CiCD / Übung 01- Lichtenberger Marco

1)

Erfolgreich einen Fork erstellt.

https://github.com/Lichtiix/cicd-BA-uebung01-Lichtenberger

Upstream:

```
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> git remote -v
origin  https://github.com/Lichtiix/cicd-BA-uebung01-Lichtenberger.git (fetch)
origin  https://github.com/Lichtiix/cicd-BA-uebung01-Lichtenberger.git (push)
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger>
```

Maven installiert:

```
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> mvn -v
Apache Maven 3.9.11 (3e54c93a704957b63ee3494413a2b544fd3d825b)
Maven home: C:\SDK\apache-maven-3.9.11
Java version: 17.0.12, vendor: Oracle Corporation, runtime: C:\Program Files\jdk-17.0.12
Default locale: de_DE, platform encoding: Cp1252
OS name: "windows 11", version: "10.0", arch: "amd64", family: "windows"
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger>
```

Projekt testen mit Maven:

Test wirft einen Fehler nach suchen des Fehlers hab ich entdeckt das dies absichtlich so ist, welcher in den nächsten schritten behoben werden soll.

```
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> mvn -q -DskipTests=false test
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> mvn -q -DskipTests=false test
[ERROR] Tests run: 3, Failures: 1, Errors: 0, Skipped: 0, Time elapsed: 0.030 s <<< FAILURE! -- in com.example.cicd.TextUtilsTest
[ERROR] com.example.cicd.TextUtilsTest.isPalindrome_caseInsensitive_expectedTrue -- Time elapsed: 0.019 s <<< FAILURE!
org.opentest4j.AssertionFailedError: expected: <true> but was: <false>
        at org.junit.jupiter.api.AssertionFailureBuilder.build(AssertionFailureBuilder.java:151)
        at org.junit.jupiter.api.AssertionFailureBuilder.buildAndThrow(AssertionFailureBuilder.java:132)
        at org.junit.jupiter.api.AssertTrue.failNotTrue(AssertTrue.java:63)
        at org.junit.jupiter.api.AssertTrue.assertTrue(AssertTrue.java:36)
        at org.junit.jupiter.api.AssertTrue.assertTrue(AssertTrue.java:31)
        at org.junit.jupiter.api.Assertions.assertTrue(Assertions.java:183)
        at com.example.cicd.TextUtilsTest.isPalindrome_caseInsensitive_expectedTrue(TextUtilsTest.java:25)
        at java.base/java.lang.reflect.Method.invoke(Method.java:568)
        at java.base/java.util.ArrayList.forEach(ArrayList.java:1511)
        at java.base/java.util.ArrayList.forEach(ArrayList.java:1511)

[ERROR] Failures:
[ERROR]   TextUtilsTest.isPalindrome_caseInsensitive_expectedTrue:25 expected: <true> but was: <false>
[ERROR] Tests run: 6, Failures: 1, Errors: 0, Skipped: 0
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:3.2.5:test (default-test) on project ci-cd-uebung: There a
re test failures.
[ERROR]
[ERROR] Please refer to C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger\target\surefire-reports for the individual test result
s.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
```

2)

Jeweils 1 extra UnitTest eingefügt:

```java
/*
 * @Test
 * void isPalindrome_caseInsensitive_expectedTrue() {
 * assertTrue(TextUtils.isPalindrome("Anna"));
 * }
 */
@Test
void textutils_safeParseInt_null_returnsZero() {
    assertEquals(0, TextUtils.safeParseInt(s:null)); // prüft robustes Verhalten bei null
}
```

```java
// Extra Test für die Aufgabe 2)
@Test
void calculator_subtract_negativeResult() {
    Calculator c = new Calculator();
    assertEquals(-1, c.subtract(a:2, b:3)); // prüft negatives Ergebnis
}
```

```
[INFO] Running com.example.cicd.CalculatorTest
[INFO] Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.109 s -- in com.example.cicd.CalculatorTest
[INFO] Running com.example.cicd.TextUtilsTest
[INFO] Tests run: 3, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.009 s -- in com.example.cicd.TextUtilsTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 7, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- jacoco:0.8.11:report (report) @ ci-cd-uebung ---
[INFO] Loading execution data file C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger\target\jacoco.exec
[INFO] Analyzed bundle 'ci-cd-uebung' with 4 classes
```

Durch auskommentieren des Fehlerhaften Tests habe ich nun einen Komplett erfolgreichen Test.

3)

Branch erstellt.

```
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> git fetch origin
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> git checkout -b feature/about-me
Switched to a new branch 'feature/about-me'
```

Commit:

```
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> git add about-me.md
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> git commit -m "feat: add about-me.md (feature/about-me)"
[feature/about-me 1711bc6] feat: add about-me.md (feature/about-me)
 1 file changed, 10 insertions(+)
 create mode 100644 about-me.md
```

Push:

```
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> git push -u origin feature/about-me
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 20 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 571 bytes | 571.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'feature/about-me' on GitHub by visiting:
remote:      https://github.com/Lichtiix/cicd-BA-uebung01-Lichtenberger/pull/new/feature/about-me
remote:
To https://github.com/Lichtiix/cicd-BA-uebung01-Lichtenberger.git
 * [new branch]      feature/about-me -> feature/about-me
branch 'feature/about-me' set up to track 'origin/feature/about-me'.
```

Überprüft:

```
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> git branch --show-current
feature/about-me
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> git branch -vv
* feature/about-me 1711bc6 [origin/feature/about-me] feat: add about-me.md (feature/about-me)
  main            c65c425 [origin/main] updated source files
```
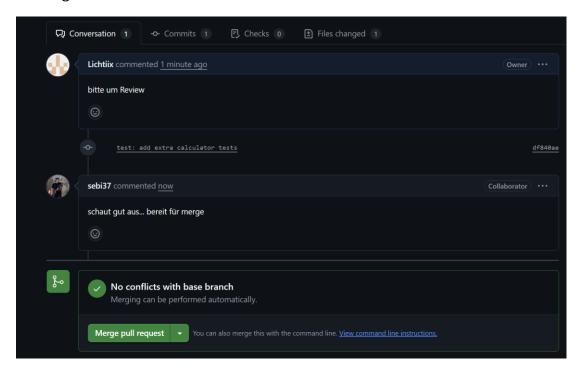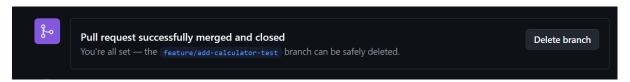
4)

Feature Branch auf main zusammen geführt:

```
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> git switch main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger> git merge --no-ff feature/about-me -m "feat: merge feature/about-me into m
ain"
Auto-merging README.md
CONFLICT (content): Merge conflict in README.md
Automatic merge failed; fix conflicts and then commit the result.
```

Mit VSCode Merge Manger gelöst, das Readme.md File war schon mit schritt 5) updated bevor der Merge angefragt wurde und wurde von mir manuell gelöst!

Hinzufügen weiterer Tests zur Erfüllung der Aufgabe, da ich den ersten Pull Request selbst gelöst habe ..

Pull request successfully merged and closed
You're all set — the `feature/add-calculator-test` branch can be safely deleted.

Delete branch

5)

```markdown
### (5) Dokumentation (2 P.)

- Ergänze die `README.md` im Main-Branch um den Abschnitt:

  ```markdown
  ## Übung 1

  - Autor: <Lichetnberger Marco>
  - Besonderheit: <Bisher nur wenig Erfahrung mit GIT in Rahmen des Projekts (Alles auf Main Branch pushen was man erledigt hat.)>
  ```
```