Ministerul Educatiei al Republicii Moldova

Universitatea Tehnică a Moldovei

Catedra: Tehnologii informationale

RAPORT

Lucrare de laborator Nr. 2

la MIDPS

A efectuat: *st.gr.TI-143*
Gaina Cristin

A verificat: *lect.sup.*
Cojocaru S.

Chişinău 2016

Tema: Version Control Systems si modul de setare a unui server

Obiective:

- 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

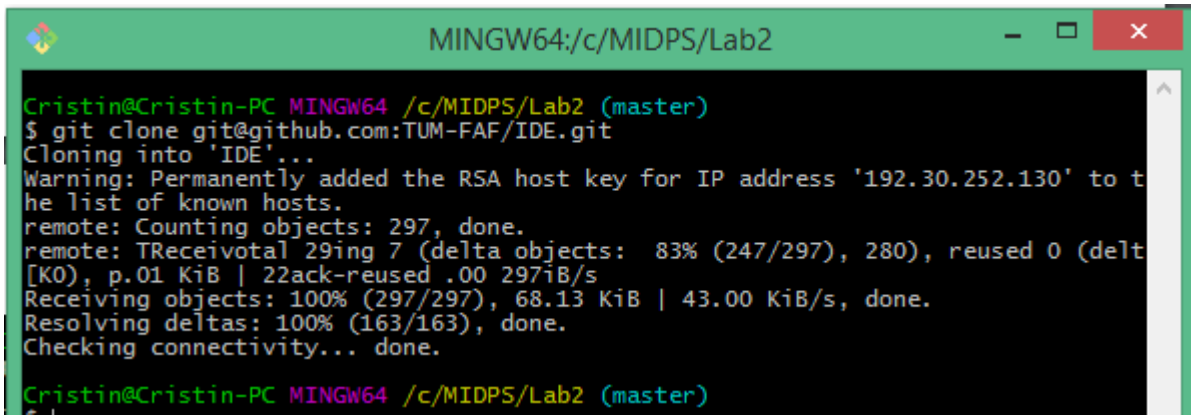
Laboratory Requirements:

- *Basic Level* (nota 5 || 6) :
  - conecteaza-te la server folosind SSH
  - compileaza cel putin 2 sample programs din setul HelloWolrdPrograms folosind CLI
  - executa primul commit folosind VCS
- *Normal Level* (nota 7 || 8):
  - initializeaza un nou repositoriu
  - configureaza-ti VCS
  - crearea branch-urilor (creeaza cel putin 2 branches)
  - commit pe ambele branch-uri (cel putin 1 commit per branch)
- *Advanced Level* (nota 9 || 10):
  - seteaza un branch to track a remote origin pe care vei putea sa faci push (ex. Github, Bitbucket or custom server)
  - reseteaza un branch la commit-ul anterior
  - merge 2 branches
  - rezolvarea conflictelor a 2 branches
- *Bonus Point*:
  - Scrie un script care va compila HelloWolrdPrograms projects. vezi lista

Implementarea Task-uri:

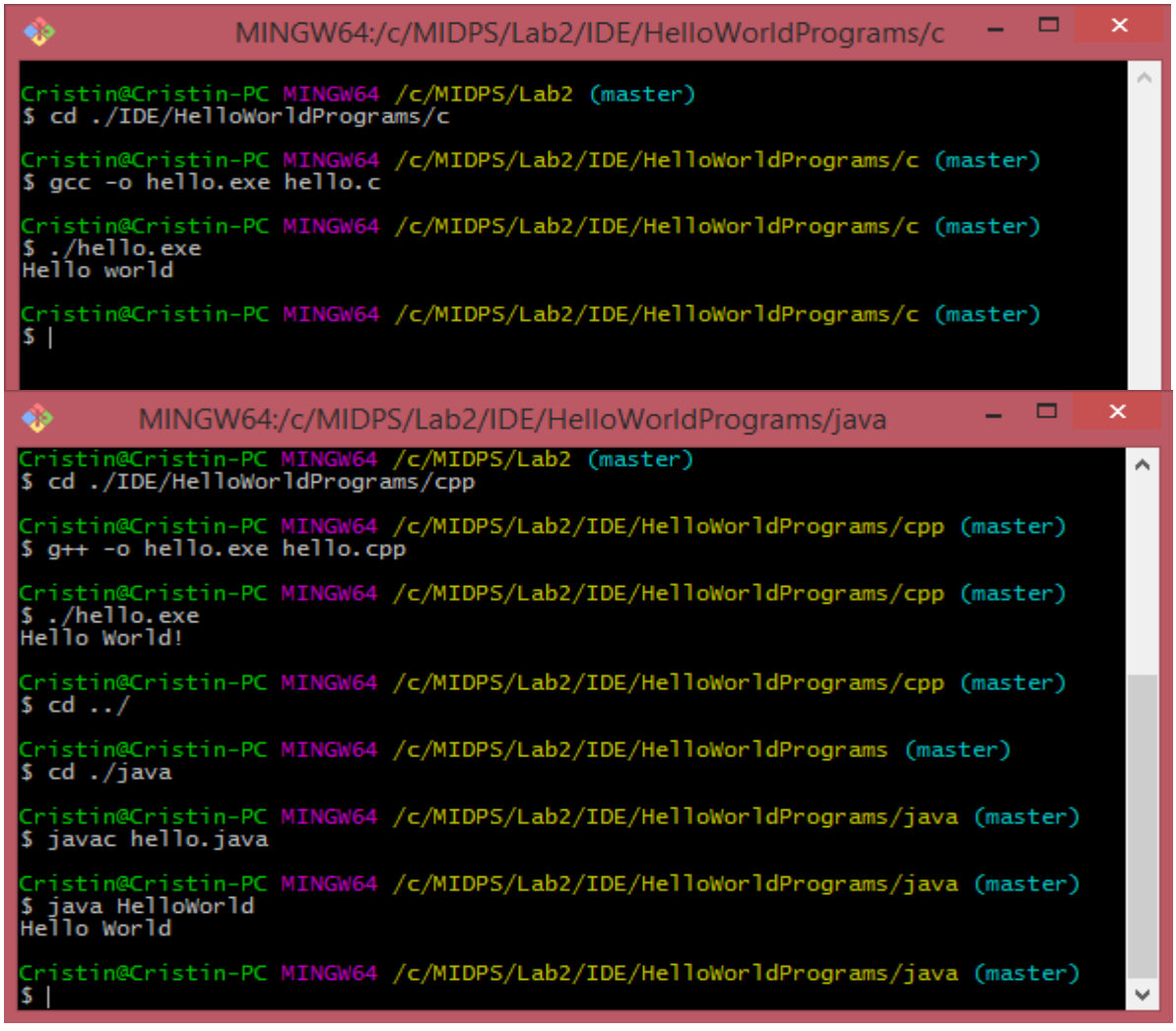
- *Basic Level* (nota 5 || 6) :

conecteaza-te la server folosind SSH

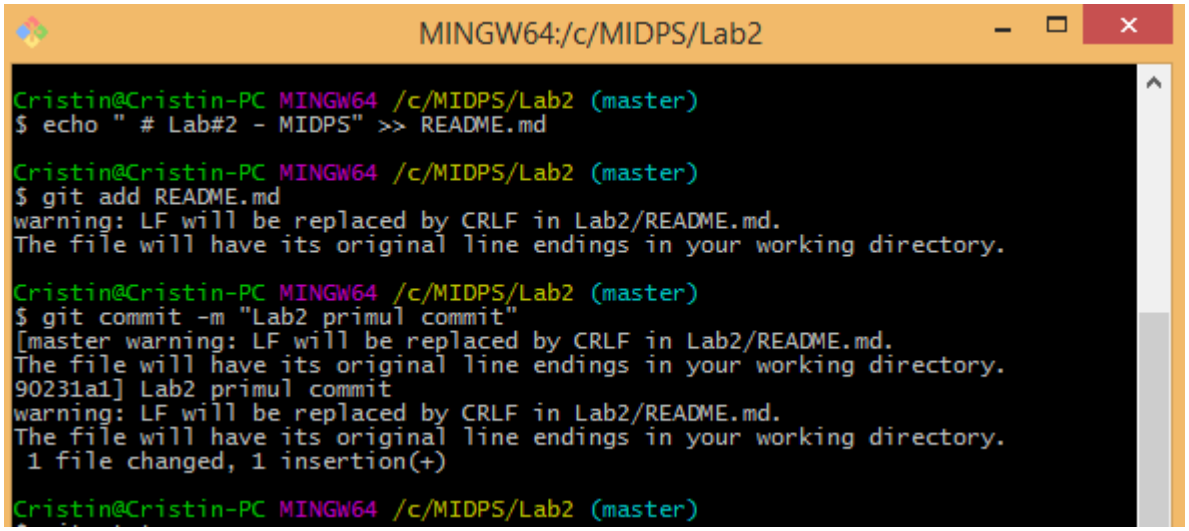


Cu ajutorul comenzii ***git clone*** am facut clonare la repozitoriu folosind ssh.

- compileaza cel putin 2 sample programs din setul HelloWolrdPrograms folosind CLI



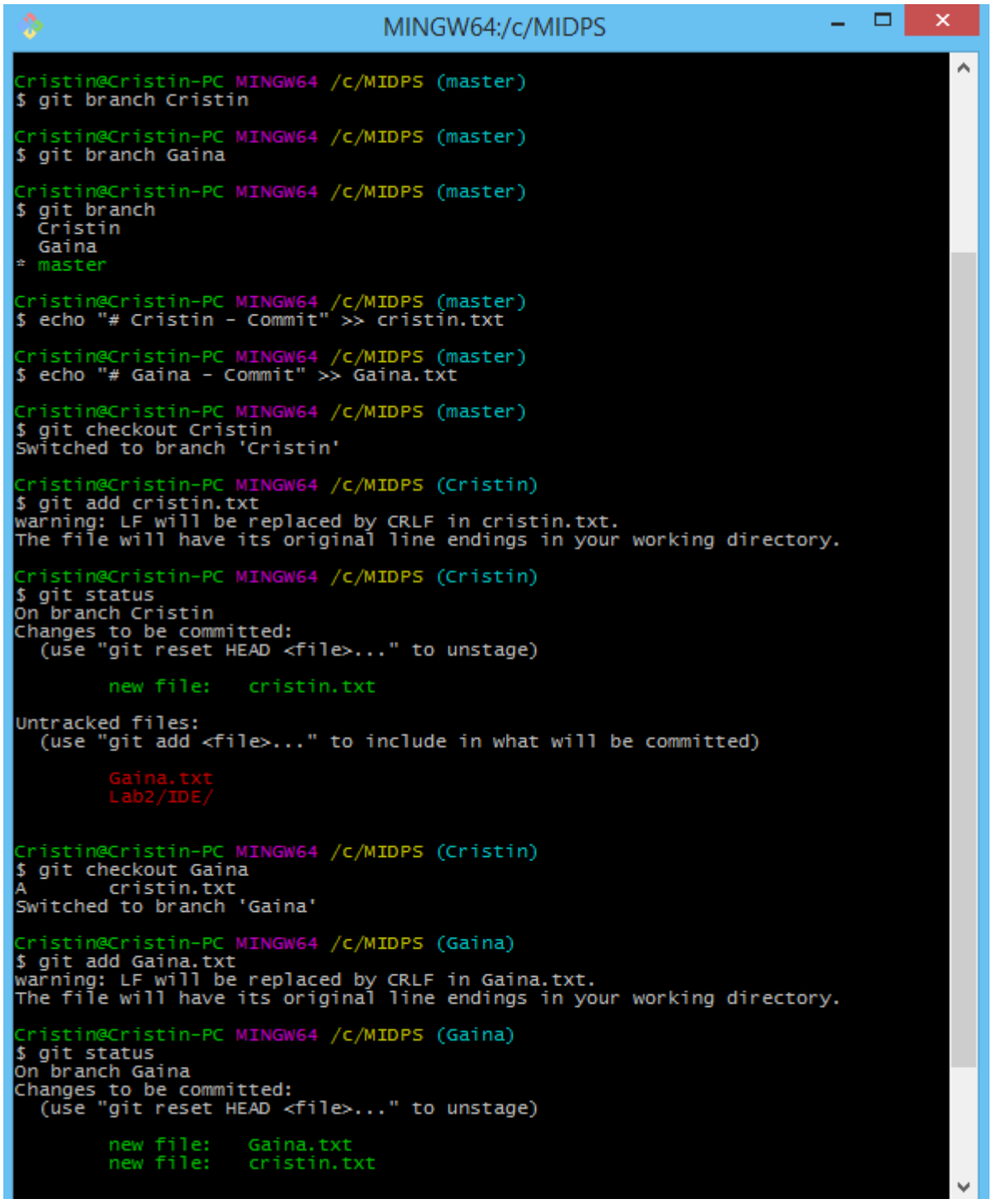
- executa primul commit folosind VCS



- *Normal Level* (nota 7 || 8):
  - initializeaza un nou repositoriu
  - configureaza-ti VCS
  - crearea branch-urilor (creeaza cel putin 2 branches)
  - commit pe ambele branch-uri (cel putin 1 commit per branch)

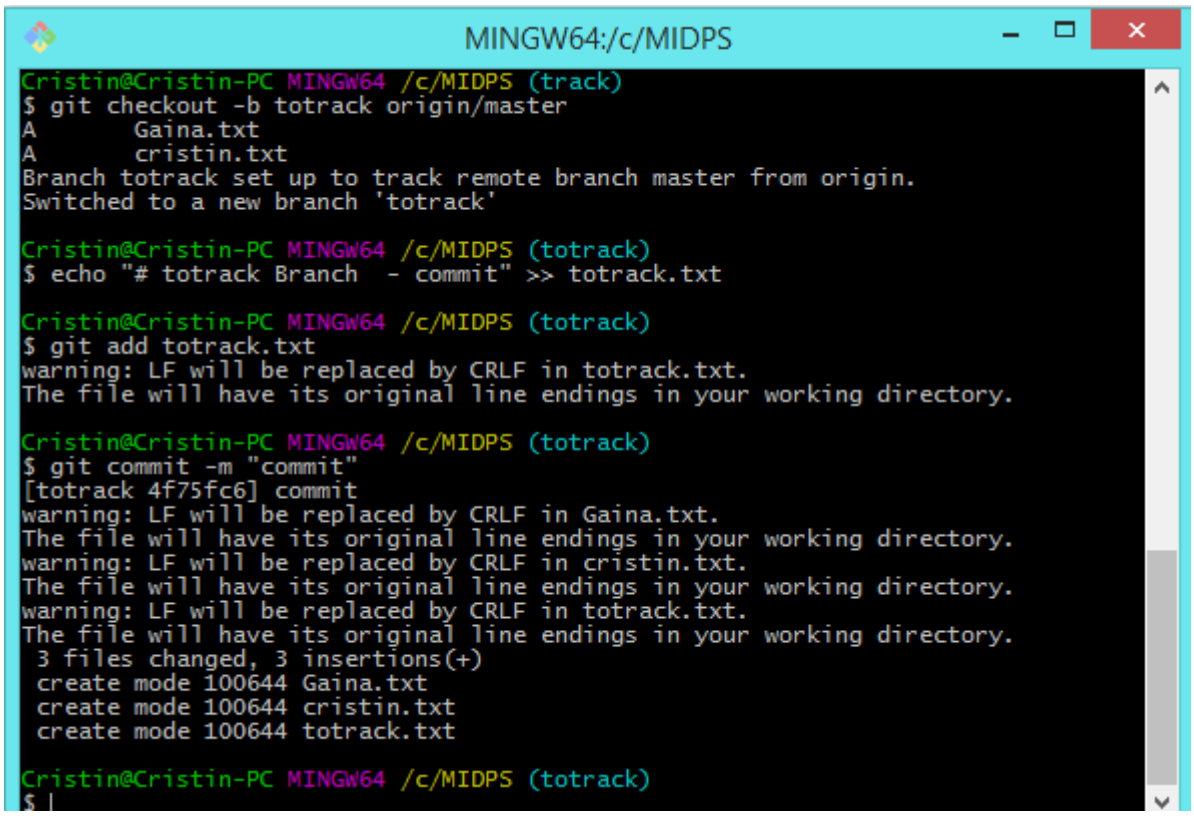
  - initializeaza un nou repositoriu
  - configureaza-ti VCS

- crearea branch-urilor (creeaza cel putin 2 branches)
- commit pe ambele branch-uri (cel putin 1 commit per branch)

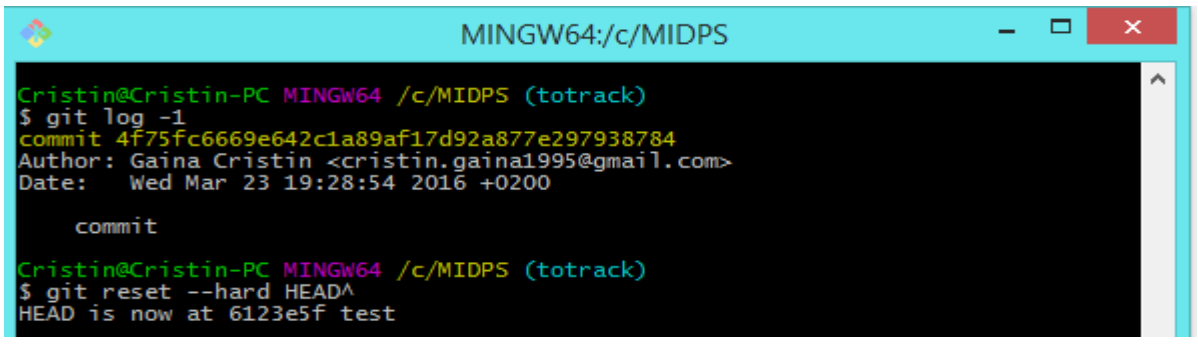


- *Advanced Level* (nota 9 || 10):
  - seteaza un branch to track a remote origin pe care vei putea sa faci push (ex. Github, Bitbucket or custom server)
  - reseteaza un branch la commit-ul anterior
  - merge 2 branches
  - rezolvarea conflictelor a 2 branches

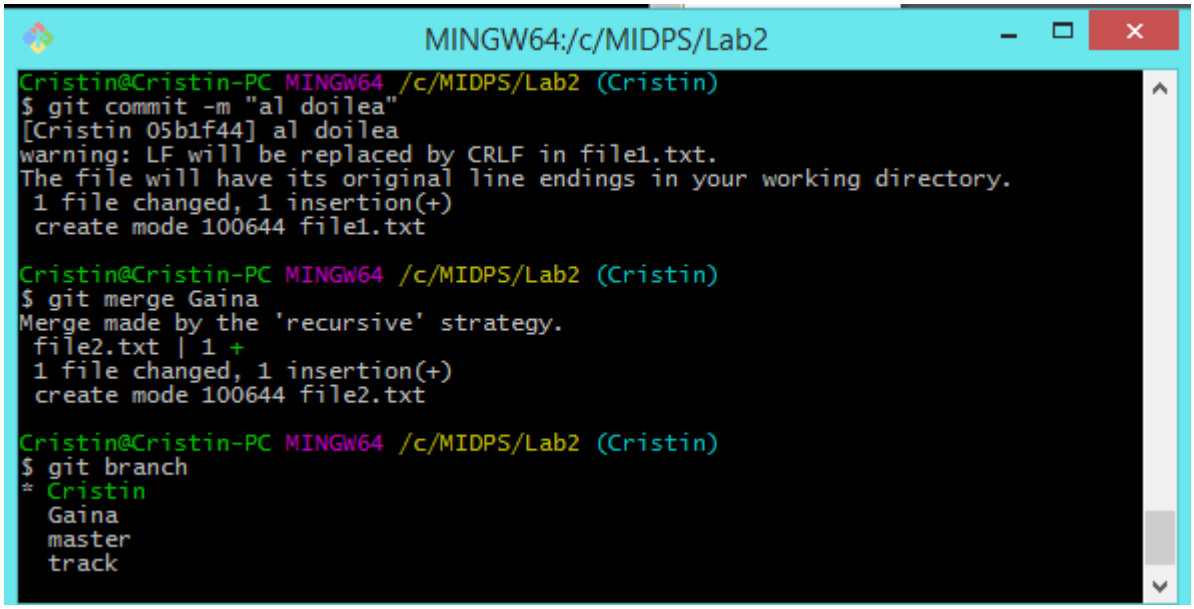
  - seteaza un branch to track a remote origin pe care vei putea sa faci push (ex. Github, Bitbucket or custom server)



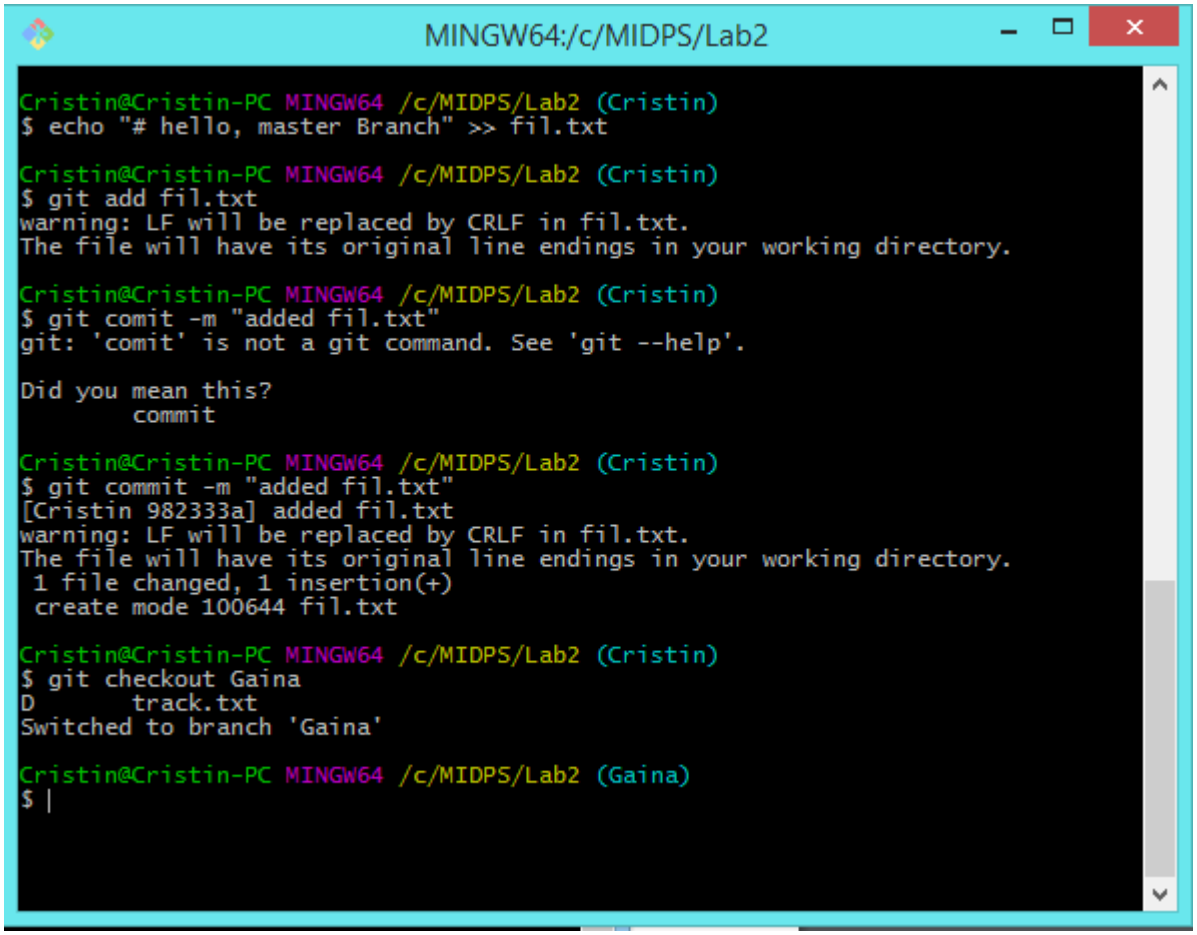
  - reseteaza un branch la commit-ul anterior

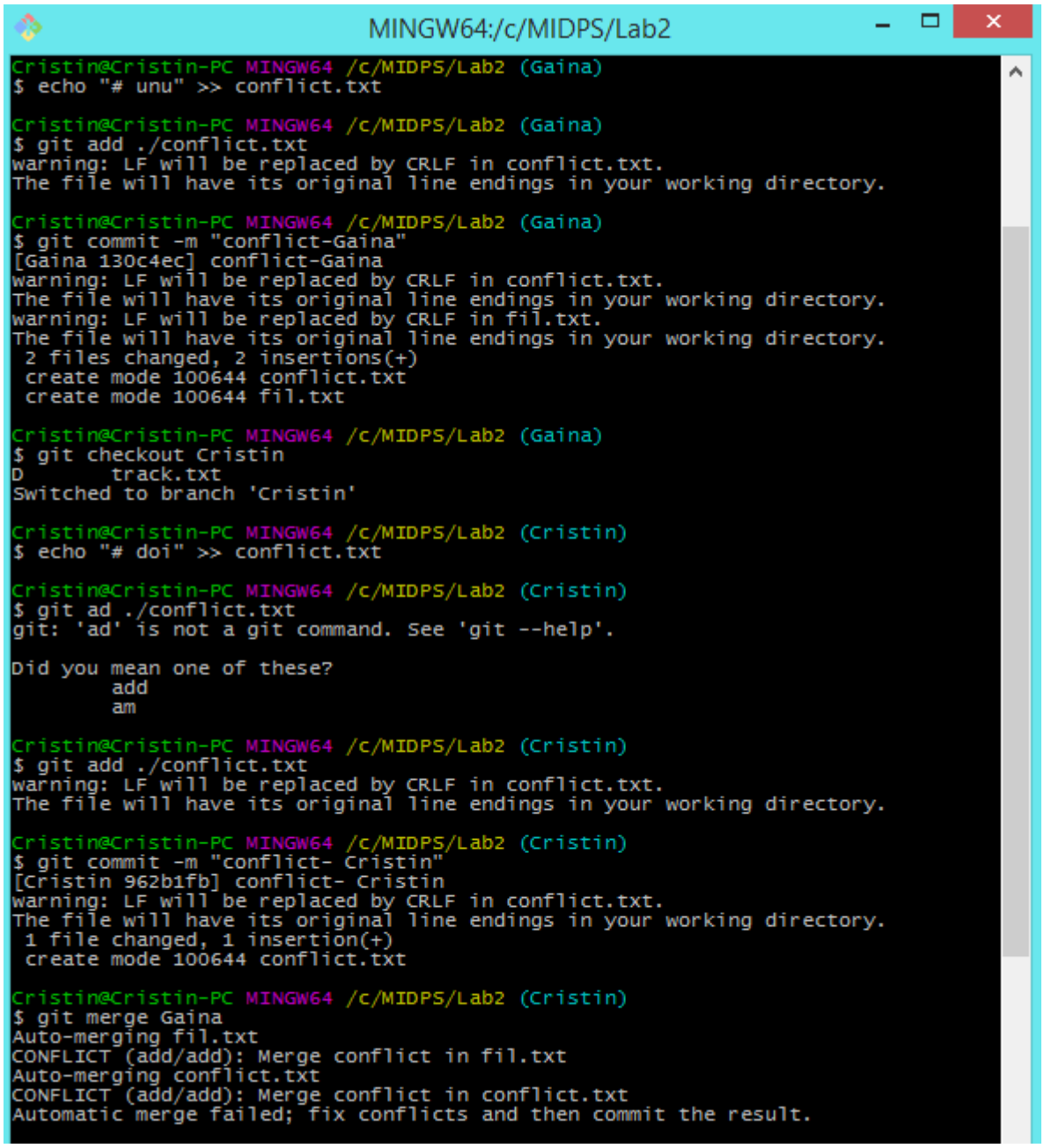


- merge 2 branches

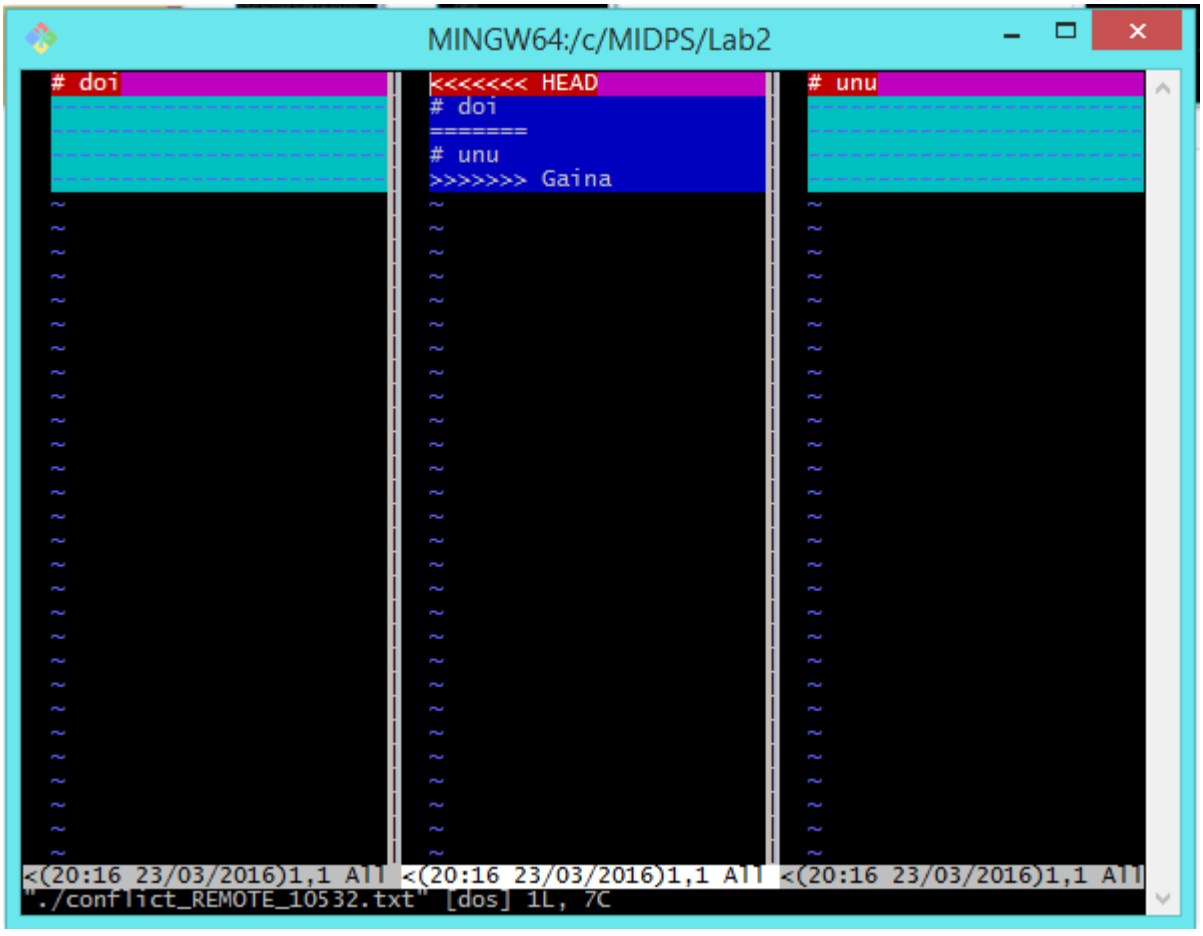


- rezolvarea conflictelor a 2 branches

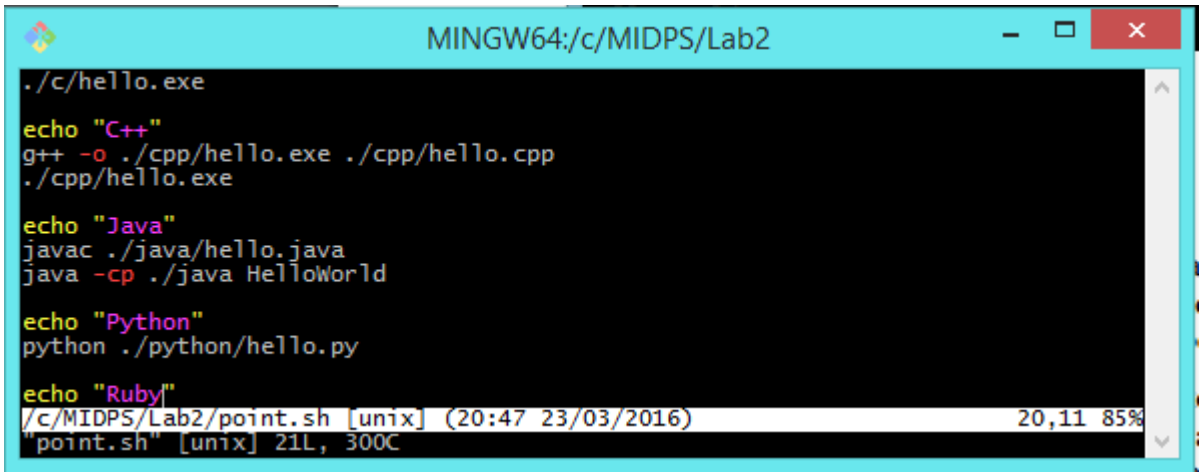


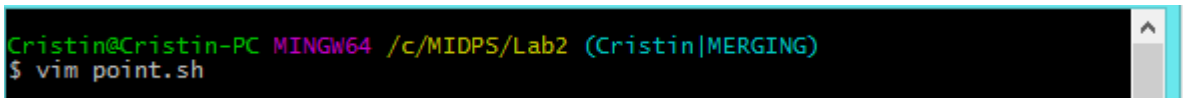

MINGW64:/c/MIDPS/Lab2
Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Gaina)
$ echo "# unu" >> conflict.txt
Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Gaina)
$ git add ./conflict.txt
warning: LF will be replaced by CRLF in conflict.txt.
The file will have its original line endings in your working directory.
Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Gaina)
$ git commit -m "conflict-Gaina"
[Gaina 130c4ec] conflict-Gaina
warning: LF will be replaced by CRLF in conflict.txt.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in fil.txt.
The file will have its original line endings in your working directory.
2 files changed, 2 insertions(+)
create mode 100644 conflict.txt
create mode 100644 fil.txt
Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Gaina)
$ git checkout Cristin
D track.txt
Switched to branch 'Cristin'
Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Cristin)
$ echo "# doi" >> conflict.txt
Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Cristin)
$ git ad ./conflict.txt
git: 'ad' is not a git command. See 'git --help'.
Did you mean one of these?
add
am
Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Cristin)
$ git add ./conflict.txt
warning: LF will be replaced by CRLF in conflict.txt.
The file will have its original line endings in your working directory.
Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Cristin)
$ git commit -m "conflict- Cristin"
[Cristin 962b1fb] conflict- Cristin
warning: LF will be replaced by CRLF in conflict.txt.
The file will have its original line endings in your working directory.
1 file changed, 1 insertion(+)
create mode 100644 conflict.txt
Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Cristin)
$ git merge Gaina
Auto-merging fil.txt
CONFLICT (add/add): Merge conflict in fil.txt
Auto-merging conflict.txt
CONFLICT (add/add): Merge conflict in conflict.txt
Automatic merge failed; fix conflicts and then commit the result.

```
Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Cristin|MERGING)
$ git mergetool

This message is displayed because 'merge.tool' is not configured.
See 'git mergetool --tool-help' or 'git help config' for more details.
'git mergetool' will now attempt to use one of the following tools:
opendiff kdiff3 tkdiff xxdiff meld tortoisemerge gvimdiff diffuse diffmerge ecme
rge p4merge araxis bc codecompare emerge vimdiff
Merging:
conflict.txt
fil.txt

Normal merge conflict for 'conflict.txt':
  {local}: created file
  {remote}: created file
Hit return to start merge resolution tool (vimdiff):
3 files to edit
conflict.txt seems unchanged.
Was the merge successful? [y/n] y

Normal merge conflict for 'fil.txt':
  {local}: created file
  {remote}: created file
Hit return to start merge resolution tool (vimdiff):
3 files to edit
fil.txt seems unchanged.
Was the merge successful? [y/n] y

Cristin@Cristin-PC MINGW64 /c/MIDPS/Lab2 (Cristin|MERGING)
$
```



- *Bonus Point*:
  - Scrie un script care va compila HelloWolrdPrograms projects. vezi lista





Concluzie:

In cadrul aceastei lucrari de laborator am facut cunostinta cu Git care este folosit si raspindit foarte vertiginous in cadrul companilor mari pentru lucrul in echipa. Am capatat primele deprinderi cu comenzile din Git care o sa ne ajute foarte mult in viitor in cadrul dezvoltarii unui proiect in grup. Am obtinut primele deprinderi cu comenzile de compilare a codului direct din CLI. GIT-ul poate fi considerat ca fiind unul dintrecelemai populare DVCS si unul dintre cele mai comode .