Chapter 7:

1. docker-compose –version

```
marko@Markos-Desktop MINGW64 /d/Projects/test
$ docker-compose --version
Docker Compose version v2.32.4-desktop.1
```

2. mkdir composeup

   ls composeapp

   cd composeapp

```
marko@Markos-Desktop MINGW64 /d/Projects/test
$ mkdir composeapp

marko@Markos-Desktop MINGW64 /d/Projects/test
$ ls composeapp/

marko@Markos-Desktop MINGW64 /d/Projects/test
$ cd composeapp

marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ |
```

3. touch app.py

4. nano app.py

```
  GNU nano 8.0                              app.py                              Modified
from flask import Flask
from redis import Redis
import os

app = Flask(__name__)
redis = Redis(host="redis", port=6379)

@app.route('/')
def hello():
        redis.incr('hits')
        return 'Hello Docker Book reader! I have been seen {0} times'
        .format(redis.get('hits'))
if __name__ == "__main__":
        app.run(host="0.0.0.0", debug=True)
```

5. touch requirements.txt

   nano requirements.txt

```
  GNU nano 8.0                         requirements.txt                         Modified
flask
redis
```

6. touch Dockerfile

nano Dockerfile


```
GNU nano 8.0                                    Dockerfile                                    Modified
# Compose Sample application image
FROM python:2.7
LABEL maintainer="james@example.com"
ENV REFRESHED_AT 2016-06-01

ADD . /composeapp

WORKDIR /composeapp

RUN pip install -r requirements.txt
```

7. docker build -t markoivanovsk1/composeapp .


```
marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ docker build -t markoivanovsk1/composeapp .
[+] Building 44.9s (10/10) FINISHED                                              docker:desktop-linux
 => [internal] load build definition from Dockerfile                                            0.1s
 => => transferring dockerfile: 232B                                                            0.0s
 => [internal] load metadata for docker.io/library/python:2.7                                   2.1s
 => [auth] library/python:pull token for registry-1.docker.io                                   0.0s
 => [internal] load .dockerignore                                                               0.1s
 => => transferring context: 2B                                                                 0.0s
 => [internal] load build context                                                               0.1s
 => => transferring context: 651B                                                               0.0s
 => [1/4] FROM docker.io/library/python:2.7@sha256:cfa62318c459b1fde9e0841c619906d15ada5910d625176e24bf692cf8a2601d  35.1s
 => => resolve docker.io/library/python:2.7@sha256:cfa62318c459b1fde9e0841c619906d15ada5910d625176e24bf692cf8a2601d   0.1s
 => => sha256:c934af72b8bd03b9804d5bde2569c320926e70392d708d113a2e71bcf98c8a20 2.22kB / 2.22kB   0.0s
 => => sha256:7e2b2a5af8f65687add6d864d5841067e23bd435eb1a051be6fe1ea2384946b4 50.38MB / 50.38MB  5.3s
 => => sha256:cfa62318c459b1fde9e0841c619906d15ada5910d625176e24bf692cf8a2601d 2.14kB / 2.14kB   0.0s
 => => sha256:68e7be49c28c89833fc91b44a8c1db6982b52695749d57c3d6fe995a9bb1df5f 8.93kB / 8.93kB   0.0s
 => => sha256:09b6f03ffac4cb4e42f8ab0bfc480bd3a3fa20e1ddee37784db63bc886b0cbb3 7.81MB / 7.81MB   1.3s
 => => sha256:dc3f0c679f0f4c39597721c1df5cdb4f9685b26bd789a44eeb406835a1800d5f 10.00MB / 10.00MB  1.5s
 => => sha256:fd4b47407fc30b8206971ec60f280b107b00df8007da2fb912ebb8656b53695e 51.83MB / 51.83MB  7.3s
 => => sha256:b32f6bf7d96d26a22dc62da6522f384dcdc936c30c88b233d378e06cf127346d 192.17MB / 192.17MB  16.9s
 => => extracting sha256:7e2b2a5af8f65687add6d864d5841067e23bd435eb1a051be6fe1ea2384946b4         7.1s
 => => sha256:6f4489a7e4cfcda98c90d9fb220ab8dbf5e40a7a6d756ed414707967aa96bfbd 5.79MB / 5.79MB   6.2s
 => => sha256:af4b99ad9ef03daa029d78458e669f135a3c41764bbc154e9d56a3d9b2ee7bf1 18.33MB / 18.33MB  11.1s
 => => sha256:39db0bc48c262bd32f4b201a4fad3dde162e73d3d1135fdaab433477156ad816 1.89MB / 1.89MB   8.2s
 => => sha256:acb4a89489fc21e4c05c6ef86dacf640cab884b3b3e207cfd5ad24da02f14661 7.68MB / 7.68MB   13.5s
 => => extracting sha256:09b6f03ffac4cb4e42f8ab0bfc480bd3a3fa20e1ddee37784db63bc886b0cbb3         0.6s
 => => extracting sha256:dc3f0c679f0f4c39597721c1df5cdb4f9685b26bd789a44eeb406835a1800d5f         0.5s
 => => extracting sha256:fd4b47407fc30b8206971ec60f280b107b00df8007da2fb912ebb8656b53695e         3.8s
 => => extracting sha256:b32f6bf7d96d26a22dc62da6522f384dcdc936c30c88b233d378e06cf127346d        10.4s
 => => extracting sha256:6f4489a7e4cfcda98c90d9fb220ab8dbf5e40a7a6d756ed414707967aa96bfbd         0.4s
 => => extracting sha256:af4b99ad9ef03daa029d78458e669f135a3c41764bbc154e9d56a3d9b2ee7bf1         0.9s
 => => extracting sha256:39db0bc48c262bd32f4b201a4fad3dde162e73d3d1135fdaab433477156ad816         0.3s
 => => extracting sha256:acb4a89489fc21e4c05c6ef86dacf640cab884b3b3e207cfd5ad24da02f14661         0.6s
 => [2/4] ADD . /composeapp                                                                      3.8s
 => [3/4] WORKDIR /composeapp                                                                     0.1s
 => [4/4] RUN pip install -r requirements.txt                                                     2.9s
 => exporting to image                                                                           0.3s
 => => exporting layers                                                                          0.2s
 => => writing image sha256:7bd01166b4881114c48edb16242bdb6c77cc57fa17c91509231a3ea62a0c887b     0.0s
 => => naming to docker.io/markoivanovsk1/composeapp                                             0.0s

View build details: docker-desktop://dashboard/build/desktop-linux/desktop-linux/op2wawjc6r4f7mx5yg3iwffpn

1 warning found (use docker --debug to expand):
 - LegacyKeyValueFormat: "ENV key=value" should be used instead of legacy "ENV key value" format (line 4)

What's next:
    View a summary of image vulnerabilities and recommendations → docker scout quickview
```

8. touch docker-compose.yml

nano docker-compose.yml

```
GNU nano 8.0                          docker-compose.yml                          Modified
version: '3'
services:
 web:
  image: jamtur01/composeapp
  command: python app.py
  ports:
   - "5000:5000"
  volumes:
   - .:/composeapp
 redis:
  image: redis
```

9. docker run -d -p 5000:5000 -v D:\\FINKI\Projects\test\composeapp:/composeapp --
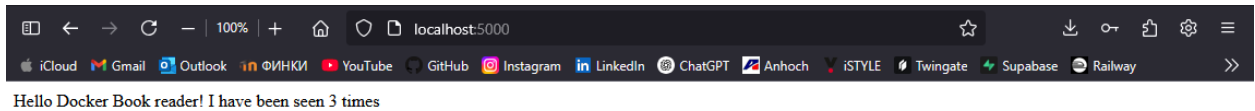   name composeapp markoivanovsk1/composeapp python app.py

```
marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ docker run -d -p 5000:5000 -v D:\\FINKI\Projects\test\composeapp:/composeapp --name composeapp markoivanovsk1/composeapp
python app.py
566fc565b97438479ee94e72507c254e325a764ddaabafbfc9a6dafae5ec7e72
```

10. docker-compose up

```
marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ docker-compose up
time="2025-03-14T20:34:08+01:00" level=warning msg="D:\\Projects\\test\\composeapp\\docker-compose.yml: the attribute 'vers
ion' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 2/2
 ✔Container composeapp-redis-1  Created                                                                          0.0s
 ✔Container composeapp-web-1    Recreated                                                                        0.2s
Attaching to redis-1, web-1
redis-1  | 1:C 14 Mar 2025 19:34:09.252 * oO0OoO00oO00Oo Redis is starting oO0OoO00oO00Oo
redis-1  | 1:C 14 Mar 2025 19:34:09.252 * Redis version=7.4.2, bits=64, commit=00000000, modified=0, pid=1, just started
redis-1  | 1:C 14 Mar 2025 19:34:09.252 # Warning: no config file specified, using the default config. In order to specify
a config file use redis-server /path/to/redis.conf
redis-1  | 1:M 14 Mar 2025 19:34:09.252 * monotonic clock: POSIX clock_gettime
redis-1  | 1:M 14 Mar 2025 19:34:09.253 * Running mode=standalone, port=6379.
redis-1  | 1:M 14 Mar 2025 19:34:09.254 * Server initialized
redis-1  | 1:M 14 Mar 2025 19:34:09.254 * Loading RDB produced by version 7.4.2
redis-1  | 1:M 14 Mar 2025 19:34:09.254 * RDB age 154 seconds
web-1    |   File "app.py", line 12
redis-1  | 1:M 14 Mar 2025 19:34:09.254 * RDB memory usage when created 0.90 Mb
web-1    |     .format(redis.get('hits'))
redis-1  | 1:M 14 Mar 2025 19:34:09.254 * Done loading RDB, keys loaded: 0, keys expired: 0.
web-1    |      ^
redis-1  | 1:M 14 Mar 2025 19:34:09.254 * DB loaded from disk: 0.000 seconds
web-1    | SyntaxError: invalid syntax
redis-1  | 1:M 14 Mar 2025 19:34:09.254 * Ready to accept connections tcp
web-1 exited with code 1
```

11. docker-compose up -d

```
marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ docker-compose up -d
time="2025-03-14T20:39:21+01:00" level=warning msg="D:\\Projects\\test\\composeapp\\docker-compose.yml: the attribute 'vers
ion' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 3/3
 ✔Network composeapp_default    Created                                                                          0.2s
 ✔Container composeapp-redis-1  Started                                                                          0.9s
 ✔Container composeapp-web-1    Started                                                                          0.8s
```

iCloud Gmail Outlook ФИНКИ YouTube GitHub Instagram LinkedIn ChatGPT Anhoch iSTYLE Twingate Supabase Railway »

Hello Docker Book reader! I have been seen 3 times

12. docker-compose ps

```
marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ docker-compose ps
time="2025-03-14T20:40:53+01:00" level=warning msg="D:\\Projects\\test\\composeapp\\docker-compose.yml: the attribute `vers
ion` is obsolete, it will be ignored, please remove it to avoid potential confusion"
NAME                   IMAGE                        COMMAND                      SERVICE    CREATED             STATUS
  PORTS
composeapp-redis-1     redis                        "docker-entrypoint.s…"       redis      About a minute ago  Up About a minute
  6379/tcp
composeapp-web-1       markoivanovsk1/composeapp    "python app.py"              web        About a minute ago  Up About a minute
  0.0.0.0:5000->5000/tcp
```

13. docker-compose logs

```
marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ docker-compose logs
time="2025-03-14T20:41:28+01:00" level=warning msg="D:\\Projects\\test\\composeapp\\docker-compose.yml: the attribute `vers
ion` is obsolete, it will be ignored, please remove it to avoid potential confusion"
redis-1  | 1:C 14 Mar 2025 19:39:22.272 * oO0Oo00OoOO0Oo Redis is starting oO0Oo00OoO0Oo
web-1    |  * Serving Flask app "app" (lazy loading)
web-1    |  * Environment: production
web-1    |    WARNING: This is a development server. Do not use it in a production deployment.
web-1    |    Use a production WSGI server instead.
web-1    |  * Debug mode: on
web-1    |  * Running on http://0.0.0.0:5000/ (Press CTRL+C to quit)
web-1    |  * Restarting with stat
web-1    |  * Debugger is active!
web-1    |  * Debugger PIN: 995-746-284
web-1    | 172.18.0.1 - - [14/Mar/2025 19:39:27] "GET / HTTP/1.1" 200 -
web-1    | 172.18.0.1 - - [14/Mar/2025 19:39:28] "GET /favicon.ico HTTP/1.1" 404 -
web-1    | 172.18.0.1 - - [14/Mar/2025 19:39:29] "GET / HTTP/1.1" 200 -
web-1    | 172.18.0.1 - - [14/Mar/2025 19:39:30] "GET / HTTP/1.1" 200 -
redis-1  | 1:C 14 Mar 2025 19:39:22.272 * Redis version=7.4.2, bits=64, commit=00000000, modified=0, pid=1, just started
redis-1  | 1:C 14 Mar 2025 19:39:22.272 # Warning: no config file specified, using the default config. In order to specify
a config file use redis-server /path/to/redis.conf
redis-1  | 1:M 14 Mar 2025 19:39:22.272 * monotonic clock: POSIX clock_gettime
redis-1  | 1:M 14 Mar 2025 19:39:22.273 * Running mode=standalone, port=6379.
redis-1  | 1:M 14 Mar 2025 19:39:22.273 * Server initialized
redis-1  | 1:M 14 Mar 2025 19:39:22.273 * Ready to accept connections tcp
```

14. docker-compose stop

```
marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ docker-compose stop
time="2025-03-14T20:42:10+01:00" level=warning msg="D:\\Projects\\test\\composeapp\\docker-compose.yml: the attribute `vers
ion` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Stopping 2/2
 ✔ Container composeapp-redis-1    Stopped                                                                            0.6s
 ✔ Container composeapp-web-1      Stopped                                                                            0.7s
```

15. docker-compose ps

```
marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ docker-compose ps
time="2025-03-14T20:42:38+01:00" level=warning msg="D:\\Projects\\test\\composeapp\\docker-compose.yml: the attribute `vers
ion` is obsolete, it will be ignored, please remove it to avoid potential confusion"
NAME      IMAGE      COMMAND    SERVICE    CREATED    STATUS    PORTS
```

16. docker-compose rm

```
marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ docker-compose rm
time="2025-03-14T20:43:04+01:00" level=warning msg="D:\\Projects\\test\\composeapp\\docker-compose.yml: the attribute `vers
? Going to remove composeapp-redis-1, composeapp-web-1 Yes
[+] Removing 2/2e composeapp-redis-1, composeapp-web-1 (y/N) y
  ✔Container composeapp-web-1     Removed                                                          0.0s
  ✔Container composeapp-redis-1   Removed                                                          0.0s
```

17. docker-compose ps

```
marko@Markos-Desktop MINGW64 /d/Projects/test/composeapp
$ docker-compose ps
time="2025-03-14T20:43:27+01:00" level=warning msg="D:\\Projects\\test\\composeapp\\docker-compose.yml: the attribute `vers
ion` is obsolete, it will be ignored, please remove it to avoid potential confusion"
NAME      IMAGE      COMMAND    SERVICE    CREATED    STATUS    PORTS
```