Deploy Domjudge Using Docker Compose

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Domjudge is Competitive Programming platform.

Enable cgroup

- In /etc/default/grub, add `cgroup_enable=memory swapaccount=1` to `GRUB_CMDLINE_LINUX_DEFAULT`. Or `cgroup_enable=memory swapaccount=1 systemd.unified_cgroup_hierarchy=0` for modern linux distro.

- Run `update-grub`

- Reboot

Create docker compose file

```yaml
# docker-compose.yml

version: '3.9'

networks:
  domjudge:
    name: domjudge

services:
  mariadb:
    container_name: mariadb
    image: mariadb:latest
    networks:
      - domjudge
    ports:
      - 13306:3306
    environment:
      - MYSQL_ROOT_PASSWORD=rootpw
      - MYSQL_USER=domjudge
      - MYSQL_PASSWORD=djpw
      - MYSQL_DATABASE=domjudge
    command: --max-connections=1000

  domserver:
    container_name: domserver
    image: domjudge/domserver:latest
    volumes:
      - /sys/fs/cgroup:/sys/fs/cgroup:ro
    networks:
      - domjudge
    ports:
      - 12345:80
    depends_on:
      - mariadb
    environment:
      - CONTAINER_TIMEZONE=Asia/Jakarta
      - MYSQL_HOST=mariadb
      - MYSQL_ROOT_PASSWORD=rootpw
      - MYSQL_USER=domjudge
      - MYSQL_PASSWORD=djpw
      - MYSQL_DATABASE=domjudge

  judgehost-0:
    container_name: judgehost-0
    image: domjudge/judgehost:latest
    privileged: true
    hostname: judgedaemon-0
    volumes:
```

```yaml
48        volumes:
49          - /sys/fs/cgroup:/sys/fs/cgroup:ro
50        networks:
51          - domjudge
52        depends_on:
53          - domserver
54        environment:
55          - DAEMON_ID=0
56          - JUDGEDAEMON_PASSWORD=9NQLNMcLCr8zu0gB
57
58    judgehost-1:
59        container_name: judgehost-1
60        image: domjudge/judgehost:latest
61        privileged: true
62        hostname: judgedaemon-1
63        volumes:
64          - /sys/fs/cgroup:/sys/fs/cgroup:ro
65        networks:
66          - domjudge
67        depends_on:
68          - domserver
69        environment:
70          - DAEMON_ID=1
71          - JUDGEDAEMON_PASSWORD=9NQLNMcLCr8zu0gB
72
73    judgehost-2:
74        container_name: judgehost-2
75        image: domjudge/judgehost:latest
76        privileged: true
77        hostname: judgedaemon-2
78        volumes:
79          - /sys/fs/cgroup:/sys/fs/cgroup:ro
80        networks:
81          - domjudge
82        depends_on:
83          - domserver
84        environment:
85          - DAEMON_ID=2
86          - JUDGEDAEMON_PASSWORD=9NQLNMcLCr8zu0gB
87
88    judgehost-3:
89        container_name: judgehost-3
90        image: domjudge/judgehost:latest
91        privileged: true
92        hostname: judgedaemon-3
93        volumes:
94          - /sys/fs/cgroup:/sys/fs/cgroup:ro
95        networks:
```

```
96          - domjudge
97      depends_on:
98          - domserver
99      environment:
100         - DAEMON_ID=3
101         - JUDGEDAEMON_PASSWORD=9NQLNMcLCr8zu0gB
```

Activate mariadb and domserver

Type on terminal:

```
docker-compose up -d mariadb domserver
```

Change JUDGEDAEMON_PASSWORD

To get judgehost password, type on terminal:

```
docker exec -it domserver cat /opt/domjudge/domserver/etc/restapi.secret
```

Activate judgehost

You can create any number of judgehost you want by modifying `docker-compose.yml` file. Remember that you have to change `JUDGEDAEMON_PASSWORD` first in your `docker-compose.yml` file.

To activate judgehost, type on terminal:

```
docker-compose up -d
```

Domjudge is ready to use

You can open http://localhost:12345 (or anything your IP address is). To get admin password, type on terminal:

```
docker exec -it domserver cat
```

/opt/domjudge/domserver/etc/initial_admin_password.secret

Useful commands

- `docker-compose ps`

- `docker-compose logs`

- `docker-compose up` (create containers and network, than start them)

- `docker-compose stop` (only stop, can be start later on)

- `docker-compose start` (start stopped network and containers)

- `docker-compose down` (stop and delete network and containers)

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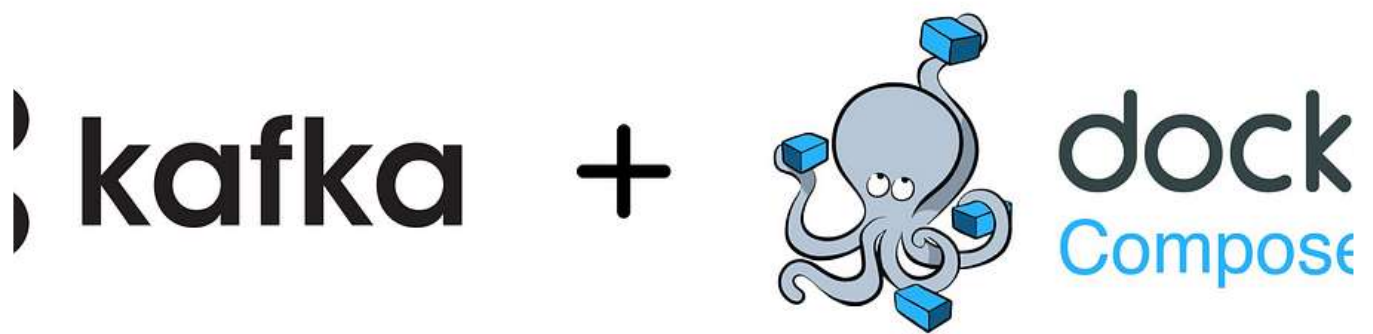
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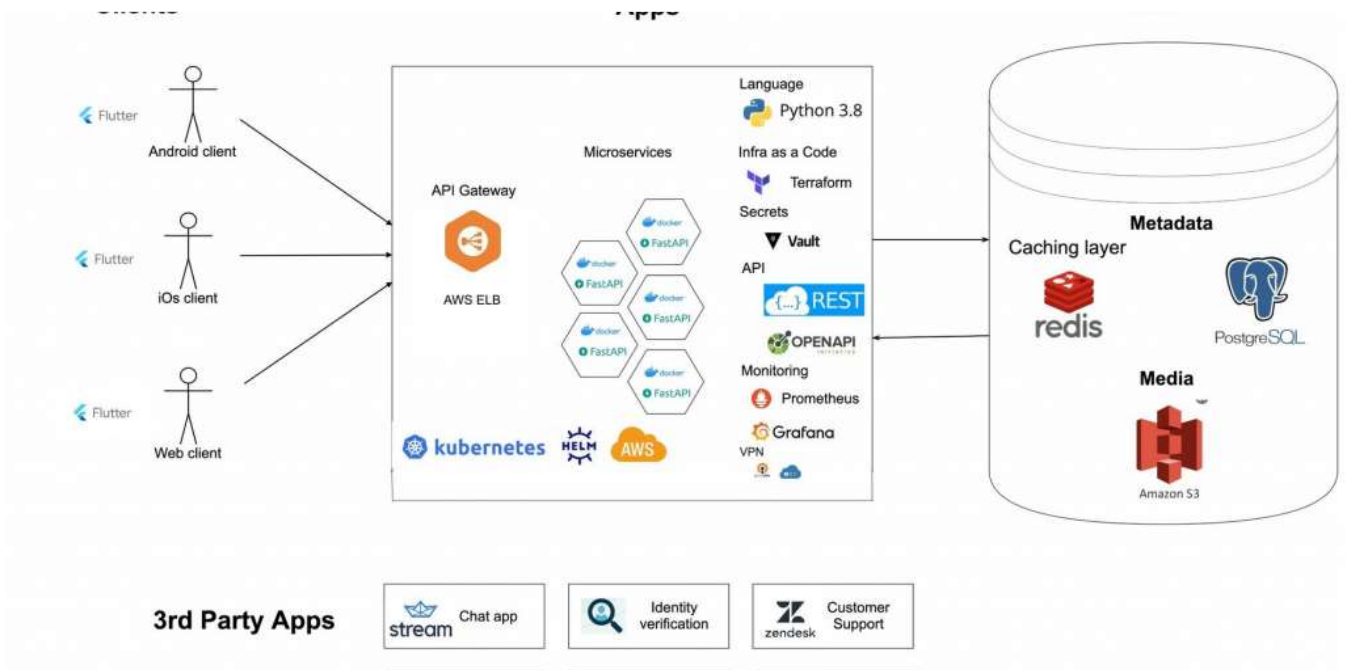
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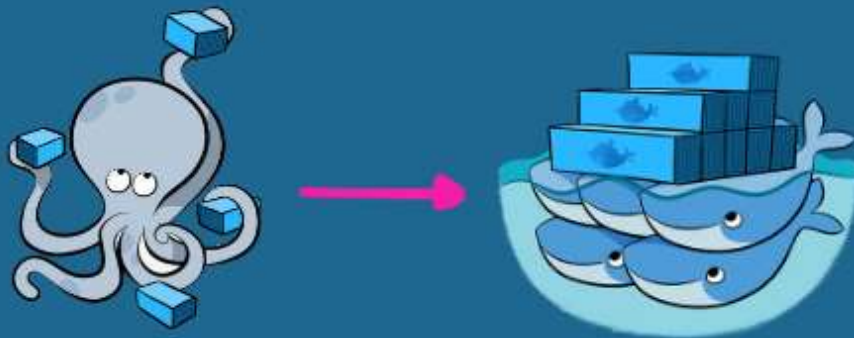## How To Install TLS/SSL on Docker Nginx Container With Let's Encrypt

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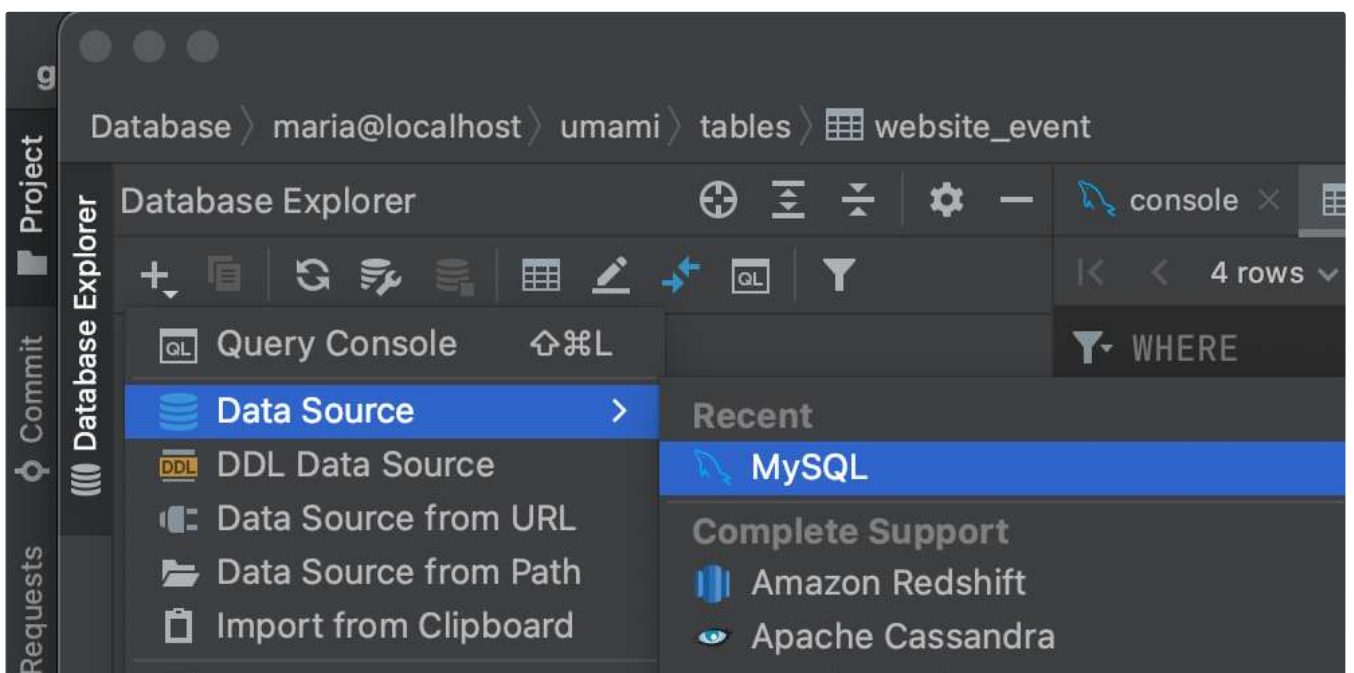Deploy a Docker Stack with Docker Compose on an EC2 Instance Docker Swarm

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Configuring Docker MySQL and Datagrip Connection

Run the following script in the terminal to start the Docker MySQL container:

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