

## 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 are test failures.
[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
PS C:\FH\5.Semester\CICD\Ex01\cicd-BA-uebung01-Lichtenberger>
```

2)

Jeweils 1 extra UnitTest eingefügt:

```
/*
 * @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
}

// 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] Results:
[INFO] Tests run: 7, Failures: 0, Errors: 0, Skipped: 0
[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 Kompletten 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 main"
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!

5)

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

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

```markdown
## Übung 1

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