

How to run keycloak using docker

Step 1: Create Docker file

In this step you should add a docker file to make a custom image for dev

```
FROM quay.io/keycloak/keycloak:latest as builder

WORKDIR /opt/keycloak
# for demonstration purposes only, please make sure to use proper certificates
in production instead
RUN keytool -genkeypair -storepass password -storetype PKCS12 -keyalg RSA -
keysize 2048 -dname "CN=server" -alias server -ext
"SAN:c=DNS:localhost,IP:127.0.0.1" -keystore conf/server.keystore
RUN /opt/keycloak/bin/kc.sh build

FROM quay.io/keycloak/keycloak:latest
COPY --from=builder /opt/keycloak/ /opt/keycloak/

ENV KC_HOSTNAME=localhost
ENTRYPOINT ["/opt/keycloak/bin/kc.sh", "start-dev"]
```

Step 2: Create docker compose file

Now you should add a Docker Compose file to define and manage your Keycloak container along with its dependencies, making it easier to start and manage the service.

```
# Running keycloak with docker-compose

version: '3.7'

services:
  keycloak:
    image: keycloak:dev
    container_name: keycloak_dev
    environment:
      KC_BOOTSTRAP_ADMIN_USERNAME: admin
      KC_BOOTSTRAP_ADMIN_PASSWORD: admin
    ports:
      - "8080:8080"
    networks:
      - keycloak-network
    volumes:
      - ./keycloak-data:/opt/keycloak/data
      - ./keycloak-themes:/opt/keycloak/themes
```

```
networks:
  keycloak-network:
    driver: bridge
```

Step 3: Run container

Now you can run the service using this command:

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

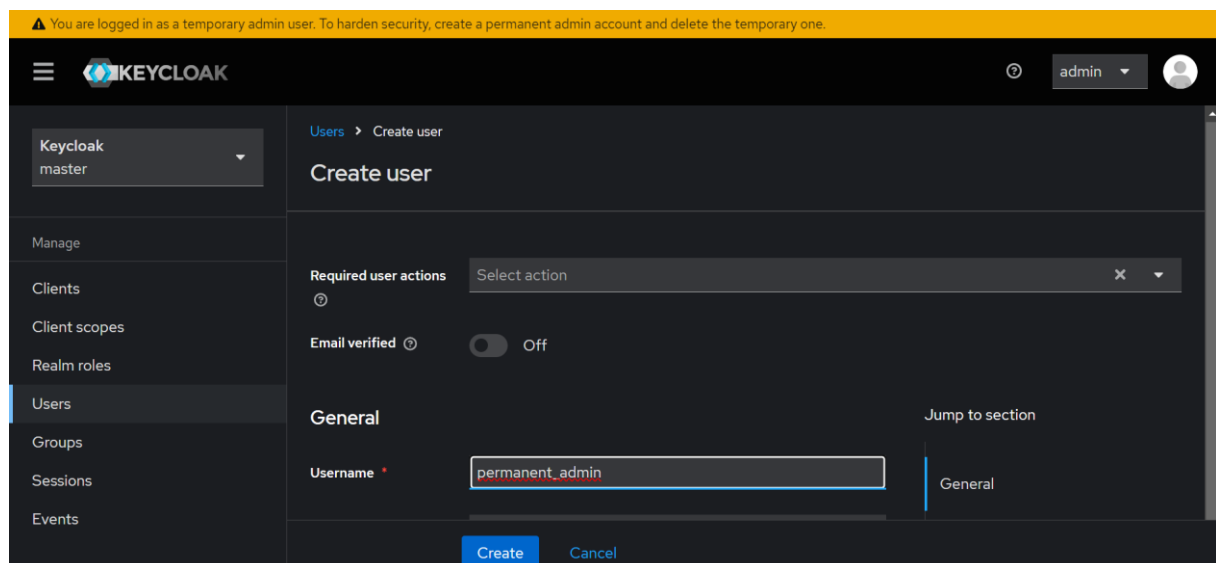
If you prefer a simpler approach and do not wish to create a custom Dockerfile or Docker Compose configuration, you can use the following single command to quickly set up and run a Keycloak container:

```
# docker run --name keycloak_dev -p 8081:8080 -d -e
KC_BOOTSTRAP_ADMIN_USERNAME=admin -e
KC_BOOTSTRAP_ADMIN_PASSWORD=admin quay.io/keycloak/keycloak:latest start-dev
```

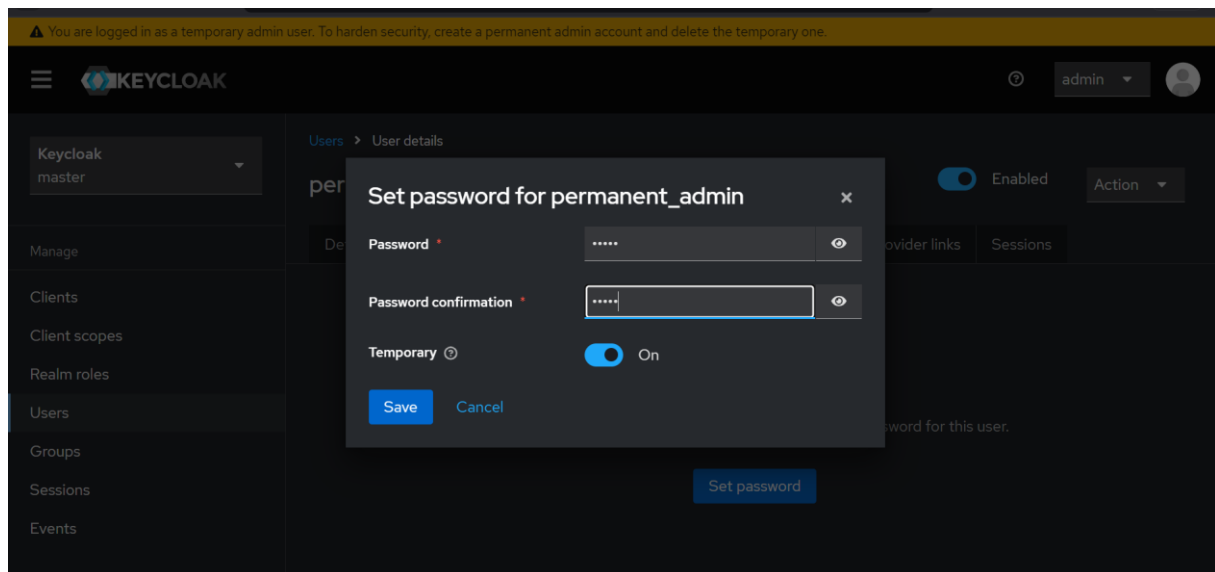
Step 4: Create permanent admin account

The created admin account created using env variables is temporary account so you should add a permanent one.

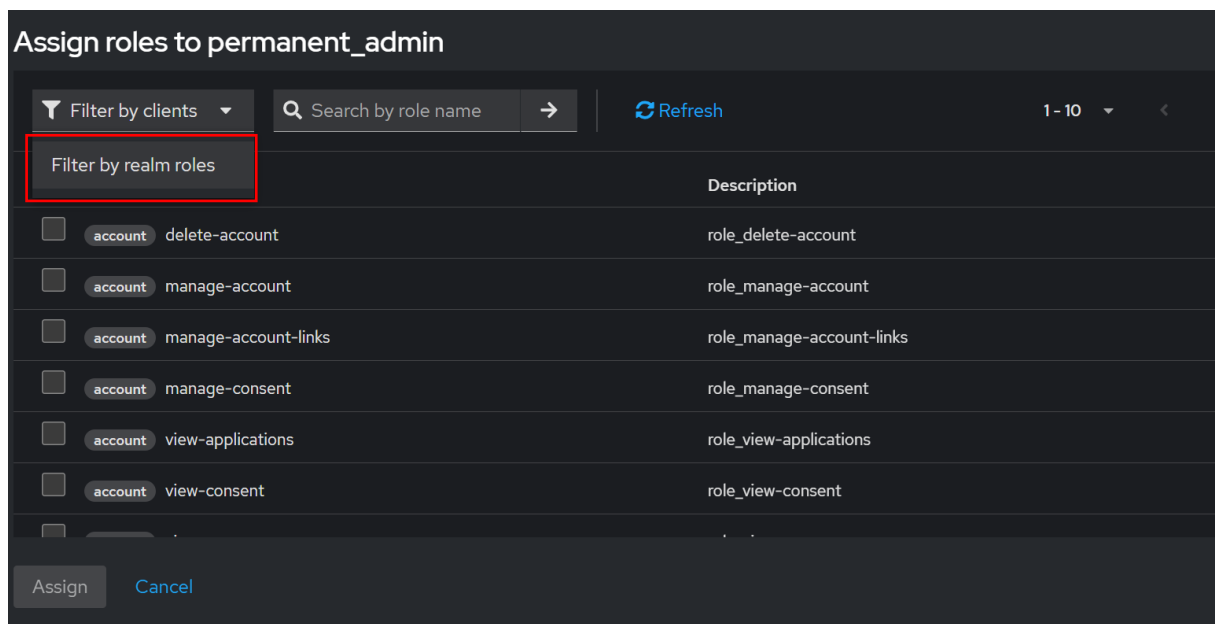
So after authenticating using the temporary account go to Users section and Create User after that you should assign role admin to it



Set password:



Assign admin role:



[Users](#) > User details

permanent_admin

☒ Enabled Action ▾

Details Credentials **Role mapping** Groups Consents Identity provider links Sessions

→ ☒ Hide inherited roles Assign role Unassign Refresh

1 - 2 ▾ < >

<input type="checkbox"/>	Name	Inherited	Description	
<input type="checkbox"/>	admin	False	role_admin	⋮
<input type="checkbox"/>	default-roles-master	False	role_default-roles	⋮

1 - 2 ▾ < >

Assign roles to permanent_admin

Filter by realm roles ▾ → Refresh 1 - 4 ▾ < >

<input type="checkbox"/>	Name	Description
<input checked="" type="checkbox"/>	admin	role_admin
<input type="checkbox"/>	create-realm	role_create-realm
<input type="checkbox"/>	offline_access	role_offline-access
<input type="checkbox"/>	uma_authorization	role_uma_authorization

1 - 4 ▾ < >

Assign Cancel

Now you can use this account instead of the default admin.