Звіт
Лабораторна робота 3
ТЕХНОЛОГІЇ ПРОГРАМУВАННЯ
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https://github.com/Utilka/univ_programming_technologies_proj

Инсталируем дженкинс

```
utilka@utilka-Inspiron-3580:~/Personal/productivity_stuff/learning/
learning_docker$ docker network create jenkins

945e38cb620097752ca99bacd821d89cfb653c26404580b1c26b74628a0041fc
utilka@utilka-Inspiron-3580:~/Personal/productivity_stuff/learning/
learning_docker$ docker network ls
NETWORK ID            NAME            DRIVER            SCOPE
ff35c58bd818          bridge          bridge            local
e2dfa1609b51          host            host              local
945e38cb6200          jenkins         bridge            local
5cbe44ba99e4          none            null              local
utilka@utilka-Inspiron-3580:~/Personal/productivity_stuff/learning/
learning_docker$ docker volume create jenkins-docker-certs
jenkins-docker-certs
utilka@utilka-Inspiron-3580:~/Personal/productivity_stuff/learning/
learning_docker$ docker volume create jenkins-data
jenkins-data
utilka@utilka-Inspiron-3580:~/Personal/productivity_stuff/learning/
learning_docker$ docker volume ls
DRIVER                VOLUME NAME
local                 jenkins-data
local                 jenkins-docker-certs

Run &apos;docker COMMAND --help&apos; for more information on a command.
utilka@utilka-Inspiron-3580:~/Personal/productivity_stuff/learning/
learning_docker$ docker container run \
>    --name jenkins-docker \
>    --rm \
>    --detach \
>    --privileged \
>    --network jenkins \
>    --network-alias docker \
>    --env DOCKER_TLS_CERTDIR=/certs \
>    --volume jenkins-docker-certs:/certs/client \
>    --volume jenkins-data:/var/jenkins_home \
>    --publish 2376:2376 \
>    docker:dind
Unable to find image &apos;docker:dind&apos; locally
dind: Pulling from library/docker
df20fa9351a1: Pull complete
25ad7478873d: Pull complete
4684f6177b5d: Pull complete
8ba584e970af: Pull complete
3cdc74d2b06d: Pull complete
4cf5a0d07c1f: Pull complete
fca0ccc462d5: Pull complete
8a08b8f19995: Pull complete
e60a2aec8c6b: Pull complete
84edc63b9e2e: Pull complete
a8919df01d06: Pull complete
Digest: sha256:973c39d7eadb05e45923173bc484961e5b6b527d8b0693c0881e07e9d2fa8ee7
Status: Downloaded newer image for docker:dind
```

```
2f897a868cffd0f89e093b94c904a21e086931921d879c5333aae40f54241d7a
utilka@utilka-Inspiron-3580:~/Personal/productivity_stuff/learning/
learning_docker$ docker container run \

>    --name jenkins-blueocean \
>    --rm \
>    --detach \
>    --network jenkins \
>    --env DOCKER_HOST=tcp://docker:2376 \
>    --env DOCKER_CERT_PATH=/certs/client \
>    --env DOCKER_TLS_VERIFY=1 \
>    --publish 8080:8080 \
>    --publish 50000:50000 \
>    --volume jenkins-data:/var/jenkins_home \
>    --volume jenkins-docker-certs:/certs/client:ro \
>    jenkinsci/blueocean
Unable to find image &apos;jenkinsci/blueocean:latest&apos; locally
latest: Pulling from jenkinsci/blueocean
df20fa9351a1: Already exists
1cb481a13af0: Pull complete
f5efbd400588: Pull complete
7fbf3c26ba26: Pull complete
0540047d6c9d: Pull complete
485fd6d432e9: Pull complete
2fc77091a887: Pull complete
95d0dbf9fd7a: Pull complete
c913a3090f1e: Pull complete
35d4c7fc44a1: Pull complete
56eda281c994: Pull complete
5b3037357f30: Pull complete
5f3cef00cbcf: Pull complete
c3b2457cb5fd: Pull complete
a4f7cf2c02f7: Pull complete
694ca755a145: Pull complete
f484d51c8afe: Pull complete
Digest: sha256:260de220425a052d48b2800f88e2c56c339e680f2a05b05bf30e060c4fe83beb
Status: Downloaded newer image for jenkinsci/blueocean:latest
ef644faa1a056bc9d739ca4c07399ae3e822136cb845dff60cb5c45fcd0f0361
utilka@utilka-Inspiron-3580:~/Personal/productivity_stuff/learning/
learning_docker$ docker ps
CONTAINER ID        IMAGE                  COMMAND                  CREATED
STATUS              PORTS                                            NAMES
ef644faa1a05        jenkinsci/blueocean    "/sbin/tini -- /usr/…"   15 seconds
ago      Up 13 seconds        0.0.0.0:8080->8080/tcp, 0.0.0.0:50000->50000/tcp
jenkins-blueocean
2f897a868cff        docker:dind            "dockerd-entrypoint.…"   About an hour
ago    Up About an hour     2375/tcp, 0.0.0.0:2376->2376/tcp
jenkins-docker
utilka@utilka-Inspiron-3580:~/Personal/productivity_stuff/learning/
learning_docker$ docker container exec -it jenkins-blueocean bash
bash-5.0$
bash-5.0$ exit
exit
utilka@utilka-Inspiron-3580:~/Personal/productivity_stuff/learning/
learning_docker$
```

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log (**not sure where to find it?**) and this file on the server:

`/var/jenkins_home/secrets/initialAdminPassword`

Please copy the password from either location and paste it below.

Administrator password

```
bash-5.0$ cat /var/jenkins_home/secrets/initialAdminPassword
77961aa9c8b648589702c2c45c982b4c
```

Create First Admin User

Username: admin

Password: •••••

Confirm password: •••••

Full name: Utilka

E-mail address: andriy.v.bolshakov@gmail.com

Instance Configuration

Jenkins URL: http://localhost:8080/

The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps.

The proposed default value shown is **not saved yet** and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.

Shell

Shell executable

/bin/sh

Normally you should just leave this field empty and let Jenkins pick up the right shell executable. If your s

Source Code Management

○ None
● Git

Repositories

Repository URL https://github.com/Utilka/univ_programming_technologies_proj.git

Credentials - none - 🔑Add ▾

[Advanced...]

[Add Repository]

Branches to build

Branch Specifier (blank for 'any') */master [X]

[Add Branch]

Repository browser (Auto)

Additional Behaviours [Add ▾]

☑ Build periodically

Schedule

H/15 * * * *

Would last have run at Sunday, October 4, 2020 4:57:12 PM GMT; would next run at Sunday, October 4, 2020 5:12:12 PM GMT.

This field follows the syntax of cron (with minor differences). Specifically, each line consists of 5 fields separated by TAB or whitespace:

MINUTE HOUR DOM MONTH DOW
MINUTE Minutes within the hour (0–59)

Build

☷ Execute shell [X]

Command

```
docker build --tag python_lab_3:0.1 .
```

See the list of available environment variables

[Advanced...]

☷ Execute shell [X]

Command

```
docker run --name py --rm  python_lab_3:0.1
```

See the list of available environment variables

[Advanced...]

[Add build step ▾]

как итог дженкинс билдит проект (да он у меня поработал какоето время в фоне, до того как я его настроил как надо)


```
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/Utilka/univ_programming_technologies_proj.git # timeout=10
Fetching upstream changes from https://github.com/Utilka/univ_programming_technologies_proj.git
 > git --version # timeout=10
 > git --version # 'git version 2.26.2'
 > git fetch --tags --force --progress -- https://github.com/Utilka/univ_programming_technologies_proj.git +refs/he
 > git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision 6a10ec01fe795397344881e62a21225a30569580 (refs/remotes/origin/master)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 6a10ec01fe795397344881e62a21225a30569580 # timeout=10
Commit message: "dockerfile tests"
 > git rev-list --no-walk 6a10ec01fe795397344881e62a21225a30569580 # timeout=10
[lab_3] $ /bin/sh -xe /tmp/jenkins7984878597325981308.sh
+ docker build --tag python_lab_3:0.1 .
Sending build context to Docker daemon  952.3kB

Step 1/3 : FROM python
 ---> dfc47c6cee13
Step 2/3 : COPY . .
 ---> Using cache
 ---> 7276ac8ce1f5
Step 3/3 : CMD [ "python", "./unitTest.py" ]
 ---> Using cache
 ---> 29976006b5c0
Successfully built 29976006b5c0
Successfully tagged python_lab_3:0.1
[lab_3] $ /bin/sh -xe /tmp/jenkins5112158247012026043.sh
+ docker run --name py --rm python_lab_3:0.1
test_sorting (__main__.TestArr) ... ok
test_reverse_sorting (__main__.TestArr) ... ok
test_duplicates_removal (__main__.TestArr) ... ok
test_universality (__main__.TestArr) ... ok
test_merge (__main__.TestArr) ... ok
test_exceptions (__main__.TestArr) ... ok

----------------------------------------------------------------------
Ran 6 tests in 0.002s

OK
Finished: SUCCESS
```

Выводы:
Я установил и настроил дженкинс