

Ministerul Educației și Tineretului al Republicii Moldova

Universitatea Tehnică a Moldovei

Facultatea Calculatoare Informatică și Microelectronică

Catedra Automatica și Tehnologii Informaționale

Raport

MIDPS

Lucrarea de laborator Nr. 2

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

A efectuat:

studentul grupei TI-141: **Benea Leonid**

A verificat:

lector asistent: **Irina Cojanu**

lector superior: **Svetlana Cojocaru**

LUCRARE DE LABORATOR #2

1. Scopul lucrării

Înșușirea noțiunii de Version Control Systems și a modului de setare a unui server.

2. Obiectivele lucrării

a) Înțelegerea și folosirea CLI (basic level) b) Administrarea remote a mașinilor linux machine folosind SSH (remote code editing) c) Version Control Systems (git || mercurial || svn) d) Compilează codul C/C++/Java/Python prin intermediul CLI, folosind compilatoarele gcc/g++/javac/python

3. Efectuarea lucrării de laborator

3.1. Task-uri implementate

Basic Level (nota 5 || 6):

- conectează-te la server folosind SSH - o compilează cel puțin 2 sample programs din setul HelloWorldPrograms folosind CLI - o execută primul commit folosind VCS

Normal Level (nota 7 || 8):

- inițializează un nou repository - configurează-ți VCS - crearea branch-urilor (creează cel puțin 2 branches) - commit pe ambele branch-uri (cel puțin 1 commit per branch)

Advanced Level (nota 9 || 10):

- setează un branch to track a remote origin pe care vei putea sa 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: c, cpp, java, python, ruby.

3.2. Realizarea lucrării de laborator

- conectează-te la server folosind SSH

```

Leonid@CTRLSOFT-4D0712 MINGW64 ~/Desktop (master)
$ ssh-keygen -t rsa -b 4096 -C "www.leo_md@mail.ru"
Generating public/private rsa key pair.
Enter file in which to save the key (/c/Users/Leonid/.ssh/id_rsa):
/c/Users/Leonid/.ssh/id_rsa already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /c/Users/Leonid/.ssh/id_rsa.
Your public key has been saved in /c/Users/Leonid/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:NBilusYfo0gwn8LwMdDZZehsWhL2PcpnDHJR/ag6jiY www.leo_md@mail.ru
The key's randomart image is:
+---[RSA 4096]-----+
|.. o +*o.|
|.= +o o.|
|+.o=.o. oo|
|o=o=O. oo...|
|..=O++oo5|
| o.ooo=o|
| . .+.|
|E ..o|
| o....|
+-----[SHA256]-----+

```

Title

MyKey

Key

```

ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQChGQ+xoKV1k+vk2Hm4MJ283um1uyF4owLnI417FJP4NH1WoHFVfurwP
bKxzkez8hX5UyXt9jUgPIJhwjMpcZKLLwnqVTs6zt1/hHoeyoXaZD50uuDBzk7gK1f+umXZLkuXdDfLcCbzdIR4jSThvvq
WMEml8MSWmJmcYvrjoq0BblmT+Om7d9wXbbv
/3skYJKz44LyKUBTp9m3G1yJyEQjkl0ypSisT1QvDzJmZxFQyf7mZvQ8q9XGk0nsnsaxrh05i17cnU/Eh/Y7
//NJY8JvzGlekCzwI3QkfMzJ9k+8lUCGNr9e1tK+FA11rfVsmixi6rR9go8ukDgcKq190SR camudlub@gmail.com

```

```

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS
$ git int
git: 'int' is not a git command. See 'git --help'.

Did you mean this?
    init

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS
$ git init
Initialized empty Git repository in F:/MIDPS/.git/

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS (master)
$ git status
On branch master

Initial commit

nothing to commit (create/copy files and use "git add" to track)

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS (master)
$ git confi --list
git: 'confi' is not a git command. See 'git --help'.

Did you mean this?
    config

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS (master)
$ git config --list
core.symlinks=false
core.autocrlf=true
color.diff=auto
color.status=auto
color.branch=auto
color.interactive=true
help.format=html
http.sslcainfo=C:/Program Files/Git/mingw64/ssl/certs/ca-bundle.crt
diff.astextplain.textconv=astextplain
rebase.autosquash=true
user.name=Benea Leonid
user.email=www.leo_md@mail.ru
core.repositoryformatversion=0
core.filemode=false
core.bare=false
core.logallrefupdates=true
core.symlinks=false
core.ignorecase=true
core.hidedotfiles=dotGitOnly

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS (master)
$ |

```

```

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS (master)
$ git status
On branch master

Initial commit

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

        .gitignore
        Lab 1/
        Lab 2/

nothing added to commit but untracked files present (use "git add" to track)

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS (master)
$ |

```

```

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS (master)
$ git status
On branch master

Initial commit

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

        .gitignore
        Lab 1/
        Lab 2/

nothing added to commit but untracked files present (use "git add" to track)

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS (master)
$ git add .
warning: LF will be replaced by CRLF in Lab 2/Hello/cfile.c.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in Lab 2/Hello/cppfile.cpp.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in Lab 2/Hello/javafile.java.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in Lab 2/Hello/mainf.py.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in Lab 2/abc.txt.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in Lab 2/doi_branch.txt.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in Lab 2/my.txt.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in Lab 2/unu_branch.txt.
The file will have its original line endings in your working directory.

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS (master)
$ git status
On branch master

Initial commit

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

        new file:   .gitignore
        new file:   Lab 1/lab1a/Project1.bpr
        new file:   Lab 1/lab1a/Project1.cpp
        new file:   Lab 1/lab1a/Project1.exe
        new file:   Lab 1/lab1a/Project1.obj
        new file:   Lab 1/lab1a/Project1.res
        new file:   Lab 1/lab1a/Project1.tds
        new file:   Lab 1/lab1a/Project1.~bpr
        new file:   Lab 1/lab1a/Project1.~cpp
        new file:   Lab 1/lab1a/Unit1.cpp
        new file:   Lab 1/lab1a/Unit1.ddp
        new file:   Lab 1/lab1a/Unit1.dfm
        new file:   Lab 1/lab1a/Unit1.h
        new file:   Lab 1/lab1b/Project2.bpr

```

```

nothing to commit, working directory clean

Leonid@CTRLSOFT-4D0712 MINGW64 /f/MIDPS (master)
$ git push -u origin master
Enter passphrase for key '/c/Users/Leonid/.ssh/id_rsa':
Counting objects: 40, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (34/34), done.
Writing objects: 100% (40/40), 1.51 MiB | 1.18 MiB/s, done.
Total 40 (delta 9), reused 0 (delta 0)
To git@github.com:BeneaLeonid/MIDPS.git
 * [new branch]      master -> master
Branch master set up to track remote branch master from origin

```

Concluzie

În urma realizării laboratorului nr.2 la tema: "Version Control Systems si modul de setare a unui server", am însușit modul de utilizare a CLI, de administrarea remote a mașinilor linux machine folosind SSH.

Am efectuat conexiunea la un remote server folosind SSH (drept server remote, am folosit o mașină virtuală). În continuare compilând programele din lista dată și efectuând primul commit, folosind VCS.

Am creat 2 branch-uri(unu_branch si doi_branch) asupra cărora am efectuat un commit din nou.

La fel am creat un script "mainf.py" prin intermediul căruia am compilat HelloWolrdPrograms projects din lista dată: c, cpp, java, python, ruby.

În timpul efectuării laboratorului am lucrat cu comenzi ca :

git init, git status, git add, git branch, git checkout, git commit, git config etc.