

1. CI/CD Workflow Übersicht (GitHub Actions)

The screenshot shows the GitHub Actions page for the repository 'mybookstore'. The left sidebar contains a navigation menu with 'Actions' selected, and a list of workflow categories: 'All workflows', 'CI/CD Bookstore', 'Management', 'Caches', 'Attestations', 'Runners', 'Usage metrics', and 'Performance metrics'. The main area displays 'All workflows' with a search bar and a table of workflow runs. The table lists four runs, all on the 'main' branch, triggered by pushes to the 'main' branch. The runs are: 'backend Dockerfile update' (11 hours ago), 'Update README.md' (12 hours ago), 'Update README.md' (12 hours ago), and 'Okteto entfernen' (12 hours ago).

Workflow	Event	Status	Branch	Actor	Time
backend Dockerfile update	Push	Success	main	thanhtuanh	11 hours ago
Update README.md	Push	Success	main	thanhtuanh	12 hours ago
Update README.md	Push	Success	main	thanhtuanh	12 hours ago
Okteto entfernen	Push	Success	main	thanhtuanh	12 hours ago

2. Build- & Test-Log aus GitHub Actions

The screenshot shows the details of a workflow run for the 'backend Dockerfile update' workflow. The left sidebar contains a navigation menu with 'Summary', 'Jobs', 'Run details', 'Usage', and 'Workflow file'. The 'Jobs' section is selected, showing a list of jobs: 'build' and 'docker-build-and-deploy'. The 'build' job is selected, showing a list of steps. The steps are: 'Set up job', 'Initialize containers', 'Checkout Repository', 'Setup Java 17', 'Install Google Chrome', 'Build & Test Spring Boot Backend', 'Upload Backend Coverage Report', 'Setup Node.js', 'Build Angular Frontend', 'Run Angular Tests with Coverage', 'Upload Frontend Coverage Report', 'Post Setup Node.js', 'Post Setup Java 17', and 'Post Checkout Repository'. The 'build' job succeeded 11 hours ago in 1m 45s.

Step	Duration
Set up job	2s
Initialize containers	20s
Checkout Repository	1s
Setup Java 17	0s
Install Google Chrome	5s
Build & Test Spring Boot Backend	22s
Upload Backend Coverage Report	1s
Setup Node.js	1s
Build Angular Frontend	22s
Run Angular Tests with Coverage	27s
Upload Frontend Coverage Report	1s
Post Setup Node.js	0s
Post Setup Java 17	0s
Post Checkout Repository	1s

← CI/CD Bookstore

✓ backend Dockerfile update #21 Re-run all jobs ...

Summary

Jobs

- ✓ build
- ✓ docker-build-and-deploy

Run details

- Usage
- Workflow file

docker-build-and-deploy
succeeded 11 hours ago in 32s

Search logs

- > Set up job 1s
- > Checkout Repository 1s
- > Setup Docker Buildx 5s
- > Build Docker Image for Backend 20s
- > Post Setup Docker Buildx 1s
- > Post Checkout Repository 0s
- > Complete job 0s

Deploy to Okteto -> (todo, **okteto.dev** nicht erreichen kann)

3. Frontend-Tests mit Karma

```

• + mybookstore git:(main) x cd frontend
• + frontend git:(main) x npm run test

> frontend@0.0.0 test
> ng test

✓ Browser application bundle generation complete.
08 04 2025 11:01:43.225:WARN [karma]: No captured browser, open http://localhost:9876/
08 04 2025 11:01:43.303:INFO [karma-server]: Karma v6.4.4 server started at http://localhost:9876/
08 04 2025 11:01:43.304:INFO [launcher]: Launching browsers ChromeHeadless with concurrency unlimited
08 04 2025 11:01:43.317:INFO [launcher]: Starting browser Chrome
08 04 2025 11:01:46.457:INFO [Chrome Headless 134.0.0.0 (Mac OS 10.15.7)]: Connected on socket 08INCgtiopk9o0dTAAAB with id 6914656
Chrome Headless 134.0.0.0 (Mac OS 10.15.7): Executed 3 of 3 SUCCESS (0.145 secs / 0.109 secs)
TOTAL: 3 SUCCESS

```

← → ↺ localhost:9876

Karma v 6.4.4 - connected; test: complete; DEBUG

Chrome Headless 134.0.0.0 (Mac OS 10.15.7) is idle

Chrome 134.0.0.0 (Mac OS 10.15.7) is idle

Jasmine 4.6.1 Options

3 specs, 0 failures, randomized with seed 10115 finished in 0.443s

AppComponent

- should have the title "Thanh-Bookstore"
- should render welcome title in h2
- should create the app

4. Backend Unit Tests (BookServiceTest)

