

Setup Examples

In this section you will find a number of simple examples, that shall help you, setting up your development environment.

1. Setup

Installation

- **Check, if Java is already installed with command line: `java --version`**
 - If not present, install Java JDK:
 - Download JDK from <https://adoptium.net/temurin/releases/> and extract zip/tar file
 - add Java bin-directory to environment variable PATH
- **Check if Maven is already installed with commandline: `mvn --version`**
 - If not present, install Maven:
 - Download Maven from <https://maven.apache.org/download.cgi> and extract zip/tar file
 - add Maven bin-directory to environment variable PATH
- **Check if git is available with command line: `git --version`**
 - If not present, install git:
 - <https://git-scm.com/downloads/win>
- **Check if IDE is available (e.g. execute `code` on command line)**
 - If not present
 - install IDE like Visual Studio Code <https://code.visualstudio.com/>
 - add Java Plugins:Extension Pack for Java

2. Execute Quiz Program

1.1 Run and debug Quiz via IDE

Try to run the Quiz.java program via your IDE. Set a breakpoint and start Quiz.java in debug mode

1.2 Run Quiz via command line

As already mentioned in the slides, JDK or JRE comes with tools to execute java programs. Run your Quiz program in different ways as described:

Root folder: `quiz`

Compile in bytecode:

```
mkdir classes
javac src/main/java/de/starwit/Quiz.java -d classes
```

Execute Java program:

```
java src/main/java/de/starwit/Quiz.java  
cd classes  
java de.starwit.Quiz
```

Create and execute archive:

```
jar --create --file foo.jar --main-class de.starwit.Quiz -C classes .  
java -jar foo.jar
```

Answer the Questions.

3. Execute and Change Hello World

No software development lecture can start without a hello word example. So execute the following commands:

```
cd hello-world  
mvn clean package  
java -jar target/hello-world.jar
```

- Edit something in App.java and run **mvn compile** and observe output
- Change output to three different messages of your choosing
- run **mvn test** and observe output