Institute of Computer Technology

B. Tech Computer Science and Engineering

Sub: Identity and Access Management (2CSE507)

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Semester - 5

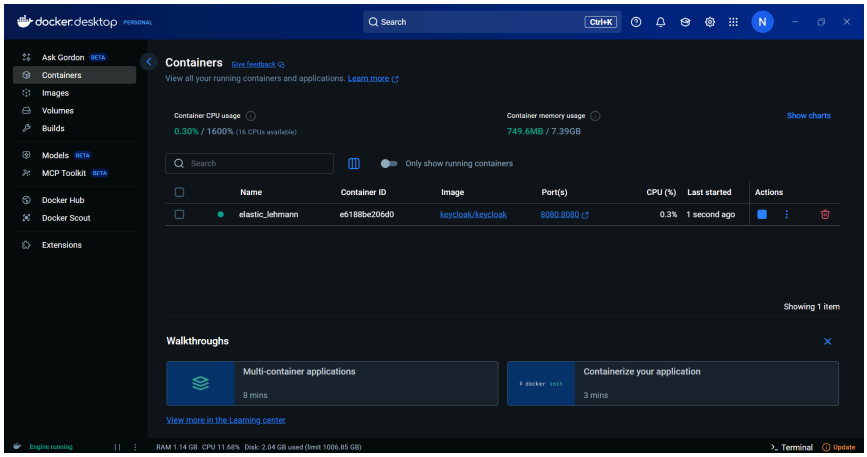
Class - A

Batch – 52

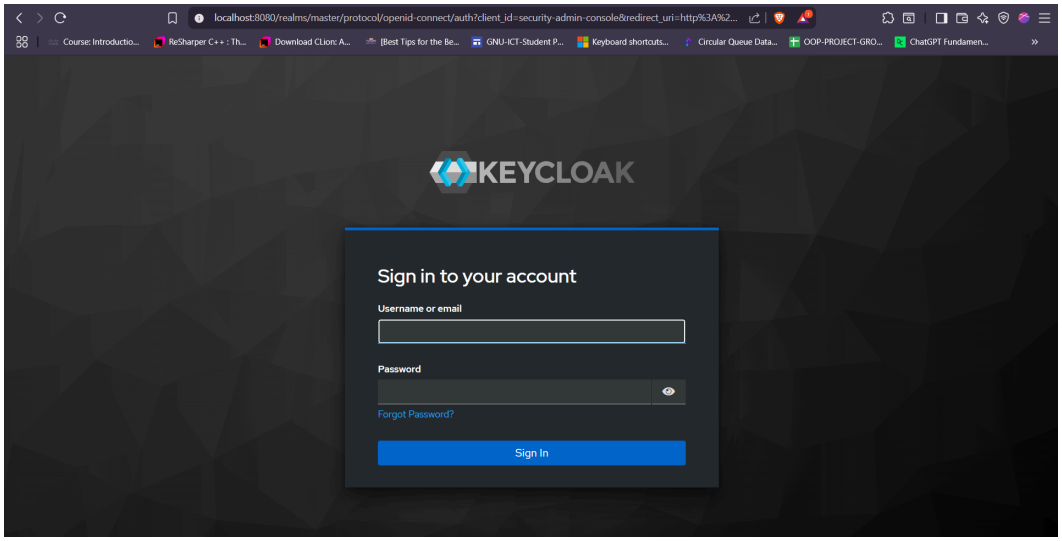
PRACTICAL NO:- 2

Starting the Container:

- Open your Docker Desktop.
- In the containers tab, click the start button of the container you want to start.



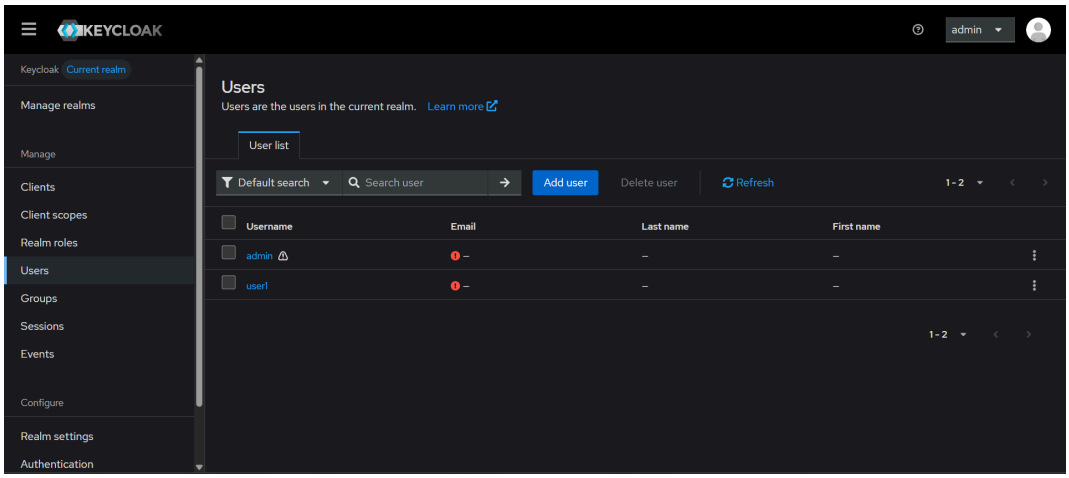
- Now open your browser and go to 'http://localhost:8080/'.



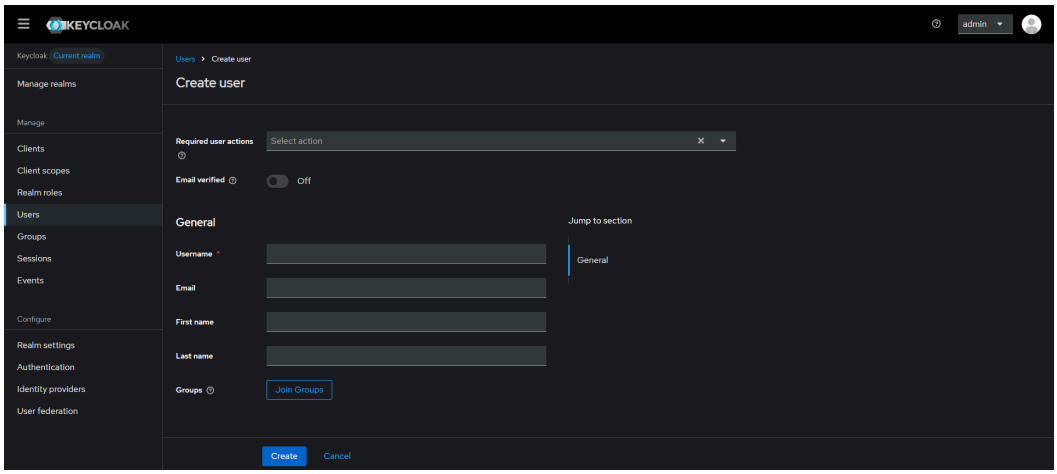
Creating a new user:

- Login as admin.

- Go to the user tab and click on ‘Add User’.

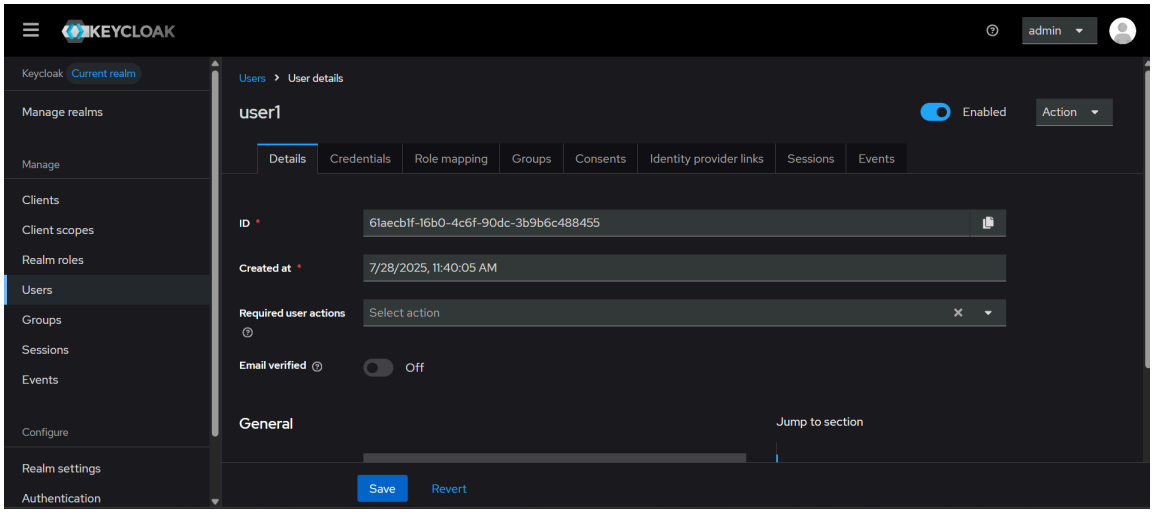


- Fill all required fields like username, password, etc.
- Also select actions that the user must do after logging-in first like Update passwords, Update profile, email verification, etc.



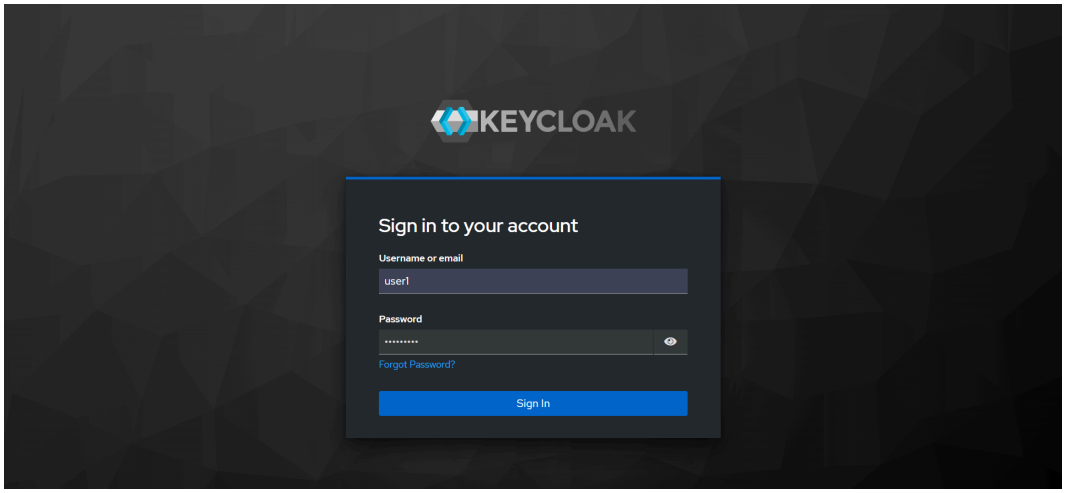
Updating User Details:

- Go to the user tab.
- Click on the user, whose details you want to change
- You will find following subtabs :
    - **Details** : View and edit basic user info (username, email, status, etc.).
    - **Credentials** : Manage user passwords and other credentials (reset, view status).
    - **Role Mapping** : Assign or remove roles to define user permissions.
    - **Groups** : View and manage group memberships for the user.
    - **Consents** : Review user consents for client scopes and revoke if needed.
    - **Identity Provider Links** : Link external identity providers (e.g., Google, GitHub) to the user.
    - **Sessions** : View active user sessions and optionally revoke them.
    - **Events** : View login, logout, and error events related to the user.



Logging-in as the new user:

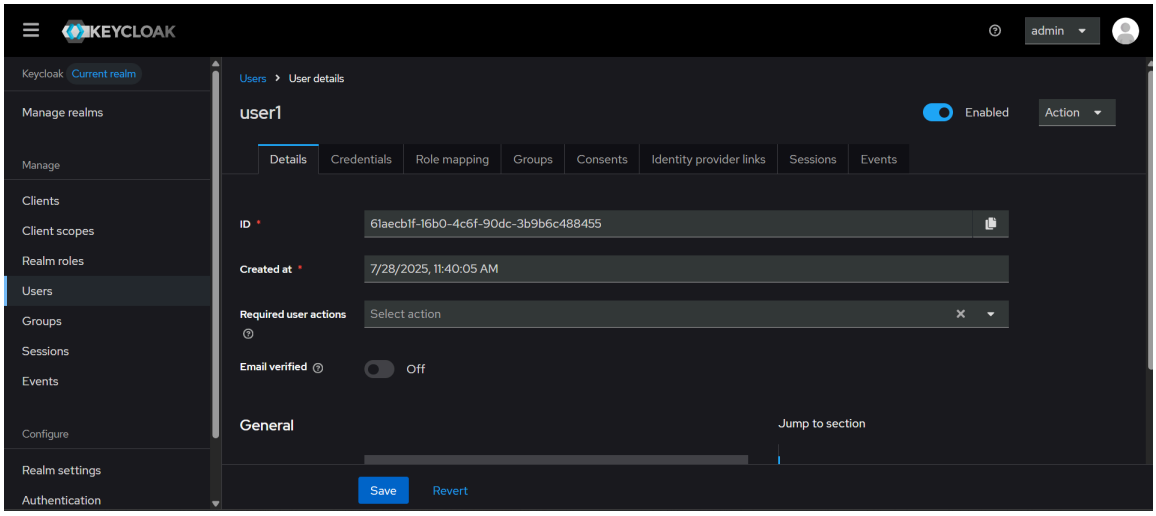
- Open ‘localhost:8080’ in the new browser.
- Enter the username and password of the new user that you just created.



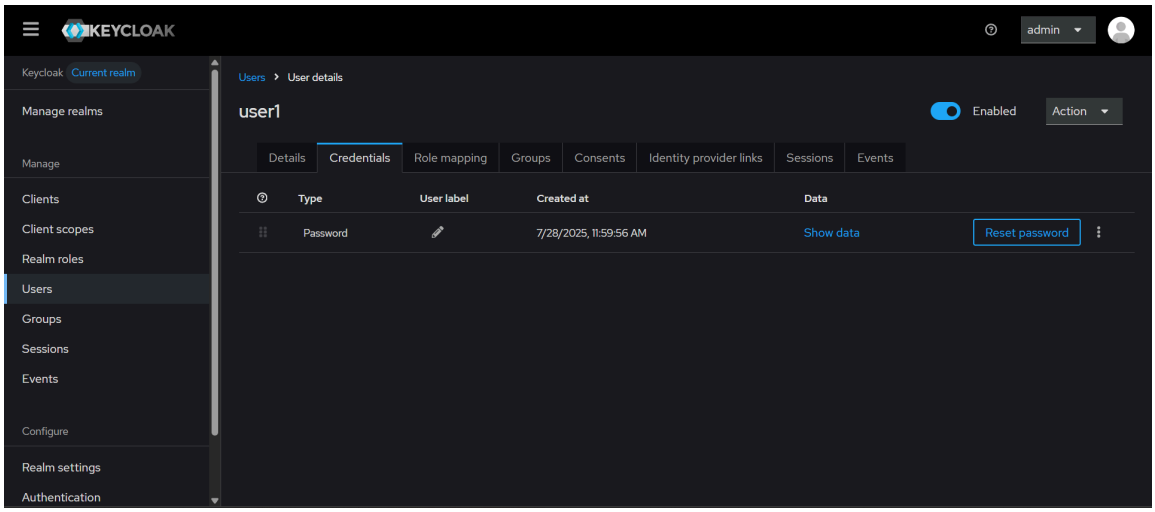
- Complete all the tasks that must be completed after first login like Update passwords, Update profile, email verification, etc.

Resetting a user’s password:

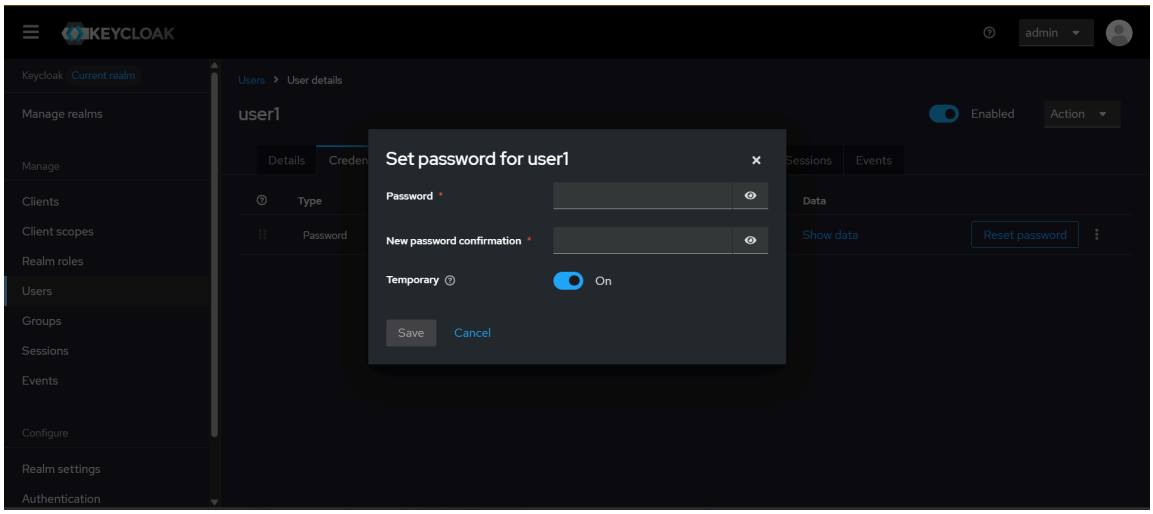
- Go to the user tab.
- Click on the user, whose password you want to change.



- Go to the ‘credentials’ tab.

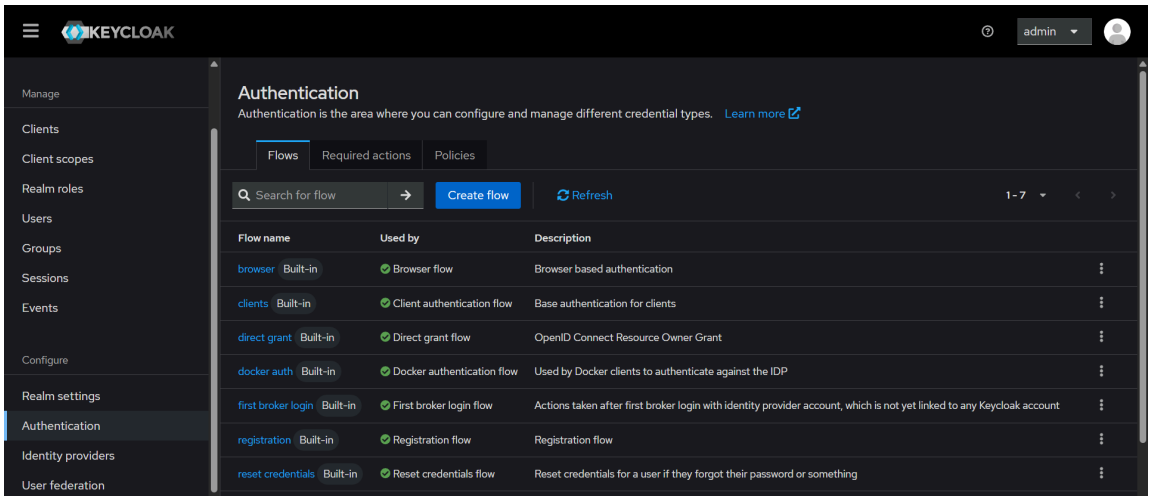


- Click on ‘Reset password’ and enter a new temporary password.

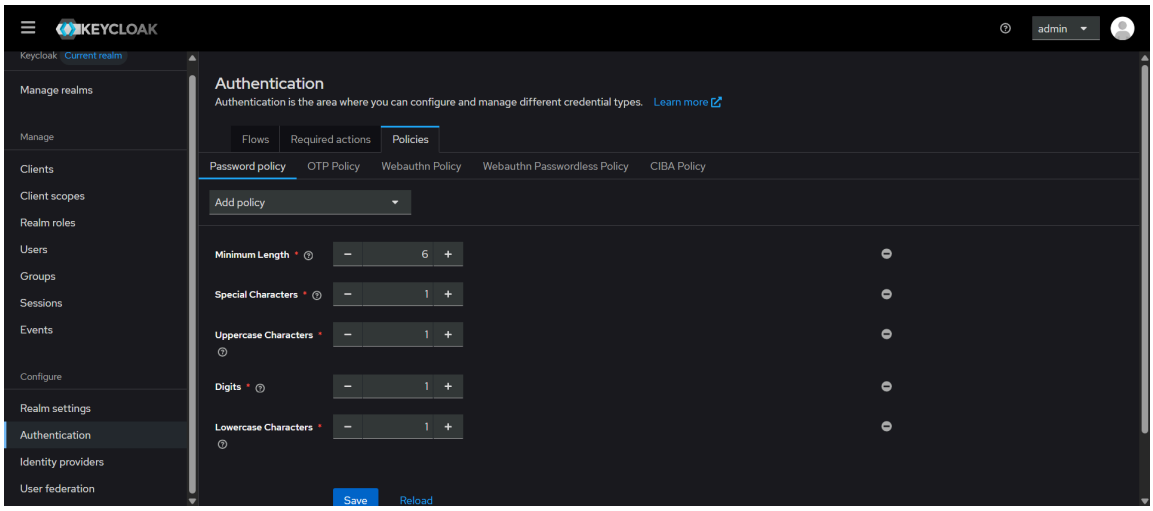


Setting password policies:

- Go to the ‘authentication’ tab.



- Go to the ‘policies' tab and in the ‘password policy’ tab you can add the policies you want from the dropdown like min and max length, min amount of special character(s), etc.



What is the difference between docker and Virtualization? Why do we use docker?

Features	Docker	Hypervisor
Type	Container-based virtualization	Hardware-based (VM) virtualization
Function	Runs applications in isolated containers	Runs entire OS instances (VMs)
Abstraction Level	OS-level virtualization	Hardware-level virtualization
What It Virtualizes	Only the application and its dependencies	Entire operating system and hardware
Host OS Shared?	Yes (containers share the same host OS kernel)	No (each VM runs its own OS instance)
Guest OS Required	No	Yes
Resource Usage	Lightweight (no guest OS overhead)	Heavy (each VM needs its own OS)
Performance	Near-native	Slightly lower due to VM overhead
Isolation Level	Process-level (less isolated)	Full OS-level (more isolated)
Security	Shared kernel (risk if compromised)	Better security due to full isolation
Portability	Very portable (container images)	Less portable (VM images are larger)
Typical Use Case	Microservices, DevOps, CI/CD, lightweight apps	Full OS testing, legacy app support, multiple OS |