Section 3. „Dockerfile Commands – VOLUME and EXPOSE"

Commands:
Dockerfile.vol:

```
FROM python

VOLUME /data

COPY hello.py /data/
```

$ docker build -t vol -f Dockerfile.vol .

$ docker inspect -f "{{json .Config.Volumes}}" vol

$ docker volume create data

$ docker run -it –name vol -v data:/data vol bash

```
# cd /data
```

```
# ls -al
```

```
# mv hello.py hello.old
```

```
# echo "One more line" >> hello.old
```

```
# more hello.old
```

```
# exit
```

$ docker rm vol

$ docker volume ls

$ docker run -it --rm -v data:/mnt ubuntu:16.04

```
# cd /mnt
```

```
# ls -al
```

```
# more hello.old
```

```
# echo "Surprise!" > another-file.txt
```

```
# ls -al
```

```
# exit
```

$ docker run -it –name vol -v data:/data vol bash

```
# cd /data
```

```
# ls -al
```

```
# more hello.old
```

```
# more another-file.txt
```

```
# exit
```

$ docker rm vol

$ docker volume create data2

$ docker run -it –name vol -v data2:/data vol bash

```
# cd /data
```

```
# ls -l
```

```
# more hello.py
```

```
# exit
```

$ docker rm vol

$ docker volume rm data2

$ docker run -it –name vol vol bash

```
# cd /data
```

```
# ls -al
```

```
# exit
```

$ docker rm vol

$ docker volume ls

$ docker run -it –rm -v 6473493…:/mnt ubuntu:16.04

```
# cd /mnt
```

```
# ls -al
```

```
# more hello.py
```

```
# exit
```

$ docker volume ls

$ docker volume rm 6473493….

$ docker run -it –rm vol bash

```
# cd /data
```

```
# ls -l
```

```
# exit
```

$ docker volume ls

$ mkdir temp

$ docker run -it –name vol -v ${PWD}/temp:/data vol bash

```
# cd /data
```

```
# ls -l
```

```
# exit
```

$ docker rm vol

Dockerfile.vol:

```
FROM python
```

```
COPY start-app.sh /data/
```

```
RUN echo "One more line" >> /data/start-app.sh
```

```
VOLUME /data
```

```
COPY hello.py /data/
```

```
RUN echo "One more line" >> /data/hello.py
```

```
RUN more /data/start-app.sh
```

```
RUN more /data/hello.py
```

$ docker build -t vol -f Dockerfile.vol .

$ docker build -t vol -f Dockerfile.vol .

$ cd manual-build

$ docker build -t hello-port .

$ docker inspect -f "{{json .Config.ExposedPorts}}" hello-port

$ docker run -d –name hello-port -P hello-port

$ docker ps