VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETAS

ELEKTRONIKOS FAKULTETAS

ELEKTRONINIŲ SISTEMŲ KATEDRA

Atvirojo kodo įranga mokslui, verslui ir valdymui
LABORATORINIS DARBAS NR.2
ATASKAITA

Atliko: AKSfm −16 grupės studentas
Darjuš Salmanovič
Tikrino: Doc. Raimond Laptik

Įvertinimas:.......................................
(pažymys, dėstytojo parašas)

Vilnius, 2017

1 Laboratoriniame darbe buvo įdiegtas GIT serveris kuri naudosime šiam darbui atlikti. Darbo eiga buvo paremta tokiais veiksmais:

1. Sukurėme server katalogą;
2. Server kataloge sukuriame naują repoziciją;
3. Sukuriame 1 kliento katalogą;
4. Pirmojo kliento kataloge sukuriame tekstinį failą su eilute viduje „Text file created by the first user.“
5. Išsaugome ir patvirtiname atliktus veiksmus;

1. pav. Serverio ir kliento sukurimo eiga

6. Aprašome serverį;
7. Įkeliame tekstinį failą i serverį;

2. pav. Tekstinio failo perkelimas

8. Sukuriamas 2 kliento katalogas;
9. 2 kliento katalogas inicializuojamas su GIT ir atsiunčiamas failas iš serverio;
10. Failas redaguojamas, pridėdama eilutė „Line added by the second user.“ , išsaugoma, patvirtinama ir vėl išsiunčiama i serverį.
11. Klientas 1 atsisiunčia pakoreguota failą.

```
darius@ubuntu:~/Laboras1/client1$ cd
darius@ubuntu:~$ cd Laboras1/
darius@ubuntu:~/Laboras1$ mkdir client2
darius@ubuntu:~/Laboras1$ cd client2/
darius@ubuntu:~/Laboras1/client2$ git init
Initialized empty Git repository in /home/darius/Laboras1/client2/.git/
darius@ubuntu:~/Laboras1/client2$ git remote add origin /home/darius/Laboras1/server/
darius@ubuntu:~/Laboras1/client2$ git pull origin master
remote: Counting objects: 3, done.
remote: Total 3 (delta 0), reused 0 (delta 0)
Unpacking objects: 100% (3/3), done.
From /home/darius/Laboras1/server
 * branch            master      -> FETCH_HEAD
 * [new branch]      master      -> origin/master
darius@ubuntu:~/Laboras1/client2$ git add text
darius@ubuntu:~/Laboras1/client2$ git commit -m "antras"
[master b38ebc0] antras
 1 file changed, 1 insertion(+)
darius@ubuntu:~/Laboras1/client2$ git push origin master
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 281 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To /home/darius/Laboras1/server/
   edd77f8..b38ebc0  master -> master
darius@ubuntu:~/Laboras1/client2$ cd
darius@ubuntu:~$ cd Laboras1/client1/
darius@ubuntu:~/Laboras1/client1$ git pull origin master
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0)
Unpacking objects: 100% (3/3), done.
From /home/darius/Laboras1/server
 * branch            master      -> FETCH_HEAD
   edd77f8..b38ebc0  master      -> origin/master
Updating edd77f8..b38ebc0
```

3. pav. Tekstinio failo perkelimas

12. Klientas pirmas redaguoja failą pridedant savo eilutę „Line added by the first user.“
13. Tuo pat metu antras klientas įrašo pas save „Another line added by the second user.“;
14. Pirmas klientas išsiunčia savo pakeitimus į serverį, o antras gauna klaidą vadinama konfliktu.
15. Antras klientas daro pakartotini faila atsisiuntima. Failas atsinaujina, jame atsiranda įrašytos pirmo kliento eilutės atskirtos specialiais konflikto ženklinimo ženklais <<<<<< ====== >>>>>>. Klientas antras sutvarko failą juos ištrindamas ir taip išsprendžia konfliktą.
16. Antras klientas nusiunčia failą i serverį.
17. Abu klientai atsisiunčia failą iš serverio. Failų turinys yra indentiškas.

```
darius@ubuntu:~/Laboras1/client1$ git add text
darius@ubuntu:~/Laboras1/client1$ git commit -m "pirmas"
[master b74d170] pirmas
 1 file changed, 1 insertion(+)
darius@ubuntu:~/Laboras1/client1$ git push origin master
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 284 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To /home/darius/Laboras1/server/
   b38ebc0..b74d170  master -> master
darius@ubuntu:~/Laboras1/client1$ cd
darius@ubuntu:~$ cd Laboras1/client2/
darius@ubuntu:~/Laboras1/client2$ git add text
darius@ubuntu:~/Laboras1/client2$ git commit -m "antras"
[master cfba1a2] antras
 1 file changed, 1 insertion(+)
darius@ubuntu:~/Laboras1/client2$ git push origin master
To /home/darius/Laboras1/server/
 ! [rejected]        master -> master (fetch first)
error: failed to push some refs to '/home/darius/Laboras1/server/'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
darius@ubuntu:~/Laboras1/client2$ git pull origin master
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0)
Unpacking objects: 100% (3/3), done.
From /home/darius/Laboras1/server
 * branch            master     -> FETCH_HEAD
   b38ebc0..b74d170  master     -> origin/master
Auto-merging text
CONFLICT (content): Merge conflict in text
Automatic merge failed; fix conflicts and then commit the result.
darius@ubuntu:~/Laboras1/client2$ git add text
darius@ubuntu:~/Laboras1/client2$ git commit -m "antras"
[master 89fa289] antras
darius@ubuntu:~/Laboras1/client2$ git push origin master
Counting objects: 6, done.
```

```
darius@ubuntu:~/Laboras1/client2$ git commit -m "antras"
[master 89fa289] antras
darius@ubuntu:~/Laboras1/client2$ git push origin master
Counting objects: 6, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 495 bytes | 0 bytes/s, done.
Total 6 (delta 2), reused 0 (delta 0)
To /home/darius/Laboras1/server/
   b74d170..89fa289  master -> master
darius@ubuntu:~/Laboras1/client2$ cd
darius@ubuntu:~$ cd Laboras1/client1/
darius@ubuntu:~/Laboras1/client1$ git pull origin master
remote: Counting objects: 6, done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 6 (delta 2), reused 0 (delta 0)
Unpacking objects: 100% (6/6), done.
From /home/darius/Laboras1/server
 * branch            master     -> FETCH_HEAD
   b74d170..89fa289  master     -> origin/master
Updating b74d170..89fa289
Fast-forward
 text | 2 ++
 1 file changed, 2 insertions(+)
```

3. pav. Konflikto išsprendimas

1.