

# Dev-Ops

## Task 4 Report

**Arash  
Behnamfar**



FREE AI LEARNING WEEK IS LIVE  
0 Days 9 Hours 36 Minutes 56 Seconds

Start Learning

Back

Docker Basic Commands

Learn essential Docker commands for container management and operations.

Beginner

Pro

End

13:41

Terminal 1

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CONGRATULATIONS!!!!


You have successfully completed  
the challenge.

End lab session

```
Deleted: sha256:bfee82506d3915fd33091e987014bf0fa4fb5079b2c64f8c4c82cf9289b87096
Deleted: sha256:f829026b115edfb645697aa370a1dfff76055ace8a213d83e559f65699d9555ce
Deleted: sha256:28ff378667a9659a8bafabb2a3cca8d125c66c1cd7f1e8ca2797cbf83e511960
Deleted: sha256:3cf436755aff907c2c6a6fd9202eab0da03f0b331f8d1363078a6534d95608a0
Untagged: nginx:1.14-alpine
Untagged: nginx@sha256:485b610fefec7ff6c463ced9623314a04ed67e3945b9c08d7e53a47f6d108dc7
Deleted: sha256:8a2fb25a19f5dc1528b7a3fabe8b3145ff57fe10e4f1edac6c718a3cf4aa4b73
Deleted: sha256:f68a8bcb9dbd06e0d2750eabf63c45f51734a72831ed650d2349775865d5fc20
Deleted: sha256:cbf2c7789332fe231e8defa490527a7b2c3ae8589997ceee00895f3263f0a8cf
Deleted: sha256:894f3fad7e6ecd7f24e88340a44b7b73663a85c0eb7740e7ade169e9d8491a4c
Deleted: sha256:a464c54f93a9e88fc1d33df1e0e39cca427d60145a360962e8f19a1dbf900da9
Untagged: kodekloud/simple-webapp-mysql:latest
Untagged: kodekloud/simple-webapp-mysql@sha256:92943d2b3ea4a1db7c8a9529cd5786ae3b9999e0246a1
Deleted: sha256:129dd9f673673e9e8507ac837dcd9eaa3906469c10ef4aa63d0cac1f1dfa6b3a
Deleted: sha256:07711c2005c750fa9c42f5667ec657d7f5126f710915cf917cf5c0e9e3871242
```

FREE AI LEARNING WEEK IS LIVE  
0 Days 9 Hours 25 Minutes 47 Seconds

Start Learning

🏠 < Back  **Docker Run** Master the docker run command with various options and configurations. Beginner 1.5 hours

End

🕒 50:27 🔗

🛑 Stop Lab 🔗 📄 ⋮

CONGRATULATIONS!!!!

You have successfully completed the challenge.

🚩 End lab session

Terminal 1

```
~ ➔ docker run -d --name blue-ap
p -p 38282:8080 kodekloud/simple-
webapp:blue
Unable to find image 'kodekloud/simple-webapp:blue' locally
blue: Pulling from kodekloud/simple-webapp
4fe2ade4980c: Already exists
7cf6a1d62200: Already exists
f0d690b9e495: Already exists
fac5d45ad062: Already exists
a6fc8a0deb7d: Pulling fs layer
f43c8e496f88: Downloading 116
a6fc8a0deb7d: Downloading 21.3kB/1.789MB651: Downloading 43.03kB/4.285MB
a6fc8a0deb7d: Extracting 32.77kB
a6fc8a0deb7d: Extracting 98.3kB
a6fc8a0deb7d: Extracting 294.9kB
a6fc8a0deb7d: Extracting 589.8kB
a6fc8a0deb7d: Extracting 950.3kB
```

**Start Learning**

1 hour

53:37

 End lab session

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■ Stop Lab

A complex geometric pattern composed of various line segments in red, orange, and purple, arranged in a grid-like structure with some diagonal elements.

```
~ ❌ docker run -d --name blue-app -e APP_COLOR=blue -p 38282:8080 kodekloud/simple-webapp
14e36de8349a75ecf046c2793520baa27f000c623081abd1ef5efc2ca9b1d1d8
```

```
~ → curl HOST:38282
curl: (6) Could not resolve host: HOST
```

~ X

```
~ ❌ curl http://localhost:38282
<!doctype html>
<title>Hello from Flask</title>
```



FREE AI LEARNING WEEK IS LIVE  
0 Days 9 Hours 0 Minutes 29 Seconds

Start Learning



End

🕒 44:43 🗑️

Terminal 1



■ Stop Lab 🗑️ 📄 ⋮

CONGRATULATIONS!!!!

You have successfully completed the challenge.

🚩 End lab session

```
Installing collected packages: zipp, typing-extensions, MarkupSafe, importlib-metadata, dataclasses, Werkzeug, Jinja2, itsdangerous, click, flask
Successfully installed Jinja2-3.0.3 MarkupSafe-2.0.1 Werkzeug-2.0.3 click-8.0.4 dataclasses-0.8 flask-2.0.3 importlib-metadata-4.8.3 itsdangerous-2.0.1 typing-extensions-4.1.1 zipp-3.6.0
WARNING: Running pip as the 'root' user can result in broken permissions and conflicting behaviour with the system package manager. It is recommended to use a virtual environment instead : https://pip.pypa.io/warnings/venv
WARNING: You are using pip version 21.2.4; however, version 21.3.1 is available.
You should consider upgrading via the '/usr/local/bin/python -m pip install --upgrade pip' command.
---> Removed intermediate container ca520cea262a
---> ffcd10d69413
Step 3/6 : COPY . /opt/
---> 5ebd9342bf72
Step 4/6 : EXPOSE 8080
---> Running in 454ab0c28114
---> Removed intermediate container 454ab0c28114
```

End

53:51

Terminal 1

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Stop Lab

CONGRATULATIONS!!!!

You have successfully completed the challenge.

End lab session

Dockerfile-mysql Dockerfile-python Dockerfile-ubuntu Dockerfile-wordpress app

```
~ → cat Dockerfile--ubuntu
cat: can't open 'Dockerfile--ubuntu': No such file or directory
```

```
~ ✗ cat Dockerfile-ubuntu
#
# Ubuntu Dockerfile
#
# https://github.com/dockerfile/ubuntu
#
```

```
# Pull base image.
FROM ubuntu:14.04
```

```
# Install.
RUN \
    sed -i 's/# \(..*multiverse$\)/\1/g' /etc/apt/sources.list && \
    apt-get update && \
    apt-get -y upgrade && \
    apt-get install -y build-essential && \
    apt-get install -y software-properties-common && \
    apt-get install -y byobu curl git htop man unzip vim wget && \
    rm -rf /var/lib/apt/lists/*
```

```
# Add files.
ADD root/.bashrc /root/.bashrc
ADD root/.gitconfig /root/.gitconfig
ADD root/.scripts /root/.scripts
```

```
# Set environment variables.
ENV HOME /root
```

```
# Define working directory.
WORKDIR /root
```

```
# Define default command.
CMD ["bash"]
```

```
~ → docker run -d ubuntu sleep 1000
```

```
b34c05852202cef0ed5ceab6608219c154f0b24fa72da9e99706cc79091153bb
```

```
~ →
```

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studio.kodekloud.com/labs/docker/docker\_compose

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FREE AI LEARNING WEEK IS LIVE

0 Days 8 Hours 46 Minutes 11 Seconds

Start Learning

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← Back

Docker Compose

Learn Docker Compose for multi-container application orchestration.

Intermediate

2.5 hours

End

🕒 53:55

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Stop Lab

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CONGRATULATIONS!!!!

You have successfully completed the challenge.

End lab session

Terminal 1

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```
alpine: Pulling from library/redis
9824c27679d3: Pull complete
9880d81ff87a: Pull complete
168694ef5d62: Pull complete
f8eab6d4856e: Pull complete
1f79dac8d2d4: Pull complete
4f4fb700ef54: Pull complete
61cfb50eeff3: Pull complete
Digest: sha256:987c376c727652f99625c7d205a1cba3cb2c53b92b0b62aade2bd48ee1593232
Status: Downloaded newer image for redis:alpine
ef07265ae7d1e8bdba5d0fd8c8f1ad656a832a3947392358f2581976cb997db2
controlplane:~# docker run -d --name clickcounter --link redis:redis -p 8085:8080 kodekloud/click-counter

Unable to find image 'kodekloud/click-counter:latest' locally
latest: Pulling from kodekloud/click-counter
540db60ca938: Pull complete
a7ad1a75a999: Pull complete
37ce6546d5dd: Pull complete
ec9e91bed5a2: Pull complete
767433e10bb0: Pull complete
156f0b0493cb: Pull complete
3fe82d8a2401: Pull complete
4a41f7c94204: Pull complete
473063430a4f: Pull complete
452c68a16ccd: Pull complete
Digest: sha256:530e4532a718e8f5cbda05844a6c0638ebe8898fa4c4307ee6afb5dd5d1f213db
Status: Downloaded newer image for kodekloud/click-counter:latest
3825f3def337d2924cad483efbb3bc93b06d6c04564de7793371ee748277de2c
controlplane:~# docker rm -f redis clickcounter

redis
clickcounter
controlplane:~# mkdir -p /root/clickcounter
cd /root/clickcounter

controlplane:~/clickcounter# nano docker-compose.yml

controlplane:~/clickcounter# docker-compose up -d

[+] Running 3/3
✔ Network clickcounter_default      Created      0.2s
✔ Container clickcounter-redis-1    Started      1.0s
✔ Container clickcounter-clickcounter-1 Started      2.0s
controlplane:~/clickcounter#
```



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0 Days 8 Hours 31 Minutes 37 Seconds

Start Learning

End

🕒 46:44

CONGRATULATIONS!!!!

You have successfully completed the challenge.

End lab session

Terminal 1

lib/docker/overlay2 → docker run -d --name mysql-db -e MYSQL\_ROOT\_PASSWORD=db\_pass123 -v /opt/data:/var/lib/mysql mysql

ef01e1b721c8efaead1a8ecc8c860655109fda1a7f7337ce920ed6bf179231cc

lib/docker/overlay2 → sh /root/get-data.sh

mysql: [Warning] Using a password on the command line interface can be insecure.

id	Name	Phone	Email
1	Kareem	130-5655	Duis.volutpat.nunc@quamCurabitur.org
2	Ruby	1-584-149-0770	Nulla.tempor@vitaeorciPhasellus.org
3	Rowan	199-8663	consectetuer.adipiscing.elit@Sedmalesuada.co.uk
4	Alisa	220-6017	elementum.sem.vitae@enimMauris.edu
5	Ella	731-0337	fermentum@nec.net
6	Tiger	658-4480	quis.diam@odiovelest.net
7	Felix	1-274-848-3378	Mauris.vel@arcu.com
8	Karina	1-390-796-3451	sagittis.semper@odioapurus.co.uk
9	Davis	605-8539	venenatis.vel@risusDonecnibh.com
10	Mohammad	1-590-174-1489	ornare.sagittis.felis@natoque.ca
11	Zane	362-1770	Aenean.euismod@condimentum.co.uk
12	Piper	1-231-386-6903	nunc.sed.pede@nascetur.ca
13	Marshall	1-383-729-4990	Cras.interdum.Nunc@neceuismod.ca
14	Zena	241-6641	Fusce.mollis.Duis@lobortis.org
15	Abdul	1-748-387-9935	eget.lacus.Mauris@Crasvehicula.com
16	Chase	1-401-241-9169	ante.dictum.mi@nascetur.org
17	Zahir	921-0663	non@nonummyutmolestie.edu
18	Brenda	1-691-909-5827	Quisque.ac@magnaCras.co.uk
19	Laura	1-562-983-9565	Quisque.ornare.tortor@sollicitudinadipiscing.ca
20	Madison	1-348-737-0587	Quisque.varius@Intinciduntcongue.org
21	Tanek	991-6278	dignissim.magna@Pellentesqueutipsum.net
22	Dakota	893-0792	Nullam.enim.Sed@nulla.net
23	Boris	1-297-302-5792	non.sollicitudin@eleifendegestasSed.co.uk
24	Celeste	723-6729	mauris.rhonus@eunulla.edu
25	Connor	1-203-901-7531	et@loremipsumsodales.edu
26	Perry	1-756-607-9187	eros.turpis@tristiquepharetra.co.uk
27	Hayfa	1-609-407-3019	non.lobortis.quis@malesuadafringilla.net
28	Todd	343-0454	id.erat@arcu.org
29	Fuller	881-7273	non.feugiat.nec@adipiscingelit.net
30	Rama	1-927-605-0610	nonummy.ultricies.ornare@malesuada.co.uk

lib/docker/overlay2 →



FREE AI LEARNING WEEK IS LIVE  
0 Days 8 Hours 2 Minutes 1 Seconds

Start Learning

End 31:21

CONGRATULATIONS!!!!  
You have successfully completed the challenge.

🚩 End lab session

```
172.12.0.0/24

~ → docker run -d --name alpine-2 --network none alpine

adff4a66f3391168e99724f20ce5e3279b025a92e8d7f6b9bb01b86fef1c98ac

~ → docker network create \
--driver bridge \
--subnet 182.18.0.0/24 \
--gateway 182.18.0.1 \
wp-mysql-network

481f858dc2ae01505c3483dae27953baf38c8b47f0fb47d47b44ac59009106d6

~ → docker run -d --name mysql-db --network wp-mysql-network -e MYSQL_ROOT_PASSWORD=db_pass123 mysql:5.7

Unable to find image 'mysql:5.7' locally
5.7: Pulling from library/mysql
20e4dcae4c69: Pull complete
1c56c3d4ce74: Pull complete
e9f03a1c24ce: Pull complete
68c3898c2015: Pull complete
6b95a940e7b6: Pull complete
90986bb8de6e: Pull complete
ae71319cb779: Pull complete
ffc89e9dfd88: Pull complete
43d05e938198: Pull complete
064b2d298fba: Pull complete
df9a4d85569b: Pull complete
Digest: sha256:4bc6bc963e6d8443453676cae56536f4b8156d78bae03c0145cbe47c2aad73bb
Status: Downloaded newer image for mysql:5.7
7665e9707058b2c8f9a6a1effb41b98491d0e95edc4cbbf4a1016f12486987f6

~ → docker run -d --name webapp \
--network wp-mysql-network \
--link mysql-db:mysql-db \
-p 38080:8080 \
-e DB_Host=mysql-db \
-e DB_Password=db_pass123 \
kodecloud/simple-webapp-mysql

c34c9ded37199a8de01083460c60834dd77decca2cbd550a5c0a80c0e967d44

~ →
```

CONGRATULATIONS!!!!  
You have successfully completed the challenge.

 End lab session

## Terminal 1

```

untagged: nginx:latest
untagged: nginx@sha256:d5f28ef21aabddd098f3dbc21fe5b7a7d7a184720bc07da0b6c9b9820e97f25e
untagged: localhost:5000/nginx:latest
untagged: localhost:5000/nginx@sha256:ebe6b7ee1206828d80eabed09809e94222d09fba59c7cda15da41962e06b088e
deleted: sha256:41f689c209100e6cadf3ce7fdd02035e90dbd1d586716bf8fc6ea55c365b2d81
deleted: sha256:6d03e4aefb16ea9e0d73cacb9a9fcb8f7fb3a806c41606600cab179aa381550f
deleted: sha256:0951af45805a90677b83c3e3ae0ff7c1d6114b796206381914d1976df19d5af7
deleted: sha256:dfa09858601e1678c6300924eeb880cbe0070bd41b3cc1bd8245f39104f1c8d7
deleted: sha256:0502b463a609459d9b7bbd8044fd58e77f4309818da8841029dbf638a3a1581e
deleted: sha256:39ffa72f273801580dbcd954e125f78fd5bb430896c32ab303667c5bbf154f39
deleted: sha256:e57750b7e7ad7cb2436b3e9d3aafa338e89ee68f50d7e63bc09af37166ebc68e
deleted: sha256:36f5f951f60a9fa1d51878e76fc16ba7b752f4d464a21b758a8ac88f0992c488
untagged: ubuntu:latest
untagged: ubuntu@sha256:8a37d68f4f73ebf3d4efafbcf66379bf3728902a8038616808f04e34a9ab63ee
deleted: sha256:edbfe74c41f8a3501ce542e137cf28ea04dd03e6df8c9d66519b6ad761c2598a
deleted: sha256:f36fd4bb7334b7ae3321e3229d103c4a3e7c10a263379cc6a058b977edfb46de

```

Total reclaimed space: 1.636GB

```
~ → docker image ls -q | wc -l
```

1

```
~ ➔ docker pull localhost:5000/nginx
Using default tag: latest
latest: Pulling from nginx
cde4222c36b8: Pull complete
cb497a329a81: Pull complete
f1c4d397f477: Pull complete
f72106e86507: Pull complete
899c83fc198b: Pull complete
a785b80f5a67: Pull complete
6c50e4e0c439: Pull complete
Digest: sha256:ebe6b7ee1206828d80eabed09809e94222d09fba59c7cda15da41962e06b088e
Status: Downloaded newer image for localhost:5000/nginx:latest
localhost:5000/nginx:latest
```

```
~ → docker stop my-registry
docker rm my-registry
```

```
my-registry
my-registry
```