

Лабораторная работа 7. CI/CD
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Создаем docker-compose.yml и разворачиваем в нем Jenkins

```
docker-compose.yml
Run All Services
services:
  Run Service
  jenkins:
    image: jenkins/jenkins:lts
    user: root
    ports:
      - "8080:8080"
      - "50000:50000"
    volumes:
      - jenkins_home:/var/jenkins_home
      - /var/run/docker.sock:/var/run/docker.sock
volumes:
  jenkins_home:
```

Запускаем наш контейнер: `docker-compose up -d`

Контейнер успешно запущен и можно перейти на localhost:8080.

Для начала работы с Jenkins нужно установить необходимые плагины: Pipeline, Git

Далее создаем Pipeline и настраиваем связь с github

ройка

Definition

Pipeline script from SCM

SCM ?

Git

Repositories ?

Repository URL ?

https://github.com/diserus/TPO

Credentials ?

- none -

+ Add

Расширенные

+ Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?

*/main

Script Path ?

lab7/Jenkinsfile

Также нужно указать путь к Jenkinsfile

Jenkinsfile

```
pipeline {  
  agent any  
  stages{  
    stage('Qemu') {  
      steps{  
        echo 'Start qemu'  
        sh '''  
        apt-get update
```

```
apt-get install -y qemu-system-arm wget unzip expect
rm -rf romulus romulus.zip || true
wget
"https://jenkins.openbmc.org/job/ci-openbmc/lastSuccessfulBuild/distro=ubuntu,label=doc
ker-builder,target=romulus/artifact/openbmc/build/tmp/deploy/images/romulus/*zip*/
romulus.zip" -O romulus.zip
```

```
unzip -o romulus.zip
LATEST_MTD=$(ls romulus/obmc-phosphor-image-romulus-*.static.mtd | sort -V | tail -1)
nohup qemu-system-arm -m 256 -M romulus-bmc -nographic \
-drive file=$LATEST_MTD,format=raw,if=mtd \
-net nic \
-net user,hostfwd=:0.0.0.0:2222-:22,hostfwd=:0.0.0.0:2443-
:443,hostfwd=udp:0.0.0.0:2623-:623,hostname=qemu \
> qemu.log 2>&1 &
echo $! > qemu.pid
sleep 90
""
}
}
```

```
stage('Auto') {
steps{
echo 'Start autotests and WebUI tests'
sh 'apt install -y python3'
sh 'apt install -y python3-pytest'
sh 'apt install -y python3-selenium'
sh 'apt install -y python3-requests'
catchError(buildResult: 'SUCCESS', stageResult: 'UNSTABLE'){
sh "'cd lab4
ls
python3 -m pytest -v tests.py > web_results.txt 2>&1'"
}
sh 'cd ..'
catchError(buildResult: 'SUCCESS', stageResult: 'UNSTABLE'){
sh "'cd lab5
ls
python3 -m pytest -v test_redfish.py > autotest_results.txt 2>&1'"
}
sh 'cd ..'

}
```

```
}
stage('Locust') {
steps{
echo 'Start Locust tests'
sh 'apt install -y python3 locust'
sh 'apt install -y python3-requests'

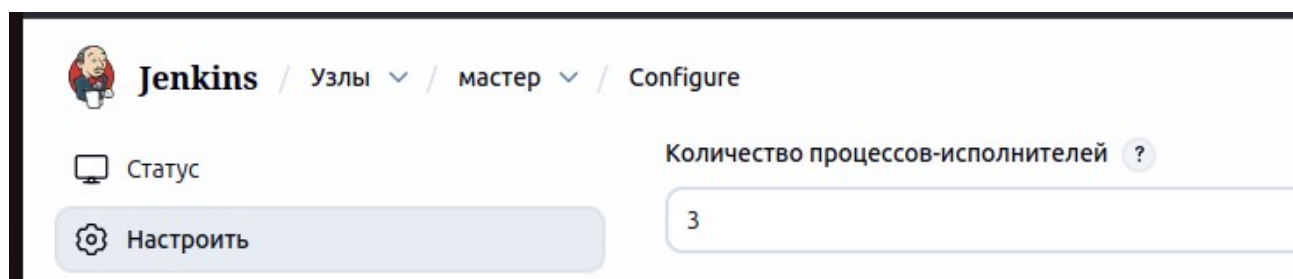
catchError(buildResult: 'SUCCESS', stageResult: 'UNSTABLE'){
```

```

sh '''cd lab6
ls
timeout 180 locust --headless --users 50 --spawn-rate 5 --run-time 3m
--host=https://127.0.0.1:2443 > locust_results.txt 2>&1'''
}
sh 'cd ..'
}
}
stage('Stop Qemu') {
steps {
sh '''
echo "Stop Qemu..."
if [ -f "qemu.pid" ]; then
QEMU_PID=$(cat qemu.pid)
kill $QEMU_PID 2>/dev/null || true
rm -f qemu.pid
echo "Qemu shutted down"
fi
rm -rf romulus/ romulus.zip || true
rm -f *.log *.pid *.json *.csv || true
rm -f qemu.pid image path.txt config.env || true
du -sh . | awk '{print $1}'
'''
}
}
}
post {
always {
archiveArtifacts artifacts: '**/*.txt', fingerprint: true
}
}
}
}

```

По умолчанию количество executors было 0. Я поставил значение 3



Далее запускаем нашу сборку.
Спустя множество попыток и исправлений я получил более менее нормальные артефакты

[2025-11-25 19:55:28,550] 544adale0c74/INFO/locust.main: Starting Locust									
Type	Name	# reqs	# fails	Avg	Min	Max	Med	req/s	failures/s
Aggregated		0	0(0.00%)	0	0	0	0	0.00	0.00
[2025-11-25 19:55:28,551] 544adale0c74/INFO/locust.runners: Ramping to 50 users at a rate of 5.00 per second									
Type	Name	# reqs	# fails	Avg	Min	Max	Med	req/s	failures/s
Aggregated		0	0(0.00%)	0	0	0	0	0.00	0.00
Type	Name	# reqs	# fails	Avg	Min	Max	Med	req/s	failures/s
GET	PublicAPI: Get Posts	1	1(100.00%)	1540	1540	1540	1540	0.00	0.00
GET	PublicAPI: Get Weather	4	4(100.00%)	1149	1080	1331	1100	0.00	0.00
Aggregated		5	5(100.00%)	1227	1080	1540	1100	0.00	0.00
Type	Name	# reqs	# fails	Avg	Min	Max	Med	req/s	failures/s
GET	PublicAPI: Get Posts	1	1(100.00%)	1540	1540	1540	1540	0.00	0.00
GET	PublicAPI: Get Weather	4	4(100.00%)	1149	1080	1331	1100	0.00	0.00
Aggregated		5	5(100.00%)	1227	1080	1540	1100	0.00	0.00
Type	Name	# reqs	# fails	Avg	Min	Max	Med	req/s	failures/s
GET	PublicAPI: Get Posts	4	4(100.00%)	2154	1540	2413	2300	0.17	0.17
GET	PublicAPI: Get Weather	10	10(100.00%)	1938	1080	3746	1500	0.67	0.67
Aggregated		14	14(100.00%)	2000	1080	3746	1500	0.83	0.83
[2025-11-25 19:55:37,560] 544adale0c74/INFO/locust.runners: All users spawned: {"OpenBMCTester": 25, "PublicAPITester": 25} (50 total users)									
Type	Name	# reqs	# fails	Avg	Min	Max	Med	req/s	failures/s
GET	PublicAPI: Get Posts	5	5(100.00%)	2367	1540	3219	2400	0.29	0.29
GET	PublicAPI: Get Weather	11	11(100.00%)	2072	1080	3746	1500	0.57	0.57
Aggregated		16	16(100.00%)	2164	1080	3746	1500	0.86	0.86
Type	Name	# reqs	# fails	Avg	Min	Max	Med	req/s	failures/s
GET	PublicAPI: Get Posts	5	5(100.00%)	2367	1540	3219	2400	0.29	0.29
GET	PublicAPI: Get Weather	11	11(100.00%)	2072	1080	3746	1500	0.57	0.57

Locust почему то не может достучаться до qemu

Ссылка на github: <https://github.com/diserus/TPO>