

LSC raport  
Lab 7  
Dawid Białka  
01.12.22



**AGH**

## Task 1.

```
dawid@DESKTOP-389PK2L:/mnt/d/semestr_XIX/lsc/lab7$ cat hello.sh
#!/bin/bash
```

```
echo 'hello world'
```

```
dawid@DESKTOP-389PK2L:/mnt/d/semestr_XIX/lsc/lab7$ _
```

```
dawid@DESKTOP-389PK2L:/mnt/d/semestr_XIX/lsc/lab7$ docker run -it task1 bash hello.sh
hello world
```

```
root@e57d477c0741:/etc# cat os-release
PRETTY_NAME="Ubuntu 22.04.1 LTS"
NAME="Ubuntu"
VERSION_ID="22.04"
VERSION="22.04.1 LTS (Jammy Jellyfish)"
VERSION_CODENAME=jammy
```

```
dawid@DESKTOP-389PK2L:/mnt/c/WINDOWS/system32$ docker exec -i e57d477c0741 dpkg -l
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend
| / Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
+-----+-----+-----+-----+
|| Name          | Version | Architecture | Description
+-----+-----+-----+-----+
|| adduser       | 3.118ubuntu5 | all          | add and remove users and groups
|| apt           | 2.4.8      | amd64        | commandline package manager
|| base-files    | 12ubuntu4.2 | amd64        | Debian base system miscellaneous files
|| base-passwd   | 3.5.52build1 | amd64        | Debian base system master password and group files
|| bash          | 5.1-6ubuntu1 | amd64        | GNU Bourne Again SHell
|| bsdutils      | 1:2.37.2-4ubuntu3 | amd64        | basic utilities from 4.4BSD-Lite
|| coreutils     | 8.32-4.1ubuntu1 | amd64        | GNU core utilities
|| dash          | 0.5.11+git20210903+057cd650a4ed-3build1 | amd64        | POSIX-compliant shell
|| debconf       | 1.5.79ubuntu1 | all          | Debian configuration management system
|| debianutils   | 5.5-1ubuntu2 | amd64        | Miscellaneous utilities specific to Debian
|| diffutils     | 1:3.8-0ubuntu2 | amd64        | File comparison utilities
|| dpkg          | 1.21.1ubuntu2.1 | amd64        | Debian package management system
|| e2fsprogs     | 1.46.5-2ubuntu1.1 | amd64        | ext2/ext3/ext4 file system utilities
|| findutils     | 4.8.0-1ubuntu3 | amd64        | utilities for finding files--find, xargs
|| gcc-12-base:amd64 | 12.1.0-2ubuntu1~22.04 | amd64        | GCC, the GNU Compiler Collection (base package)
|| gpgv          | 2.2.27-3ubuntu2.1 | amd64        | GNU privacy guard - signature verification tool
```

Commands that can be used to check what packages are installed:

```
docker exec -i <container_id_1> apk info -vv | sort
```

```
docker exec -i <container_id_1> dpkg -l
```

```
docker exec -i <container_id_1> rpm -qa
```

## Task 2.

```
dawid@DESKTOP-389PK2L:/mnt/d/semestr_XIX/lsc/lab7/task2$ docker run -p 8050:80 -d task2
5c3205c12fc73059a7086b4b2e39af3003549e445ea5ee740bf40f8303267417
dawid@DESKTOP-389PK2L:/mnt/d/semestr_XIX/lsc/lab7/task2$ curl localhost:8050
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN" "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">

  <body>
    <h1>Hello there</h1>
    <h1>General Kenobi</h1>
  </body>

</html>
dawid@DESKTOP-389PK2L:/mnt/d/semestr_XIX/lsc/lab7/task2$
```

### Task 3.

```
dawid@DESKTOP-389PK2L:/mnt/d/semestr_XIX/lsc/lab7/task3$ minikube kubectl -- apply -f deployment.yml
service/task3-service unchanged
deployment.apps/task2 configured
```

```
dawid@DESKTOP-389PK2L:/mnt/d/semestr_XIX/lsc/lab7/task3$ minikube kubectl -- get pods
NAME                                READY   STATUS    RESTARTS   AGE
task2-5db67cd7cf-bm4v2              1/1     Running   0           42s
task2-5db67cd7cf-j2f15              1/1     Running   0           25s
task2-5db67cd7cf-vr1cl              1/1     Running   0           54s
```

```
dawid@DESKTOP-389PK2L:/mnt/d/semestr_XIX/lsc/lab7/task3$ minikube service task3-service --url
http://127.0.0.1:46717
```

```
dawid@DESKTOP-389PK2L:/mnt/d/semestr_XIX/lsc/lab7/task3$ curl http://127.0.0.1:46717
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN" "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">

  <body>
    <h1>Hello there</h1>
    <h1>General Kenobi</h1>
  </body>

</html>
```

deployment.yml file:

```
1  apiVersion: v1
2  kind: Service
3  metadata:
4    name: task3-service
5  spec:
6    type: NodePort
7    ports:
8      - port: 80
9        targetPort: 80
10
11  ---
12  apiVersion: apps/v1
13  kind: Deployment
14  metadata:
15    creationTimestamp: null
16    labels:
17      app: task2
18    name: task2
19  spec:
20    replicas: 3
21    selector:
22      matchLabels:
23        app: task2
24    strategy: {}
25    template:
26      metadata:
27        creationTimestamp: null
28      labels:
29        app: task2
30    spec:
31      containers:
32        - image: task2-kube
33          name: task2-container
34          imagePullPolicy: IfNotPresent
35          resources: {}
36          ports:
37            - containerPort: 80
38      status: {}
39
```