

## Imagine docker pentru Oracle

**Docker** -- toolkit for container management.

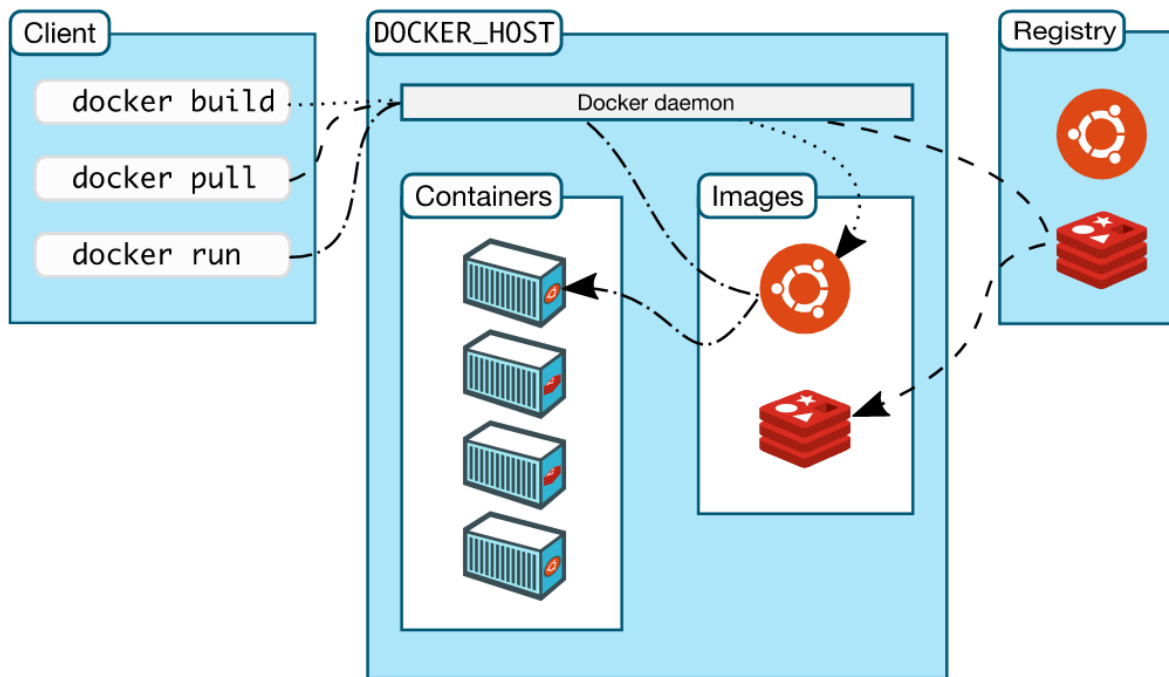
- Platform for developing, shipping, and running applications.
- Separates applications from infrastructure.
- Run on physical or virtual machines, in a data center, on cloud providers etc.
- Runs application in isolated environment, in *containers*.
- Develop, test, deploy using containers.
- CI/CD continuous integration, continuous delivery.

**Docker components:**

- Server or daemon process, `dockerd` command.
- REST API interfaces to daemon.
- Command line interface, CLI client `docker` command.

**Docker objects:** [3]

- Images: read-only template with instructions to create a container. Images are published in a *docker registry*. To build an image a *Dockerfile* is created, with instructions for each layer of the image. Rebuilding an image affects only those layers changed in the *Dockerfile*.
- Container: runnable instances of an image. By default, containers can connect to external networks using the host machine's network connection.
- networks, volumes etc.

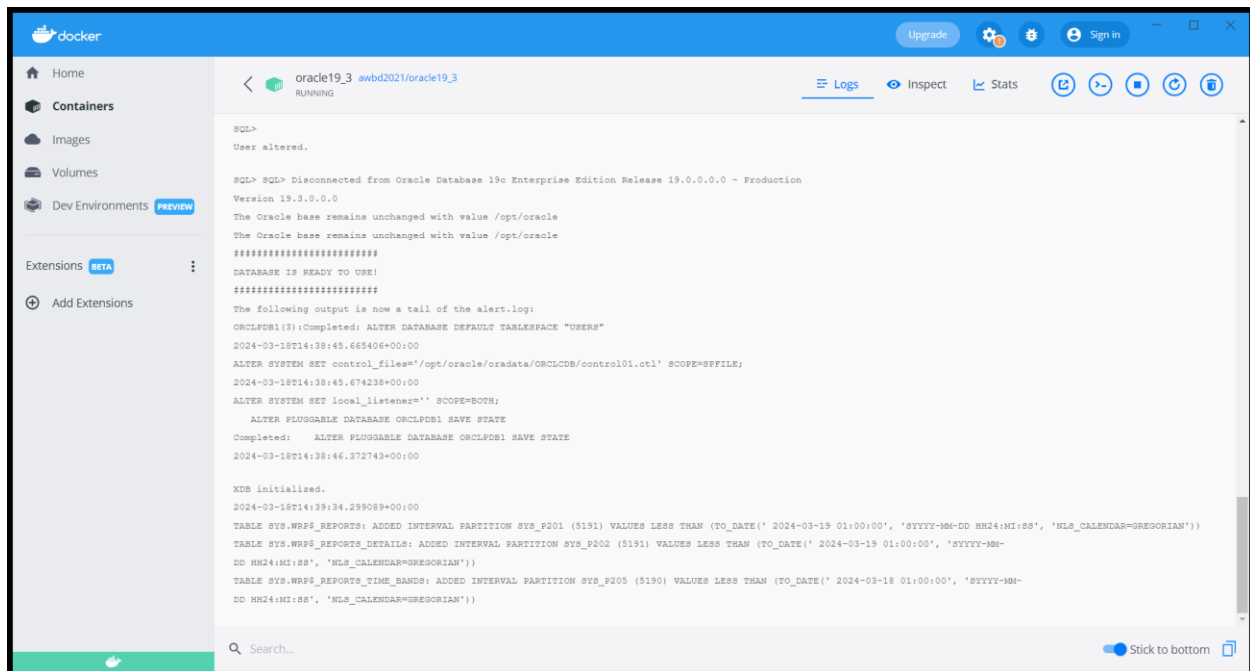


1. Install Docker Desktop [1]
2. Run in PowerShell the command to pull the image for Oracle19\_3. After pulling the image check all the available images using docker images.

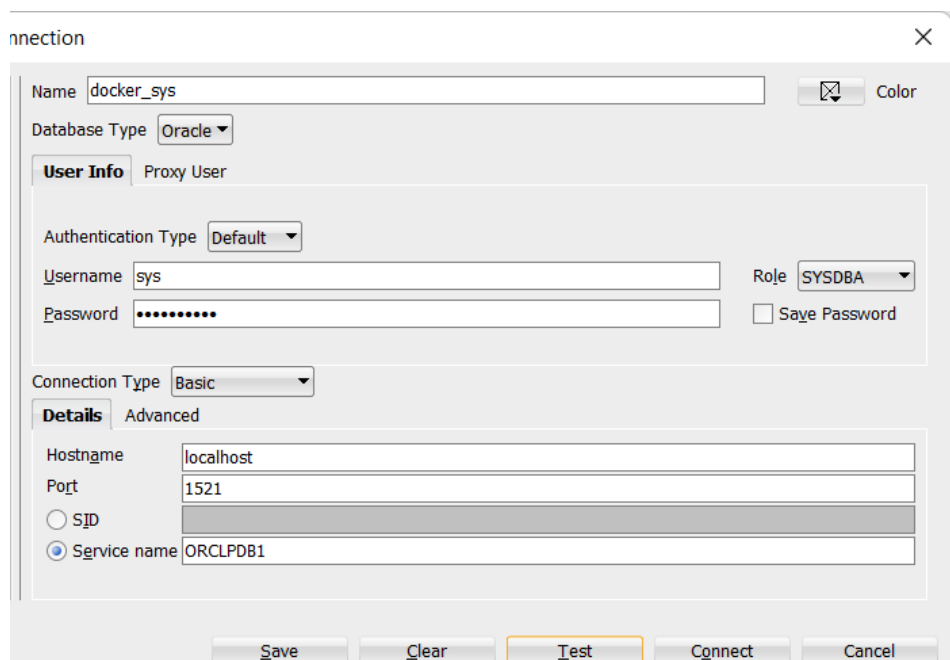
```
>> docker pull awbd2021/oracle19_3:latest
>> docker images
```

3. Start a container for oracle19\_3. After database initialization, change the password for user sys. The new password is: *oracle19\_3*. Before setting the password wait for the database initialization

```
>> docker run --name oracle19_3 -d -p 1521:1521 -p 5500:5500
awbd2021/oracle19_3
>> docker exec oracle19_3 ./setPassword.sh oracle19_3
```



- Connect to sys schema with SqlDeveloper. The service name running in the Docker container is **ORCLPDB1**  
The connection should be established with the role SYSDBA.



5. Run the script docker\_sys\_create\_user\_proiect.sql

```
CREATE USER PROIECT IDENTIFIED BY proiect
DEFAULT TABLESPACE "USERS"
TEMPORARY TABLESPACE "TEMP";

CREATE ROLE dll_admin;

GRANT CREATE TABLE to dll_admin;

GRANT CREATE ANY INDEX to dll_admin;

GRANT CREATE ANY VIEW to dll_admin;

GRANT "CONNECT" TO "PROIECT";

ALTER USER "PROIECT" DEFAULT ROLE "DLL_ADMIN";
```

6. Connect to **proiect** schema with SqlDeveloper. Password for schema proiect is: *proiect*.

The screenshot shows the 'Connection' dialog box in SQL Developer. The 'Name' field is set to 'docker\_proiect'. The 'Database Type' is set to 'Oracle'. The 'User Info' tab is selected, showing 'Authentication Type' as 'Default', 'Username' as 'proiect', and 'Password' as '\*\*\*\*\*'. The 'Role' is set to 'default'. The 'Connection Type' is set to 'Basic'. The 'Details' tab is selected, showing 'Hostname' as 'localhost', 'Port' as '1521', and 'Service name' as 'ORCLPDB1'. The 'Test' button is highlighted.

Connection

Name:  ☐ Color

Database Type:

**User Info** Proxy User

Authentication Type:

Username:  Role:

Password:  ☐ Save Password

Connection Type:

**Details** Advanced

Hostname:

Port:

☐ SID

☒ Service name:

[1] <https://docs.docker.com/installation/#installation>

[2] <https://docs.docker.com/>

[3] <https://docs.docker.com/get-started/overview/>