INSTITUTE OF COMPUTER TECHNOLOGY

B-TECH COMPUTER SCIENCE ENGINEERING 2025-26

SUBJECT: IDENTITY ACCESS MANAGEMENT

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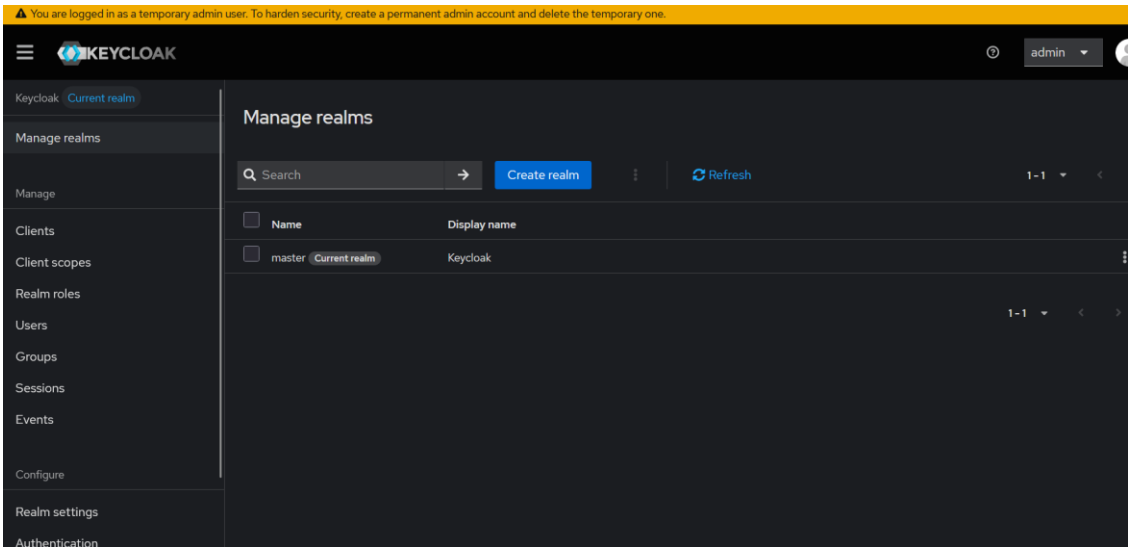
BRANCH: CYBER SECURITY

BATCH: 52

Lab 5: Realm Management and Client Management

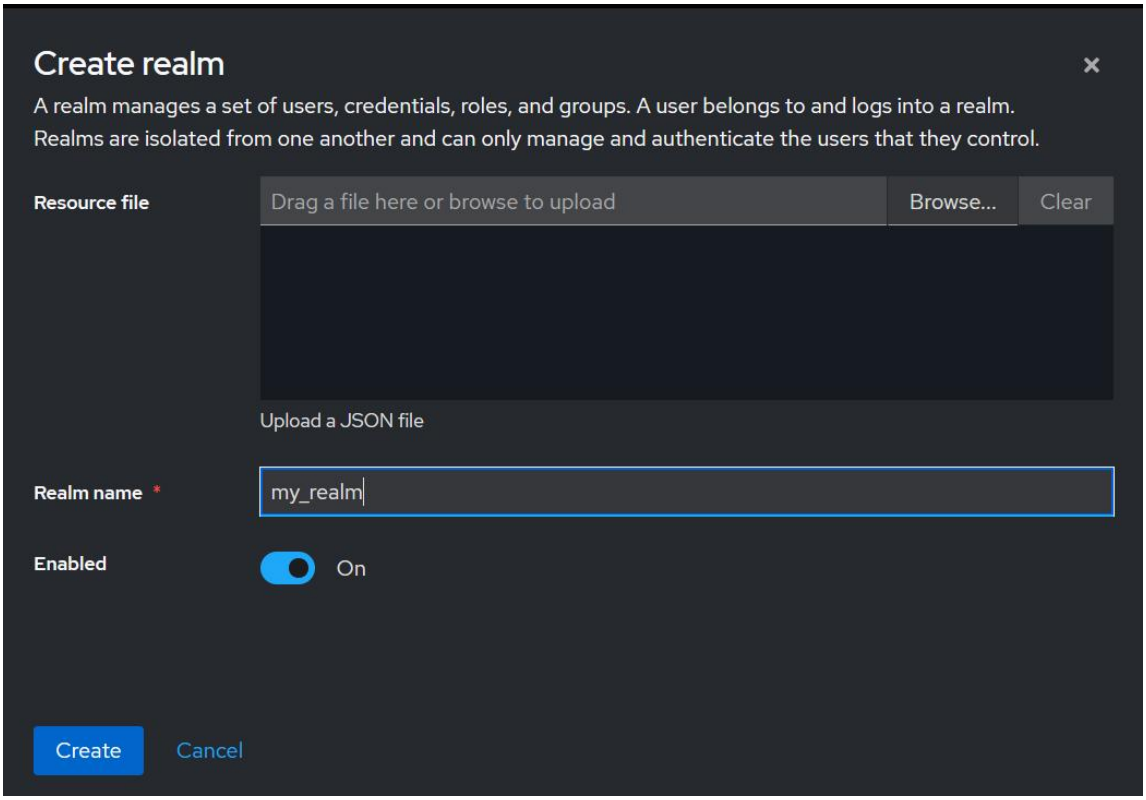
STEP_1:Start Container

- ➔ **Open docker desktop.**
- ➔ **Start container.**
- ➔ **Open browser and go to: http://localhost.com:8080**



STEP_2:Create Realm

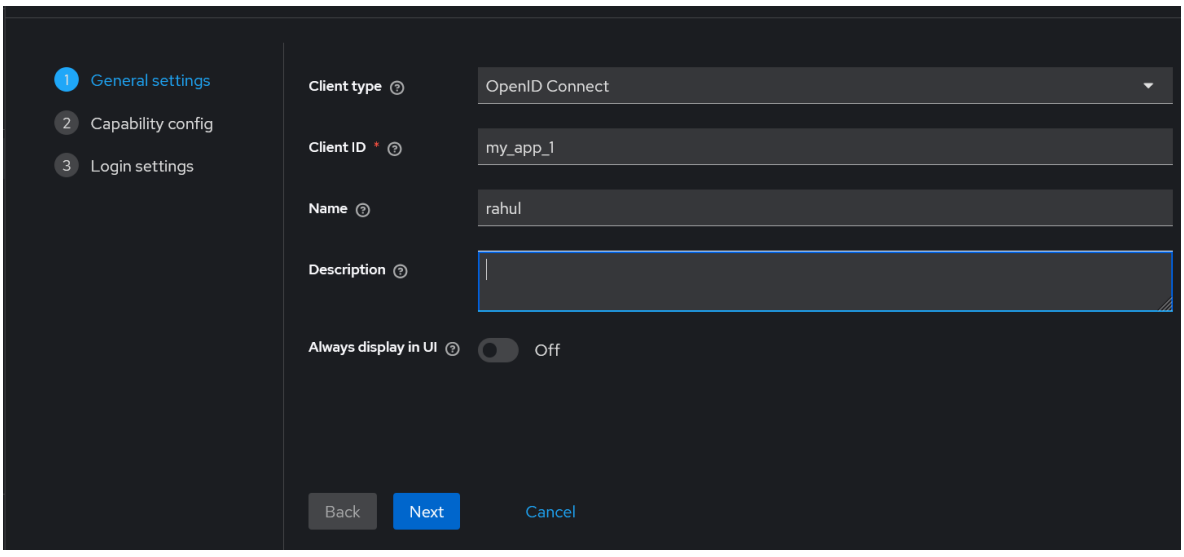
- ➔ Login as admin.
- ➔ Go to manage realm → create realm.
- ➔ Enter realm name and Save.



STEP_3:Create Client

➔ Navigate to clients → create client.

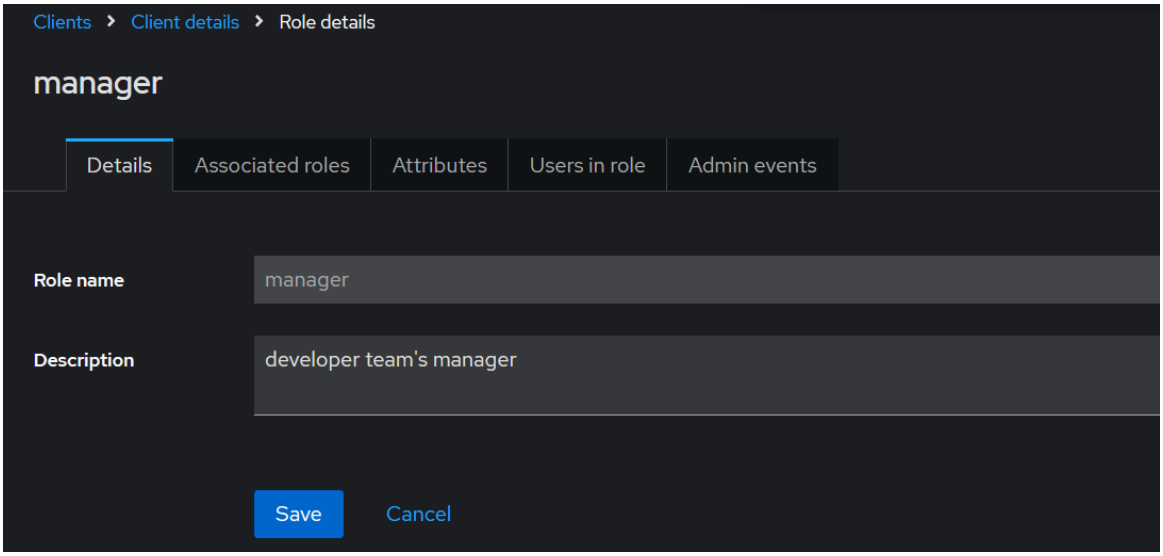
➔ Configure authentication,redirect URLs and Save.



STEP_4:Create Client Role

➔ Go to the create client →roles

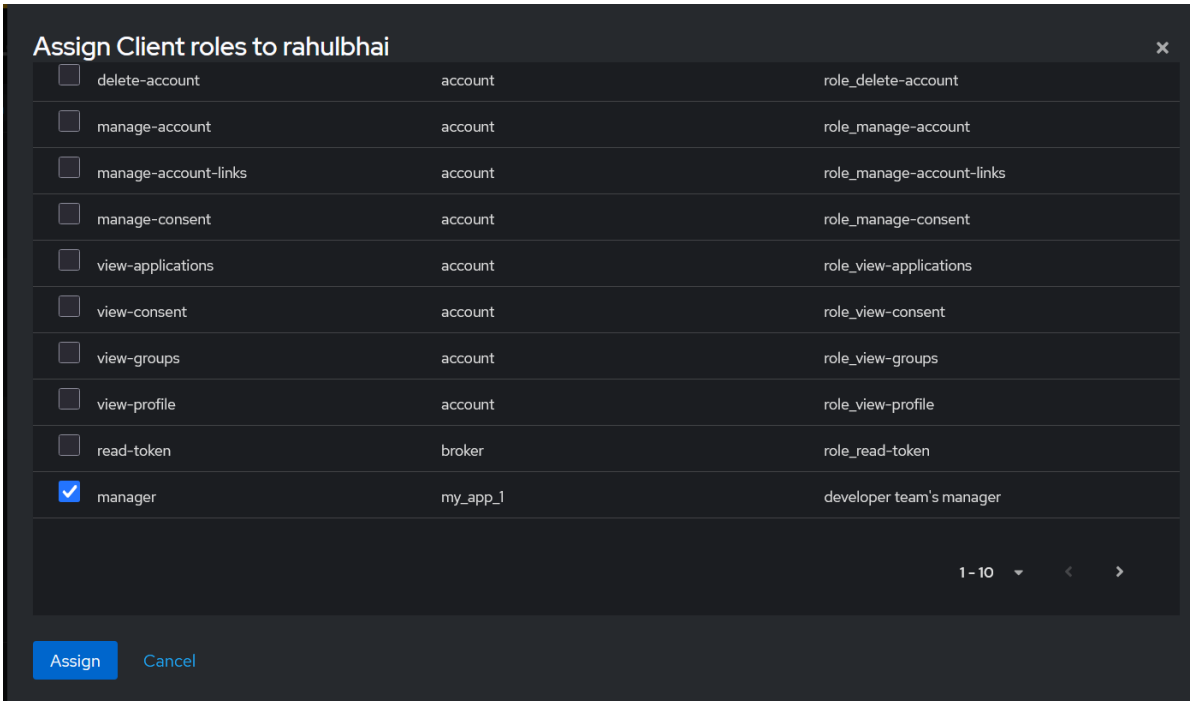
➔ Create a role with name & description



Step_5:Assign Client Role

➔ Go to Users → Role Mappings.

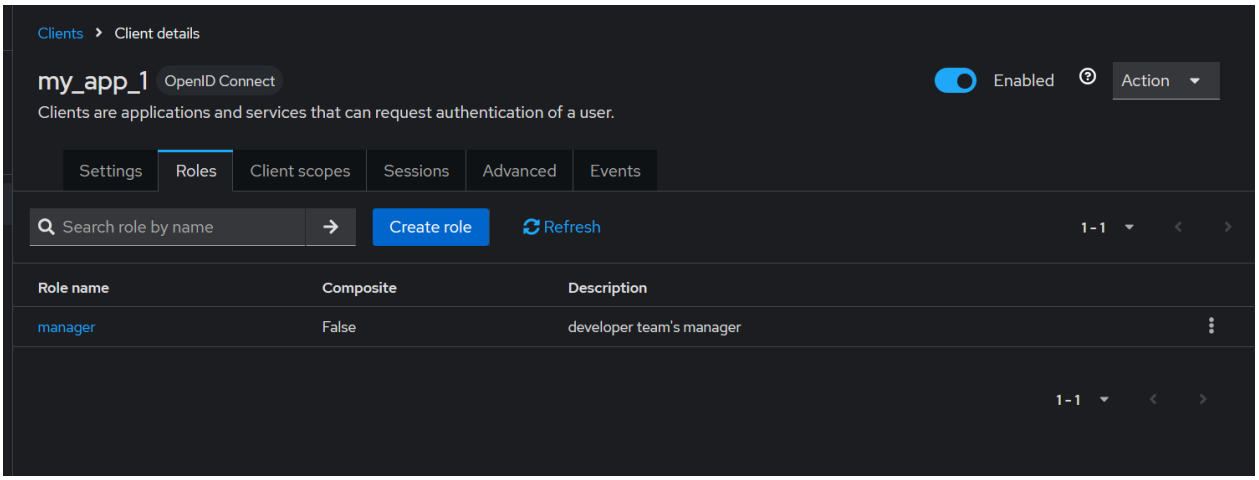
➔ Assign the client role to user.



STEP_6:Verify Assigned Roles

➔ Go to clients → Roles →Users in role.

➔ Check assigned user.



Explanation of Commands/Steps

Realm – A space where you can manage users, roles, and applications.

Client – An app or service that uses Keycloak for login and access.

Client Role – A role that belongs to a specific client (app/service).

Role Mapping – Connecting a user to a role so they have certain permissions.

Conclusion

In this lab, we did the following:

- Launched a Keycloak container using Docker.
- Created a Realm to manage user access and permissions.
- Set up a Client (app/service) to handle authentication.
- Created and assigned a role to the client.
- Checked that users and roles were linked properly.