



UNIVERSITY
OF APPLIED SCIENCES
UPPER AUSTRIA

Continuous Delivery in agile Software Development

Exercise 03 (accompanying Chapter „Continuous Integration“)

FH-Prof. DI Dr. Marc Kurz

Continuous Integration Workflow

- In this exercise you will setup a CI workflow to your project from the second exercise
 - > GitHub will be the VCS
 - > Travis CI or GitHub Actions will be the build tool
 - > Sonarcloud will be used for static code analysis
- This workflow will execute the unit tests of the source code and build the code.
- To trigger it, a change of the codebase has to be performed

Instructions

- Activate Travis CI for your GitHub repository
 - > Follow instructions on: <https://docs.travis-ci.com/user/tutorial/#to-get-started-with-travis-ci>
- Create a file .travis.yml in your repository and add the required elements
- make sure everything runs properly
 - > if so you should see an output similar to the example on the next slide

```
1  os: linux
2
3  language: go
4
5  go:
6    - 1.14.x
7
8  services:
9    - postgresql
10   - docker
11
12 script:
13   # Test the code
14   - go test -v ./...
```

Example of a successful Travis CI Build

The screenshot displays the Travis CI build interface for the repository `mrckurz/go-mux`. The build status is **passing**. The build is on the `master` branch, triggered by a commit `29ffba6`. The build log shows the following steps:

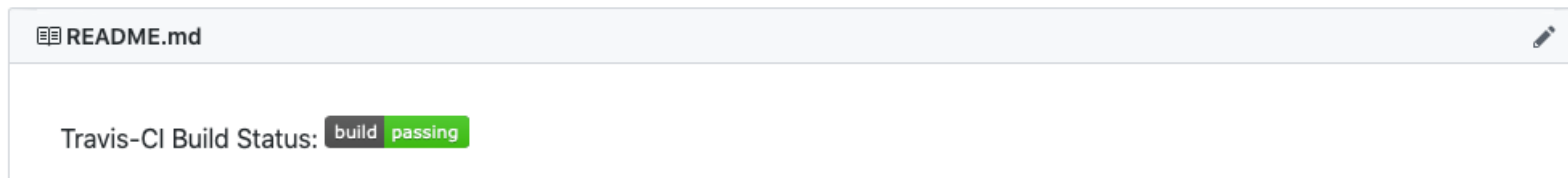
- `Commit 29ffba6`
- `Compare 4328549..29ffba6`
- `Branch master`
- `Go: 1.14.x`
- `AMD64`

The build ran for 54 seconds and was completed less than a minute ago. The job log shows the following output:

```
Updating gimme
1 Worker information
6
66 Build system information
67 Build language: go
68 Build dist: xenial
69 Build id: 162432455
70 Job id: 324381989
71 Runtime kernel version: 4.15.0-1020-gcp
72 travis-build version: c82aac3b
73 Build image provisioning date and time
74 Mon Mar 25 16:43:24 UTC 2019
75 Operating System Details
```

Instructions

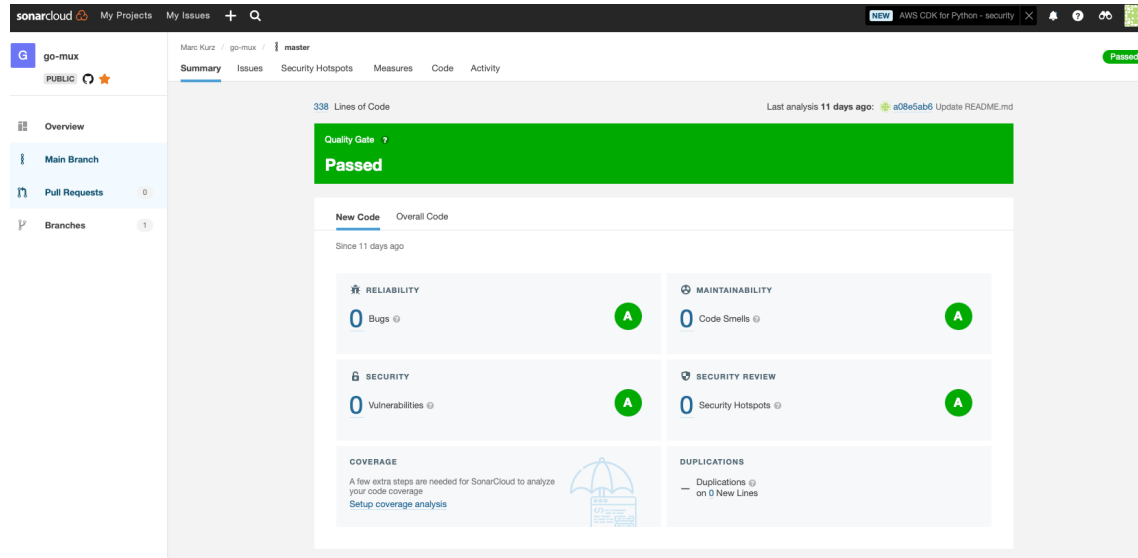
- Trigger a Travis build by a code change and commit to the repo
- Watch Travis executing your tests and building the artefact
 - > 🔍 What is your observation?
- Add Travis CI status to the README.md
 - > follow instructions on: <https://docs.travis-ci.com/user/status-images/>



- For help and inspiration, check out the repo <https://github.com/mrckurz/go-mux>

SonarCloud Integration

- Integrate SonarCloud (<https://sonarcloud.io>) in your process - everytime a new commit is done into the repo, a new Sonar-run should be triggered...



Exercise Submission

- Hand in the zip archive containing your results via Moodle no later than **April 27th, 23:55**



UNIVERSITY
OF APPLIED SCIENCES
UPPER AUSTRIA

Continuous Delivery in agile Software Development

Exercise 03 (accompanying Chapter „Continuous Integration“)

FH-Prof. DI Dr. Marc Kurz