

Lab 7 | Docker Compose

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Docker Compose is based on docker-compose.yml file, it helps in defining all of the containers and settings you need to launch your set of clusters.

Docker-compose.yml file:

1. Define container as web, which is based on build
2. Link property is used to link containers
3. Ports are defined as 3000, 8000
4. Defining second container as redis

```
docker-compose.yml
1 web:
2   build: .
3
4   links:
5     - redis
6
7   ports:
8     - "3000"
9     - "8000"
10
11 redis:
12   image: redis:alpine
13   volumes:
14     - /var/redis/data:/data
15
```

5. Docker up

```
$ docker-compose up -d
Building web
Step 1/2 : FROM ocelotuproar/alpine-node:5.7.1-onbuild
# Executing 3 build triggers
---> Running in 23124d7d44e4
scrappbook-redis-node-docker-example@0.0.0 /usr/src/app
`-- redis@0.12.1

Removing intermediate container 23124d7d44e4
---> 200a4039b241
Step 2/2 : EXPOSE 3000
---> Running in 65e2e8c0d09b
Removing intermediate container 65e2e8c0d09b
---> 244c689d626c
Successfully built 244c689d626c
Successfully tagged tutorial_web:latest
WARNING: Image for service web was built because it did not already exist. To rebuild this image you must use
`docker-compose build` or `docker-compose up --build`.
Creating tutorial_redis_1 ... done
Creating tutorial_web_1   ... done
```

6. Checking details of launched containers

```
$ docker-compose ps

```

Name	Command	State	Ports
tutorial_redis_1	docker-entrypoint.sh redis ...	Up	6379/tcp
tutorial_web_1	npm start	Up	0.0.0.0:32769->3000/tcp, 0.0.0.0:32768->8000/tcp

```
$
```

7. Checking logs

```
$ docker-compose logs
Attaching to tutorial_web_1, tutorial_redis_1
web_1 |
web_1 | > scrapbook-redis-node-docker-example@0.0.0 start /usr/src/app
web_1 | > node server.js
web_1 |
web_1 | Listening on port 3001
redis_1 | 1:C 19 Apr 2021 10:18:54.598 # oO0oOo00oO0oOo Redis is starting oO0oOo00oO0oOo
redis_1 | 1:C 19 Apr 2021 10:18:54.602 # Redis version=6.2.1, bits=64, commit=00000000, modified=0, pid=1, j
ust started
redis_1 | 1:C 19 Apr 2021 10:18:54.602 # Warning: no config file specified, using the default config. In orde
er to specify a config file use redis-server /path/to/redis.conf
redis_1 | 1:M 19 Apr 2021 10:18:54.603 * monotonic clock: POSIX clock_gettime
redis_1 | 1:M 19 Apr 2021 10:18:54.603 * Running mode=standalone, port=6379.
redis_1 | 1:M 19 Apr 2021 10:18:54.603 # WARNING: The TCP backlog setting of 511 cannot be enforced because
/proc/sys/net/core/somaxconn is set to the lower value of 128.
redis_1 | 1:M 19 Apr 2021 10:18:54.603 # Server initialized
redis_1 | 1:M 19 Apr 2021 10:18:54.603 # WARNING overcommit_memory is set to 0! Background save may fail unde
r low memory condition. To fix this issue add 'vm.overcommit_memory = 1' to /etc/sysctl.conf and then reboot
or run the command 'sysctl vm.overcommit_memory=1' for this to take effect.
redis_1 | 1:M 19 Apr 2021 10:18:54.604 * Ready to accept connections
```