

INSTITUTE OF COMPUTER TECHNOLOGY
B-TECH COMPUTER SCIENCE ENGINEERING 2025-26
SUBJECT: IDENTITY ACCESS MANAGEMENT

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BRANCH: CYBER SECURITY

BATCH: 52

Internal Practical Exam Sep-2025

STEP_1: Create Demo Realm

- ➔ Go to manage realms.
- ➔ Click on create realm.
- ➔ Enter Realm Name 'Demo_Realm'

Create realm

A realm manages a set of users, credentials, roles, and groups. A user belongs to and logs into a realm. Realms are isolated from one another and can only manage and authenticate the users that they control.

Resource file

Drag a file here or browse to upload

Browse...

Clear

Upload a JSON file

Realm name *

Demo_Realm

Enabled

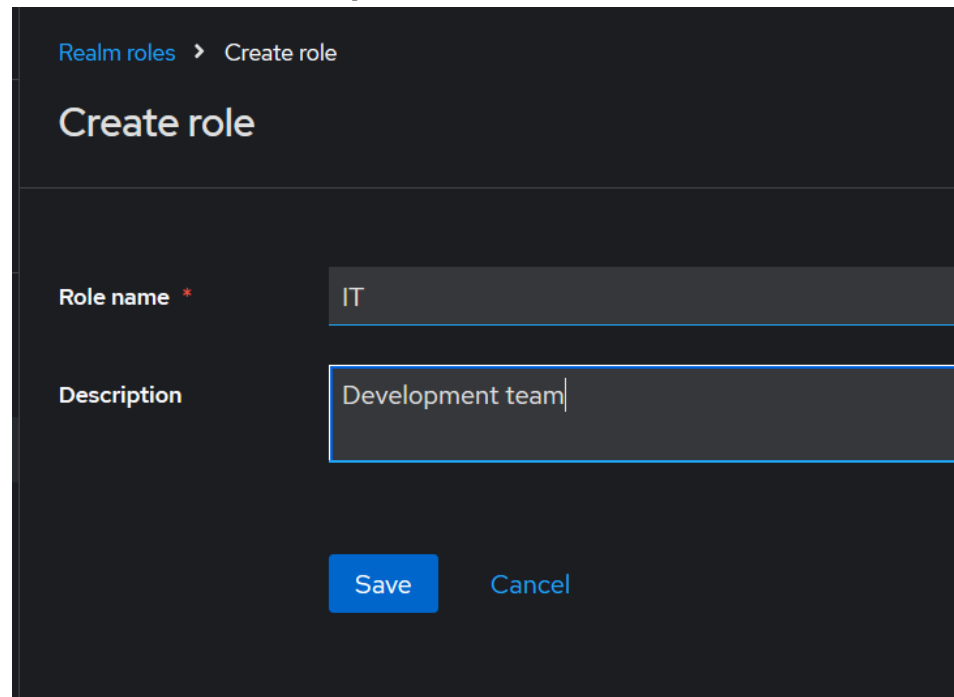
On

Create

Cancel

STEP_2:Role Creation

- ➔ Go to realm roles.
- ➔ Click on 'create role'.
- ➔ Enter role name and description.



Realm roles > Create role

Create role

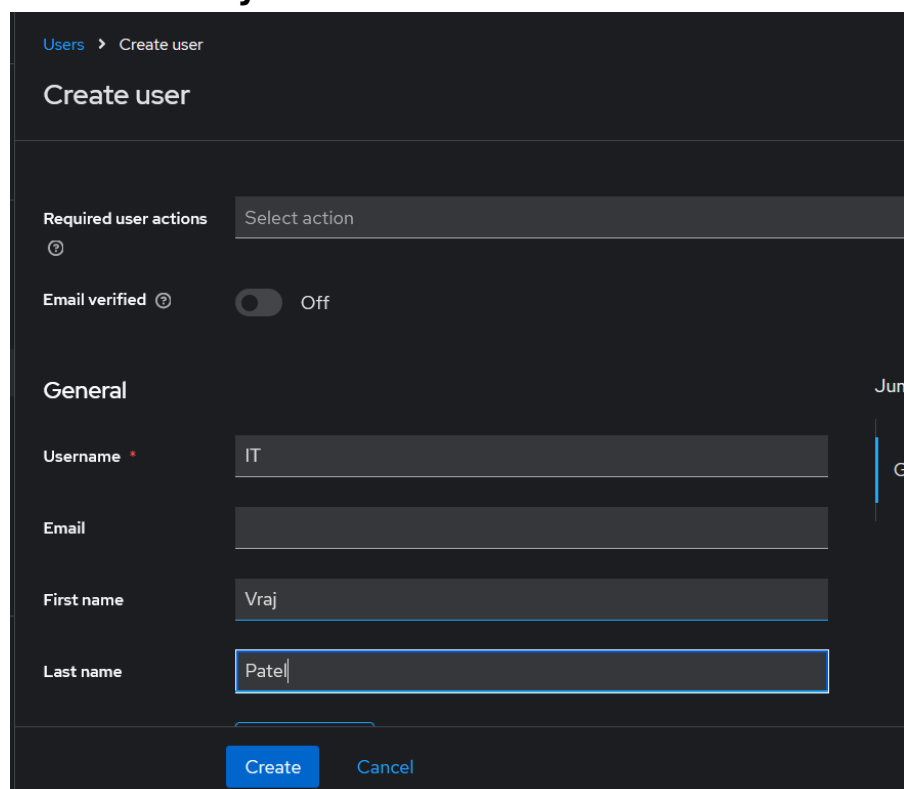
Role name * IT

Description Development team

Save Cancel

STEP_3:User creation

- ➔ Go to users.
- ➔ Click on 'create new user'
- ➔ Enter username and save.
 - Similarly create all 3 users.



Users > Create user

Create user

Required user actions Select action ⓘ

Email verified ⓘ ☐ Off

General

Username * IT

Email

First name Vraj

Last name Patel

Create Cancel

STEP_4:Assign roles

- ➔ Go to Realm roles.
- ➔ Navigate to associate roles.
- ➔ Click on 'assign role' and then 'client roles'.

Assign Client roles to HR

<input type="checkbox"/>	manage-realm	realm-management	role_manage-realm
<input checked="" type="checkbox"/>	manage-users	realm-management	role_manage-users
<input type="checkbox"/>	query-clients	realm-management	role_query-clients
<input type="checkbox"/>	query-groups	realm-management	role_query-groups
<input type="checkbox"/>	query-realms	realm-management	role_query-realms
<input type="checkbox"/>	query-users	realm-management	role_query-users
<input type="checkbox"/>	realm-admin	realm-management	role_realm-admin
<input type="checkbox"/>	view-authorization	realm-management	role_view-authorization
<input type="checkbox"/>	view-clients	realm-management	role_view-clients
<input type="checkbox"/>	view-events	realm-management	role_view-events
<input type="checkbox"/>	view-identity-providers	realm-management	role_view-identity-providers
<input type="checkbox"/>	view-realm	realm-management	role_view-realm
<input checked="" type="checkbox"/>	view-users	realm-management	role_view-users

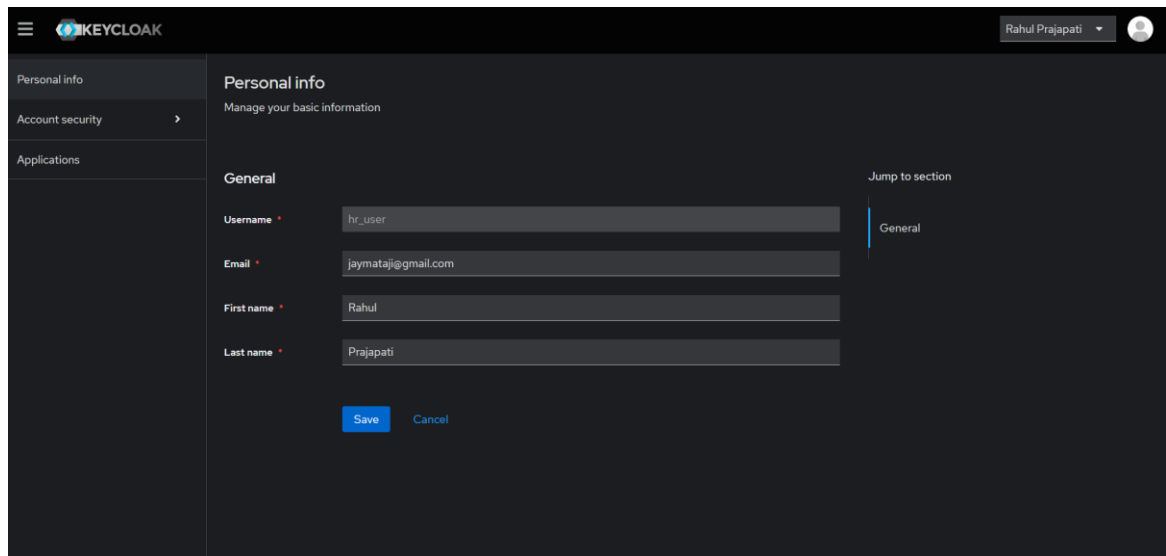
AssignCancel

Assign Client roles to IT

<input type="checkbox"/>	query-clients	realm-management	role_query-clients
<input type="checkbox"/>	query-groups	realm-management	role_query-groups
<input type="checkbox"/>	query-realms	realm-management	role_query-realms
<input type="checkbox"/>	query-users	realm-management	role_query-users
<input type="checkbox"/>	realm-admin	realm-management	role_realm-admin
<input type="checkbox"/>	view-authorization	realm-management	role_view-authorization
<input type="checkbox"/>	view-clients	realm-management	role_view-clients
<input checked="" type="checkbox"/>	view-events	realm-management	role_view-events
<input type="checkbox"/>	view-identity-providers	realm-management	role_view-identity-providers
<input type="checkbox"/>	view-realm	realm-management	role_view-realm
<input type="checkbox"/>	view-users	realm-management	role_view-users

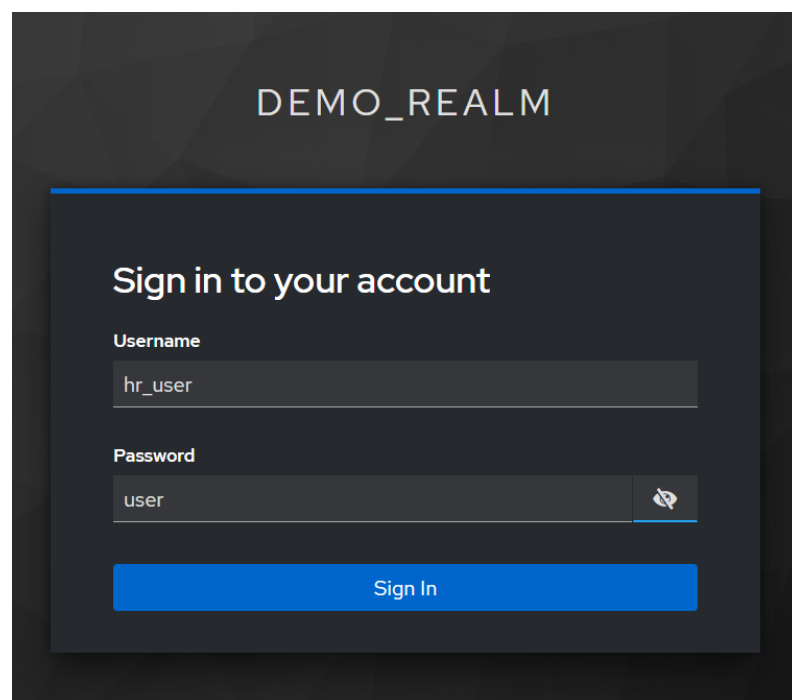
1 - 28

AssignCancel



STEP_6:Login users

- ➔ Open browser and go to
'http://localhost:8080/realms/demo_realn/account'
- ➔ Login in as each users hr_user,it_user,sales_user using their credentials.



KEYCLOAK

Rahul Prajapati

Personal info

Account security

Applications

Personal info

Manage your basic information

General

Jump to section

General

Username *

hr_user

Email *

jaymataji@gmail.com

First name *

Rahul

Last name *

Prajapati

Save

Cancel

KEYCLOAK

Vraj Patel

Personal info

Account security

Applications

Personal info

Manage your basic information

General

Jump to section

General

Username *

it_user

Email *

rahul2100007@gmail.com

First name *

Vraj

Last name *

Patel

Save

Cancel

KEYCLOAK

Krish Patel

Personal info

Account security

Applications

Personal info

Manage your basic information

General

Jump to section

General

Username *

sales_user

Email *

krish23@gmail.com

First name *

Krish

Last name *

Patel

Save

Cancel

STEP_7:session manage.

➔ In admin console and navigate to sessions.

The screenshot shows the Keycloak Admin Console with the 'Sessions' page selected in the left sidebar. The main content area displays a table of sessions for the 'Demo_Realm'. The table has columns for User, Type, Started, Last access, IP address, and Clients. There are four sessions listed for the 'hr_user'.

User	Type	Started	Last access	IP address	Clients
hr_user	REGULAR	9/15/2025, 12:27:56 PM	9/15/2025, 12:34:31 PM	172.17.0.1	account-console
sales_user	REGULAR	9/15/2025, 12:40:35 PM	9/15/2025, 12:40:36 PM	172.17.0.1	account-console
it_user	REGULAR	9/15/2025, 12:39:14 PM	9/15/2025, 12:39:14 PM	172.17.0.1	account-console
hr_user	REGULAR	9/15/2025, 12:35:34 PM	9/15/2025, 12:37:43 PM	172.17.0.1	account-console

➔ Go to users and we can see particular users session.

The screenshot shows the 'hr_user' details page in the Keycloak Admin Console. The 'Sessions' tab is selected, showing a table of sessions for this user. The table has columns for Started, Last access, IP address, and Clients. There are two sessions listed.

Started	Last access	IP address	Clients
9/15/2025, 12:27:56 PM	9/15/2025, 12:34:31 PM	172.17.0.1	account-console
9/15/2025, 12:44:30 PM	9/15/2025, 12:44:31 PM	172.17.0.1	account-console

The screenshot shows the 'it_user' details page in the Keycloak Admin Console. The 'Sessions' tab is selected, showing a table of sessions for this user. The table has columns for Started, Last access, IP address, and Clients. There is one session listed.

Started	Last access	IP address	Clients
9/15/2025, 12:44:10 PM	9/15/2025, 12:44:11 PM	172.17.0.1	account-console

The screenshot shows the 'sales_user' details page in the Keycloak Admin Console. The 'Sessions' tab is selected, showing a table of sessions for this user. The table has columns for Started, Last access, IP address, and Clients. There is one session listed.

Started	Last access	IP address	Clients
9/15/2025, 12:43:42 PM	9/15/2025, 12:43:43 PM	172.17.0.1	account-console

STEP_8:event manage

➔ In admin console and navigate to events.

Events
Events are records of user and admin events in this realm. To configure the tracking of these events, go to [Event configs](#). [Learn more](#)

User events **Admin events**

Search events [Refresh](#) 1-14

Time	User ID	Event saved type	IP address	Client
September 15, 2025 at 12:44 PM	46dc8b04-2316-4fab-b51e-63c820c3ffb	CODE_TO_TOKEN	172.17.0.1	account-console
September 15, 2025 at 12:44 PM	46dc8b04-2316-4fab-b51e-63c820c3ffb	LOGIN	172.17.0.1	account-console
September 15, 2025 at 12:44 PM	46dc8b04-2316-4fab-b51e-63c820c3ffb	LOGIN	172.17.0.1	account-console
September 15, 2025 at 12:44 PM	No user details	LOGIN_ERROR	172.17.0.1	account-console
September 15, 2025 at 12:44 PM	46dc8b04-2316-4fab-b51e-63c820c3ffb	LOGOUT	172.17.0.1	account-console
September 15, 2025 at 12:44 PM	fc05f6d-ca6b-4f5c-b0f8-d3758c48376	CODE_TO_TOKEN	172.17.0.1	account-console

➔ Go to users and we can see particular users event.

hr_user [Enabled](#) [Action](#)

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

User events **Admin events**

Search events [Refresh](#) 1-4

Time	Event saved type	IP address	Client
September 15, 2025 at 12:44 PM	CODE_TO_TOKEN	172.17.0.1	account-console
September 15, 2025 at 12:44 PM	LOGIN	172.17.0.1	account-console
September 15, 2025 at 12:44 PM	LOGIN	172.17.0.1	account-console
September 15, 2025 at 12:44 PM	LOGOUT	172.17.0.1	account-console

it_user [Enabled](#) [Action](#)

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

User events **Admin events**

Search events [Refresh](#) 1-4

Time	Event saved type	IP address	Client
September 15, 2025 at 12:44 PM	CODE_TO_TOKEN	172.17.0.1	account-console
September 15, 2025 at 12:44 PM	LOGIN	172.17.0.1	account-console
September 15, 2025 at 12:44 PM	LOGIN	172.17.0.1	account-console
September 15, 2025 at 12:43 PM	LOGOUT	172.17.0.1	account-console

sales_user [Enabled](#) [Action](#)

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

User events **Admin events**

Search events [Refresh](#) 1-5

Time	Event saved type	IP address	Client
September 15, 2025 at 12:43 PM	CODE_TO_TOKEN	172.17.0.1	account-console
September 15, 2025 at 12:43 PM	LOGIN	172.17.0.1	account-console
September 15, 2025 at 12:43 PM	LOGIN	172.17.0.1	account-console
September 15, 2025 at 12:43 PM	LOGIN_ERROR	172.17.0.1	account-console
September 15, 2025 at 12:43 PM	LOGOUT	172.17.0.1	account-console