

Sprawozdanie devops

Jenkins

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Informacje

link do repo z projektem i jenkinsfile'm: <https://github.com/Alkowskey/devops-test>

Wynikiem działania pipeline'a jest spakowany plik **deploy.tar.gz**, gdzie znajdują się pliki niezbędne do uruchomienia aplikacji. Aplikacja napisana jest w typescript (*nodejs*), przez co do działania potrzebujemy plików źródłowych, oraz folderu **node_modules**.

Kod źródłowy, razem z jenkinsfile'm potrzebnym do wykonania mojego pipeline'a pobierane jest z githuba. obrazy dockerowe (build, test i deploy) pobierane są z registry. Zdecydowałem się na tą wersję rozpowszechniania obrazów, ze względu na łatwość testowania jednocześnie na maszynie i w jenkinsie. Nie musiałem każdorazowo pushować zmian na repo githubowe.

Sam plik wynikowy zbierany jest po zakończeniu wszystkich stage'y wykorzystując artefakty. Zapisany jest w tym formacie, ponieważ aplikacje node'owe nie budują się do jednej binarki. Należy je uruchamiać razem z kodem i folderem node_modules.

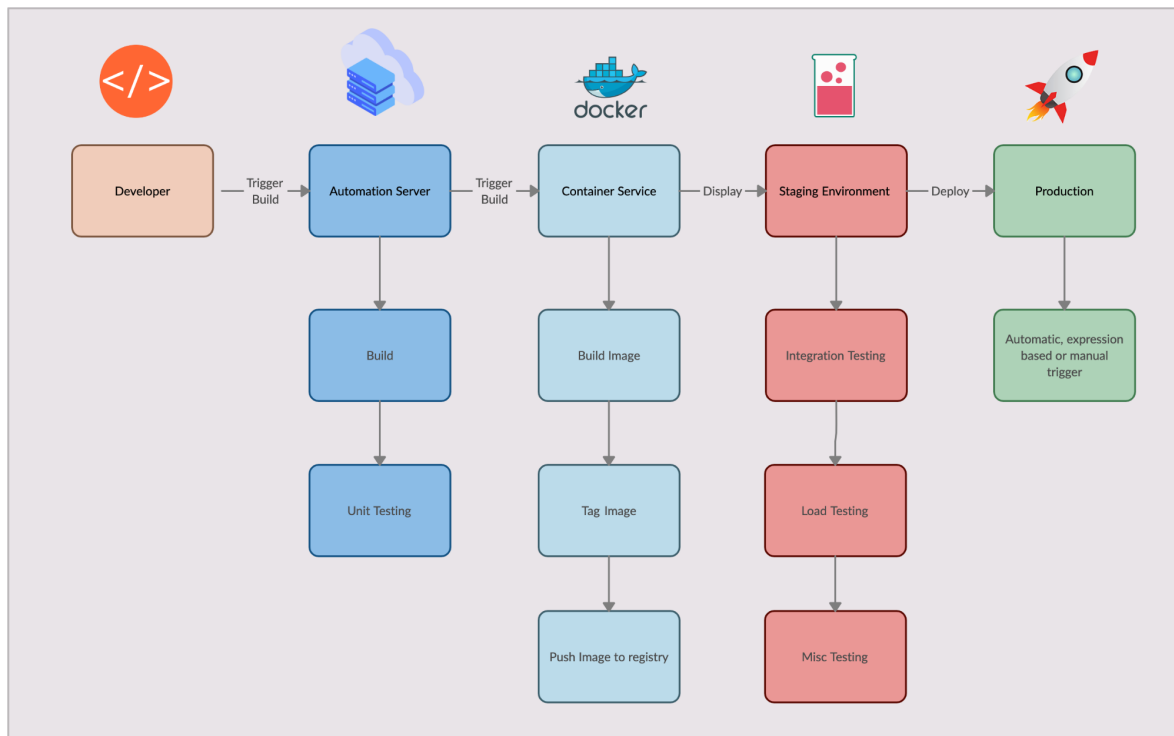
Nie musiałem tworzyć obrazu początkowego, do moich potrzeb podstawowy obraz node, był w pełni wystarczający.

Do współdzielenia pamięci między obrazami dockerowymi, a jenkinsem wykorzystałem opcje `-v` (`--mount` z `type=bind`).

Etapy (stage)

- Build
- Stage
- Deploy
- Post actions (zbieranie artefaktów)


Diagram UML



Logi

Końcowy wynik - można zaobserwować artefakt w postaci wspomnianego wyżej `deploy.tar.gz`.

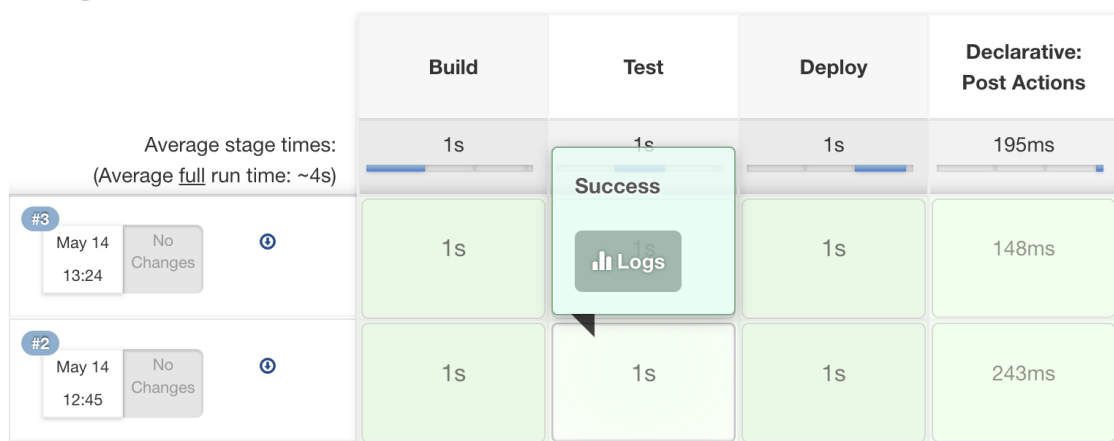
Last Successful Artifacts

 `deploy.tar.gz` 11.89 MB  view

Recent Changes



Stage View



Logi z całego pipeline'a

```
Started by user Aleksander
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/jenkins_home/workspace/test-5
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ mkdir -p shared_volume
[Pipeline] isUnix
[Pipeline] sh
+ pwd
+ docker run -d -v /var/jenkins_home/workspace/test-5/shared_volume:/in
-it alkowskey/devopsbuilder1
[Pipeline] sh
+ ls ./shared_volume -la
total 36352
drwxr-xr-x 3 jenkins jenkins    4096 May 14 10:45 .
drwxr-xr-x 3 jenkins jenkins    4096 May 14 10:45 ..
-rw-r--r-- 1 root    root    37211680 May 14 10:45 deploy.tar.gz
drwxr-xr-x 7 root    root    4096 May 14 10:45
simple-typescript-starter
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Test)
[Pipeline] script
[Pipeline] {
[Pipeline] isUnix
[Pipeline] sh
+ pwd
+ docker run -d -v /var/jenkins_home/workspace/test-5/shared_volume:/in
-it alkowskey/devopstester
[Pipeline] sh
+ ls ./shared_volume -la
total 36352
drwxr-xr-x 3 jenkins jenkins    4096 May 14 10:45 .
drwxr-xr-x 3 jenkins jenkins    4096 May 14 10:45 ..
-rw-r--r-- 1 root    root    37211680 May 14 10:45 deploy.tar.gz
drwxr-xr-x 7 root    root    4096 May 14 10:45
simple-typescript-starter
```

```
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Deploy)
[Pipeline] script
[Pipeline] {
[Pipeline] isUnix
[Pipeline] sh
+ pwd
+ docker run -d -v /var/jenkins_home/workspace/test-5/shared_volume:/in
alkowskey/devopsdeployer:latest
[Pipeline] sh
+ ls ./shared_volume -la
total 1916
drwxr-xr-x 3 jenkins jenkins    4096 May 14 10:45 .
drwxr-xr-x 3 jenkins jenkins    4096 May 14 10:45 ..
-rw-r--r-- 1 root    root    1949696 May 14 11:24 deploy.tar.gz
drwxr-xr-x 7 root    root    4096 May 14 10:45
simple-typescript-starter
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] archiveArtifacts
Archiving artifacts
Recording fingerprints
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Fragment logów wykonanych testów.

```
{
  "startTime":1652525106302,
  "success":true,
  "testResults":[
    {
      "assertionResults":[
        {
          "ancestorTitles":[
            "test"
          ],
          "failureMessages":[

          ],
          "fullName":"test add",
          "location":null,
          "status":"passed",
          "title":"add"
        }
      ],
      "endTime":1652525108228,
      "message":"",
      "name":"/in/simple-typescript-starter/src/index.spec.ts",
      "startTime":1652525106349,
      "status":"passed",
      "summary":""
    }
  ],
  "wasInterrupted":false
}
```

Fragment logów z npm install

24 vulnerabilities (12 moderate, 11 high, 1 critical)

To address issues that **do not** require attention, run:

```
npm audit fix
```

To address all issues (**including** breaking changes), run:

```
npm audit fix --force
```

Run `npm audit` for details.

```
npm notice
```

```
npm notice New minor version of npm available! 8.5.5 -> 8.10.0
```

```
npm notice Changelog: <https://github.com/npm/cli/releases/tag/v8.10.0>
```

```
npm notice Run `npm install -g npm@8.10.0` to update!
```

```
npm notice
```

Logi z npm run build - puste, ponieważ nie było żadnych warningów, ani błędów.

```
> typescript-starter@1.0.0 build
> rimraf ./build && tsc
```

Pliki

build:

```
FROM node
RUN git clone https://github.com/stemmlerjs/simple-typescript-starter.git
WORKDIR /simple-typescript-starter/
RUN npm i 2>&1| tee install1.txt
RUN npm run build 2>&1| tee build.txt
CMD ["cp", "-r", "/simple-typescript-starter", "../in/"]
```

test:

```
FROM alkowskey/devopsbuilder1:latest

WORKDIR /in/simple-typescript-starter/

ENTRYPOINT npm run test -- --json --outputFile=output.json
```

deploy:

```
FROM alkowskey/devopsbuilder1:latest
WORKDIR /in/simple-typescript-starter/
ENTRYPOINT ["tar", "-zcvf", "/in/deploy.tar.gz", "/in/simple-typescript-starter"]
```

jenkinsfile:

```
pipeline {
    agent any
    stages {
        stage('Build') {
            steps {
                script {
                    sh 'mkdir -p shared_volume'
                    docker.image('alkowskey/devopsbuilder1').run("-v \$(pwd)/shared_volume:/in -it")
                    sh 'ls ./shared_volume -la'
                    sh 'ls shared_volume/simple-typescript-starter -la'
                }
            }
        }
        stage('Test'){
            steps{
                script{
                    docker.image('alkowskey/devopstester').run("-v
```

```

\$(pwd)/shared_volume:/in -it")
    sh 'ls ./shared_volume -la'
    sh 'ls shared_volume/simple-typescript-starter -la'

    }
  }
}
stage('Deploy'){
  steps{
    script{
      docker.image('alkowskey/devopsdeployer:latest').run("-v
\$(pwd)/shared_volume:/in")
      sh 'ls ./shared_volume -la'
      sh 'ls shared_volume/simple-typescript-starter -la'

    }
  }
}
}
post {
  always {
    archiveArtifacts artifacts: 'shared_volume/deploy.tar.gz', fingerprint: true
  }
}
}

```


Kroki jak uruchomić

Tworzymy nowy pipeline


Enter an item name

sprawozdanie-pipeline


» Required field


Freestyle project


This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.


Pipeline

Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.


Multi-configuration project

Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.


Folder

Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.

Następnie pipeline należy skonfigurować w podany niżej sposób.

Repository URL podajemy link do publicznego repo na moim githubie.

Script Path należy ustawić na Jenkinsfile

Pipeline

Definition

Pipeline script from SCM

SCM ?

Git

Repositories ?

Repository URL ?

https://github.com/Alkowskey/devops-test

Credentials ?

- none - Add

Advanced...

Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?

*/master

Add Branch

Repository browser ?

(Auto)

Additional Behaviours

Add

Script Path ?

Jenkinsfile

☒ Lightweight checkout ?

[Pipeline Syntax](#)

Teraz można stworzyć i zbudować pipeline'a

Build #1 (May 15, 2022, 3:02:33 PM)



Build Artifacts



[deploy.tar.gz](#)

14.05 MB  [view](#)



Started by user [Aleksander](#)



Revision: 0b297a2f0090b36a6a9203ae95402fd453d835b8

Repository: <https://github.com/Alkowskey/devops-test>

- refs/remotes/origin/master