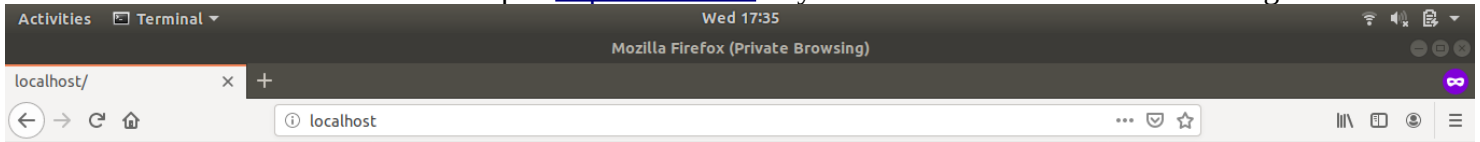


Docker compose

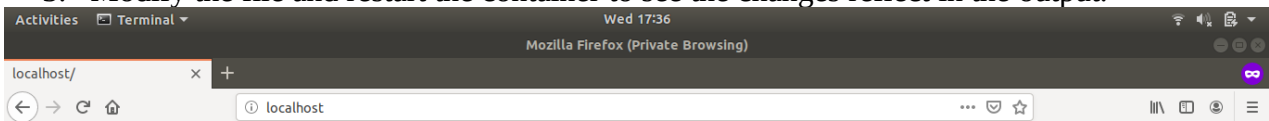
2: Create a volume, mount the volume and configure it in docker-compose.yml file such that the code can be edited inside the container without having to rebuild the docker image. Use the same Web application created in Task 1 to test.

1. Modify the docker-compose.yml to add the config for volume.
2. Create the service and open <http://localhost/> in your browser. You'll see the following:



```
avinas@Quantiphi-929: ~/Documents/containerization/asgn/q3
File Edit View Search Terminal Tabs Help
avinas@Quantiphi-929: ~/Documents/con... x avinas@Quantiphi-929: ~/Documents/con... x
00o000o
redis_1 | 1:C 31 Jul 2019 12:05:30.103 # Redis version=5.0.5, bits=64, commit=0
0000000, modified=0, pid=1, just started
redis_1 | 1:C 31 Jul 2019 12:05:30.103 # Warning: no config file specified, usi
ng the default config. In order to specify a config file use redis-server /path/
to/redis.conf
redis_1 | 1:M 31 Jul 2019 12:05:30.105 * Running mode=standalone, port=6379.
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # WARNING: The TCP backlog setting of 51
1 cannot be enforced because /proc/sys/net/core/somaxconn is set to the lower va
lue of 128.
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # Server initialized
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # WARNING overcommit_memory is set to 0!
Background save may fail under low memory condition. To fix this issue add 'vm.
overcommit_memory = 1' to /etc/sysctl.conf and then reboot or run the command 's
ysctl vm.overcommit_memory=1' for this to take effect.
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # WARNING you have Transparent Huge Page
s (THP) support enabled in your kernel. This will create latency and memory usag
e issues with Redis. To fix this issue run the command 'echo never > /sys/kernel
/mm/transparent_hugepage/enabled' as root, and add it to your /etc/rc.local in o
rder to retain the setting after a reboot. Redis must be restarted after THP is
disabled.
redis_1 | 1:M 31 Jul 2019 12:05:30.106 * Ready to accept connections
web_1 | 172.19.0.1 - - [31/Jul/2019 12:05:33] "GET / HTTP/1.1" 200 -
```

3. Modify the file and restart the container to see the changes reflect in the output.



```
avinas@Quantiphi-929: ~/Documents/containerization/asgn/q3
File Edit View Search Terminal Tabs Help
avinas@Quantiphi-929: ~/Documents/con... x avinas@Quantiphi-929: ~/Documents/con... x
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # WARNING: The TCP backlog setting of 51
1 cannot be enforced because /proc/sys/net/core/somaxconn is set to the lower va
lue of 128.
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # Server initialized
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # WARNING overcommit_memory is set to 0!
Background save may fail under low memory condition. To fix this issue add 'vm.
overcommit_memory = 1' to /etc/sysctl.conf and then reboot or run the command 's
ysctl vm.overcommit_memory=1' for this to take effect.
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # WARNING you have Transparent Huge Page
s (THP) support enabled in your kernel. This will create latency and memory usag
e issues with Redis. To fix this issue run the command 'echo never > /sys/kernel
/mm/transparent_hugepage/enabled' as root, and add it to your /etc/rc.local in o
rder to retain the setting after a reboot. Redis must be restarted after THP is
disabled.
redis_1 | 1:M 31 Jul 2019 12:05:30.106 * Ready to accept connections
web_1 | 172.19.0.1 - - [31/Jul/2019 12:05:33] "GET / HTTP/1.1" 200 -
^CGracefully stopping... (press Ctrl+C again to force)
Stopping q3_web_1 ... done
Stopping q3_redis_1 ... done
avinas@Quantiphi-929:~/Documents/containerization/asgn/q3$ docker start $(docke
r ps -aq)
00b759d65217
4d5e5faa1649
avinas@Quantiphi-929:~/Documents/containerization/asgn/q3$
```

```
File Edit View Search Terminal Tabs Help
avinish@Quantiphi-929: ~/Documents/containerization/asgn/q3 x avinish@Quantiphi-929: ~/Documents/containerization/asgn/q3 x
ver /path/to/redis.conf
redis_1 | 1:M 31 Jul 2019 12:05:30.105 * Running mode=standalone, port=6379.
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # WARNING: The TCP backlog setting of 511 cannot be enforced because /proc/sys/net/core/somaxconn is set to th
e lower value of 128.
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # Server initialized
redis_1 | 1:M 31 Jul 2019 12:05:30.106 # WARNING overcommit_memory is set to 0! Background save may fail under low memory condition. To fix this issu
e 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 31 Jul 2019 12:05:30.106 # WARNING you have Transparent Huge Pages (THP) support enabled in your kernel. This will create latency and m
emory usage issues with Redis. To fix this issue run the command 'echo never > /sys/kernel/mm/transparent_hugepage/enabled' as root, and add it to you
r /etc/rc.local in order to retain the setting after a reboot. Redis must be restarted after THP is disabled.
redis_1 | 1:M 31 Jul 2019 12:05:30.106 * Ready to accept connections
web_1 | 172.19.0.1 - - [31/Jul/2019 12:05:33] "GET / HTTP/1.1" 200 -
^CGracefully stopping... (press Ctrl+C again to force)
Stopping q3_web_1 ... done
Stopping q3_redis_1 ... done
avinish@Quantiphi-929:~/Documents/containerization/asgn/q3$ docker start $(docker ps -aq)
00b759d65217
4d5e5faa1649
avinish@Quantiphi-929:~/Documents/containerization/asgn/q3$ docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED            STATUS              PORTS              NAMES
00b759d65217        q3_web             "flask run"              About a minute ago Up 28 seconds      0.0.0.0:80->5000/tcp q3_web_1
4d5e5faa1649        redis:alpine       "docker-entrypoint.s..." About a minute ago Up 26 seconds      6379/tcp           q3_redis_1
avinish@Quantiphi-929:~/Documents/containerization/asgn/q3$ docker image ls
REPOSITORY          TAG                 IMAGE ID            CREATED            SIZE
q3_web              latest             4db1dc99da19       About a minute ago 213MB
asla.gcr.io/pe-training/av-q1-nginx latest             dc775588efc7       4 hours ago       151MB
aavinashves/q1-nginx latest             dc775588efc7       4 hours ago       151MB
q1-nginx            latest             dc775588efc7       4 hours ago       151MB
q1-nginx            v2.0               dc775588efc7       4 hours ago       151MB
q1-nginx            v1.0               76e41673b073       5 hours ago       64.2MB
python              3.7-alpine         930a7e894675       36 hours ago      98.7MB
flash-sample        v1                 1ff1573f1a46       2 days ago        417MB
flask-sample-one-av latest             1ff1573f1a46       2 days ago        417MB
nginx               latest             e445ab08b2be       7 days ago        126MB
ubuntu              16.04             5e13f8dd4c1a       7 days ago        120MB
ubuntu              latest             3556258649b2       7 days ago        64.2MB
redis               alpine            d975eaec5f68       2 weeks ago       51.1MB
hello-world         latest             fce289e99eb9       7 months ago      1.84kB
avinish@Quantiphi-929:~/Documents/containerization/asgn/q3$
```