

Project Set-up

Prof. Dr. Dirk Riehle

Friedrich-Alexander University Erlangen-Nürnberg

ADAP A03

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Project Set-up Steps

1. Decide on topic for course project
2. Choose and setup development environment
3. Register on GitHub and fork Wahlzeit
4. Set-up Dockerhub
5. Set-up Travis CI
6. Get Wahlzeit running on your machine
7. Set-up debugging
8. Run unit tests

1. Course Project Decision

- Decide on your project idea for Wahlzeit
 - Give it a name, for example, “flowers”

2. Development Environment Set-up

- Install and set-up Java IDE of your choice, e.g.
 - IntelliJ IDEA: <https://www.jetbrains.com/idea>
 - Eclipse: <https://www.eclipse.org/ide>
 - Netbeans: <https://netbeans.org>
- Install Java JDK 8 (or higher, up to 11)
 - As of 2019-10-09, only up to Java 11; **Java 12 does not work**
 - If you need to manage multiple JDK versions: <https://sdkman.io/>
- Install Git (command-line)
 - If you need a GUI: <https://git-scm.com/downloads/guis>
- Install Docker
 - Follow the instructions for your operating system: <https://docs.docker.com/install/>

3. GitHub Set-up

- Register on github.com
 - Go to <https://github.com/dirkriehle/wahlzeit> and fork the repository

4. DockerHub Set-up

- Create DockerHub repository
 - Register on <https://hub.docker.com>
 - Create a new repository
 - Name it “wahlzeit”
 - Set visibility to public

5. Travis CI Set-up

- Set-up continuous Integration with Travis CI
 - Sign in with your GitHub account on <https://travis-ci.org/>
 - Add your forked repository to the list of repositories Travis CI should check
 - Set environment variables DOCKERHUB_USER and DOCKERHUB_PW
 - Ensure Travis CI is able to build your project

6. Wahlzeit Set-up

- Clone your repository to create a local repository
 - Ensure master branch is selected
- Import the local repository into your IDE
- Build and run Wahlzeit, try it at <http://localhost:8080/wahlzeit>
 - On the command line, call “./gradlew appengineRun”
 - A first build will take a while and may have intermediate steps

7. Debugging Set-up

- Create remote Java debugging configuration
 - Connection string is “localhost:8000”

8. Unit Test Try-out

- Use Gradle tasks to run unit tests
 - “./gradlew test” runs all unit tests and provide a summary
 - “./gradlew appengineRun” will also run test before starting the application

```
org.wahlzeit.services.mailing.EmailServiceTest > testSendValidEmail PASSED  
org.wahlzeit.handlers.TellFriendTest > testTellFriendMakeWebPart PASSED  
org.wahlzeit.handlers.TellFriendTest > testTellFriendPost PASSED  
Tests run: 83, Failures: 0, Skipped: 0
```

Thank you! Questions?

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Credits and License

- Original version
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- Contributions
 - Andreas Bauer (2018)

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It is Friedrich-Alexander University Erlangen-Nürnberg – FAU, in short.
Corporate identity wants us to say “Friedrich-Alexander University”.

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DR

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