1. Projektverzeichnis mit pom.xml erstellen

```
mvn -B archetype:generate \
    -Da rch ety peG rou pId =or g.a pac he.m av -
en.a rc hetypes \
    -Dg rou pId =co m.g ith ub.o wn er.r ep oname \
    -Da rti fac tId =my-app
```

Anschließend ins neu angelegte Projektverzeichnis wechseln

2. Maven Wrapper anlegen

```
mvn -N io.takari:maven:wrapper -Dmaven=3.6.0
```

Im Projektverzeichnis ausführen

3. Verzeichnisstruktur erstellen

```
mkdir docs
mkdir etc
mkdir src/ma in/ res ources
```

4. Anlegen der Datei: .gitignore

```
# Compiled class file
*.class
# Log file
*.log
# BlueJ files
*.ctxt
# Mobile Tools for Java (J2ME)
.mtj.tmp/
# Package Files #
*.jar
*.war
*.nar
*.ear
*.zip
*.tar.gz
*.rar
# virtual machine crash logs, see http:/ /ww w.j -
ava.co m/e n/d own loa d/h elp /er ror _ho tsp -
ot.xml
```

4. Anlegen der Datei: .gitignore (cont)

```
> hs_err_pid*
# IDE IntelliJ
/.idea
*.iml
# Build Maven
/target
```

pom.xml erweitern

```
<properties>
        <pr oje ct.b ui ld.s ou rce Enc odi ng> -
UTF -8< /pr oje ct.b ui ld.s ou rce Enc odi ng>
        <ma ven.co mpi ler.so urc e>1.8< /ma -
ven.co mpi ler.so urc e>
        <ma ven.co mpi ler.ta rge t>1.8< /ma -
ven.co mpi ler.ta rge t>
        <ma ven -co mpi ler -pl ugi n.v ers ion -
>3.7.0 </m ave n-c omp ile r-p lug in.v er sio n>
</p rop ert ies>
<pr ere qui sit es>
      <ma ven >3.6.0 </m ave n>
</p rer equ isi tes>
<de pen den cyM ana gem ent>
        <de pen den cie s>
            <de pen den cy>
                <gr oup Id> com.go ogl e.d agg -
er< /gr oup Id>
                <ar tif act Id> dag ger </a rti -
fac tId>
                <ve rsi on> 2.2 1</ ver sio n>
            </d epe nde ncy>
            <de pen den cy>
                <gr oup Id> com.go ogl e.d agg -
er< /gr oup Id>
                <ar tif act Id> dag ger -co mpi -
ler </a rti fac tId>
                <ve rsi on> 2.2 1</ ver sio n>
            </d epe nde ncy>
            <de pen den cy>
                <gr oup Id> com.go ogl e.g uav -
a</ gro upI d>
                <ar tif act Id> gua va< /ar tif -
act Id>
```


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pom.xml erweitern (cont)

```
>        <version>27.0.1-jre</version>
      </dependency>
    </dependencies>
  </dependencyManagement>
 <dependencies>
    <!-- Logging -->
    <dependency>
      <groupId>org.slf4j</groupId>
      <artifactId>slf4j-api</artifactId>
      <version>1.7.25</version>
      <scope>compile</scope>
    </dependency>
    <!-- DI für Java SE Umgebungen -->
    <dependency>
      <groupId>com.google.dagger</groupId>
      <artifactId>dagger</artifactId>
      <scope>compile</scope>
    </dependency>
    <!-- Objektfunktionales Paradigma -->
    <dependency>
      <groupId>io.vavr</groupId>
      <artifactId>vavr</artifactId>
      <version>1.0.0-alpha-2</version>
      <scope>compile</scope>
    </dependency>
    <dependency>
      <groupId>com.google.guava</groupId>
      <artifactId>guava</artifactId>
      <scope>compile</scope>
    </dependency>

    <!-- APIs von denen die Generate abhängen -->
```

pom.xml erweitern (cont)

```
>     <dependency>
      <groupId>javax.validation</groupId>
      <artifactId>validation-api</artifactId>
      <version>2.0.1.Final</version>
      <scope>compile</scope>
    </dependency>
    <dependency>
      <groupId>org.apache.bval</groupId>
      <artifactId>bval-jsr</artifactId>
      <version>2.0.0</version>
      <scope>compile</scope>
    </dependency>
    <!-- Test Abhängigkeiten -->
    <dependency>
      <groupId>org.junit.jupiter</groupId>
      <artifactId>junit-jupiter-api</artifactId>
      <version>5.4.0</version>
      <scope>test</scope>
    </dependency>
    <dependency>
      <groupId>com.tngtech.archunit</groupId>
      <artifactId>archunit-junit5-api</artifactId>
      <version>0.9.3</version>
      <scope>test</scope>
    </dependency>
    <!-- Logging -->
    <dependency>
      <groupId>ch.qos.logback</groupId>
      <artifactId>logback-classic</artifactId>
      <version>1.2.3</version>
      <scope>test</scope>
```


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pom.xml erweitern (cont)

```
>    </dependency>

  </dependencies>
  <organization>
    <name>PIUG</name>
    <url>https://piug.slack.com</url>
  </organization>
 <reporting>
    <plugins>
      <plugin>
        <groupId>org.apache.maven.plugins</groupId>
        <artifactId>maven-project-info-reports-plugin</artifactId>
        <version>2.9</version>
        <reportSets>
          <reportSet>
            <configuration>
              <skip>true</skip>
            </configuration>
          </reportSet>
        </reportSets>
      </plugin>
    </plugins>
  </reporting>
```

5. Anlegen der Datei: Changelog.adoc

```
# Changelog
Alle wichtigen Änderungen am Projekt sind in
dieser Datei dokume ntiert.
Das Format basiert auf http:/ /ke epa cha nge -
log.co m/d e/[Keep a Change log].
Die Versio nierung erfolgt nachhttp:/ /se mve -
r.o rg/ lan g/d e/[ Sem antic Versio ning].
// ## [3.1.1] fertig ges tellt 2018-05-11
## [unrel eased]
### Added
- https: //g ith ub.c om /ow ner /re pon ame /is -
sue s/1 [issue #1] Projekt aufges etzt.
```

5. Anlegen der Datei: Changelog.adoc (cont)

```
> ### Changed
- n/a
### Removed
- n/a
```

6. Anlegen der Datei: .editorconfig

```
# EditorConfig is awesome:
https://EditorConfig.org
# top-most Editor Config file
root = true
# Unix-style newlines with a newline ending every
file
[*]
end_of _line = lf
insert _fi nal _ne wline = true
charset = utf-8
indent _style = space
indent _size = 4
# Indent ation override for all JS under lib
directory
[*.{pr ope rti es, xml}]
indent _style = space
indent _size = 2
# Matches the exact files either packag e.json or
.travi s.yml
[{pack age.js on,.tr avi s.yml}]
indent _style = space
indent _size = 2
```

7. Anlegen der Datei: .travis.yml

```
language: java
jdk:
   - oraclejdk8
script: ./mvnw clean install
after_ suc cess:
   - bash <(curl -s https: //c ode cov.io /bash)
```


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8. Anlegen der Datei: etc/version-rules.xml

```
<ruleset comparisonMethod="maven"
                  xml ns= " htt p:/ /mo jo.c od -
eha us.o rg /ve rsi ons -ma ven -pl ugi n/r -
ule /2.0.0 "
                  xml ns: xsi ="ht tp: //w ww.w -
3.o rg /20 01/ XML Sch ema -in sta nce "
                  xsi :sc hem aLo cat ion ="ht -
tp: //m ojo.co deh aus.or g/v ers ion s-m ave n-p -
lug in/ rul e/2.0.0 http:/ /mo jo.c od eha us.o -
rg /ve rsi ons -ma ven -pl ugi n/x sd/ rul e-
2.0.0.x sd">
        <ig nor eVe rsi ons>
                <ig nor eVe rsion type="r ege x">.
beta.</i gno reV ers ion>
                <ig nor eVe rsion type="r ege x">.
alpha.</i gno reV ers ion>
        </i gno reV ers ion s>
</r ule set>
```

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```
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