Red Hat build of Keycloak 24.0

Getting Started Guide

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Abstract

This guide helps you practice using Red Hat build of Keycloak 24.0 to evaluate it before you use it in a production environment. It includes instructions for installing and running the Red Hat build of Keycloak server in development mode, creating realms and accounts for managing users and applications, and securing a Single Page Application (SPA)

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CHAPTER 1. GETTING STARTED

1.1. BEFORE YOU START

Make sure you have OpenJDK 17 installed.

1.2. DOWNLOAD RED HAT BUILD OF KEYCLOAK

Download Red Hat build of Keycloak from the Red Hat website and extract it.

After extracting this file, you should have a directory that is named **rhbk-24.0.11**.

1.3. START RED HAT BUILD OF KEYCLOAK

1. From a terminal, open the **rhbk-24.0.11** directory.
2. Enter the following command:
   - On Linux, run:

     ```
     bin/kc.sh start-dev
     ```

   - On Windows, run:

     ```
     bin\kc.bat start-dev
     ```

Using the **start-dev** option, you are starting Red Hat build of Keycloak in development mode. In this mode, you can try out Red Hat build of Keycloak for the first time to get it up and running quickly. This mode offers convenient defaults for developers, such as for developing a new Red Hat build of Keycloak theme.

1.4. CREATE AN ADMIN USER

Red Hat build of Keycloak has no default admin user. You need to create an admin user before you can start Keycloak.

1. Open http://localhost:8080/.
2. Fill in the form with your preferred username and password.

1.5. LOG IN TO THE ADMIN CONSOLE

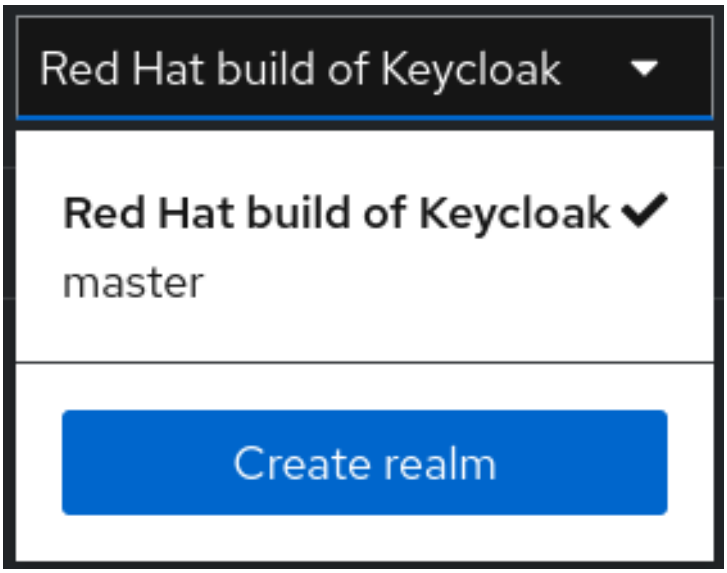
1. Go to the Red Hat build of Keycloak Admin Console .
2. Log in with the username and password you created earlier.

1.6. CREATE A REALM

A realm in Red Hat build of Keycloak is equivalent to a tenant. Each realm allows an administrator to create isolated groups of applications and users. Initially, Red Hat build of Keycloak includes a single realm, called **master**. Use this realm only for managing Red Hat build of Keycloak and not for managing any applications.

Use these steps to create the first realm.

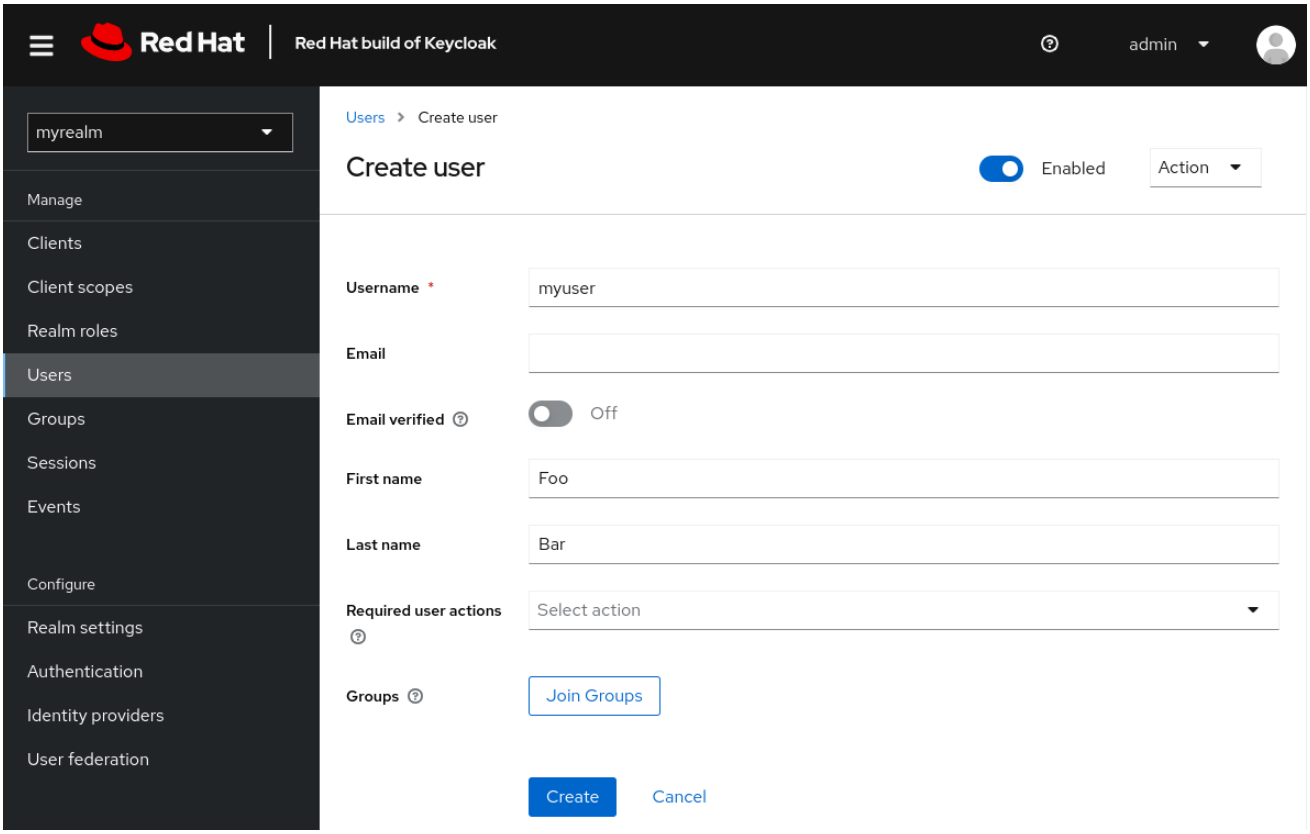
1. Open the Red Hat build of Keycloak Admin Console .
2. Click **Red Hat build of Keycloak** next to **master realm**, then click **Create Realm**.
3. Enter **myrealm** in the **Realm name** field.
4. Click **Create**.



1.7. CREATE A USER

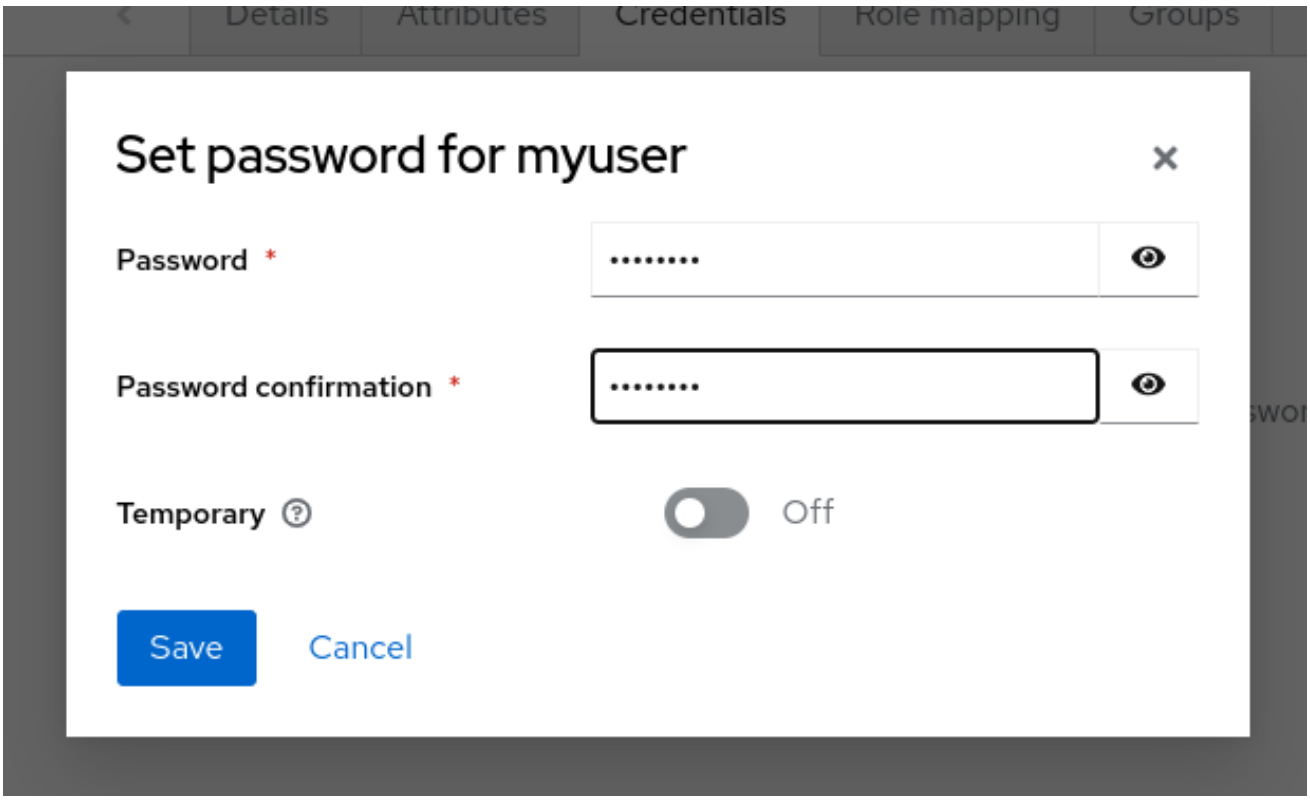
Initially, the realm has no users. Use these steps to create a user:

1. Verify that you are still in the **myrealm** realm, which is shown above the word **Manage**.
2. Click **Users** in the left-hand menu.
3. Click **Add user**.
4. Fill in the form with the following values:
   - **Username**: **myuser**
   - **First name**: any first name
   - **Last name**: any last name
5. Click **Create**.



This user needs a password to log in. To set the initial password:

1. Click **Credentials** at the top of the page.
2. Fill in the **Set password** form with a password.
3. Toggle **Temporary** to **Off** so that the user does not need to update this password at the first login.

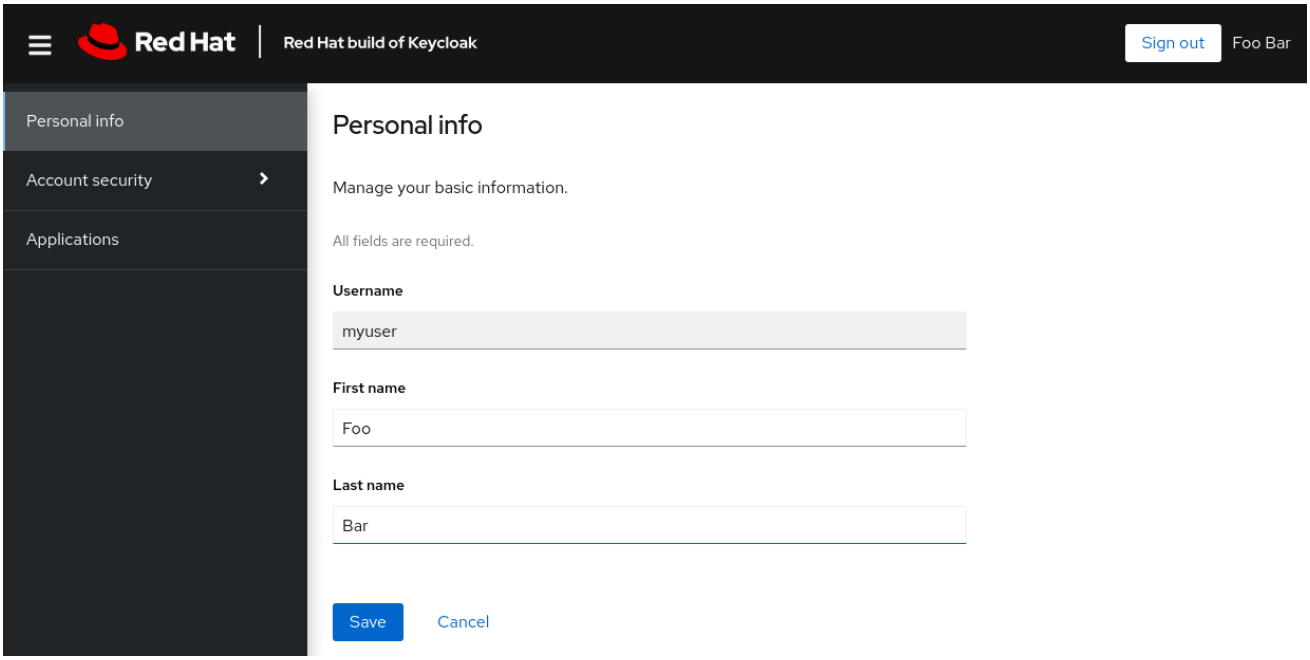


1.8. LOG IN TO THE ACCOUNT CONSOLE

You can now log in to the Account Console to verify this user is configured correctly.

1. Open the Red Hat build of Keycloak Account Console .
2. Log in with **myuser** and the password you created earlier.

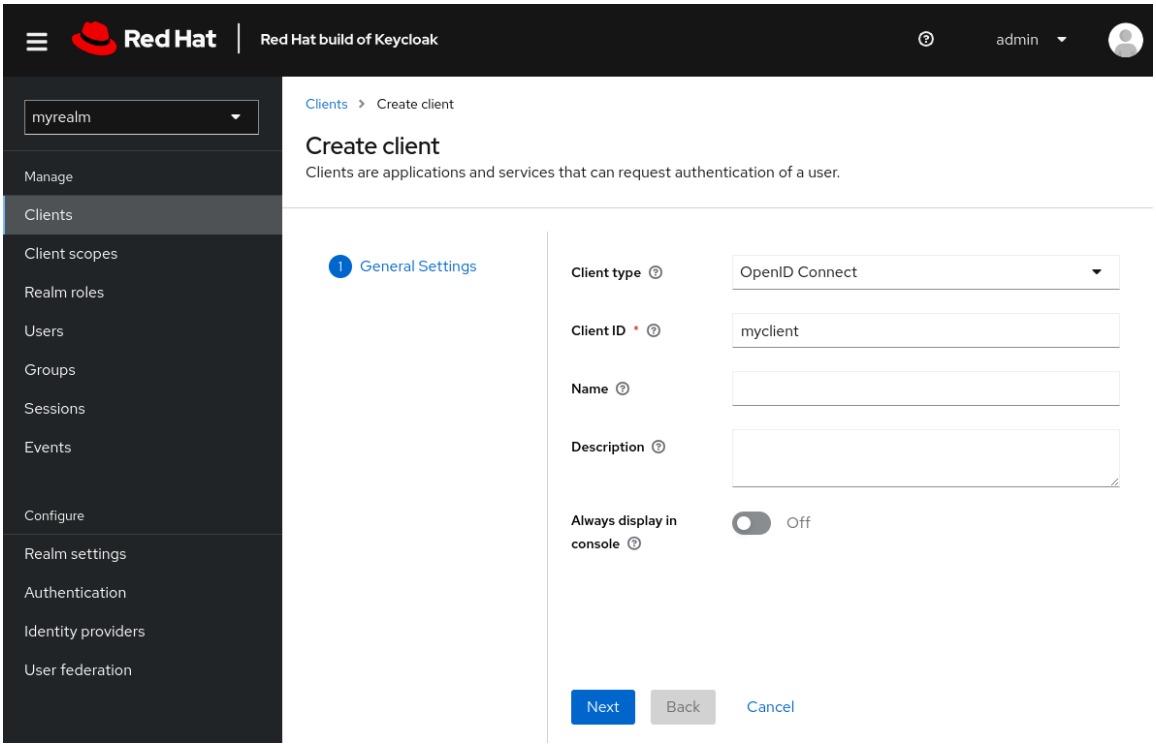
As a user in the Account Console, you can manage your account including modifying your profile, adding two-factor authentication, and including identity provider accounts.



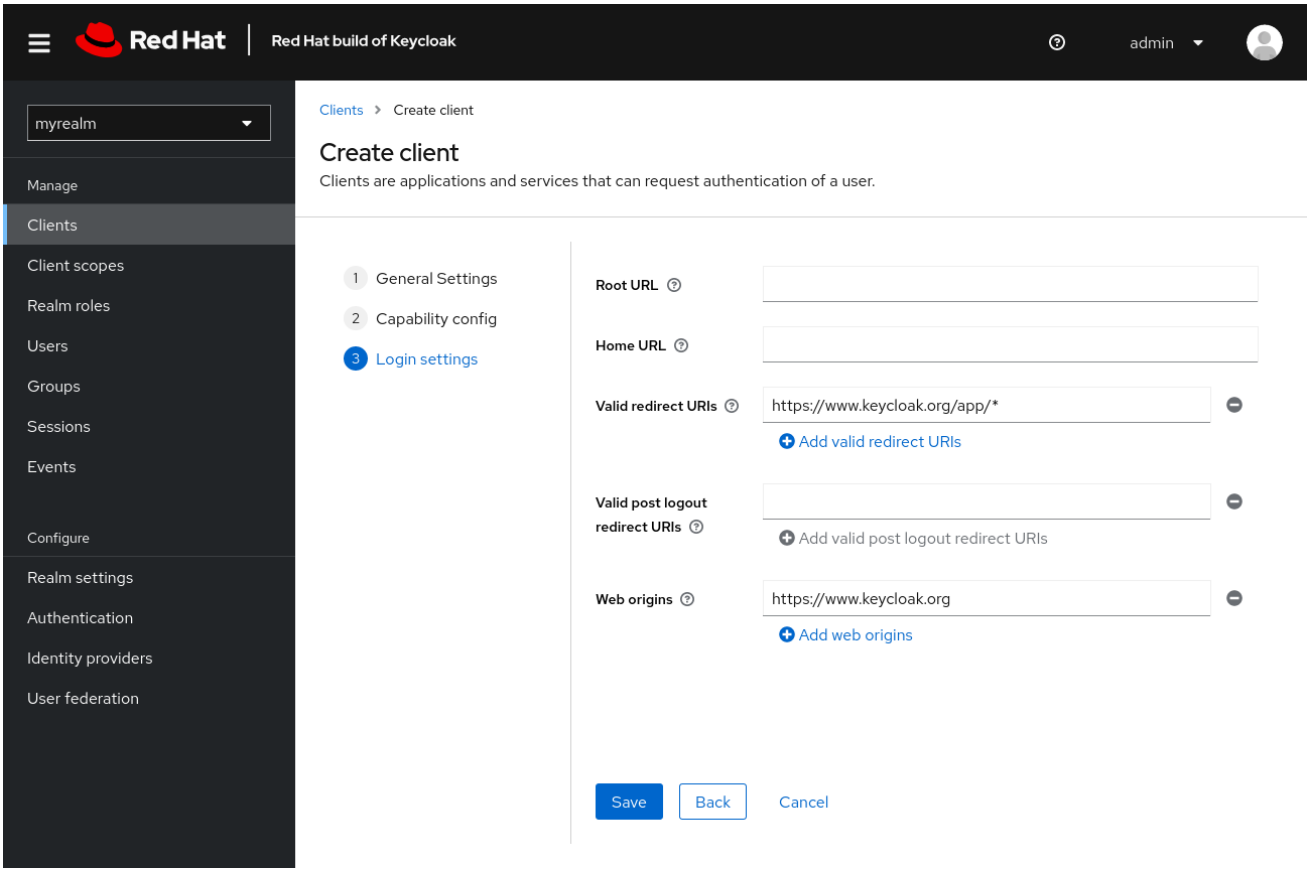
1.9. SECURE THE FIRST APPLICATION

To secure the first application, you start by registering the application with your Red Hat build of Keycloak instance:

1. Open the Red Hat build of Keycloak Admin Console .
2. Click the word **master** in the top-left corner, then click **myrealm**.
3. Click **Clients**.
4. Click **Create client**
5. Fill in the form with the following values:
   - **Client type**: **OpenID Connect**
   - **Client ID**: **myclient**



6. Click **Next**
7. Confirm that **Standard flow** is enabled.
8. Click **Next**.
9. Make these changes under **Login settings**.
    - Set **Valid redirect URIs** to **https://www.keycloak.org/app/***
    - Set **Web origins** to **https://www.keycloak.org**
10. Click **Save**.



To confirm the client was created successfully, you can use the SPA testing application on the Keycloak website.

1. Open https://www.keycloak.org/app/.
2. Click **Save** to use the default configuration.
3. Click **Sign in** to authenticate to this application using the Red Hat build of Keycloak server you started earlier.

1.10. TAKING THE NEXT STEP

Before you run Red Hat build of Keycloak in production, consider the following actions:

- Switch to a production ready database such as PostgreSQL.
- Configure SSL with your own certificates.
- Switch the admin password to a more secure password.

For more information, see the Server Guide.