

## Task 1:

```
soha@ubuntu:~/depi_r3/lec12$ docker run -d --name container_1 -p 8081:80 -v /home/soha/depi_r3/lec12/con1/index.html httpd
1df9a4257e9418512f9fbf070afe4f8ea5b88c04e9cc08375d06be10ff7c1f59
soha@ubuntu:~/depi_r3/lec12$ docker run -d --name container_2 -p 8082:80 -v /home/soha/depi_r3/lec12/con2/index.html httpd
726d590e566d7cc169d9528a3c076b74a72854ee7dff028436562c419467b939
```

```
soha@ubuntu:~/depi_r3/lec12$ docker exec container_1 cat /usr/local/apache2/htdocs/index.html
<html><body><h1>It works!</h1></body></html>
soha@ubuntu:~/depi_r3/lec12$ docker exec container_2 cat /usr/local/apache2/htdocs/index.html
<html><body><h1>It works!</h1></body></html>
```

## Task2:

Compose.yaml:

```

services:
  nginx:
    image: nginx:latest
    container_name: nginx_container
    ports:
      - "8080:80"
    networks:
      - front_back
    depends_on:
      - back

  back:
    image: sohaash/simple_flask_app:v0.3
    container_name: flask_app_1
    expose:
      - "5000"
    networks:
      - front_back
      - back_db
    depends_on:
      - mariadb

  mariadb:
    image: mariadb:latest
    container_name: mariadb_container
    environment:
      MYSQL_ROOT_PASSWORD: rootpassword
      MYSQL_DATABASE: flaskdb
      MYSQL_USER: flaskuser
      MYSQL_PASSWORD: flaskpassword
    networks:
      - back_db

networks:
  front_back:
  back_db:

```

```

soha@ubuntu:~/dapi_r3/lec12$ docker compose up -d
WARN[0000] Found orphan containers ([flask_app1 mariadb_db2]) for this project. If you removed or renamed this service in your compose file, you can run this command with the --remove-orphans flag to clean it up.
+} Running 4/4
✓ Container 0034bf1091dc_nginx_con Recreated 0.1s
✓ Container mariadb_container Started 0.2s
✓ Container flask_app_1 Started 0.2s
✓ Container nginx_container Started 0.2s
soha@ubuntu:~/dapi_r3/lec12$ docker ps

```

```

soha@ubuntu:~/dapi_r3/lec12$ docker ps

```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
370307eb1661	nginx:latest	"/docker-entrypoint..."	44 seconds ago	Up 43 seconds	0.0.0.0:8080->80/tcp, [::]:8080->80/tcp	nginx_container
8896baff5473	sohaash/simple_flask_app:v0.3	"python3 app.py"	About a minute ago	Up 43 seconds	5000/tcp	flask_app_1
3b81857768db	mariadb:latest	"docker-entrypoint.s..."	About a minute ago	Up 43 seconds	3306/tcp	mariadb_containe
55ecb0761ee2	sohaash/simple_flask_app:v0.3	"python3 app.py"	15 hours ago	Up 50 minutes	0.0.0.0:5000->5000/tcp, [::]:5000->5000/tcp	flask_app1

```
soha@ubuntu: ~/depi_r3/lec12$
soha@ubuntu:~/depi_r3/lec12$ docker inspect flask_app_1
[
  {
    "Id": "8896baff54730378ba30f64e6cd8d93fae030f94ef9a9821c1f3d5341f3746f2",
    "Created": "2025-08-05T17:25:59.066370527Z",
    "Path": "python3",
    "Args": [
      "app.py"
    ]
  }
]
```

```

"Networks": {
  "lec12_back_db": {
    "IPAMConfig": null,
    "Links": null,
    "Aliases": [
      "flask_app_1",
      "back"
    ],
    "MacAddress": "3a:44:dc:8c:3f:ab",
    "DriverOpts": null,
    "GwPriority": 0,
    "NetworkID": "edeea24245727f08d1b9f37a2d6945b8de1c7055731719838c6031f23870a8ac",
    "EndpointID": "102d93617206e7b7fd85cde28b36cfc26ffc10cc18fe8e96acf4fdf5c6a4b3f2",
    "Gateway": "172.22.0.1",
    "IPAddress": "172.22.0.4",
    "IPPrefixLen": 16,
    "IPv6Gateway": "",
    "GlobalIPv6Address": "",
    "GlobalIPv6PrefixLen": 0,
    "DNSNames": [
      "flask_app_1",
      "back",
      "8896baff5473"
    ]
  },
  "lec12_front_back": {
    "IPAMConfig": null,
    "Links": null,
    "Aliases": [
      "flask_app_1",
      "back"
    ],
    "MacAddress": "fe:56:3c:23:5e:63",
    "DriverOpts": null,
    "GwPriority": 0,
    "NetworkID": "f5ec751cda1ec73403a2bc114870da95a0ea9512bddbe47b4174bebe8ed19b84",
    "EndpointID": "88fa91d5350f1346a8030b2021cf54514f5f261affb9642ed075f829dd63f1d9",
    "Gateway": "172.21.0.1",
    "IPAddress": "172.21.0.3",
  }
}

```