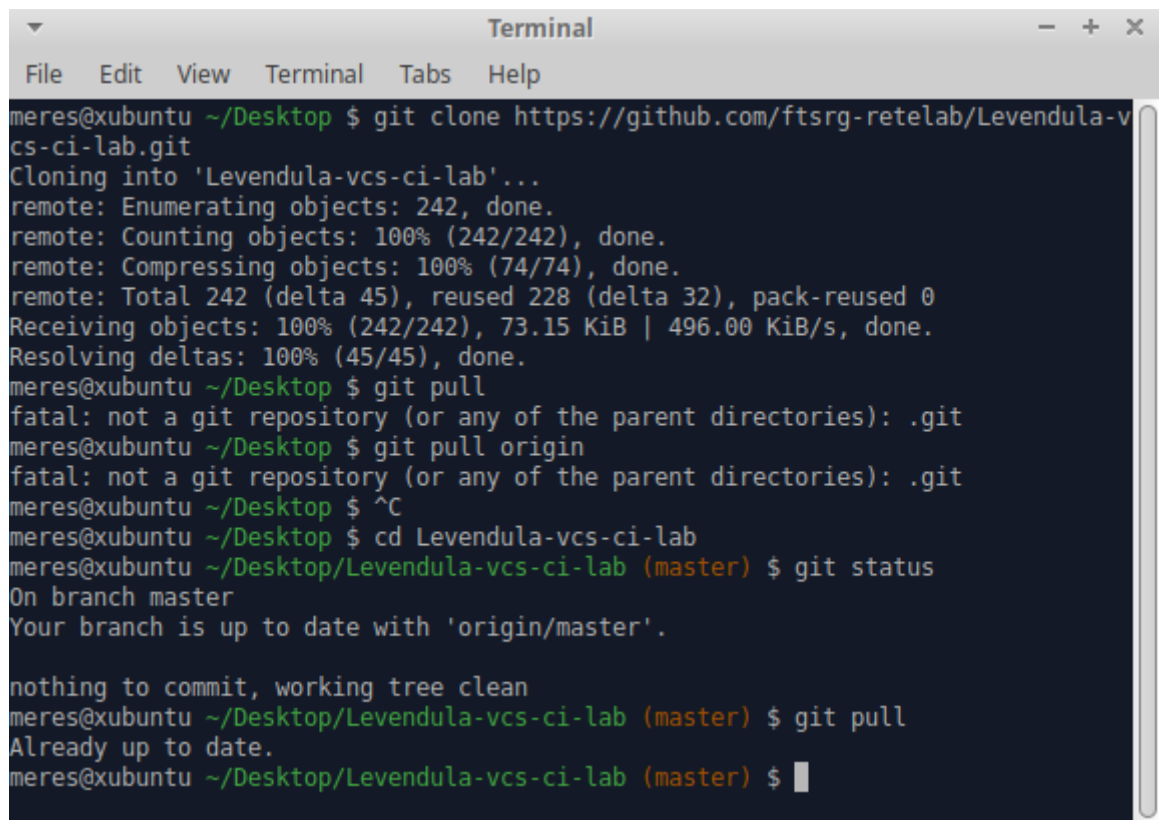


MIT3 jegyzőkönyv

Code Review

Klónoztam a repo-t kiindulásnak az előző labor végéről az alábbi parancs segítségével:

`git clone https://github.com/ftsrg-retelab/Levendula-vcs-ci-lab.git`



```
meres@xubuntu ~/Desktop $ git clone https://github.com/ftsrg-retelab/Levendula-vcs-ci-lab.git
Cloning into 'Levendula-vcs-ci-lab'...
remote: Enumerating objects: 242, done.
remote: Counting objects: 100% (242/242), done.
remote: Compressing objects: 100% (74/74), done.
remote: Total 242 (delta 45), reused 228 (delta 32), pack-reused 0
Receiving objects: 100% (242/242), 73.15 KiB | 496.00 KiB/s, done.
Resolving deltas: 100% (45/45), done.
meres@xubuntu ~/Desktop $ git pull
fatal: not a git repository (or any of the parent directories): .git
meres@xubuntu ~/Desktop $ git pull origin
fatal: not a git repository (or any of the parent directories): .git
meres@xubuntu ~/Desktop $ ^C
meres@xubuntu ~/Desktop $ cd Levendula-vcs-ci-lab
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (master) $ git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (master) $ git pull
Already up to date.
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (master) $
```

Majd beleálltam a megfelelő könyvtárba, és a saját *branch* létrehozása előtt kiadtam egy *git pull* parancsot.

Ezek után létrehoztam egy új *branchet*, *annamaria* néven az alábbi git parancsok szekvenciális kiadásával:

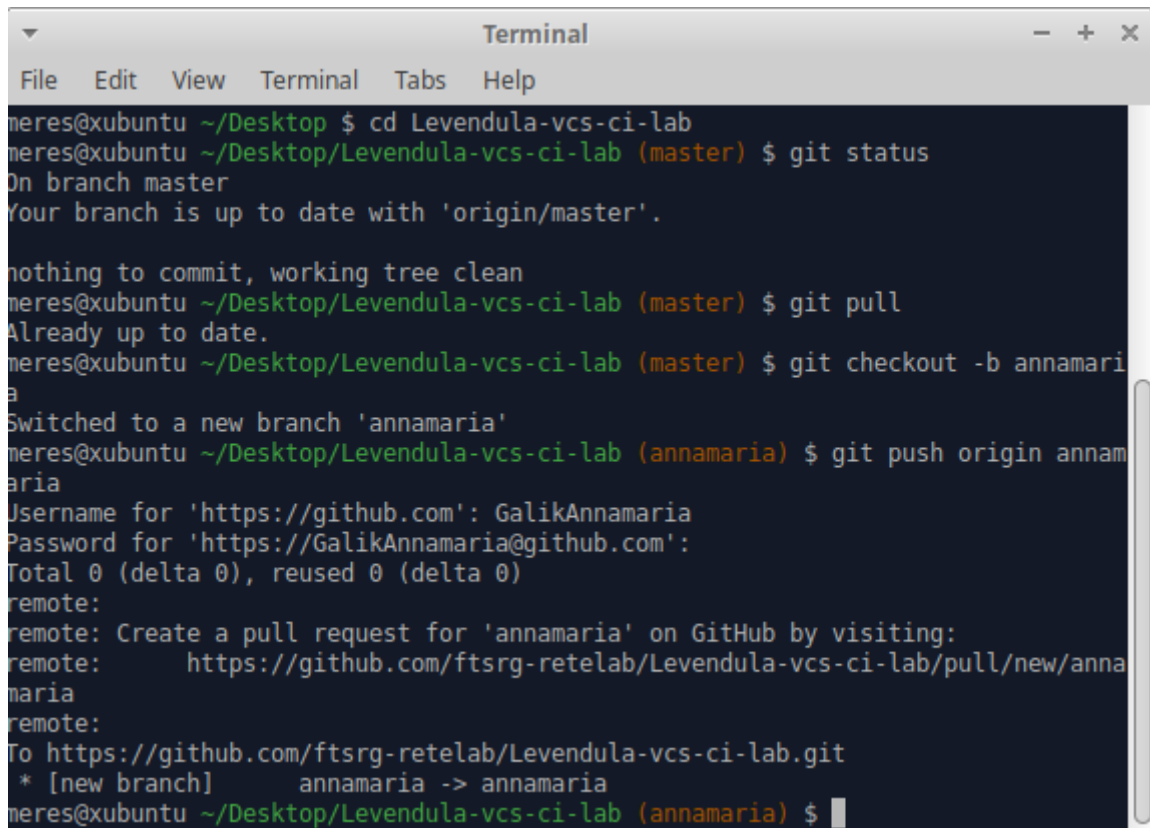
`git checkout -b annamaria`

`git push origin annamaria`

(Ez a branch megtekinhető a Githubon is; link: <https://github.com/ftsrg-retelab/Levendula-vcs-ci-lab>)

A GitHub felhasználóhoz tartozó felhasználónév és jelszó páros megadásával sikeresen érvényre juttattam a műveletet.

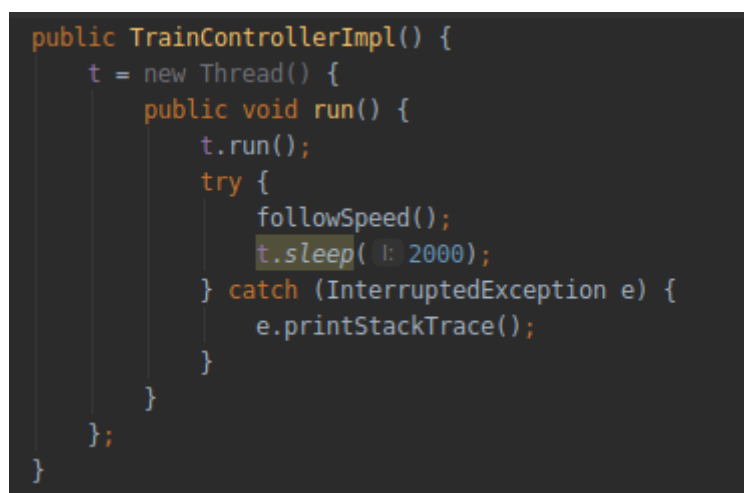
név: Gálik Annamária
neptun-kód: WGMUO2



```
meres@xubuntu ~/Desktop $ cd Levendula-vcs-ci-lab
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (master) $ git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (master) $ git pull
Already up to date.
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (master) $ git checkout -b annamaria
Switched to a new branch 'annamaria'
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ git push origin annamaria
Username for 'https://github.com': GalikAnnamaria
Password for 'https://GalikAnnamaria@github.com':
Total 0 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'annamaria' on GitHub by visiting:
remote:   https://github.com/ftsrg-retelab/Levendula-vcs-ci-lab/pull/new/annamaria
remote:
To https://github.com/ftsrg-retelab/Levendula-vcs-ci-lab.git
 * [new branch]      annamaria -> annamaria
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $
```

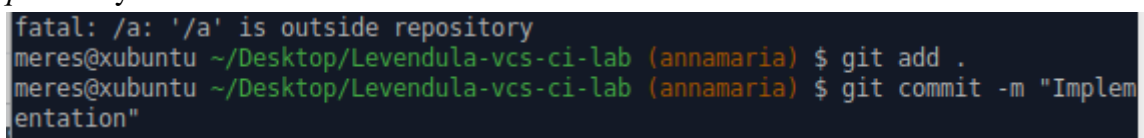
A README többszöri elolvasása után világos lett a mozzanat, hogy mit kell kódolni, ezt meg is tettem (implementáltam a kért feature-t) az alábbi módon:



```
public TrainControllerImpl() {
    t = new Thread() {
        public void run() {
            t.run();
            try {
                followSpeed();
                t.sleep(1000);
            } catch (InterruptedException e) {
                e.printStackTrace();
            }
        }
    };
}
```

Ehhez létrehoztam egy *t* nevű *Thread* típusú privát változót a *TrainControllerImpl.java* osztályban.

Az alábbi parancsok kiadásával *pusholtam* a munkámat a saját *branchembe*, majd *pull requestet* nyitottam:



```
fatal: /a: '/a' is outside repository
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ git add .
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ git commit -m "Implementation"
```

név: Gálik Annamária
neptun-kód: WGMUO2

```
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ git config --global user.email ancsi666@gmail.com
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ git config --global user.name GalikAnnamaria
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ git commit -m "Implementation"
[annamaria 6cb4c62] Implementation
 8 files changed, 101 insertions(+)
 create mode 100644 train-controller/train-controller.iml
 create mode 100644 train-interfaces/train-interfaces.iml
 create mode 100644 train-sensor/src/main/main.iml
 create mode 100644 train-sensor/src/test/test.iml
 create mode 100644 train-system/src/main/main1.iml
 create mode 100644 train-system/src/test/test1.iml
 create mode 100644 train-user/train-user.iml
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ git push
fatal: The current branch annamaria has no upstream branch.
To push the current branch and set the remote as upstream, use

    git push --set-upstream origin annamaria

meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ git push --set-upstream origin annamaria
am origin annamaria
Username for 'https://github.com': GalikAnnamaria
Password for 'https://GalikAnnamaria@github.com':
Counting objects: 28, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (21/21), done.
Writing objects: 100% (28/28), 2.28 KiB | 211.00 KiB/s, done.
Total 28 (delta 11), reused 0 (delta 0)
remote: Resolving deltas: 100% (11/11), completed with 6 local objects.
To https://github.com/ftsrg-retelab/Levendula-vcs-ci-lab.git
   ae4ff30..6cb4c62  annamaria -> annamaria
Branch 'annamaria' set up to track remote branch 'annamaria' from 'origin'.
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $
```

[Code](#) [Issues 1](#) [Pull requests 1](#) [Actions](#) [Projects 0](#) [Security](#) [Insights](#)

Label issues and pull requests for new contributors

Dismiss

Now, GitHub will help potential first-time contributors [discover issues](#) labeled with [good first issue](#)

Filters

[Labels 9](#) [Milestones 0](#) [New pull request](#)

☐ **1 Open** ☒ **1 Closed**

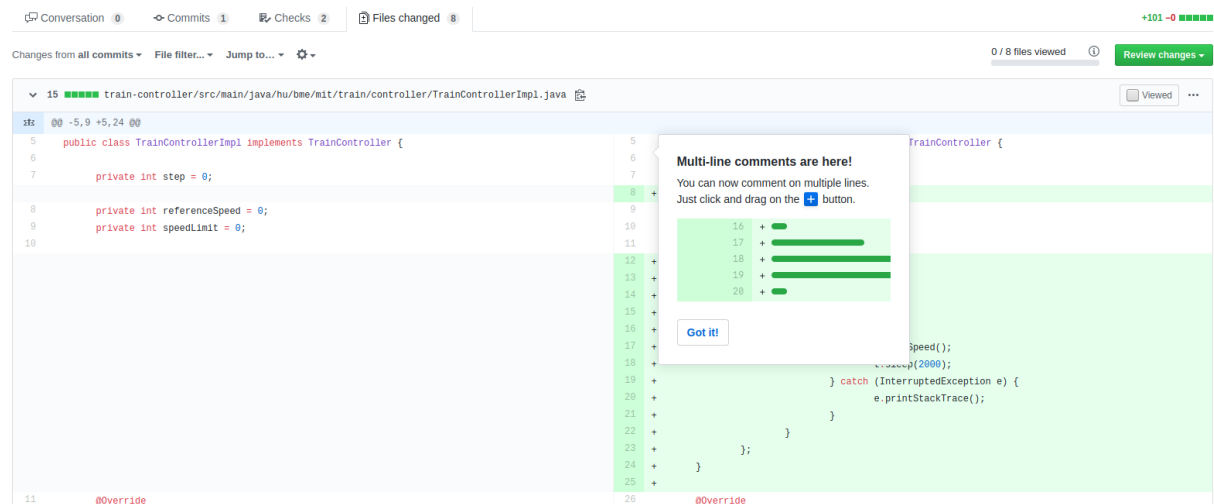
Author Label Projects Milestones Reviews Assignee Sort

☐ **Implementation** ☒

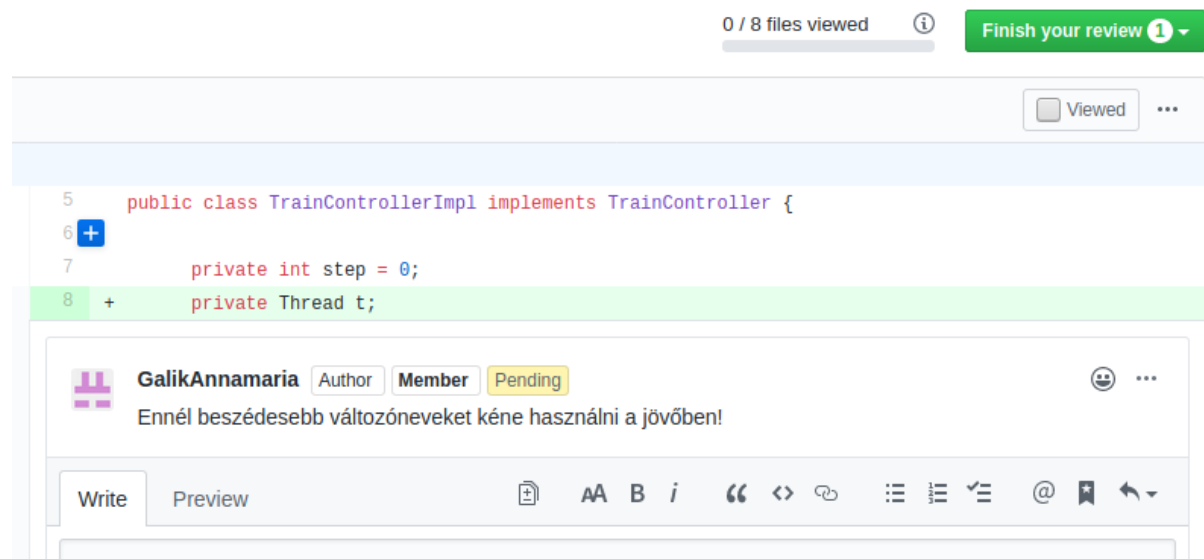
#3 opened 22 seconds ago by GalikAnnamaria

Mivel a távoktatás miatt a laborok önálló munkaként elkészítendőek, a kiadott utasítás szerint a saját *pull request*emet én néztem át és hagytam jóvá az alábbiak szerint:

név: Gálik Annamária
neptun-kód: WGMUO2



Hozzáadtam a forráskód egy sorához egy kommentet is (javaslatot az informatív változónevek használatára!)



Ennek megfelelően változtatásokat hajtottam végre (a korábban *t*-ként elnevezett *Thread* típusú változót *thread*-re neveztem át, hogy intuitívabb legyen a jelentése), és committoltam, pusholtam a változásokat.


Ennek eredménye látható a következő képen:

név: Gálik Annamária
neptun-kód: WGMUO2

```
7      private int step = 0;
8  +   private Thread thread;
9      private int referenceSpeed = 0;
10     private int speedLimit = 0;
11
12  +   public TrainControllerImpl() {
13  +       thread = new Thread() {
14  +           public void run() {
15  +               thread.run();
16  +               try {
17  +                   followSpeed();
18  +                   thread.sleep(2000);
19  +               } catch (InterruptedException e) {
20  +                   e.printStackTrace();
21  +               }
22  +           }
23  +       };
24  +   }
25  +
26     @Override
```

Ezek után *merge*-eltem a *pull request*et a *master branch*be a felajánlott opcióval a Github oldalán:

Add more commits by pushing to the **annamaria** branch on **ftsrg-retelab/Levendula-vcs-ci-lab**.




Merge pull request #3 from ftsrg-retelab/annamaria

Implementation

Confirm merge

Cancel



Pull request successfully merged and closed

You're all set—the **annamaria** branch can be safely deleted.

Delete branch

SonarQube

Letöltöttem a SonarQube legfrissebb verzióját és kicsomagoltam.

név: Gálik Annamária
neptun-kód: WGMUO2

The image shows a web browser window displaying the SonarQube download page. The browser's address bar shows the URL <https://www.sonarqube.org/downloads/>. The page header includes the SonarQube logo and navigation links: Product, What's New, Documentation, Community, and a Download button. The main content area is titled "Download SonarQube" and describes it as "The leading product for Code Quality and Security". It mentions "Version: 8.2" and "Release: February 2020". There are links for "Getting Started" and "Upgrade Notes". The page is divided into two main sections: "Community EDITION" and "Developer EDITION". The "Community EDITION" section is labeled "FREE & OPEN SOURCE" and describes it as "The starting point for adopting code quality in your CI/CD". It has a "Download Community Edition" button. The "Developer EDITION" section describes it as "Maximum Application Security" and "Maximum value across branches & PRs". It has a "Request a Free Trial License" button and a "Download Developer Edition" button. A file opening dialog is overlaid on the page. The dialog title is "Opening sonarqube-8.2.0.32929.zip". It shows the file "sonarqube-8.2.0.32929.zip" which is a "Zip archive (212 MB)" from "https://binaries.sonarsource.com". The dialog asks "What should Firefox do with this file?" and has three options: "Open with" (selected), "Save File", and "Do this automatically for files like this from now on." The "Open with" option is set to "Engrampa Archive Manager (default)". There are "Cancel" and "OK" buttons at the bottom.

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NEW SonarQube 8.2 - Security Hotspot review and rating See the features →

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Maximum value across branches & PRs

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Opening sonarqube-8.2.0.32929.zip

You have chosen to open:

sonarqube-8.2.0.32929.zip
which is: Zip archive (212 MB)
from: https://binaries.sonarsource.com

What should Firefox do with this file?

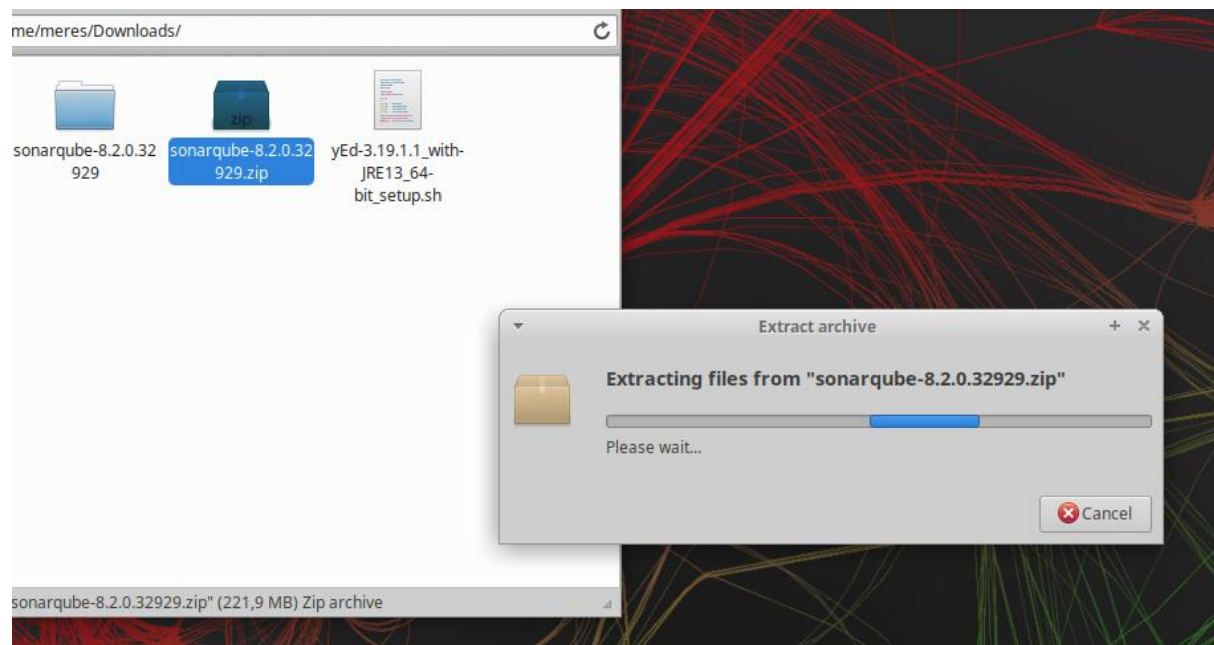
☒ Open with Engrampa Archive Manager (default)

☐ Save File

☐ Do this automatically for files like this from now on.

Cancel OK

név: Gálik Annamária
neptun-kód: WGMUO2



A `uname -a` parancs kiadásával kiderítettem, hogy 32 vagy 64 bites kernel fut a virtuális gépen. Az alábbi képen látszik a parancs kiadása, valamint az eredménye, amiből megállapítottam, hogy 64 bites.

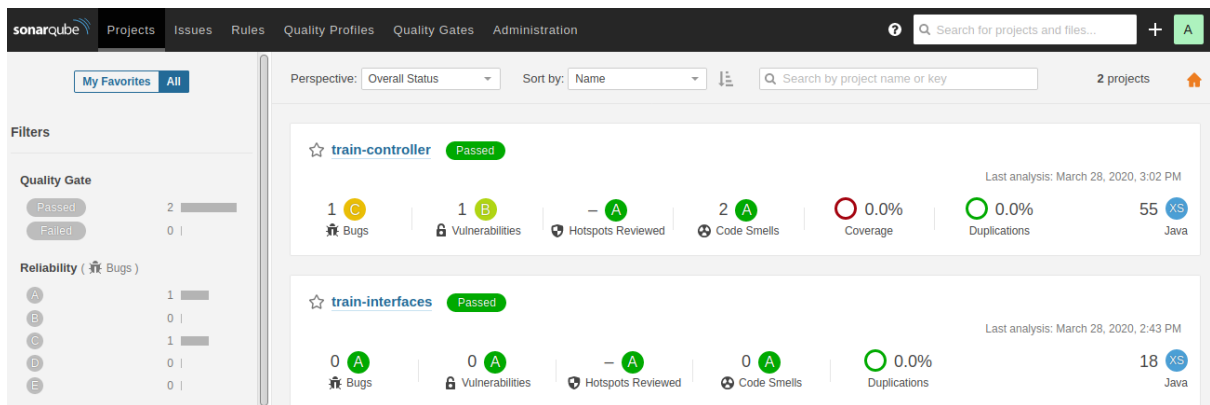
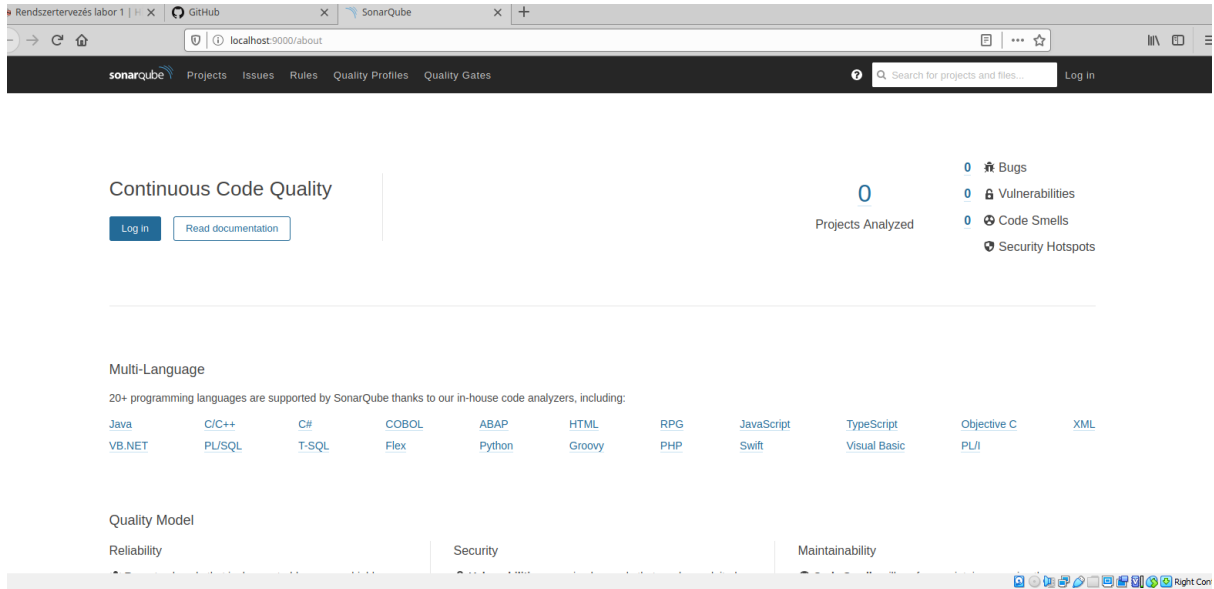
```
Terminal
File Edit View Terminal Tabs Help

meres@xubuntu ~/Desktop $ uname -a
Linux xubuntu 5.3.0-40-generic #32~18.04.1-Ubuntu SMP Mon Feb 3 14:05:59 UTC 2020 x86_64 x86_64 x86_64 GNU/Linux
meres@xubuntu ~/Desktop $

meres@xubuntu ~/Downloads/sonarqube-8.2.0.32929/bin/linux-x86-64 $ ./sonar.sh console
Running SonarQube...
wrapper | --> Wrapper Started as Console
wrapper | Launching a JVM...
jvm 1 | Wrapper (Version 3.2.3) http://wrapper.tanukisoftware.org
jvm 1 | Copyright 1999-2006 Tanuki Software, Inc. All Rights Reserved.
jvm 1 |
jvm 1 | 2020.03.28 12:57:32 INFO app[[o.s.a.AppFileSystem] Cleaning or creating temp directory /home/meres/Downloads/sonarqube-8.2.0.32929/temp
jvm 1 | 2020.03.28 12:57:32 INFO app[[o.s.a.es.EsSettings] Elasticsearch listening on /127.0.0.1:9001
jvm 1 | 2020.03.28 12:57:32 INFO app[[o.s.a.ProcessLauncherImpl] Launch process[[key='es', ipcIndex=1, logFilenamePrefix=es]] from [/home/meres/Downloads/sonarqube-8.2.0.32929/elasticsearch]: /home/meres/Downloads/sonarqube-8.2.0.32929/elasticsearch/bin/elasticsearch
jvm 1 | 2020.03.28 12:57:32 INFO app[[o.s.a.SchedulerImpl] Waiting for Elasticsearch to be up and running
jvm 1 | 2020.03.28 12:57:33 INFO app[[o.e.p.PluginsService] no modules loaded
jvm 1 | 2020.03.28 12:57:33 INFO app[[o.e.p.PluginsService] loaded plugin [org.elasticsearch.transport.Netty4Plugin]
jvm 1 | OpenJDK 64-Bit Server VM warning: Option UseConcMarkSweepGC was deprecated in version 9.0 and will likely be removed in a future release.
jvm 1 | 2020.03.28 12:57:58 INFO app[[o.s.a.SchedulerImpl] Process[es] is up
jvm 1 | 2020.03.28 12:57:58 INFO app[[o.s.a.ProcessLauncherImpl] Launch process[[key='web', ipcIndex=2, logFilenamePrefix=web]] from [/home/meres/Downloads/sonarqube-8.2.0.32929]: /home/meres/.sdkman/candidates/java/11.0.6-zulu/bin/java -Djava.awt.headless=true -Dfile.encoding=UTF-8 -Djava.io.tmpdir=/home/meres/Downloads/sonarqube-8.2.0.32929/temp --add-opens=java.base/java.util=ALL-UNNAMED --add-opens=java.base/java.lang=ALL-UNNAMED --add-opens=java.base/java.io=ALL-UNNAMED --add-opens=java.rmi/sun.rmi.transport=ALL-UNNAMED -Xmx512m -Xms128m -XX:+HeapDumpOnOutOfMemoryError -Dhttp.nonProxyHosts=localhost[127.*][:1] -cp ./lib/common/*:/home/meres/Downloads/sonarqube-8.2.0.32929/lib/jdbc/h2/h2-1.4.199.jar org.sonar.server.app.WebServer /home/meres/Downloads/sonarqube-8.2.0.32929/temp/sq-process2955621696279494202properties
jvm 1 | 2020.03.28 12:59:20 INFO app[[o.s.a.SchedulerImpl] Process[web] is up
jvm 1 | 2020.03.28 12:59:20 INFO app[[o.s.a.ProcessLauncherImpl] Launch process[[key='ce', ipcIndex=3, logFilenamePrefix=ce]] from [/home/meres/Downloads/sonarqube-8.2.0.32929]: /home/meres/.sdkman/candidates/java/11.0.6-zulu/bin/java -Djava.awt.headless=true -Dfile.encoding=UTF-8 -Djava.io.tmpdir=/home/meres/Downloads/sonarqube-8.2.0.32929/temp --add-opens=java.base/java.util=ALL-UNNAMED -Xmx512m -Xms128m -XX:+HeapDumpOnOutOfMemoryError -Dhttp.nonProxyHosts=localhost[127.*][:1] -cp ./lib/common/*:/home/meres/Downloads/sonarqube-8.2.0.32929/lib/jdbc/h2/h2-1.4.199.jar org.sonar.ce.app.CeServer /home/meres/Downloads/sonarqube-8.2.0.32929/temp/sq-process4170684105116565203properties
jvm 1 | 2020.03.28 12:59:33 INFO app[[o.s.a.SchedulerImpl] Process[ce] is up
jvm 1 | 2020.03.28 12:59:33 INFO app[[o.s.a.SchedulerImpl] SonarQube is up
```

Ezek után megnyitottam a firefox böngésző segítségével a `http://localhost:9000/-et`. Az alábbi láttam (majd bejelentkeztem az admin/admin felhasználónév-jelszó párossal).

név: Gálik Annamária
neptun-kód: WGMUO2



Unit testing

Implementáció

név: Gálik Annamária
neptun-kód: WGMUO2

```
public class TrainSensorImpl implements TrainSensor {

    private TrainController controller;
    private TrainUser user;
    private int speedLimit = 5;

    public TrainSensorImpl(TrainController controller, TrainUser user) {
        this.controller = controller;
        this.user = user;
    }

    @Override
    public int getSpeedLimit() { return speedLimit; }

    @Override
    public void overrideSpeedLimit(int speedLimit) {
        if(speedLimit < 0 || speedLimit > 500){
            user.setAlarmState(true);
        }
        else if(speedLimit < (0.5 * controller.getReferenceSpeed()) || speedLimit > (1.5 * controller.getReferenceSpeed())){
            user.setAlarmState(true);
        }
        else{
            user.setAlarmState(false);
        }
        this.speedLimit = speedLimit;
        controller.setSpeedLimit(speedLimit);
    }
}

@Override
public void overrideSpeedLimit(int speedLimit) {
    if(speedLimit < 0 || speedLimit > 500){
        user.setAlarmState(true);
    }
    else if(speedLimit < (0.5 * controller.getReferenceSpeed()) || speedLimit > (1.5 * controller.getReferenceSpeed())){
        user.setAlarmState(true);
    }
    else user.setAlarmState(false);
    this.speedLimit = speedLimit;
    controller.setSpeedLimit(speedLimit);
}
```

Tesztek tervezése, majd implementációja:

Olyan tesztek terveztem, amelyek alapvető inicializálás után a relatív és abszolút határokat tesztelik a speedLimit változóra, valamint egy *getter* függvényt.

név: Gálik Annamária
neptun-kód: WGMUO2

```
TrainController mockTC;
TrainUser mockTU;
TrainSensorImpl mockTS;

@Before
public void before() {
    mockTC = mock(TrainController.class);
    mockTU = mock(TrainUser.class);
    mockTS = new TrainSensorImpl(mockTC, mockTU);
    // TODO Add initializations
}

@Test
public void TestSpeedLimitWithSimpleNumbers() { Assert.assertEquals( expected: 10, actual: 10); }

@Test
public void TestTheAbsoluteMarginWithNegativeNumber() {
    //Teszt arra, ha pl kisebb a szám, mint nulla
    mockTS.overrideSpeedLimit(-1);
    verify(mockTU, times( wantedNumberOfInvocations: 1)).setAlarmState(true);
}

@Test
public void TestRelativeMarginCheck() {
    when(mockTC.getReferenceSpeed()).thenReturn(105);
    mockTS.overrideSpeedLimit(160);
    verify(mockTU, times( wantedNumberOfInvocations: 1)).setAlarmState(true);
    verify(mockTU, times( wantedNumberOfInvocations: 0)).setAlarmState(false);
}

@Test
public void TestTheAbsoluteMarginWithLargerThan500() {
    //Teszt arra, ha pl nagyobb a szám mint 500
    mockTS.overrideSpeedLimit(600);
    verify(mockTU, times( wantedNumberOfInvocations: 1)).setAlarmState(true);
}

@Test
public void TestBetweenTheMargins() {
    mockTS.overrideSpeedLimit(300);
    verify(mockTU, times( wantedNumberOfInvocations: 0)).setAlarmState(false);
}

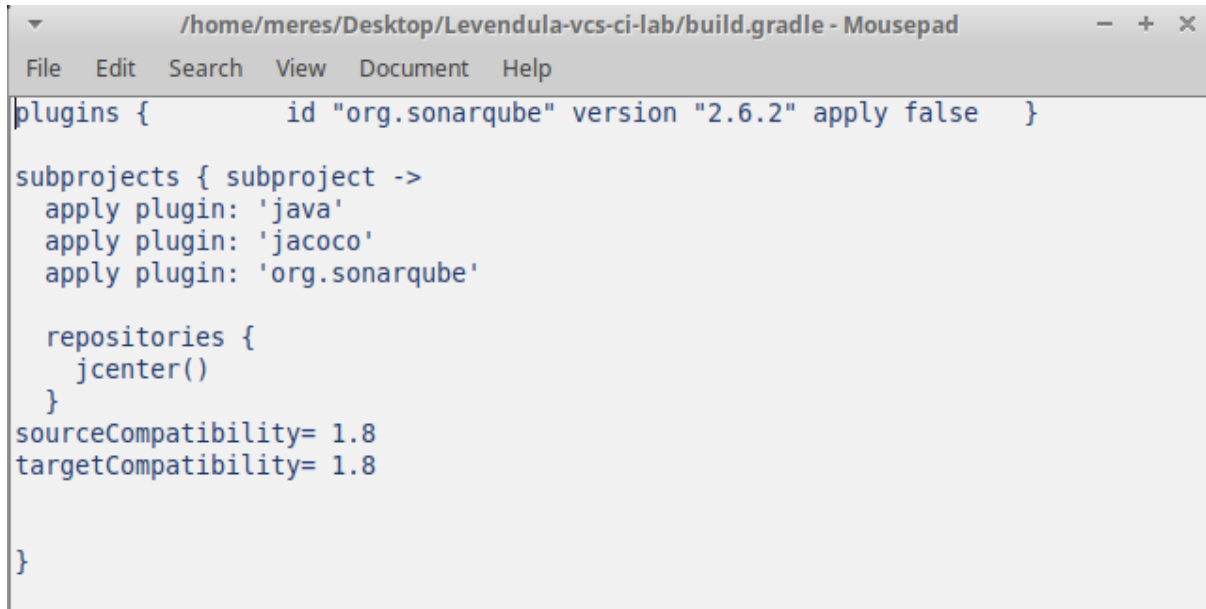
@Test
public void TestgetSpeedLimit() {
    mockTS.getSpeedLimit();
}
```

Ezek után futtattam a JUnit teszteket és az alábbi kimenetet kaptam (bár előbb bonyodalmakba futottam, végül a `./gradlew build` paranccsal futtattam a JUnit teszteket), ennek eredménye:

```
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ ./gradlew build
BUILD SUCCESSFUL in 10m 38s
14 actionable tasks: 5 executed, 9 up-to-date
```

Measuring code coverage

Hozzáadtam az *apply plugin*: 'jacoco' sort a *build.gradle*.hez



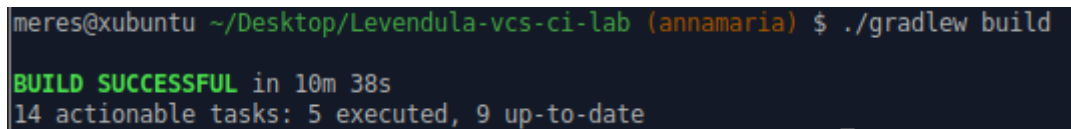
```
plugins {
    id "org.sonarqube" version "2.6.2" apply false
}

subprojects { subproject ->
    apply plugin: 'java'
    apply plugin: 'jacoco'
    apply plugin: 'org.sonarqube'

    repositories {
        jcenter()
    }
}

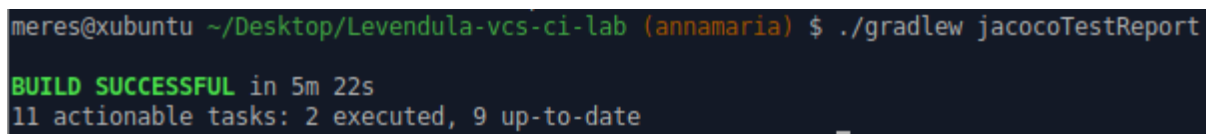
sourceCompatibility= 1.8
targetCompatibility= 1.8
}
```

Ezek után konzolban kiadtam a *./gradlew build* parancsot



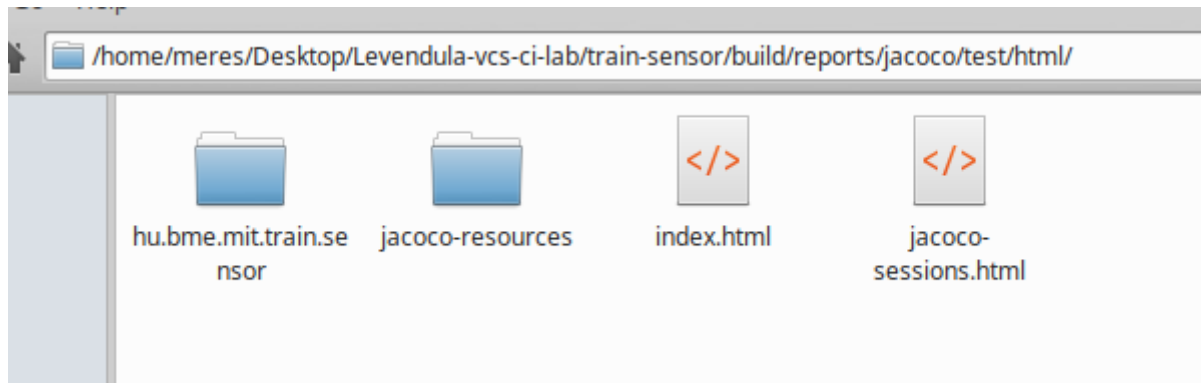
```
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ ./gradlew build
BUILD SUCCESSFUL in 10m 38s
14 actionable tasks: 5 executed, 9 up-to-date
```

Ezek után kiadtam a *./gradlew jacocoTestReport* parancsot, majd megkerestem a jelölt mappaszerkezetet.



```
meres@xubuntu ~/Desktop/Levendula-vcs-ci-lab (annamaria) $ ./gradlew jacocoTestReport
BUILD SUCCESSFUL in 5m 22s
11 actionable tasks: 2 executed, 9 up-to-date
```

név: Gálik Annamária
neptun-kód: WGMUO2



Megnyitottam a .html fájl egyikét, ezek után látható a lefedettség:

hu.bme.mit.train.sensor

| Element | Missed Instructions | Cov. | Missed Branches | Cov. | Missed | Cxty | Missed | Lines | Missed | Methods | Missed | Classes |
|---------------------------------|------------------------|------|------------------------|------|--------|------|--------|-------|--------|---------|--------|---------|
| TrainSensorImpl | <div><div></div></div> | 94% | <div><div></div></div> | 75% | 2 | 7 | 1 | 16 | 0 | 3 | 0 | 1 |
| Total | 4 of 67 | 94% | 2 of 8 | 75% | 2 | 7 | 1 | 16 | 0 | 3 | 0 | 1 |