

# Server Provision and management app

## -Installation manual-

### Prerequisites:

- A fresh Red Hat Enterprise Linux virtual machine, on cloud or on premises
- Sudo privileges
- A stable internet connection
- Open ports needed: 27017, 80, 3000

### Installation steps:

#### 1/ Install Docker:

- **Remove old versions if any:**  
`sudo yum remove docker \`  
`docker-client \`  
`docker-client-latest \`  
`docker-common \`  
`docker-latest \`  
`docker-latest-logrotate \`  
`docker-logrotate \`  
`docker-engine \`  
`podman \`  
`runc`
- **Create a script docker.sh that contains these commands:**  
`sudo yum install -y yum-utils`  
`sudo yum-config-manager --add-repo https://download.docker.com/linux/rhel/docker-ce.repo`  
`sudo yum install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin`  
`sudo systemctl start docker`  
`sudo systemctl chmod 666 /var/run/docker.sock`
- **Add execute permissions for docker.sh :**  
`sudo chmod +x docker.sh`
- **Run the script:**  
`sudo ./docker.sh`

#### 2/ Install Git:

```
dnf install git  
  
git --version
```

### 3/ Install node and npm:

```
curl -fsSL https://rpm.nodesource.com/setup_18.x | sudo bash -  
sudo yum install -y nodejs
```

### 4/ Install angular cli :

```
Npm install -g @angular/cli@17.0.7
```

If any problems faced in the installation of Angular cli, run these commands:

```
npm config get prefix OUTPUT: /home/mohamednajjar/.npm-global  
echo 'export PATH=$PATH:/home/mohamednajjar/.npm-global/bin' >> ~/.bashrc  
source ~/.bashrc  
npm uninstall -g @angular/cli  
npm install -g @angular/cli  
ng version
```

### 5/ Install and enable Apache web server:

```
sudo dnf install httpd  
sudo systemctl enable httpd  
sudo systemctl start httpd
```

### 6/ Install Ansible:

```
sudo subscription-manager repos --enable ansible-2.9-for-rhel-8-x86_64-rpms  
sudo yum install ansible
```

### 7/ Clone the repository :

```
git clone https://github.com/Moh4medNajjar/Final_Server.git
```

8/ Modify Ansible playbook inventory host to localhost if the it is executed in the same machine.

### 9/ Execute Ansible playbook :

```
ansible-playbook -i inventory.ini ansible-playbook.yml --become --become-user=root --ask-become-pass
```

10/ Verify deployment: Application should now be available on port 80 on the host machine.

**If any problems faced: execute these commands:**

```
sudo chown -R apache:apache /opt/Final_Server/prov_app/dist/prov_app/browser
```

```
sudo chmod -R 755 /opt/Final_Server/prov_app/dist/prov_app/browser
```

```
sudo killall httpd
```

```
sudo systemctl restart httpd
```

**11/ Create the first root admin (with SuperAdmin role) using this command (change it before executing..) :**

```
curl -X POST http://localhost:3000/api/auth/register \
-H "Content-Type: application/json" \
-d '{
  "fullName": "Mohamed Najjar",
  "email": "mohamed@gmail.com",
  "password": "Azure123",
  "position": "Manager",
  "matricule": "000000",
  "phoneNumber": "99560555",
  "role": "SuperAdmin"
}'
```

**12/ Create a network admin, general admin and ordinary user:**

```
curl -X POST http://localhost:3000/api/auth/register \
-H "Content-Type: application/json" \
-d '{
  "fullName": "Ahmed", "email":
  "ahmed@gmail.com", "password":
  "Azure123",
  "position": "Manager",
  "matricule": "111111",
  "phoneNumber": "88888888",
  "role": "OrdinaryAdmin"
}'
```

```
curl -X POST http://localhost:3000/api/auth/register \
-H "Content-Type: application/json" \
-d '{
  "fullName": "Aziz",
  "email": "aziz@gmail.com",
  "password": "Azure123",
  "position": "Manager",
  "matricule": "222222",
  "phoneNumber": "99560555",
  "role": "GeneralSpecAdmin"
}'
```

```
curl -X POST http://localhost:3000/api/auth/register \
-H "Content-Type: application/json" \
-d '{
  "fullName": "salah",
  "email": "salah@gmail.com",
  "password": "Azure123",
  "position": "Manager",
  "matricule": "333333",
  "phoneNumber": "77777777",
  "role": "NetworkAdmin"
}'
```

Other troubleshooting commands:

- sudo killall httpd
- sudo systemctl restart httpd