

Institute of Computer Technology  
B. Tech Computer Science and Engineering

Sub: Identity and Access Management (2CSE507)

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Branch - Cyber Security

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Semester - 5

Class - A

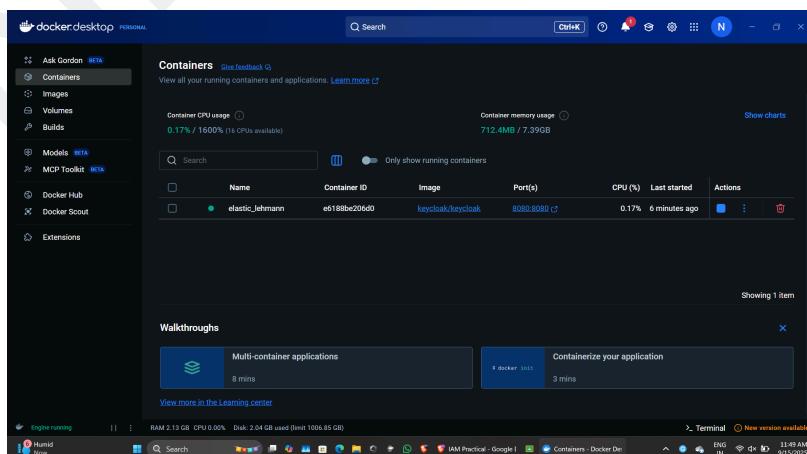
Batch – 52

Set : 1

**INTERNAL PRACTICAL EXAM**

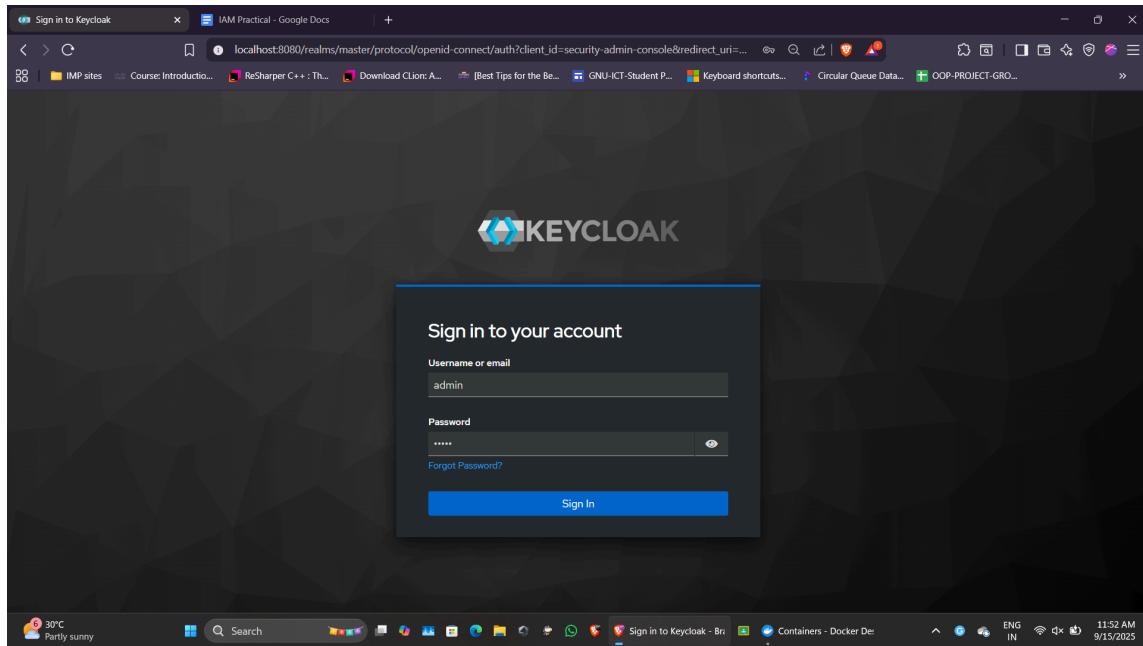
**Starting the Container:**

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



## Creating Users:

- Open the browser and go to ‘localhost:3000’ and login as admin



- Create a new realm (if required) and switch to it

Name	Display name
Internal_Practical	Current realm
master	Keycloak
demo-realm	-
realm3	-
New_realm	-
realm2	-

- Now go to the users tab.

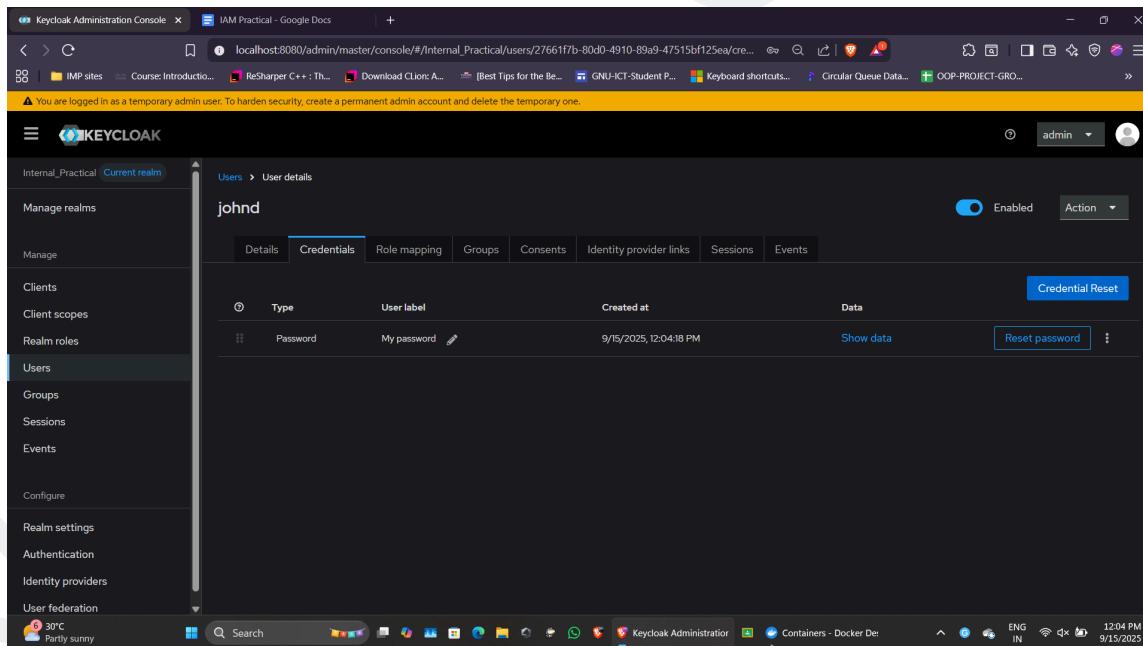
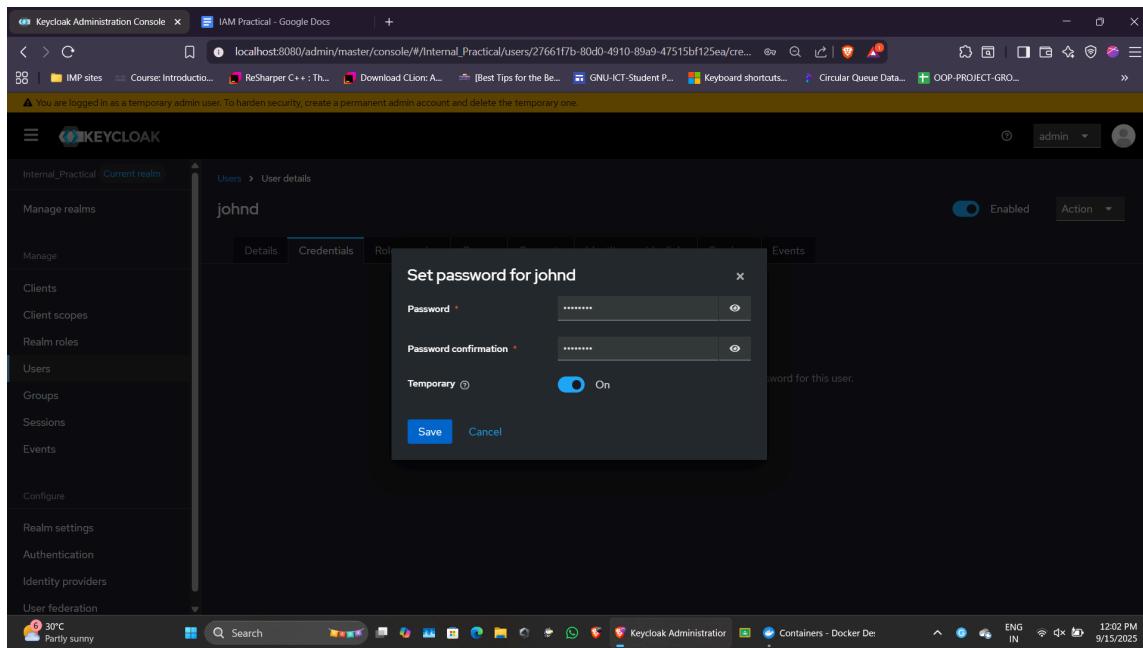
The screenshot shows the Keycloak Administration Console interface. The URL is `localhost:8080/admin/master/console/#/Internal_Practical/users`. The left sidebar has 'Users' selected. The main content area displays a message 'No users found' and a blue 'Create new user' button. The top bar shows the Keycloak logo and the current realm 'Internal\_Practical'. The bottom status bar shows system information like weather and date.

- Click on the 'Create new user' and enter the required user actions, username, first name, last name and email and click on 'Create'

The screenshot shows the 'Create user' form in the Keycloak Administration Console. The URL is `localhost:8080/admin/master/console/#/Internal_Practical/users/add-user`. The form has the following fields filled: 'Username' (johnd), 'Email' (testjohn@gmail.com), 'First name' (John), and 'Last name' (Doe). There are tabs for 'Required user actions', 'Update Password', and 'Select action'. A 'Groups' section is also present. At the bottom are 'Create' and 'Cancel' buttons. The top bar and status bar are consistent with the previous screenshot.

- To give user a temporary password, click on the user and go to ‘credentials’ tab in user profile.

- Click on set password and enter the temporary password.



- Now repeat the above steps for other 2 users (John Smith and John Wick)

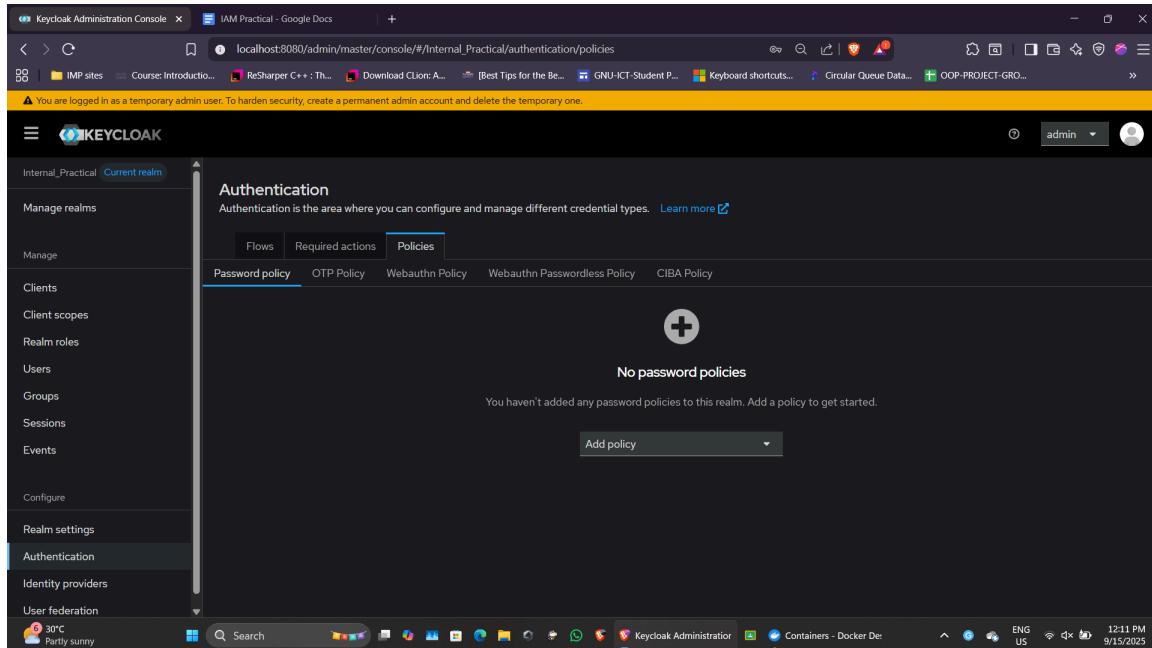
The screenshot shows the Keycloak Administration Console interface. The left sidebar is titled "Internal\_Practical" and contains the following navigation items: Manage realms, Manage, Clients, Client scopes, Realm roles, **Users**, Groups, Sessions, Events, Configure, Realm settings, Authentication, Identity providers, and User federation. The "Users" item is currently selected. The main content area is titled "Users" and displays a table of user accounts. The table has columns for Username, Email, Last name, and First name. There are four users listed:

Username	Email	Last name	First name
johnd	testjohn@gmail.com	Doe	John
johns	testjohnsmith@gmail.com	Smith	John
johnw	testjohnwick@gmail.com	Wick	John

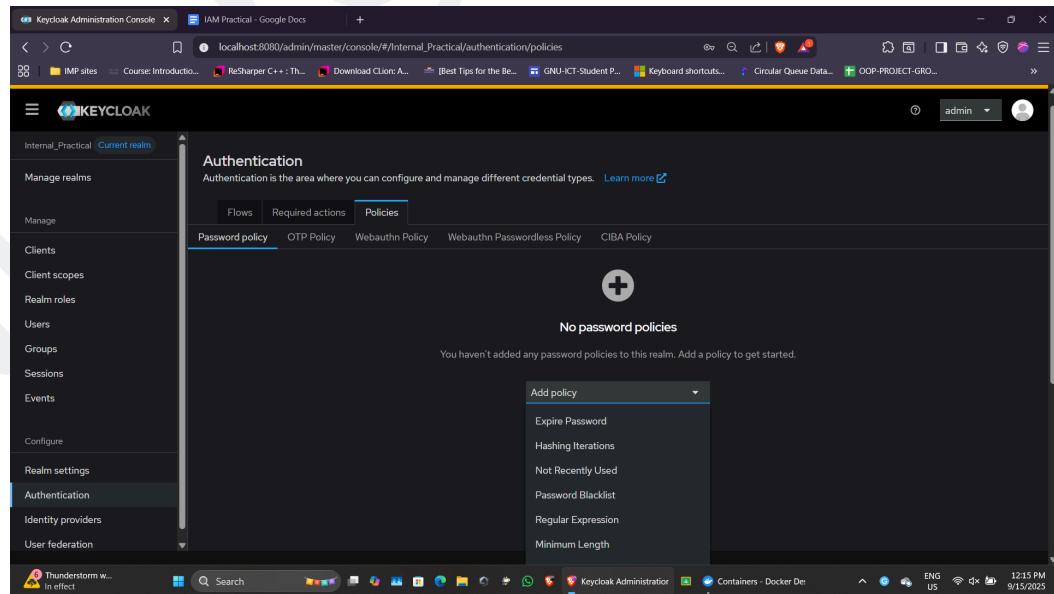
A success message at the top right says "The password has been set successfully." The browser address bar shows "localhost:8080/admin/master/console/#/Internal\_Practical/users". The system tray at the bottom indicates it's 12:08 PM on 9/15/2025.

## Adding Password Policies:

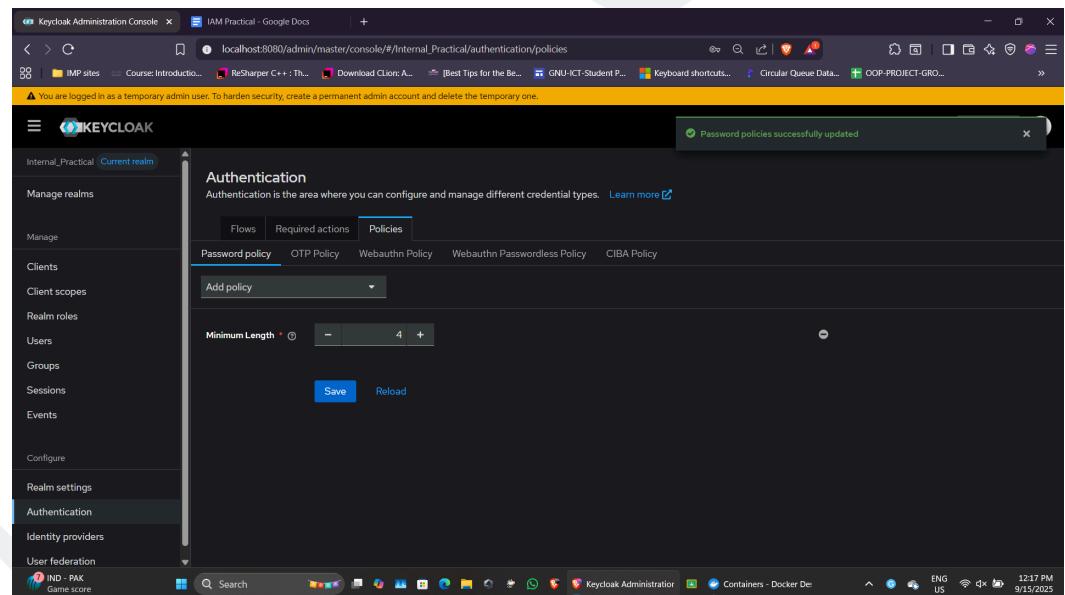
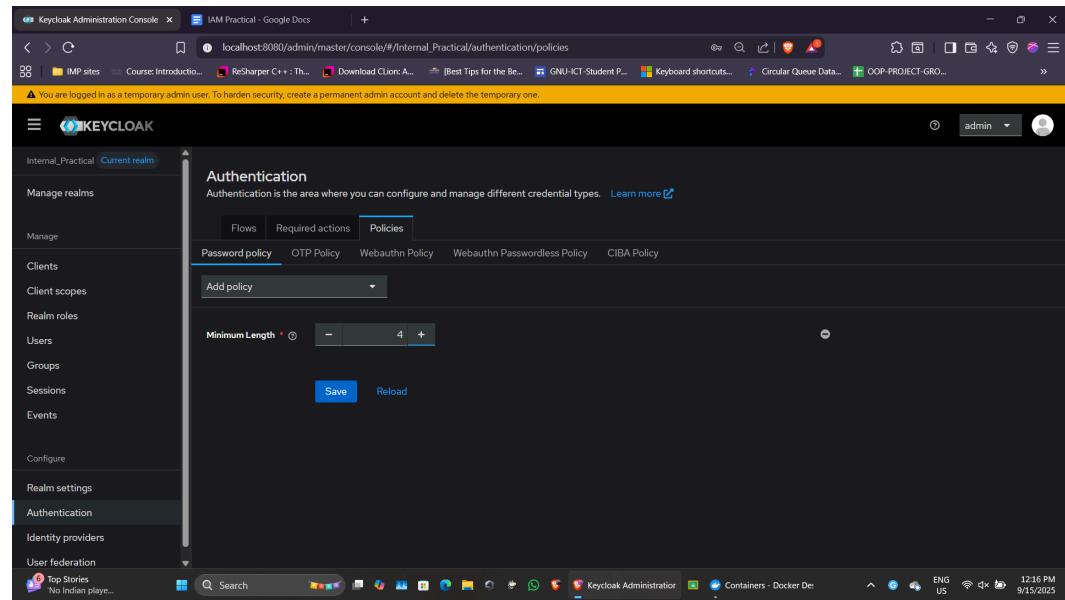
- Go to the ‘Authentication’ tab, then in the authentication tab, go to ‘policies’ tab.



- Click on add policy and set the required configuration for the policy.
- For eg : ‘Minimum length of password should be 4’
  - Click on ‘Add policy’

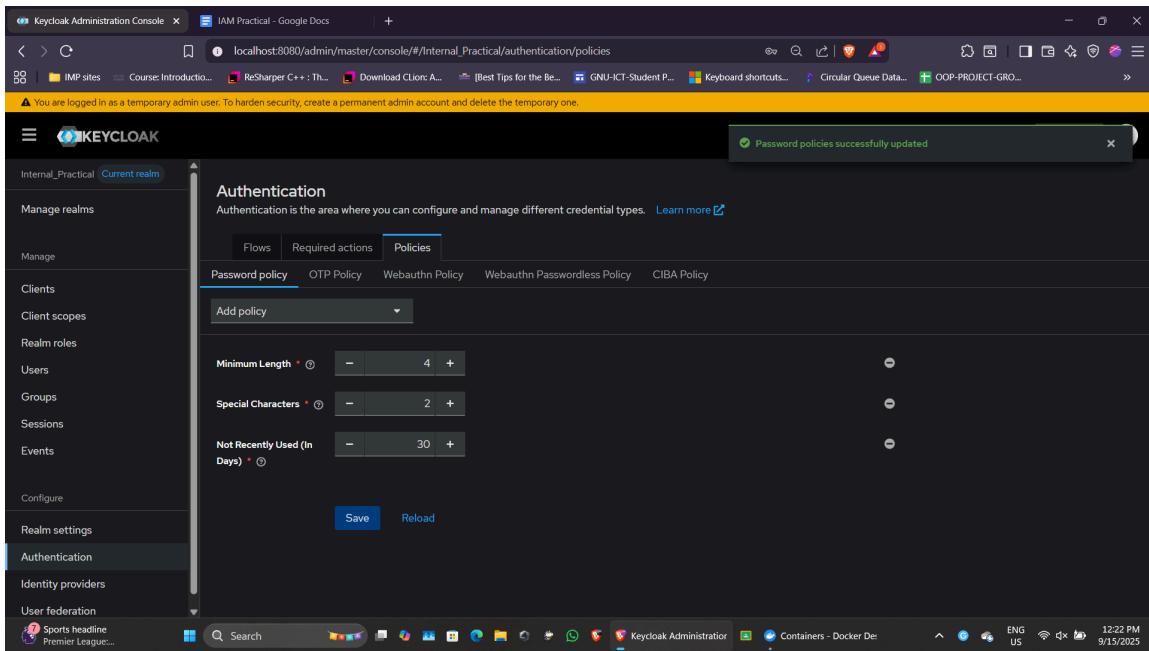


- Click on ‘Minimum length’ and set the value for the policy (for this case it’s 4) and save it.



- You can add more policies using the ‘Add policies button’

- After adding the required policies
    - Minimum length should be 4
    - Must contain 2 special characters.
    - Must be unused from last 30 days



## Adding Client:

- Go to the ‘Client’ tab and click on ‘Create Client’.

Client ID	Name	Type	Description	Home URL
account	Account	OpenID Connect	—	<a href="http://localhost:8080/realm/Internal_Practical/account/">http://localhost:8080/realm/Internal_Practical/account/</a>
account-console	Account Console	OpenID Connect	—	<a href="http://localhost:8080/realm/Internal_Practical/account/">http://localhost:8080/realm/Internal_Practical/account/</a>
admin-cli	Admin CLI	OpenID Connect	—	—
broker	Broker	OpenID Connect	—	—
realm-management	Realm Management	OpenID Connect	—	—
security-admin-console	Security Admin Console	OpenID Connect	—	<a href="http://localhost:8080/admin/Internal_Practical/console/">http://localhost:8080/admin/Internal_Practical/console/</a>

**Create client**  
Clients are applications and services that can request authentication of a user.

**General settings**

Client type: OpenID Connect

Client ID: (Required)

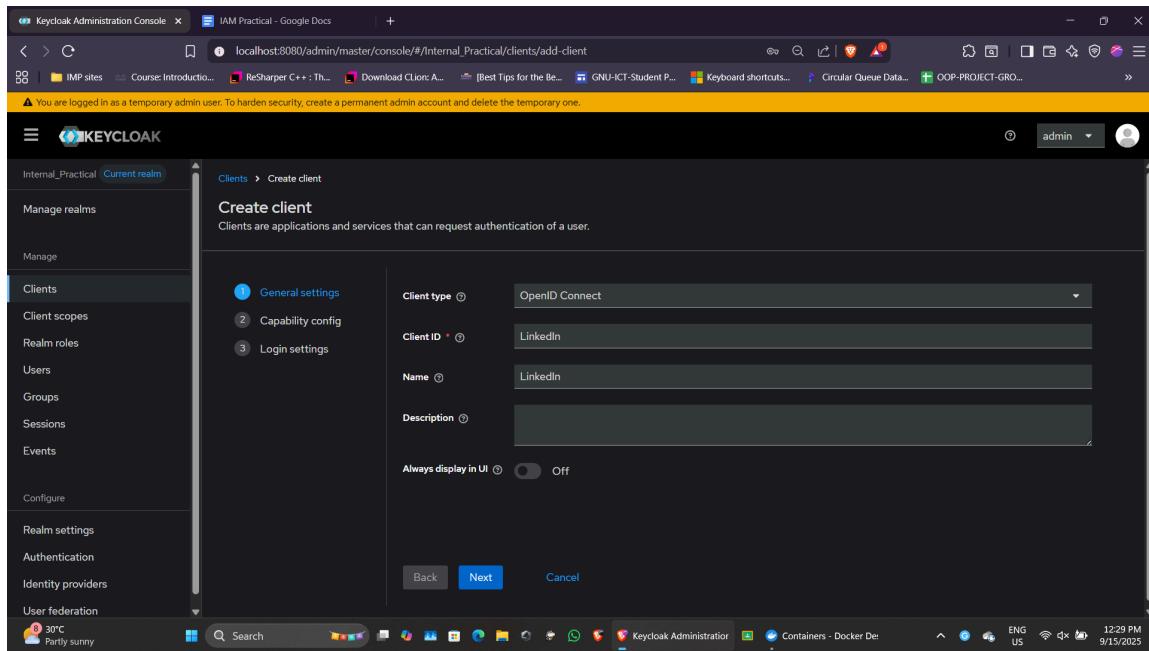
Name: (Required)

Description: (Required)

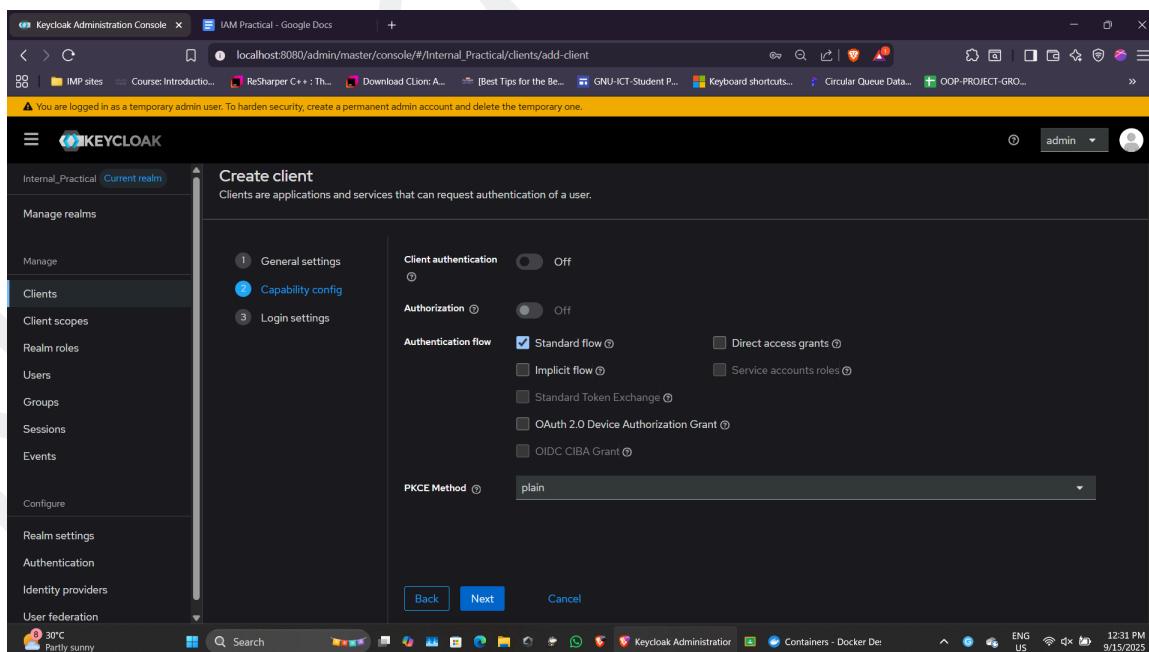
Always display in UI: Off

Back Next Cancel

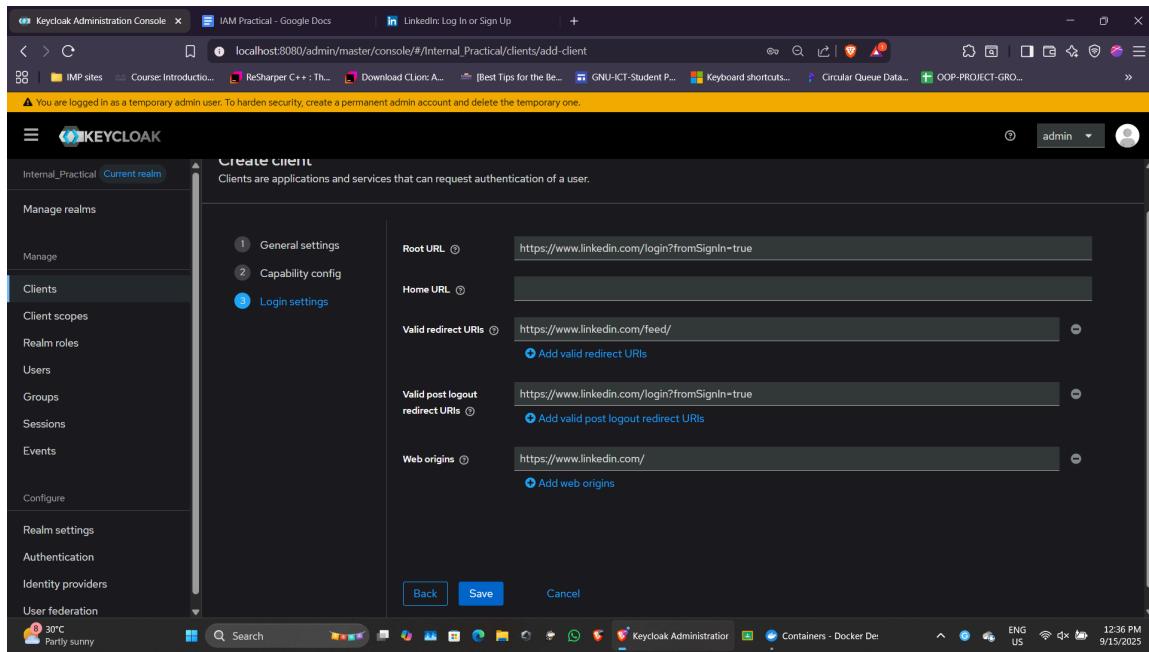
- In the General settings page, enter Client type (mandatory), Client ID (mandatory), Client Name (optional) and Description (optional) and click next.



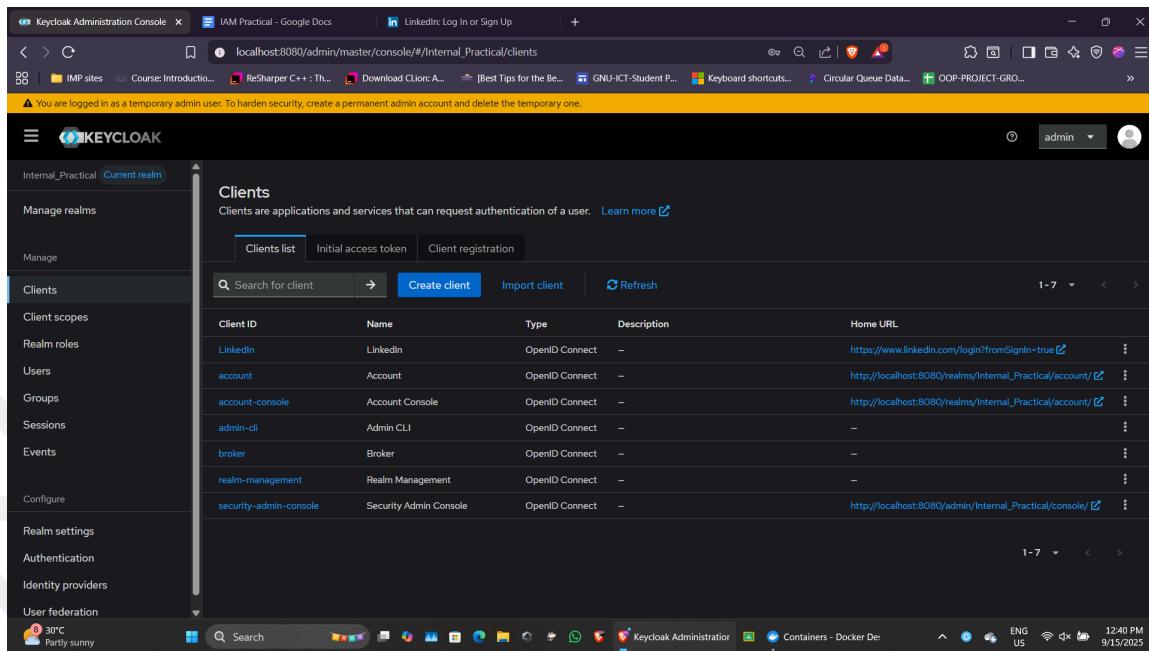
- In the Capability config page, toggle client authentication and authorization, select the authentication flow and PKCE method and click next.



- In the Login settings page, enter Root url, Home url, valid redirect url, valid post logout redirect url and web origins.



- Now click on the save button.



- Click on the home url to get redirected to the associated page.

