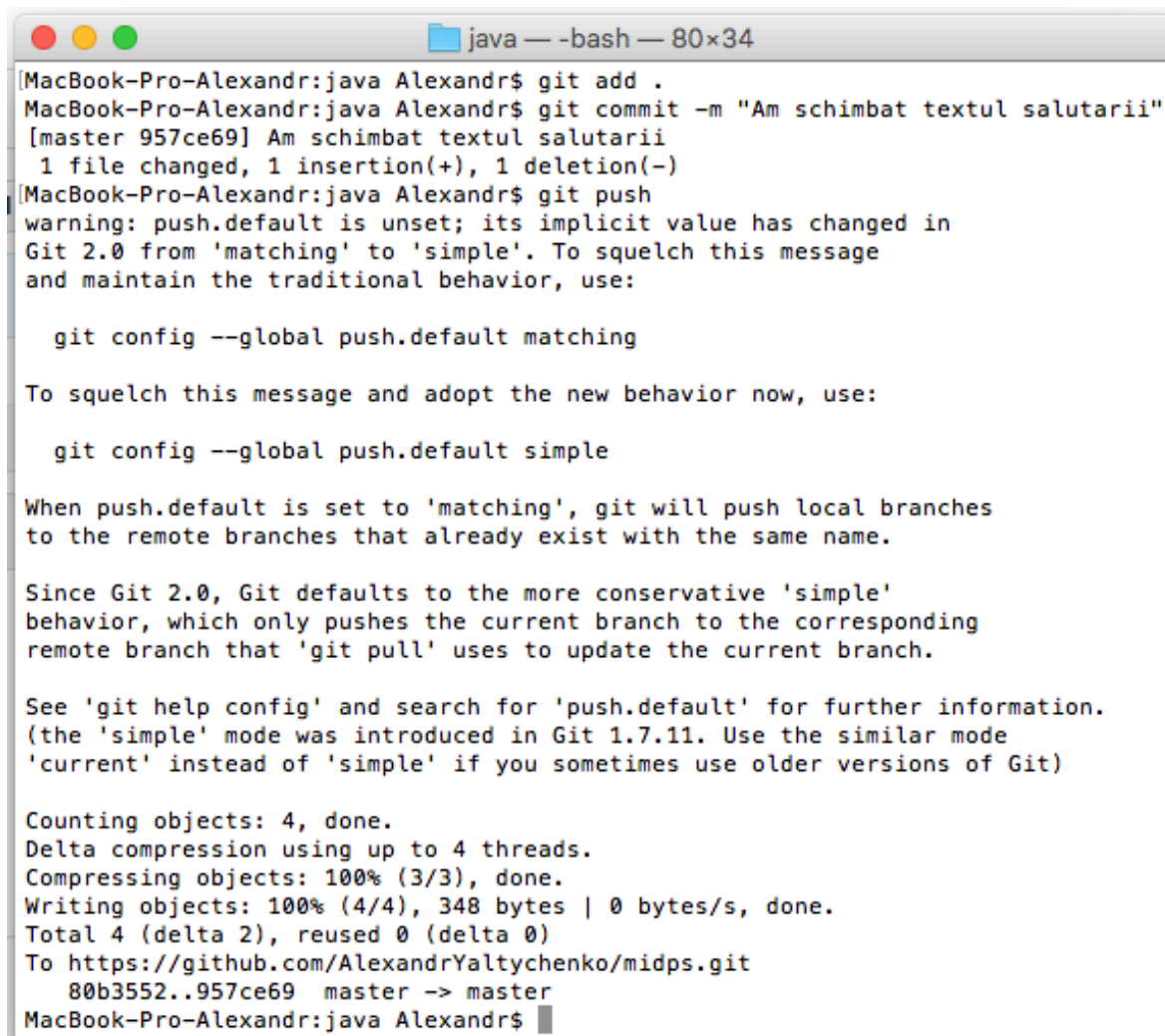
Counting objects: 4, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 458 bytes | 0 bytes/s, done.
Total 4 (delta 0), reused 0 (delta 0)
To https://github.com/AlexandrYaltychenko/midps.git
 01f9ec2..80b3552 master -> master
MacBook-Pro-Alexandr:midps Alexandr$
```


9. Editarea mesajului afișat în hello.java



```
class HelloWorld {
public static void main (String args []) {
System.out.println ("Hello MIDPS!");
}
}
```

10. Încă un commit si push



```
MacBook-Pro-Alexandr:java Alexandr$ git add .
MacBook-Pro-Alexandr:java Alexandr$ git commit -m "Am schimbat textul salutarii"
[master 957ce69] Am schimbat textul salutarii
 1 file changed, 1 insertion(+), 1 deletion(-)
MacBook-Pro-Alexandr:java Alexandr$ git push
warning: push.default is unset; its implicit value has changed in
Git 2.0 from 'matching' to 'simple'. To squelch this message
and maintain the traditional behavior, use:

  git config --global push.default matching

To squelch this message and adopt the new behavior now, use:

  git config --global push.default simple

When push.default is set to 'matching', git will push local branches
to the remote branches that already exist with the same name.

Since Git 2.0, Git defaults to the more conservative 'simple'
behavior, which only pushes the current branch to the corresponding
remote branch that 'git pull' uses to update the current branch.

See 'git help config' and search for 'push.default' for further information.
(the 'simple' mode was introduced in Git 1.7.11. Use the similar mode
'current' instead of 'simple' if you sometimes use older versions of Git)

Counting objects: 4, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 348 bytes | 0 bytes/s, done.
Total 4 (delta 2), reused 0 (delta 0)
To https://github.com/AlexandrYaltychenko/midps.git
 80b3552..957ce69  master -> master
MacBook-Pro-Alexandr:java Alexandr$
```

11. Implementarea recomandărilor lui git pentru ca warning-urile să nu fie afișate

```
java — -bash — 80×34
[master 957ce69] Am schimbat textul salutarilor
 1 file changed, 1 insertion(+), 1 deletion(-)
[MacBook-Pro-Alexandr:java Alexandr$ git push
warning: push.default is unset; its implicit value has changed in
Git 2.0 from 'matching' to 'simple'. To squelch this message
and maintain the traditional behavior, use:

    git config --global push.default matching

To squelch this message and adopt the new behavior now, use:

    git config --global push.default simple

When push.default is set to 'matching', git will push local branches
to the remote branches that already exist with the same name.

Since Git 2.0, Git defaults to the more conservative 'simple'
behavior, which only pushes the current branch to the corresponding
remote branch that 'git pull' uses to update the current branch.

See 'git help config' and search for 'push.default' for further information.
(the 'simple' mode was introduced in Git 1.7.11. Use the similar mode
'current' instead of 'simple' if you sometimes use older versions of Git)

Counting objects: 4, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 348 bytes | 0 bytes/s, done.
Total 4 (delta 2), reused 0 (delta 0)
To https://github.com/AlexandrYaltychenko/midps.git
 80b3552..957ce69  master -> master
[MacBook-Pro-Alexandr:java Alexandr$ git config --global push.default matching
[MacBook-Pro-Alexandr:java Alexandr$ git config --global push.default simple
[MacBook-Pro-Alexandr:java Alexandr$
```

12. Crearea branch-ului 'another' și selectarea acestuia

```
java — -bash — 80×34
[MacBook-Pro-Alexandr:java Alexandr$ git branch another
[MacBook-Pro-Alexandr:java Alexandr$ git checkout another
Switched to branch 'another'
[MacBook-Pro-Alexandr:java Alexandr$ git status
On branch another
nothing to commit, working directory clean
[MacBook-Pro-Alexandr:java Alexandr$
```

13. Găsirea soluției pe Stack Overflow cum poate fi ușor îndeplinită resetarea ultimului commit

7 Answers

active oldest votes

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231
▼

```
git reset --hard HEAD~1
git push -f <remote> <branch>
```

(Example push: `git push -f origin bugfix/bug123`)



This will undo the last commit and push the updated history to the remote. You need to pass the `-f` because you're replacing upstream history in the remote.

[share](#) [improve this answer](#)

edited Jan 13 at 8:59



[Steve Chambers](#)
8,135 ● 6 ● 36 ● 71

answered Jun 23 '11 at 18:51



[Alexander Groß](#)
6,432 ● 1 ● 17 ● 25

14. Verificarea git-log-ului al branch-ului 'another' si resetarea ultimului commit

```
midps — -bash — 80x24

[MacBook-Pro-Alexandr:midps Alexandr$ git log
commit 957ce697c94be1c0a7c530a392846be8a90787f6
Author: Alexandr <sashaia1t95@gmail.com>
Date:   Wed Mar 16 16:29:41 2016 +0200

    Am schimbat textul salutariei

commit 80b3552da13b159d12b429f723a0a9316643de2c
Author: Alexandr <sashaia1t95@gmail.com>
Date:   Wed Mar 16 16:07:54 2016 +0200

    Am adaugat fisierul hello.java

commit 01f9ec2418c3232ab32400e7d8d62ac972ac7264
Author: Alexandr <sashaia1t95@gmail.com>
Date:   Wed Mar 16 15:59:45 2016 +0200

    Primul commit
[MacBook-Pro-Alexandr:midps Alexandr$ git status
On branch another
nothing to commit, working directory clean
[MacBook-Pro-Alexandr:midps Alexandr$ git reset --hard HEAD~1
HEAD is now at 80b3552 Am adaugat fisierul hello.java
MacBook-Pro-Alexandr:midps Alexandr$
```

15. Încă un push

```
Am adaugat fisierul hello.java

commit 01f9ec2418c3232ab32400e7d8d62ac972ac7264
Author: Alexandr <sashaia1t95@gmail.com>
Date:   Wed Mar 16 15:59:45 2016 +0200

    Primul commit
[MacBook-Pro-Alexandr:midps Alexandr$ git status
On branch another
nothing to commit, working directory clean
[MacBook-Pro-Alexandr:midps Alexandr$ git reset --hard HEAD~1
HEAD is now at 80b3552 Am adaugat fisierul hello.java
[MacBook-Pro-Alexandr:midps Alexandr$ git push
fatal: The current branch another has no upstream branch.
To push the current branch and set the remote as upstream, use

    git push --set-upstream origin another

[MacBook-Pro-Alexandr:midps Alexandr$ git push --set-upstream origin another
Total 0 (delta 0), reused 0 (delta 0)
To https://github.com/AlexandrYaltychenko/midps.git
 * [new branch]      another -> another
Branch another set up to track remote branch another from origin.
MacBook-Pro-Alexandr:midps Alexandr$
```

16. Încă o editare a fișierului hello.java (branch-ul 'another')

```
[MacBook-Pro-Alexandr:java Alexandr$ cat hello.java
class HelloWorld {
public static void main (String args []) {
System.out.println ("Hello World");
}
}
[MacBook-Pro-Alexandr:java Alexandr$ nano hello.java
[MacBook-Pro-Alexandr:java Alexandr$ cd..
-bash: cd..: command not found
[MacBook-Pro-Alexandr:java Alexandr$ cd ..
[MacBook-Pro-Alexandr:midps Alexandr$ git status
On branch another
Your branch is up-to-date with 'origin/another'.
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:   java/hello.java

no changes added to commit (use "git add" and/or "git commit -a")
[MacBook-Pro-Alexandr:midps Alexandr$ git add .
[MacBook-Pro-Alexandr:midps Alexandr$ git commit -m "Am adaugat in salutare cuvin
tul Chisinau"
[another 99aebfa] Am adaugat in salutare cuvintul Chisinau
```

17. Selectarea branch-ului 'master'

```
midps — -bash — 80x24
[MacBook-Pro-Alexandr:midps Alexandr$ git checkout master
Switched to branch 'master'
Your branch is up-to-date with 'origin/master'.
MacBook-Pro-Alexandr:midps Alexandr$
```

17. Verificarea log-ului si “branch merging” (apare conflictul)

```
midps — -bash — 80x24
Your branch is up-to-date with 'origin/master'.
[MacBook-Pro-Alexandr:midps Alexandr$ git log
commit 957ce697c94be1c0a7c530a392846be8a90787f6
Author: Alexandr <sashaia1t95@gmail.com>
Date:   Wed Mar 16 16:29:41 2016 +0200

    Am schimbat textul salutariei

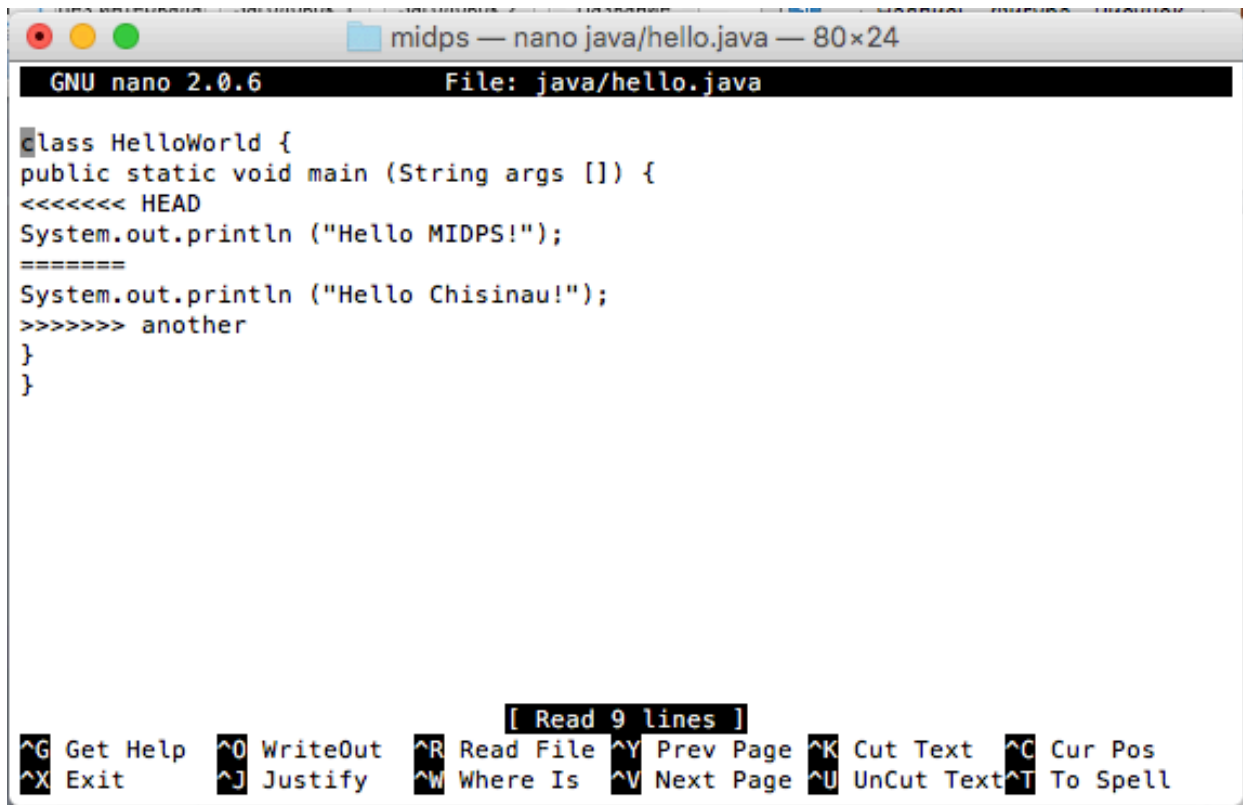
commit 80b3552da13b159d12b429f723a0a9316643de2c
Author: Alexandr <sashaia1t95@gmail.com>
Date:   Wed Mar 16 16:07:54 2016 +0200

    Am adaugat fisierul hello.java

commit 01f9ec2418c3232ab32400e7d8d62ac972ac7264
Author: Alexandr <sashaia1t95@gmail.com>
Date:   Wed Mar 16 15:59:45 2016 +0200

    Primul commit
[MacBook-Pro-Alexandr:midps Alexandr$ git merge another
Auto-merging java/hello.java
CONFLICT (content): Merge conflict in java/hello.java
Automatic merge failed; fix conflicts and then commit the result.
MacBook-Pro-Alexandr:midps Alexandr$
```

18. Soluționarea conflictului prin editarea fișierului hello.java

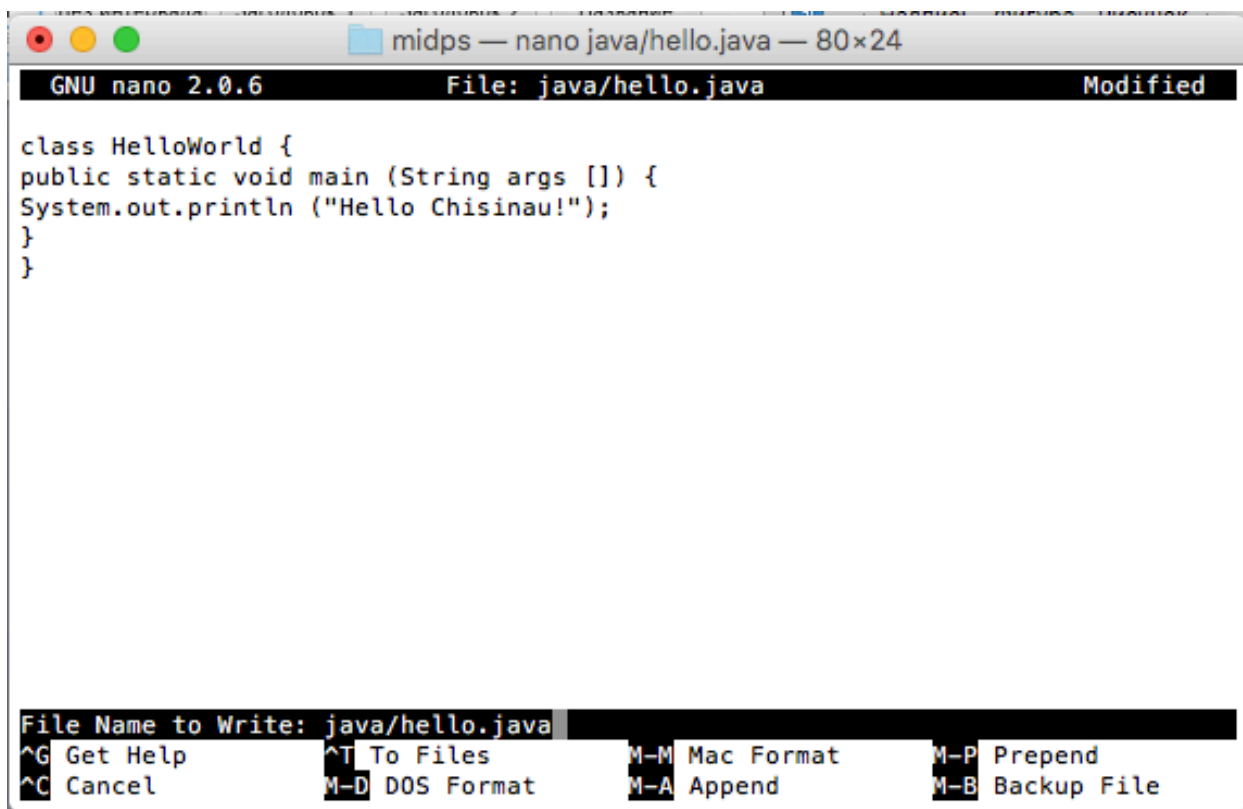


```
GNU nano 2.0.6 File: java/hello.java

class HelloWorld {
public static void main (String args []) {
<<<<<<< HEAD
System.out.println ("Hello MIDPS!");
=====
System.out.println ("Hello Chisinau!");
>>>>>>> another
}
}
```

[Read 9 lines]

^G Get Help **^O** WriteOut **^R** Read File **^Y** Prev Page **^K** Cut Text **^C** Cur Pos
^X Exit **^J** Justify **^W** Where Is **^V** Next Page **^U** UnCut Text **^T** To Spell



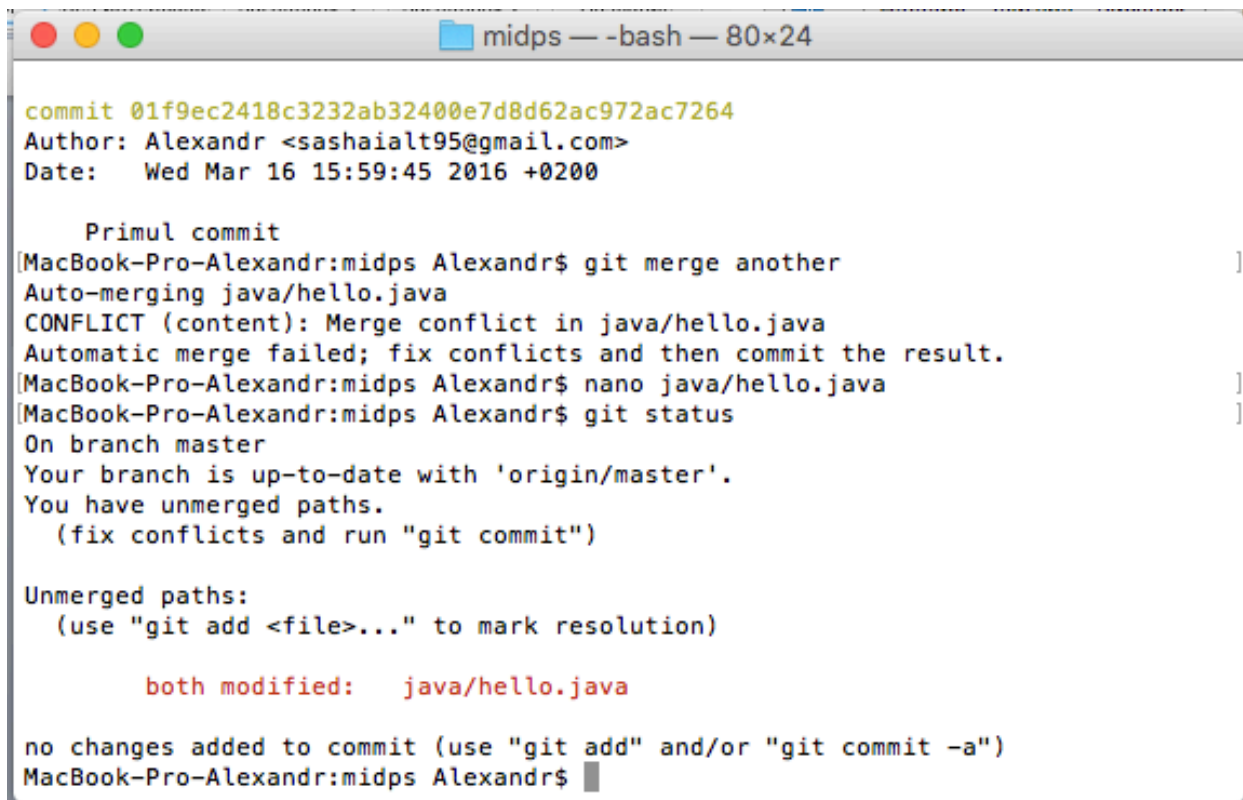
```
GNU nano 2.0.6 File: java/hello.java Modified

class HelloWorld {
public static void main (String args []) {
System.out.println ("Hello Chisinau!");
}
}
```

File Name to Write: java/hello.java

^G Get Help **^T** To Files **M-M** Mac Format **M-P** Prepend
^C Cancel **M-D** DOS Format **M-A** Append **M-B** Backup File

19. Terminarea procesului de «branch merging»

A terminal window titled 'midps — -bash — 80x24' showing a series of git commands and their outputs. The output includes a commit hash, author information, a message about the first commit, a failed merge attempt with a conflict in 'java/hello.java', and the status of unmerged paths. The user is prompted to resolve the conflict and commit the changes.

```
commit 01f9ec2418c3232ab32400e7d8d62ac972ac7264
Author: Alexandr <sashaia1t95@gmail.com>
Date:   Wed Mar 16 15:59:45 2016 +0200

    Primul commit
[MacBook-Pro-Alexandr:midps Alexandr$ git merge another
Auto-merging java/hello.java
CONFLICT (content): Merge conflict in java/hello.java
Automatic merge failed; fix conflicts and then commit the result.
[MacBook-Pro-Alexandr:midps Alexandr$ nano java/hello.java
[MacBook-Pro-Alexandr:midps Alexandr$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
You have unmerged paths.
  (fix conflicts and run "git commit")

Unmerged paths:
  (use "git add <file>..." to mark resolution)

        both modified:   java/hello.java

no changes added to commit (use "git add" and/or "git commit -a")
MacBook-Pro-Alexandr:midps Alexandr$
```

Bonus Point:

Bash-script-ul pentru compilarea hello_world-urilor in limbaje C, Java, C++, Python:

```
#!/bin/bash
gcc hello_c.c -o hello_c
javac hello_java.java
g++ hello_c++.cpp -o hello_c++
python -m py_compile hello_python.py
```

Concluziile

În cadrul acestei lucrări de laborator am studiat principiile și modul de utilizare a sistemului de control al versiunilor – Git. Prin intermediul CL am configurat SSH autentificarea, am făcut primul git commit și am sincronizat dispozitoriul local cu cel remote, plasat pe server. Cunoștințele, obținute pe parcursul desfășurării lucrării de laborator vor fi foarte utile pentru realizarea proiectelor, ce urmeaza.