

## 32. GitHub Actions (introduction)

- Основы автоматизации с GitHub Actions
- Сборка и деплой проекта, создание workflow
- Настройка конфигурационного файла

### Пример 1

Тестовый репозиторий GitHub. Создание workflow, и файла конфигурации .yaml:



Структура blank.yaml (конфигурация сборки, задание имён, переменные нескольких уровней, определение событий, описание jobs и их шагов, зависимость одних Jobs от других, выполнение bash команд):

```
name: My-GitHubActions-Basics
env:
  APPLICATION_NAME      : "MyExample"
  DEPLOY_VERSION        : "deploy-ver-${{ github.sha }}"
on:
  push:
    branches:
      - master
jobs:
  stage_1:
    runs-on: ubuntu-latest
    steps:
      -
        name: Print Hello Message in Testing
        run : echo "Hello World from Testing job"

      - name: Execute few commands
        run : |
          echo "Hello Message1"
          echo "Hello Message2"
          echo "Appication name: ${ env.APPLICATION_NAME }"

      - name: List current folder
        run : ls -la

      - name: Git clone my repo
        uses: actions/checkout@v1

      - name: List current folder
        run : ls -la

  stage_2:
```

```

runs-on: ubuntu-latest
needs: [stage_1]
env:
  VAR1 : "This is Job Level Variable1"
  VAR2 : "This is Job Lebel Variable2"

steps:
- name: Print Hello Message in Deploy
  run : echo "Hello World from Deploy job"

- name: Print env vars
  run : |
    echo "Var1 = ${ env.VAR1 }"
    echo "Var2 = ${ env.VAR2 }"
    echo "Var3 = $LOCAL_VAR"
  env:
    LOCAL_VAR: "This is Superr local Environment variable"

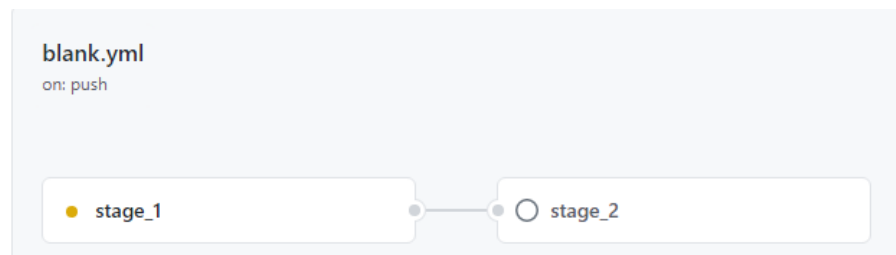
- name: Printing Deployment package
  run : echo "Deplyo pakcage name is ${ env.DEPLOY_PACKAGE_NAME }"

- name: Lets test some packages if they are here 1
  run : aws --version

- name: Lets test some packages if they are here 2
  run : zip --version

```

## Автоматический запуск сборки при событии push:



### Stage1:

#### ● Update blank.yml My-GitHubActions-Basics #2

Summary

Jobs

✓ stage\_1

● stage\_2

#### stage\_1

succeeded in 8 hours in 4s

- > ✓ Set up job
- > ✓ Print Hello Message in Testing
- > ✓ Execute few commands
- > ✓ List current folder
- > ✓ Git clone my repo
- > ✓ List current folder
- > ✓ Complete job

### Stage2:

## Update blank.yml My-GitHubActions-Basics #2

Summary

Jobs

stage\_1

stage\_2

### stage\_2

succeeded in 8 hours in 3s

Set up job

Print Hello Message in Deploy

Print env vars

```
1 ▶ Run echo "Var1 = This is Job Level Variable1"
12 Var1 = This is Job Level Variable1
13 Var2 = This is Job Level Variable2
14 Var3 = This is Superr local Environment variable
```

Printing Deployment package

Lets test some packages if they are here 1

Lets test some packages if they are here 2

Complete job

Пример 2 (Запуск тестовых сценариев в среде Java, автоматическая сборка проекта maven)

Структура репозитория на GitHub:

master	2 branches	0 tags	Go to file	Add file	Code
Linar468	Create e3	e31c4fa	7 hours ago	13 commits	
.circleci	'change'				4 months ago
.github/workflows	changes				9 hours ago
.idea	'initial'				4 months ago
src/test	update stepsDef				9 hours ago
target	'initial'				4 months ago
GitIntegration.iml	'initial'				4 months ago
e3	Create e3				7 hours ago
pom.xml	'initial'				4 months ago

Создание workflow и конфигурация сборки. Maven.yaml:

```
name: Java CI with Maven

on:
  push:
    branches: [ master ]
  pull_request:
    branches: [ master ]

jobs:
  Run_test:
    runs-on: ubuntu-latest
```

```
steps:
- uses: actions/checkout@v2
- name: Set up JDK 11
  uses: actions/setup-java@v2
  with:
    java-version: '11'
    distribution: 'adopt'
- name: Build with Maven
  run: mvn -B package --file pom.xml
```

## Автоматическая сборка при коммите:

✔ Create e3 Java CI with Maven #10

🔄 Re-run jobs ⌵ ⋮

🏠 Summary

Jobs

✔ Run\_test

### Run\_test

succeeded 7 hours ago in 21s

🔍 Search logs



> ✔ Set up job	3s
> ✔ Run actions/checkout@v2	1s
> ✔ Set up JDK 11	0s
> ✔ Build with Maven	16s
> ✔ Post Set up JDK 11	0s
> ✔ Post Run actions/checkout@v2	1s
> ✔ Complete job	0s