

VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETAS

ELEKTRONIKOS FAKULTETAS

ELEKTRONINIŲ SISTEMŲ KATEDRA

Atvirojo kodo įranga mokslui, verslui ir valdymui

LABORATORINIS DARBAS NR.3

ATASKAITA

Atliko: AKSfm –16 grupės studentas

Darjuš Salmanovič

Tikrino: Doc. Raimond Laptik

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

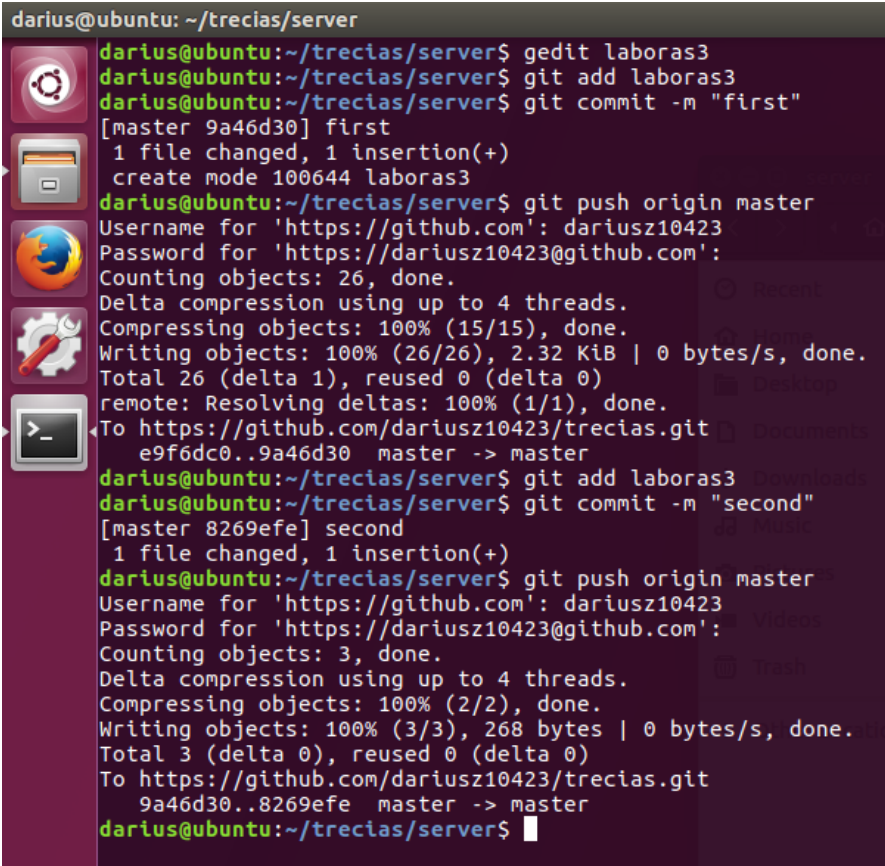
3 Laboratoriniam darbui atlikti buvo pasirinktas GitHub dėl jo laisvo prieinamumo ir paprasto naudojimo.

Iš pradžių buvo sukurtas naujas vartotojas GitHub svetainėje. Lokalioji kompiuterio git repozitorija buvo susieta su GitHub repozitorija naudojant komanda terminalo lange bei nurodant GitHub adresą:

```
git remote add origin https://github.com/dariusz10423
```

Sujungus repozitorijas, GitHub svetainės repozitorijoje buvo pridėtas naujas bendradarbis kuris galės atsisiųsti visus keliamus dokumentus, jų pakeitimus bei pats kelti savo failus.

Pirmiausia buvo sukurtas ir pakoreguotas naujas tekstinis failas. Patvirtinus jo turinį, failas buvo išsiųstas į GitHub svetainę. Bendradarbis atsisiuntė sukurta failą sau į lokalia repozitorija kompiuteryje. Tada failas buvo dar karta pakoreguotas, pakeitimai išsaugoti ir nusiųstas į GitHub. Bendradarbis vėl sėkmingai gavo atnaujintą failą.



```
darius@ubuntu: ~/trecias/server
darius@ubuntu:~/trecias/server$ gedit laboras3
darius@ubuntu:~/trecias/server$ git add laboras3
darius@ubuntu:~/trecias/server$ git commit -m "first"
[master 9a46d30] first
1 file changed, 1 insertion(+)
create mode 100644 laboras3
darius@ubuntu:~/trecias/server$ git push origin master
Username for 'https://github.com': dariusz10423
Password for 'https://dariusz10423@github.com':
Counting objects: 26, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (15/15), done.
Writing objects: 100% (26/26), 2.32 KiB | 0 bytes/s, done.
Total 26 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), done.
To https://github.com/dariusz10423/trecias.git
e9f6dc0..9a46d30 master -> master
darius@ubuntu:~/trecias/server$ git add laboras3
darius@ubuntu:~/trecias/server$ git commit -m "second"
[master 8269efe] second
1 file changed, 1 insertion(+)
darius@ubuntu:~/trecias/server$ git push origin master
Username for 'https://github.com': dariusz10423
Password for 'https://dariusz10423@github.com':
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 268 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/dariusz10423/trecias.git
9a46d30..8269efe master -> master
darius@ubuntu:~/trecias/server$
```

1. pav. Failo siuntimas į GitHub

```
john@ubuntu: ~/repos3ld/server
john@ubuntu:~/repos3ld/server$ git pull darius master
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/dariusz10423/trecias
* branch      master      -> FETCH_HEAD
9a46d30..8269efe master -> darius/master
Updating 9a46d30..8269efe
Fast-forward
 laboras3 | 1 +
1 file changed, 1 insertion(+)
john@ubuntu:~/repos3ld/server$ git add laboras3
john@ubuntu:~/repos3ld/server$ git commit -m "second user"
[master 3216b26] second user
1 file changed, 1 insertion(+)
john@ubuntu:~/repos3ld/server$ git push darius master
Username for 'https://github.com': boososas
Password for 'https://boososas@github.com':
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 297 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/dariusz10423/trecias
8269efe..3216b26 master -> master
john@ubuntu:~/repos3ld/server$
```

## 2. pav. Bendradarbio failo gavimas

Failas buvo pakoreguotas kartu. Išsiuntus failą į GitHub, bendradarbis išsiųsti negalėjo.

Gavome konfliktinę situaciją. Bendradarbis privalėjo atsisiųsti pakeitimus, pakoreguoti arba ištrinti konflikto žymėjimus ir tada sėkmingai įkelti failą į GitHub.

```
darius@ubuntu: ~/trecias/server
1 file changed, 1 insertion(+)
darius@ubuntu:~/trecias/server$ git push origin master
Username for 'https://github.com': darius10423
Password for 'https://dariusz10423@github.com':
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 268 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/dariusz10423/trecias.git
9a46d30..8269efe master -> master
darius@ubuntu:~/trecias/server$ git pull origin master
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/dariusz10423/trecias
* branch      master      -> FETCH_HEAD
8269efe..3216b26 master -> origin/master
Updating 8269efe..3216b26
Fast-forward
 laboras3 | 1 +
1 file changed, 1 insertion(+)
darius@ubuntu:~/trecias/server$ git add laboras3
darius@ubuntu:~/trecias/server$ git commit -m "conflict"
[master d708a6a] conflict
1 file changed, 2 insertions(+)
darius@ubuntu:~/trecias/server$ git pull origin master
From https://github.com/dariusz10423/trecias
* branch      master      -> FETCH_HEAD
Already up-to-date.
darius@ubuntu:~/trecias/server$ git push origin master
Username for 'https://github.com': darius10423
Password for 'https://dariusz10423@github.com':
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 297 bytes | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/dariusz10423/trecias.git
3216b26..d708a6a master -> master
darius@ubuntu:~/trecias/server$
```

## 3. pav. Konfliktinės situacijos sudarymas

```
darius@ubuntu: ~/trecias/server
To https://github.com/boosas/AtvirojoKodo
6413930..d5f0a62 master -> master
darius@ubuntu:~/trecias/server$ git add laboras3
darius@ubuntu:~/trecias/server$ git commit -m "third2"
[master 6b58812] third2
1 file changed, 1 insertion(+)
darius@ubuntu:~/trecias/server$ git push jonas master
Username for 'https://github.com': dariusz10423
Password for 'https://dariusz10423@github.com':
To https://github.com/boosas/AtvirojoKodo
! [rejected] master -> master (fetch first)
error: failed to push some refs to 'https://github.com/boosas/AtvirojoKodo'
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:~/trecias/server$ git pull jonas master
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (1/1), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/boosas/AtvirojoKodo
* branch master -> FETCH_HEAD
d5f0a62..533c99f master -> jonas/master
Auto-merging laboras3
CONFLICT (content): Merge conflict in laboras3
Automatic merge failed; fix conflicts and then commit the result.
darius@ubuntu:~/trecias/server$ git add laboras3
darius@ubuntu:~/trecias/server$ git commit -m "third3"
[master 3dd9e3b] third3
darius@ubuntu:~/trecias/server$ git push jonas master
Username for 'https://github.com': dariusz10423
Password for 'https://dariusz10423@github.com':
Counting objects: 6, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 507 bytes | 0 bytes/s, done.
Total 6 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 1 local object.
To https://github.com/boosas/AtvirojoKodo
533c99f..3dd9e3b master -> master
darius@ubuntu:~/trecias/server$
```

4. pav. Bendradarbio išsprendžiamas konfliktas

```
laboras3 (~/trecias/server) - gedit
Open [ ]
First line added by the first user.
Second line added by the first user.
Line added by 2nd user.
<<<<<< HEAD
One more line added by 2nd user.
=====
This line added by the first user.
>>>>>> 533c99f97b13bfdd1ee1e4287bab7fd468bb56bc
```

5. pav. Konflikto failas

Visi veiksmai buvo atlikti atvirkštinė tvarka. Bendradarbis įkėlė sukurtą bei koreguotą failą kuri atsisiunčiau į savo lokalią git repozitoriją. Pakoregavus failą vienu metu ir siunčiant, gavosi konfliktinė situacija mano pusėje kurią išsprendžiau ištrinus konflikto žymėjimus.



```
darius@ubuntu: ~/trecias/server
darius@ubuntu:~/trecias/server$ git pull jonas master
remote: Counting objects: 3, done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/booosas/AtvirojoKodo
* branch          master      -> FETCH_HEAD
9bf2b8a..6380d78  master      -> jonas/master
Updating 37381e6..6380d78
Fast-forward
 laboras3 | 1 +
1 file changed, 1 insertion(+)
create mode 100644 laboras3
darius@ubuntu:~/trecias/server$ git pull jonas master
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/booosas/AtvirojoKodo
* branch          master      -> FETCH_HEAD
6380d78..6413930  master      -> jonas/master
Updating 6380d78..6413930
Fast-forward
 laboras3 | 1 +
1 file changed, 1 insertion(+)
darius@ubuntu:~/trecias/server$
```

6. pav. Gautas bendradarbio failas

```
darius@ubuntu: ~/trecias/server
To https://github.com/booosas/AtvirojoKodo
6413930..d5f0a62  master -> master
darius@ubuntu:~/trecias/server$ git add laboras3
darius@ubuntu:~/trecias/server$ git commit -m "third2"
[master 6b58812] third2
1 file changed, 1 insertion(+)
darius@ubuntu:~/trecias/server$ git push jonas master
Username for 'https://github.com': dariusz10423
Password for 'https://dariusz10423@github.com':
To https://github.com/booosas/AtvirojoKodo
! [rejected]          master -> master (fetch first)
error: failed to push some refs to 'https://github.com/booosas/AtvirojoKodo'
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:~/trecias/server$ git pull jonas master
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (1/1), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/booosas/AtvirojoKodo
* branch          master      -> FETCH_HEAD
d5f0a62..533c99f  master      -> jonas/master
Auto-merging laboras3
CONFLICT (content): Merge conflict in laboras3
Automatic merge failed; fix conflicts and then commit the result.
darius@ubuntu:~/trecias/server$ git add laboras3
darius@ubuntu:~/trecias/server$ git commit -m "third3"
[master 3dd9e3b] third3
darius@ubuntu:~/trecias/server$ git push jonas master
Username for 'https://github.com': dariusz10423
Password for 'https://dariusz10423@github.com':
Counting objects: 6, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 507 bytes | 0 bytes/s, done.
Total 6 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 1 local object.
To https://github.com/booosas/AtvirojoKodo
533c99f..3dd9e3b  master -> master
darius@ubuntu:~/trecias/server$
```

7. pav. Išspręstas konfliktas