Install SonarQube using Docker | Install SonarQube using Docker on Ubuntu 18.0.4 | Install SonarQube using Docker-Compose

#### How to setup SonarQube using Docker compose?

SonarQube is static code analysis tool. It is open source and Java based tool. It can be installed quickly using Docker Compose with less manual steps.

#### What is Docker Compose?

Compose is a tool for defining and running multi-container Docker applications. With Compose, you use a YAML file to configure your application's services. Then, with a single command, you create and start all the services from your configuration.

The purpose of **docker-compose** is to function as **docker** cli but to issue multiple commands much more quickly. To make use of **docker-compose**, you **need** to encode the commands you were running before into a **docker-compose.yml** file

#### **Pre-requisites:**

- Ubuntu EC2 up and running with at least t2.small
- Port 9000 is opened in security firewall rule
- Make sure maximum number of

```
vm.max_map_count=262144
fs.file-max=65536
"/etc/sysctl.conf" 79L, 2725C
```

Login to instance where you will be installing SonarQube, perform below command:

sudo vi /etc/sysctl.conf

Add the following lines to the bottom of that file:

vm.max\_map\_count=262144 fs.file-max=65536

To make sure changes are getting into effect: sudo sysctl -p

# Perform System update sudo apt-get update

#### **Install Docker**

sudo apt-get install docker.io -y

#### **Install Docker-Compose**

sudo apt-get install docker-compose -y

#### Add current user to docker group

sudo usermod -aG docker \$USER

#### Create docker-compose.yml

this yml has all configuration for installing both SonarQube and Postgresql: touch docker-compose.yml

nano docker-compose.yml

ctrl + X

y

sudo vi docker-compose.yml

wq!

(Copy the below code highlighted in yellow color)

version: "3"

#### <mark>services:</mark>

sonarqube:

image: sonarqube:lts-community container\_name: sonarqube restart: unless-stopped environment:

- SONARQUBE\_JDBC\_USERNAME=sonar
- SONARQUBE\_JDBC\_PASSWORD=password123
- SONARQUBE\_JDBC\_URL=jdbc:postgresql://db:5432/sonarqube ports:
  - "9000:9000"

```
"9092:9092"
volumes:

sonarqube_conf:/opt/sonarqube/conf
sonarqube_data:/opt/sonarqube/data
sonarqube_extensions:/opt/sonarqube/extensions
sonarqube_bundled-plugins:/opt/sonarqube/lib/bundled-plugins
```

```
image: postgres:12
container_name: db
restart: unless-stopped
environment:
- POSTGRES_USER=sonar
- POSTGRES_PASSWORD=password123
- POSTGRES_DB=sonarqube
volumes:
- sonarqube_db:/var/lib/postgresql10
- postgresql_data:/var/lib/postgresql10/data
```

volumes:
 postgresql\_data:
 sonarqube\_bundled-plugins:
 sonarqube\_conf:
 sonarqube\_data:
 sonarqube\_db:
 sonarqube\_extensions:

Save the file by entering: wq! If USING VI EDITOR

Save the file by entering: wq! If USING NANO EDITOR - MOST RECOMMENDED

Now execute the compose file using Docker compose command:

sudo docker-compose up -d

```
ubuntu@ip-172-31-20-94:~$ sudo docker-compose up -d
Starting sonarqube ...
Starting sonarqube
Starting db ...
Starting sonarqube ... done
ubuntu@ip-172-31-20-94:~$
```

#### Make sure SonarQube is up and running

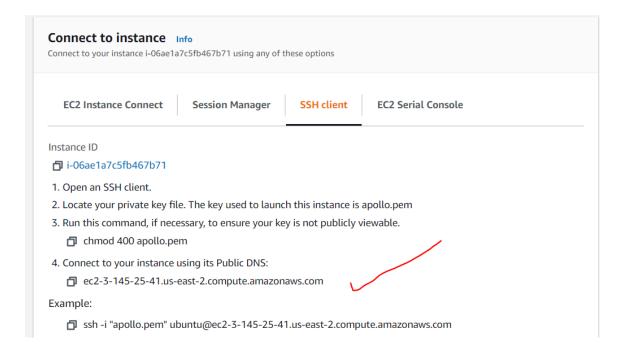
#### sudo docker-compose logs -follow

```
sonarqube | 2022.02.03 16:23:40 INFO ce[][o.s.s.e.EsClientProvider] Connected to local Elas
ticsearch: [http://localhost:9001]
sonarqube | 2022.02.03 16:23:41 INFO ce[][o.sonar.db.Database] Create JDBC data source for
jdbc:postgresql://db:5432/sonarqube
sonarqube | 2022.02.03 16:23:44 INFO ce[][o.s.s.p.ServerFileSystemImpl] SonarQube home: /op
t/sonarqube
sonarqube | 2022.02.03 16:23:44 INFO ce[][o.s.c.c.CePluginRepository] Load plugins
sonarqube | 2022.02.03 16:23:47 INFO ce[][o.s.c.c.ComputeEngineContainerImpl] Running Commu
nity edition
sonarqube | 2022.02.03 16:23:47 INFO ce[][o.s.ce.app.CeServer] Compute Engine is operationa
l
sonarqube | 2022.02.03 16:23:47 INFO app[][o.s.a.SchedulerImpl] Process[ce] is up
sonarqube | 2022.02.03 16:23:47 INFO app[][o.s.a.SchedulerImpl] SonarQube is up
```

Once you see the message, that's it. SonarQube is been installed successfully.

press control C and enter – will take you out of the docker-compose logs

Access SonarQube on the browser
Go to your AWS instance
Go to connect



#### Select Public DNS

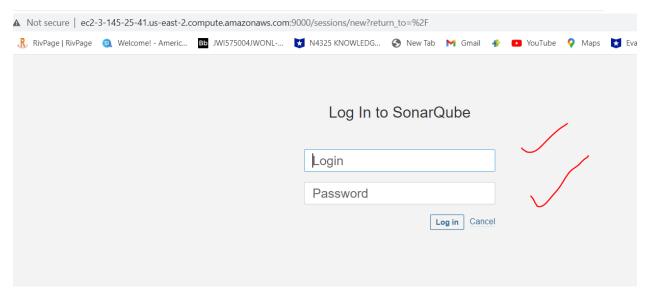
Go to the browser and paster the public DNS

ec2-3-145-25-41.us-east-2.compute.amazonaws.com

Add: 9000 – port for SonarQube

ec2-3-145-25-41.us-east-2.compute.amazonaws.com:9000

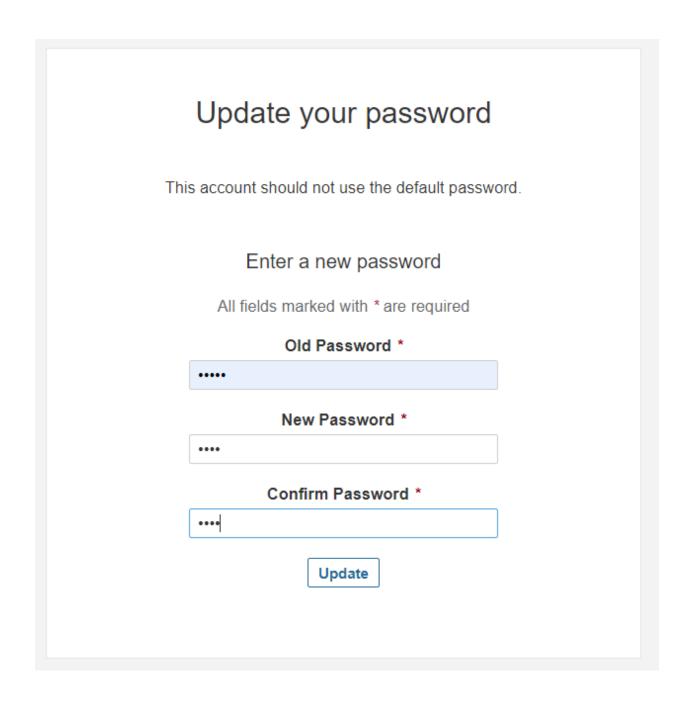
The console for SonarQube should appear



Username: admin

Password: admin

Reconfigure the new password



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