

**School of Computer Science, Engineering and Applications(SCSEA)**

**B.C.A. TY (CCSA)**

**Subject : Advanced Cloud Computing (P)**

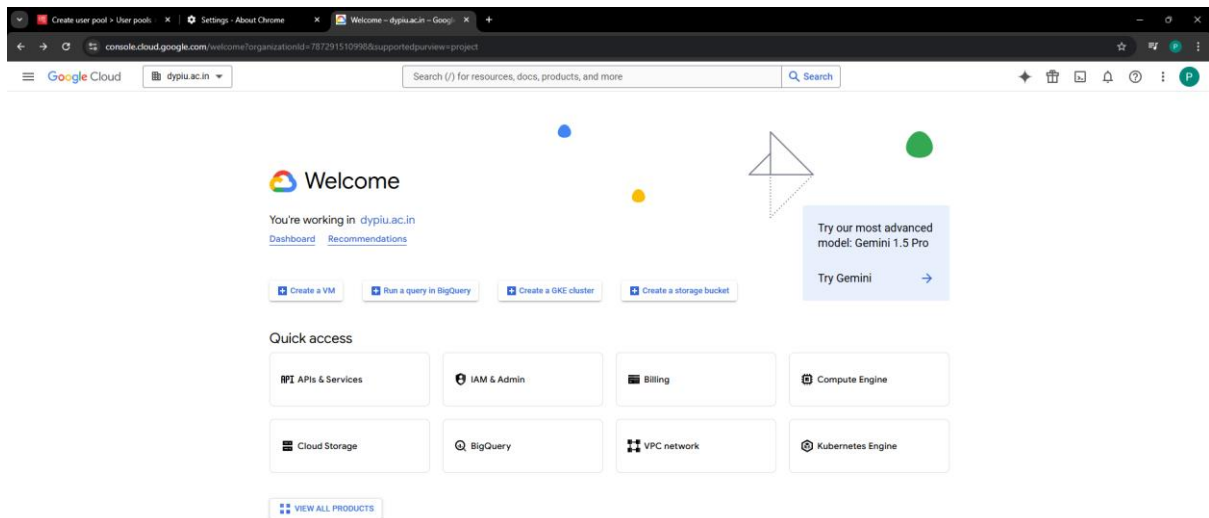
**Name of the Student:**    **Prakhar Anil Sharma**

**PRN:**    **20220801121**

**Title of Practical :**        **Creating a User Pool in AWS Cognito**

Step-1]Generating Client ID and Client Secret ID through Google Cloud Console.

- Open Google cloud console in the browser.
- Sign in to the Google cloud console .
- Search for APIs & Services in the console and click on it.



- Click on New Project.
- Give a Project name.
- Select Organization as dypiu.ac.in .
- Select Location as dypiu.ac.in .
- Click on create .

## School of Computer Science, Engineering and Applications(SCSEA)

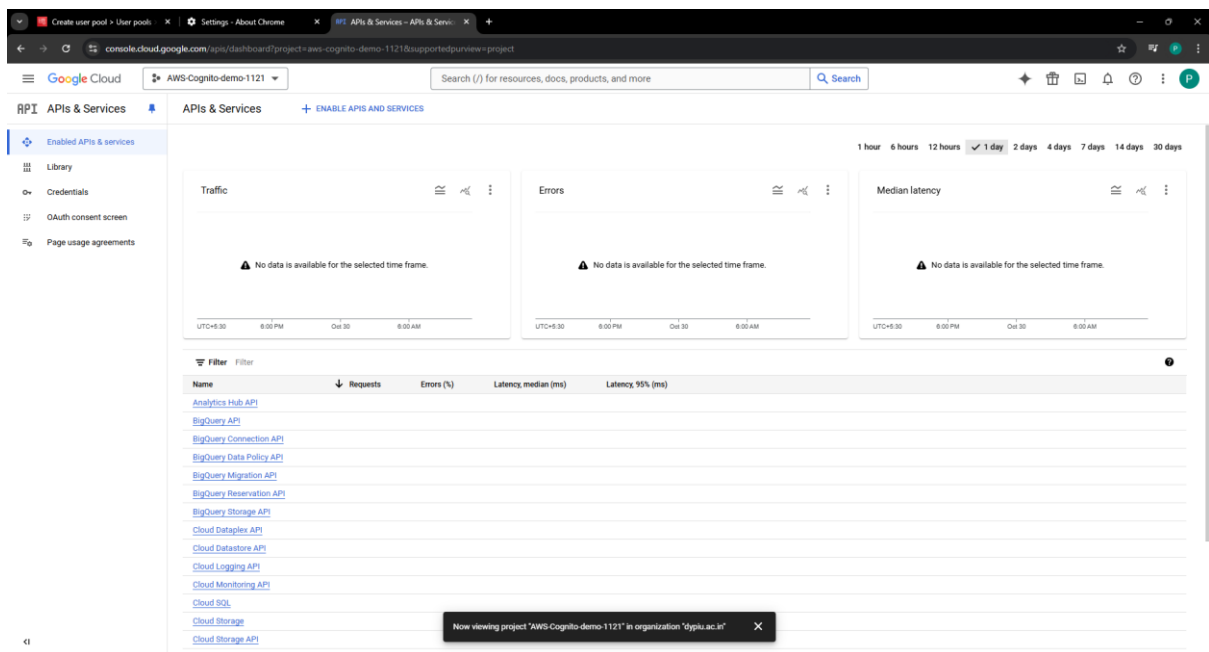
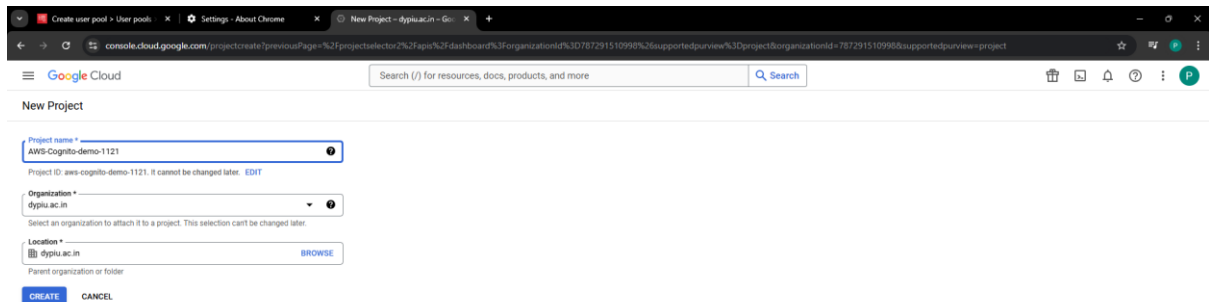
### B.C.A. TY (CCSA)

### Subject : Advanced Cloud Computing (P)

Name of the Student: **Prakhar Anil Sharma**

PRN: **20220801121**

Title of Practical : **Creating a User Pool in AWS Cognito**



- In the left panel, click on OAuth consent screen.

**School of Computer Science, Engineering and Applications(SCSEA)**

**B.C.A. TY (CCSA)**

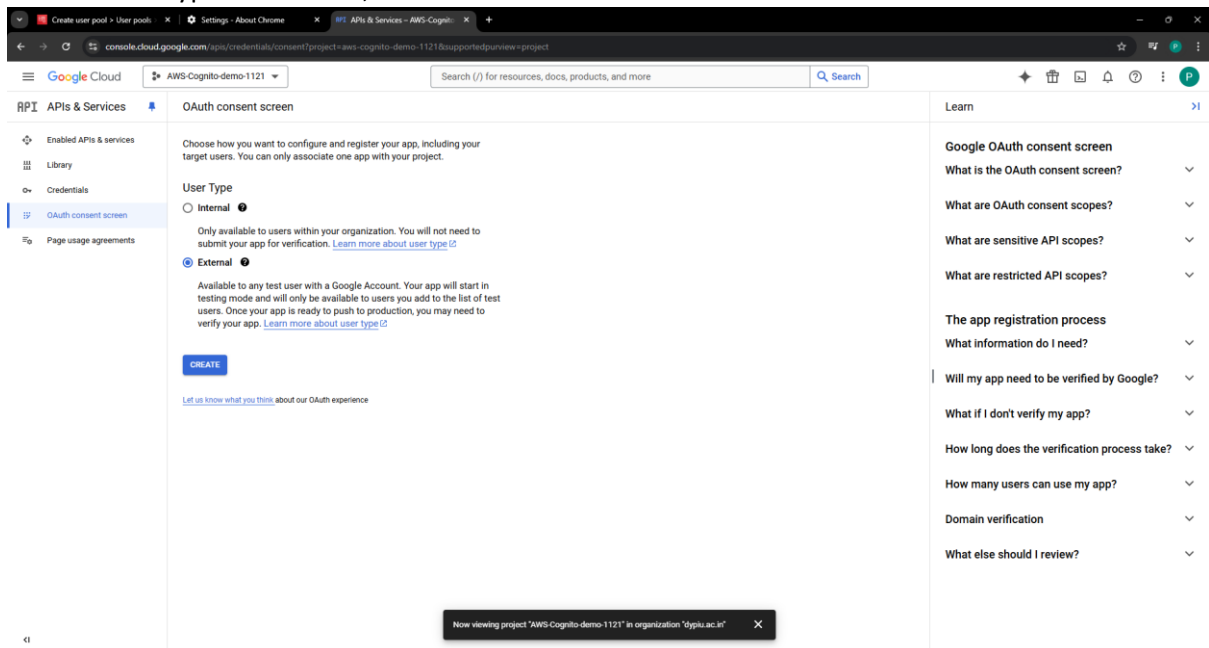
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:     Prakhar Anil Sharma**

**PRN:    20220801121**

**Title of Practical :         Creating a User Pool in AWS Cognito**

- Select User Type as External ,click on create .



- Give app name as per choice.

- Select User Support email as per choice.

- Scroll Down.



**D Y PATIL  
INTERNATIONAL  
UNIVERSITY  
AKURDI PUNE**

## **School of Computer Science, Engineering and Applications(SCSEA) B.C.A. TY (CCSA)**

### **Subject : Advanced Cloud Computing (P)**

**Name of the Student:     Prakhar Anil Sharma**

**PRN:    20220801121**

**Title of Practical :         Creating a User Pool in AWS Cognito**

- In Developer contact information, Select or enter the email as per choice.

- Click on Save and Continue.

PRN: 20220801121

4

**School of Computer Science, Engineering and Applications(SCSEA)**

**B.C.A. TY (CCSA)**

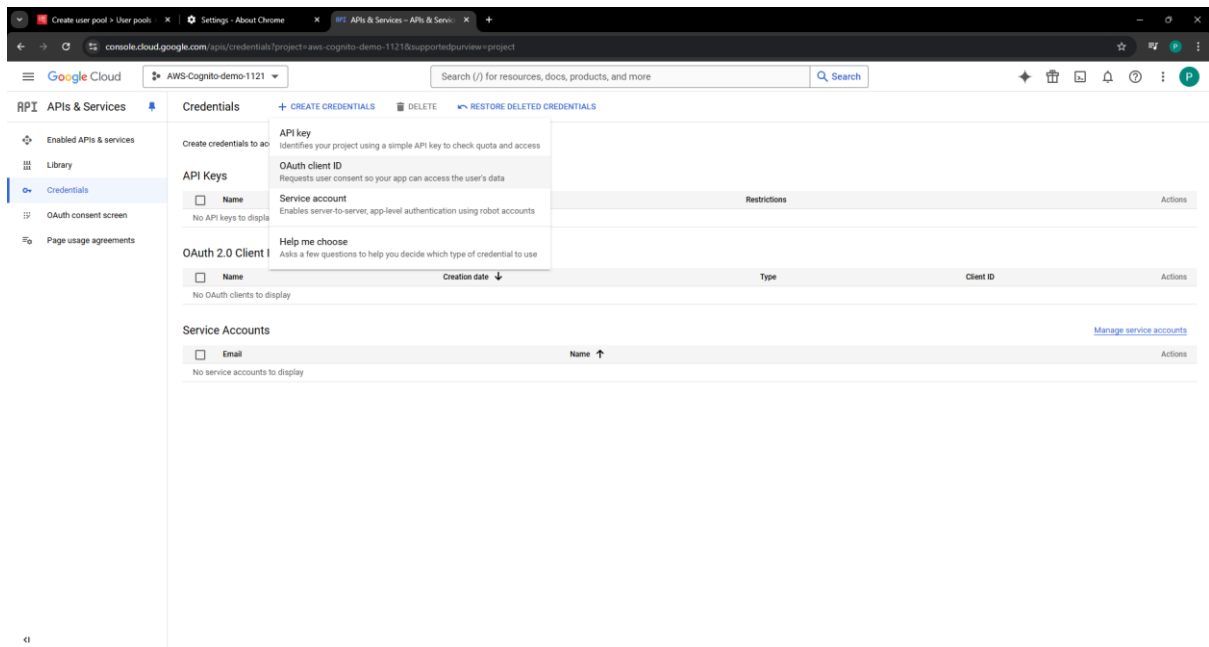
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:**     **Prakhar Anil Sharma**

**PRN:**    **20220801121**

**Title of Practical :**         **Creating a User Pool in AWS Cognito**

- In the left panel, click on Credentials.
- Click on Create Credentials option at top.
- Click on OAuth client ID.



- Select Application Type as Web Application.
- Name it as per choice.
- Click Create .

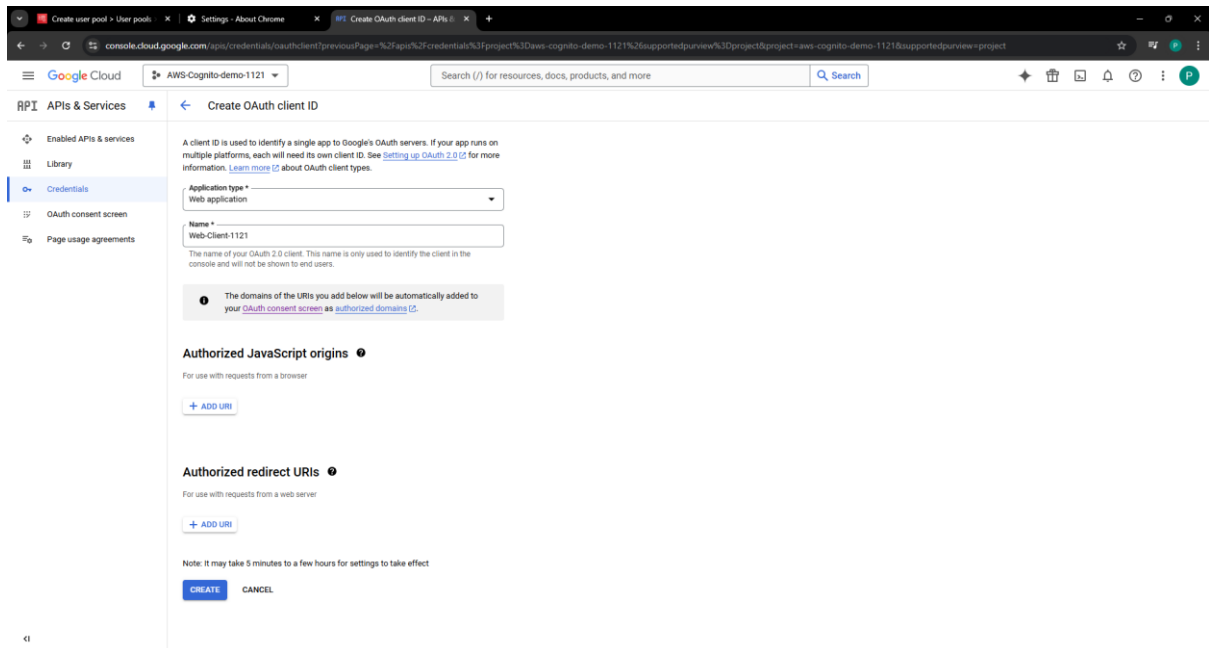
**School of Computer Science, Engineering and Applications(SCSEA)  
B.C.A. TY (CCSA)**

**Subject : Advanced Cloud Computing (P)**

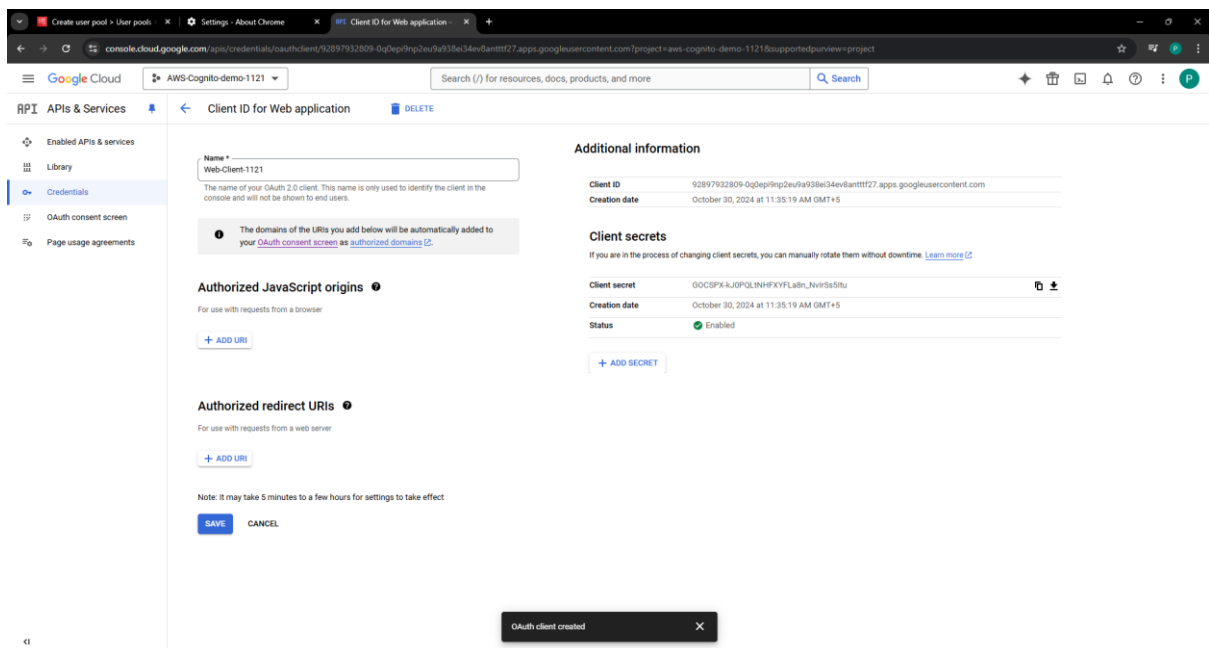
**Name of the Student:     Prakhar Anil Sharma**

**PRN:    20220801121**

**Title of Practical :         Creating a User Pool in AWS Cognito**



Copy the Client ID and Client Secret ID in the Notepad as it will be in use later.



**School of Computer Science, Engineering and Applications(SCSEA)**

**B.C.A. TY (CCSA)**

**Subject : Advanced Cloud Computing (P)**

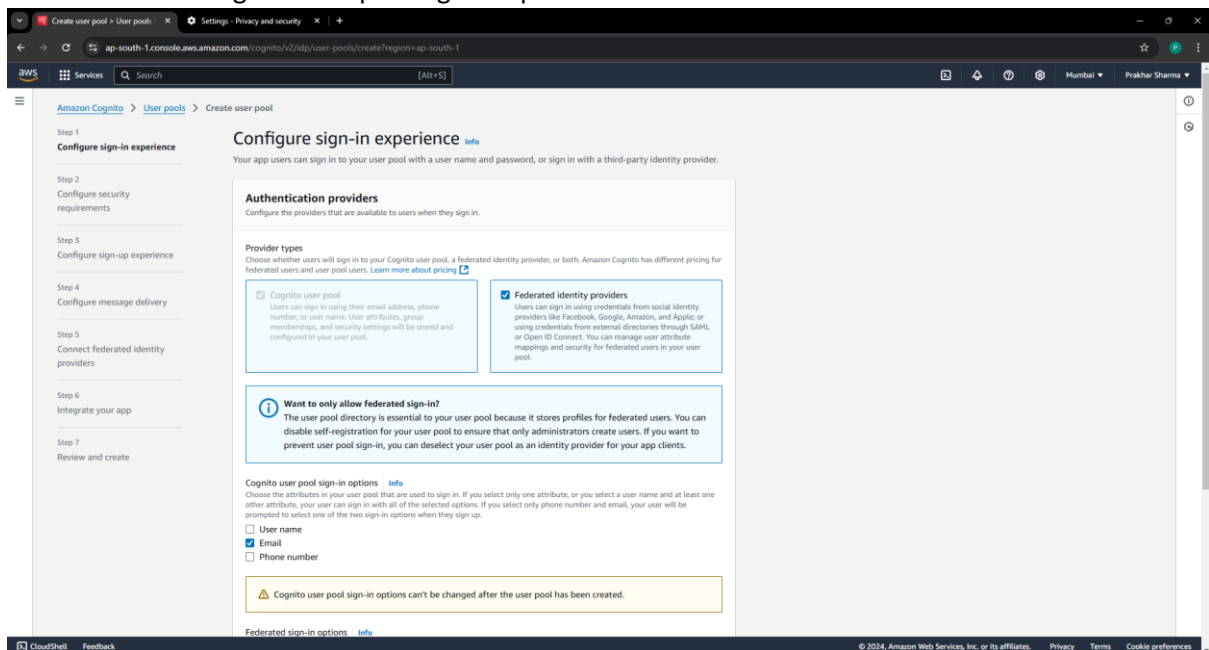
**Name of the Student:   Prakhar Anil Sharma**

**PRN:   20220801121**

**Title of Practical :       Creating a User Pool in AWS Cognito**

Step-2] Creating User Pool in AWS Cognito.

- Sign in to AWS Management Console.
- Search for AWS Cognito in AWS management console.
- Click on Create User Pool.
- In Step 1, Select Federated identity providers in Provider Types.
- Select Email in Cognito user pool sign-in options.



- Select Google in Federated sign-in options.



**D Y PATIL  
INTERNATIONAL  
UNIVERSITY**  
AKURDI PUNE

**School of Computer Science, Engineering and Applications(SCSEA)**

**B.C.A. TY (CCSA)**

**Subject : Advanced Cloud Computing (P)**

**Name of the Student:   Prakhar Anil Sharma**

**PRN:   20220801121**

**Title of Practical :       Creating a User Pool in AWS Cognito**

- Click on Next.

Step 5: Connect federated identity providers

Want to only allow federated sign-in? The user pool directory is essential to your user pool because it stores profiles for federated users. You can disable self-registration for your user pool to ensure that only administrators create users. If you want to prevent user pool sign-in, you can deselect your user pool as an identity provider for your app clients.

Cognito user pool sign-in options

Choose the attributes in your user pool that are used to sign in. If you select only one attribute, or you select a user name and at least one other attribute, your user can sign in with all of the selected options. If you select only phone number and email, your user will be prompted to select one of the two sign-in options when they sign up.

☐ User name  
☒ Email  
☐ Phone number

Cognito user pool sign-in options can't be changed after the user pool has been created.

Federated sign-in options

Choose the third-party identity providers that you would like to configure. You can add or remove federation providers at any time.

☐ Facebook  
Allow sign-in with a Facebook account.

☒ Google  
Allow sign-in with a Google account.

☐ Login with Amazon  
Allow sign-in with an Amazon account.

☐ Sign in with Apple  
Allow sign-in with an Apple ID.

☐ SAML  
Configure trust between Cognito and a SAML 2.0-compatible identity provider, such as Okta or Active Directory Federation Services.

☐ OpenID Connect (OIDC)  
Configure trust between Cognito and an OIDC identity provider, such as PayPal or Salesforce.

Cancel Next

- In Step 2, Select Cognito defaults option in Password policy mode.

Step 2: Configure security requirements

Set up a strong password requirement in addition to multi-factor authentication to protect your app users from accidentally compromising their credentials.

Password policy

Create a password policy to define the length and complexity of the passwords your users can set.

Password policy mode

☒ Cognito defaults  
Use default password requirements.

☐ Custom  
Use password requirements that you define.

Password minimum length  
8 character(s)

Password requirements  
Contains at least 1 number  
Contains at least 1 special character  
Contains at least 1 uppercase letter  
Contains at least 1 lowercase letter

Temporary passwords set by administrators expire in  
7 day(s)

Prevent the use of previously-used passwords  
You can also set password-history requirements. Configure this option from the Sign-in experience tab after you create this user pool. [Learn more](#)

Multi-factor authentication  
Configure secure access to your app by enforcing multi-factor authentication (MFA) during the user sign-in process. MFA settings are applied to all app clients.

PRN: 20220801121

8



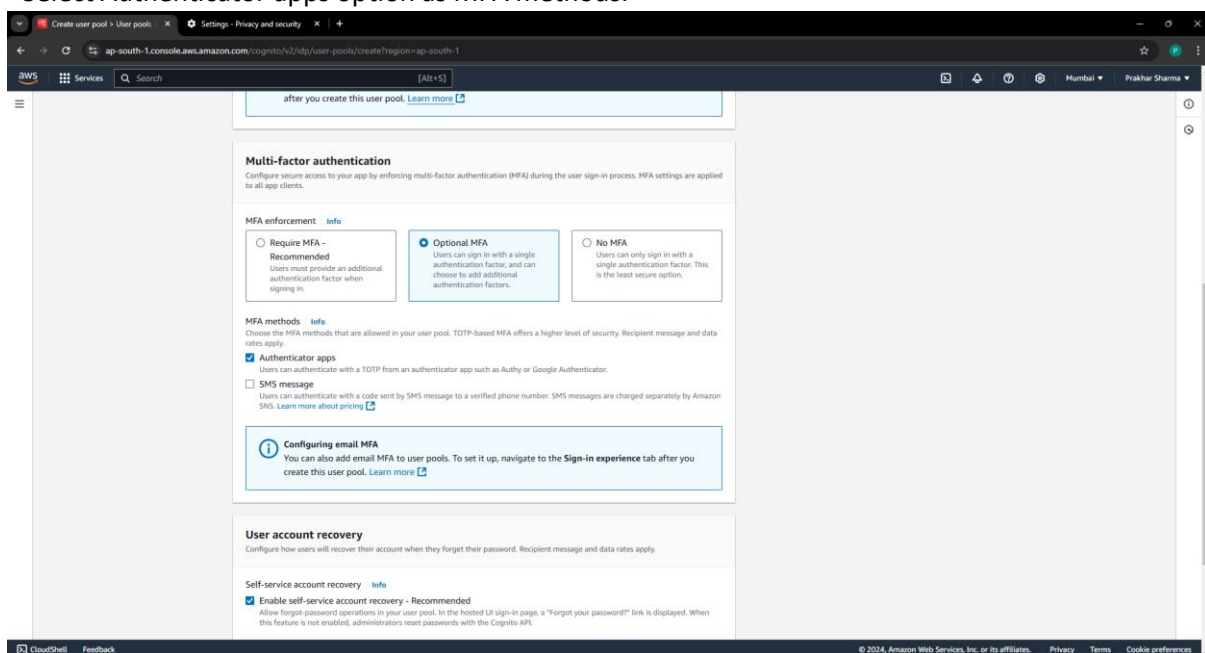
**School of Computer Science, Engineering and Applications(SCSEA)  
B.C.A. TY (CCSA)  
Subject : Advanced Cloud Computing (P)**

**Name of the Student:    Prakhar Anil Sharma**

**PRN:    20220801121**

**Title of Practical :        Creating a User Pool in AWS Cognito**

- Select Optional MFA option in MFA enforcement.
- Select Authenticator apps option as MFA methods.



- Select Enable self-service account recovery option in Self service account recovery.
- Select Email only option in Default method for user account recovery message.
- Click on Next.

## School of Computer Science, Engineering and Applications(SCSEA)

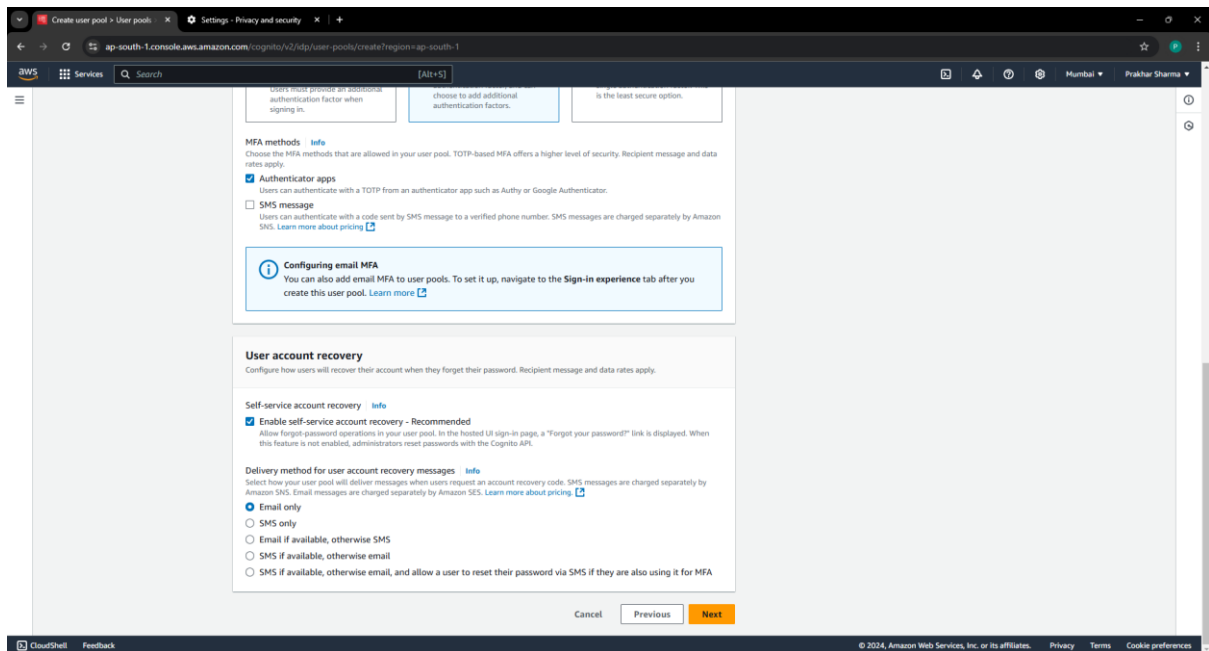
**B.C.A. TY (CCSA)**

**Subject : Advanced Cloud Computing (P)**

**Name of the Student:     Prakhar Anil Sharma**

**PRN:    20220801121**

**Title of Practical :         Creating a User Pool in AWS Cognito**



- In Step 3, Select Enable self registration in Self registration.

**School of Computer Science, Engineering and Applications(SCSEA)**

**B.C.A. TY (CCSA)**

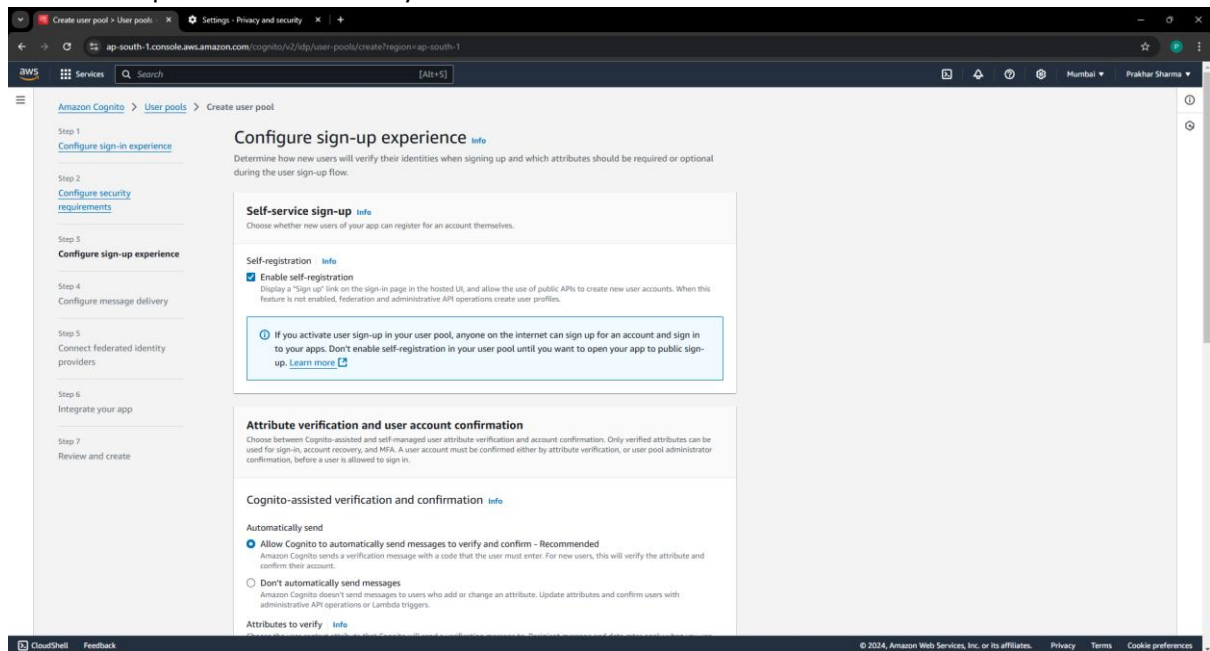
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:     Prakhar Anil Sharma**

**PRN:   20220801121**

**Title of Practical :         Creating a User Pool in AWS Cognito**

- Select 1<sup>st</sup> option in Automatically send.



- Select 2<sup>nd</sup> option in Attributes to verify.

- Select the option in Verifying attribute changes .

- In Required attributes ,Select name as Additional required attributes.

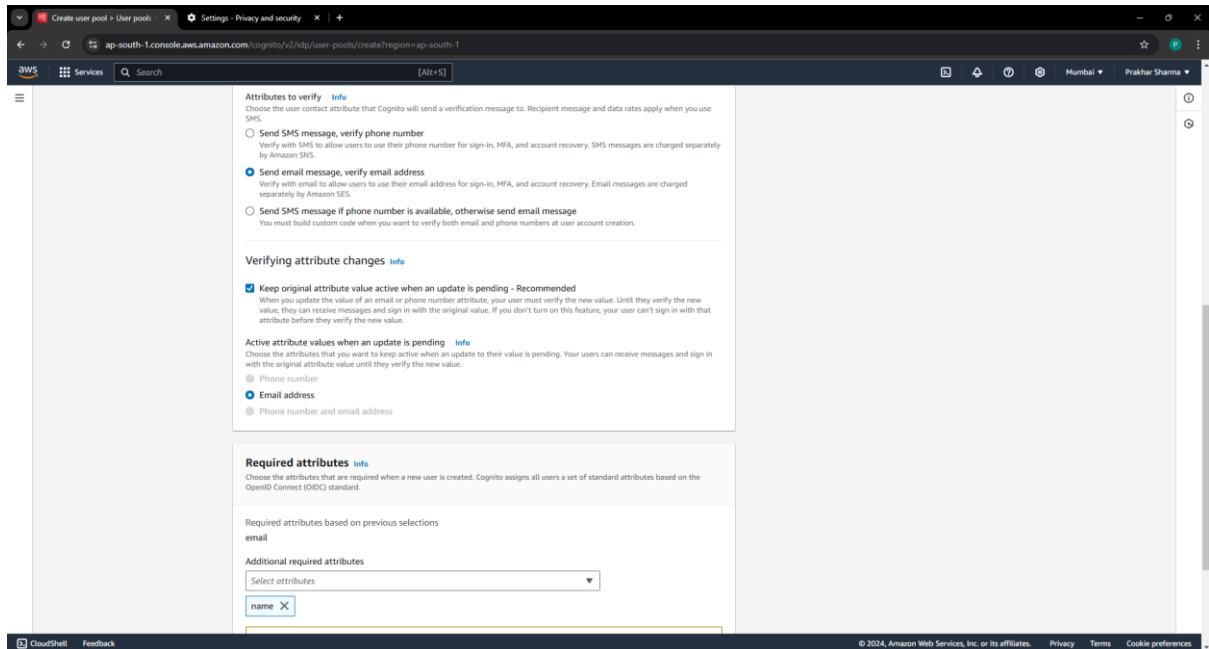
**School of Computer Science, Engineering and Applications(SCSEA)**  
**B.C.A. TY (CCSA)**  
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:**      **Prakhar Anil Sharma**

**PRN:**    **20220801121**

**Title of Practical :**            **Creating a User Pool in AWS Cognito**

- Click on Next.



- In Step 4, Select Send email with Cognito in email provider.

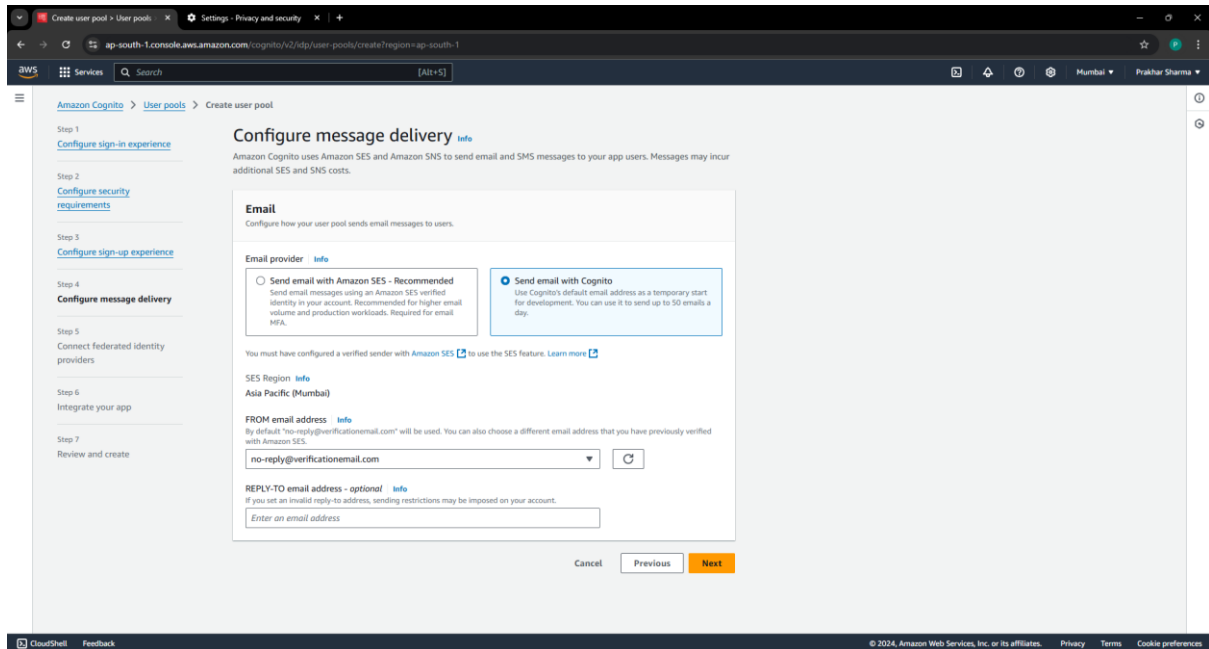
**School of Computer Science, Engineering and Applications(SCSEA)  
B.C.A. TY (CCSA)  
Subject : Advanced Cloud Computing (P)**

**Name of the Student:    Prakhar Anil Sharma**

**PRN:    20220801121**

**Title of Practical :        Creating a User Pool in AWS Cognito**

- Click on Next.



- In Step 5, Enter the Client ID and Client Secret ID from the notepad or google cloud console.

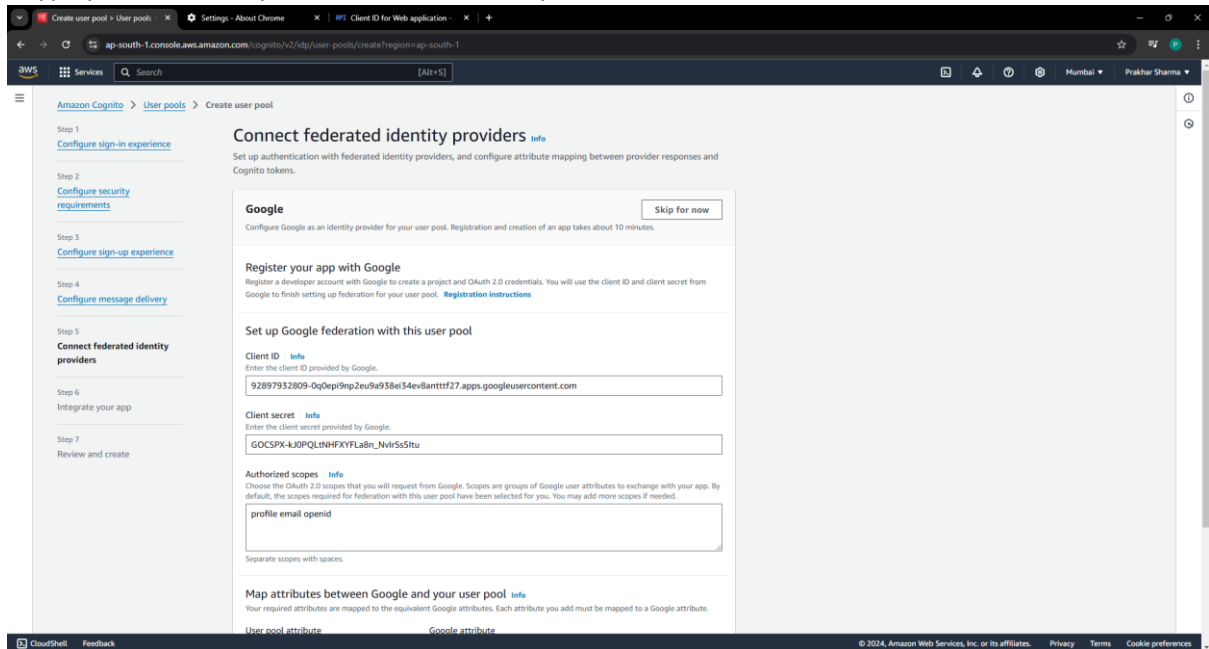
**School of Computer Science, Engineering and Applications(SCSEA)**  
**B.C.A. TY (CCSA)**  
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:**     **Prakhar Anil Sharma**

**PRN:**    **20220801121**

**Title of Practical :**         **Creating a User Pool in AWS Cognito**

- Type profile email openid in Authorized scopes.



The screenshot shows the AWS Cognito console interface for creating a user pool. The 'Connect federated identity providers' step is active. The 'Google' provider is selected. The 'Client ID' is 92897932809-QoDp9np2eu9u938e34ev8antttf27.apps.googleusercontent.com. The 'Client secret' is GOCSPX-UOPQLNHFXFLa8n\_Nvr5s5itu. The 'Authorized scopes' field contains 'profile email openid'. The 'Map attributes' section is visible at the bottom.

- Select name and email in Map attributes between google and your user pool.

**School of Computer Science, Engineering and Applications(SCSEA)  
B.C.A. TY (CCSA)**

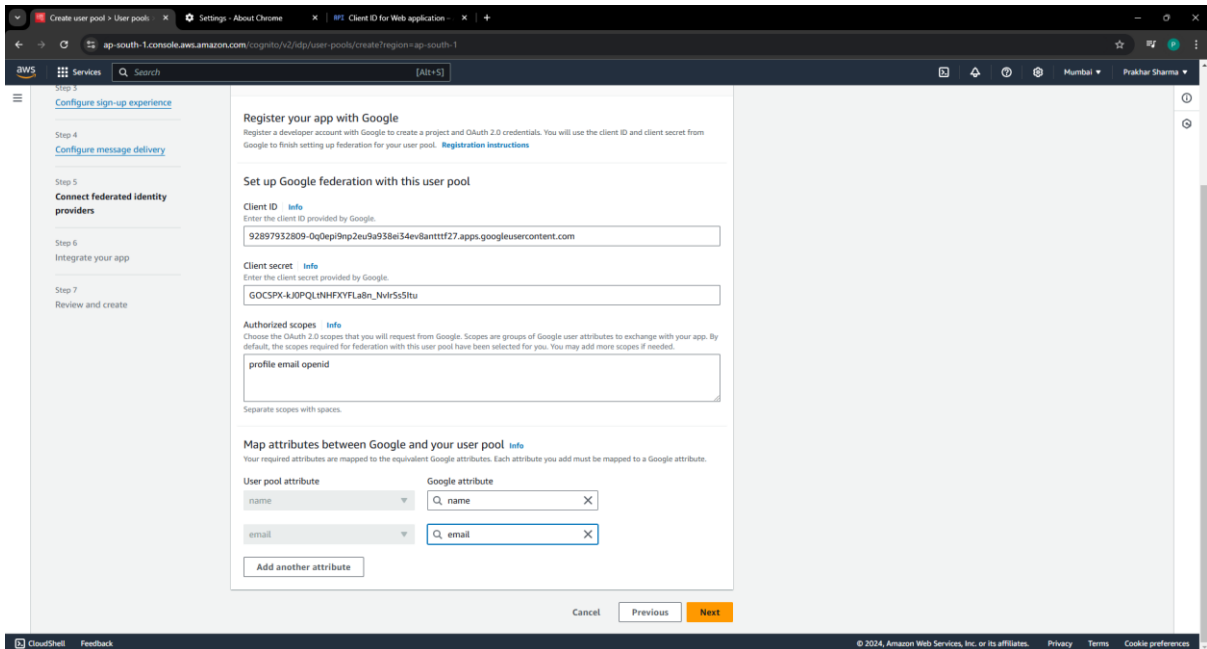
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:     Prakhar Anil Sharma**

**PRN:    20220801121**

**Title of Practical :         Creating a User Pool in AWS Cognito**

- Click on Next.



Step 3  
[Configure sign-up experience](#)

Step 4  
[Configure message delivery](#)

Step 5  
**Connect federated identity providers**

Step 6  
[Integrate your app](#)

Step 7  
[Review and create](#)

### Register your app with Google

Register a developer account with Google to create a project and OAuth 2.0 credentials. You will use the client ID and client secret from Google to finish setting up federation for your user pool. [Registration instructions](#)

### Set up Google federation with this user pool

**Client ID** [info](#)  
Enter the client ID provided by Google.  
92897932809-OgDpI9np2eu9a938e34ev8anttf27.apps.googleusercontent.com

**Client secret** [info](#)  
Enter the client secret provided by Google.  
GOCSPX-kJOPQLNHFXFLaBn\_Nvr5s5tu

**Authorized scopes** [info](#)  
Choose the OAuth 2.0 scopes that you will request from Google. Scopes are groups of Google user attributes to exchange with your app. By default, the scopes required for federation with this user pool have been selected for you. You may add more scopes if needed.

profile email openid

Separate scopes with spaces.

### Map attributes between Google and your user pool

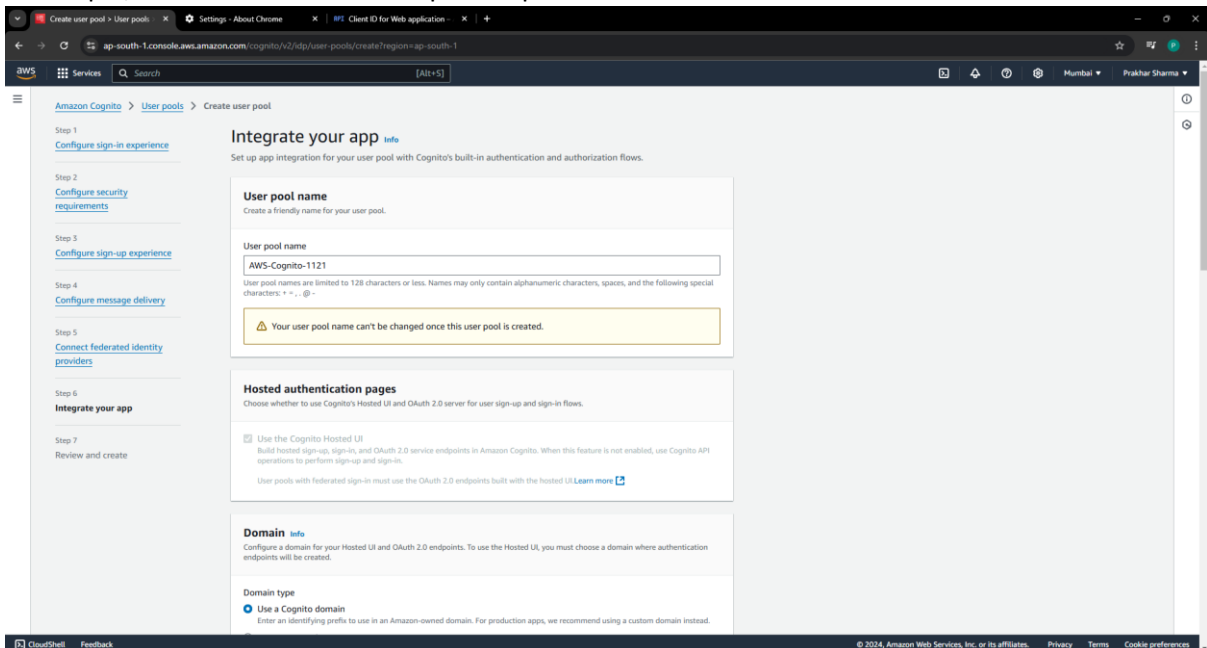
[info](#)  
Your required attributes are mapped to the equivalent Google attributes. Each attribute you add must be mapped to a Google attribute.

User pool attribute	Google attribute
name	Q, name
email	Q, email

[Add another attribute](#)

Cancel Previous **Next**

- In Step 6, Give a name to the user pool as per choice.



Amazon Cognito > User pools > Create user pool

Step 1  
[Configure sign-in experience](#)

Step 2  
[Configure security requirements](#)

Step 3  
[Configure sign-up experience](#)

Step 4  
[Configure message delivery](#)

Step 5  
[Connect federated identity providers](#)

Step 6  
**Integrate your app**

Step 7  
[Review and create](#)

### Integrate your app

[info](#)  
Set up app integration for your user pool with Cognito's built-in authentication and authorization flows.

### User pool name

Create a friendly name for your user pool.

User pool name  
AWS-Cognito-1121

User pool names are limited to 128 characters or less. Names may only contain alphanumeric characters, spaces, and the following special characters: +, -, ., @, \_.

**Warning:** Your user pool name can't be changed once this user pool is created.

### Hosted authentication pages

Choose whether to use Cognito's Hosted UI and OAuth 2.0 server for user sign-up and sign-in flows.

☒ Use the Cognito Hosted UI  
Build hosted sign-up, sign-in, and OAuth 2.0 service endpoints in Amazon Cognito. When this feature is not enabled, use Cognito API operations to perform sign-up and sign-in.  
User pools with federated sign-in must use the OAuth 2.0 endpoints built with the hosted UI. [Learn more](#)

### Domain

[info](#)  
Configure a domain for your Hosted UI and OAuth 2.0 endpoints. To use the Hosted UI, you must choose a domain where authentication endpoints will be created.

Domain type  
☒ Use a Cognito domain  
Enter an identifying prefix to use in an Amazon-owned domain. For production apps, we recommend using a custom domain instead.

PRN: 20220801121

1  
5

**School of Computer Science, Engineering and Applications(SCSEA)**

**B.C.A. TY (CCSA)**

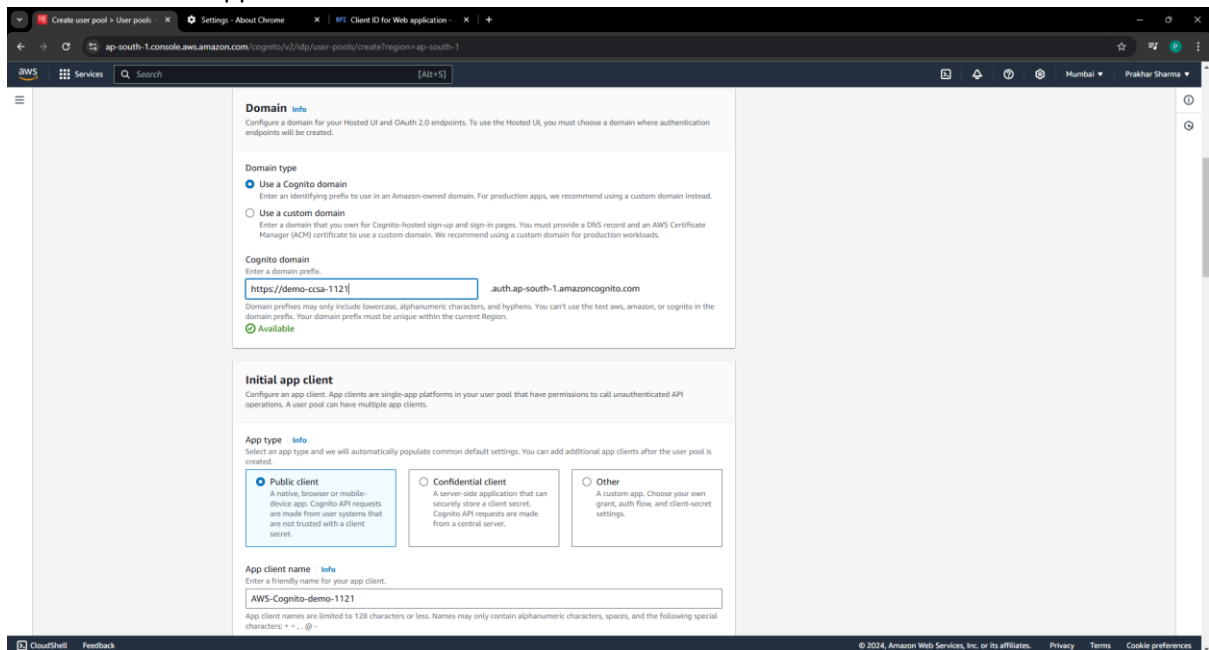
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:     Prakhar Anil Sharma**

**PRN:    20220801121**

**Title of Practical :        Creating a User Pool in AWS Cognito**

- Select 1<sup>st</sup> option under Domain type.
- Enter a domain prefix under Cognito domain which is available.
- Select 1<sup>st</sup> option under App type.
- Give a name in App client name.



- Select 2<sup>nd</sup> option under client secret.
- Enter google.com under Allowed callback URLs.
- Under Advanced app client settings, scroll down select Implicit grant under OAuth 2.0 grant types.



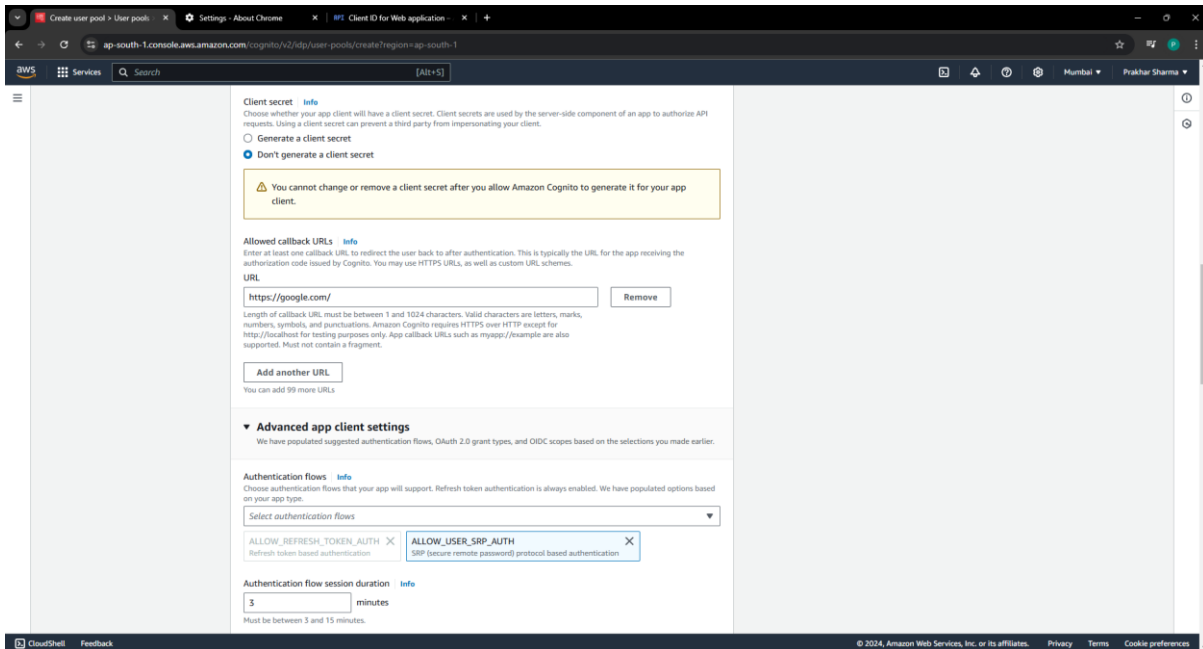
**School of Computer Science, Engineering and Applications(SCSEA)**  
**B.C.A. TY (CCSA)**  
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:   Prakhar Anil Sharma**

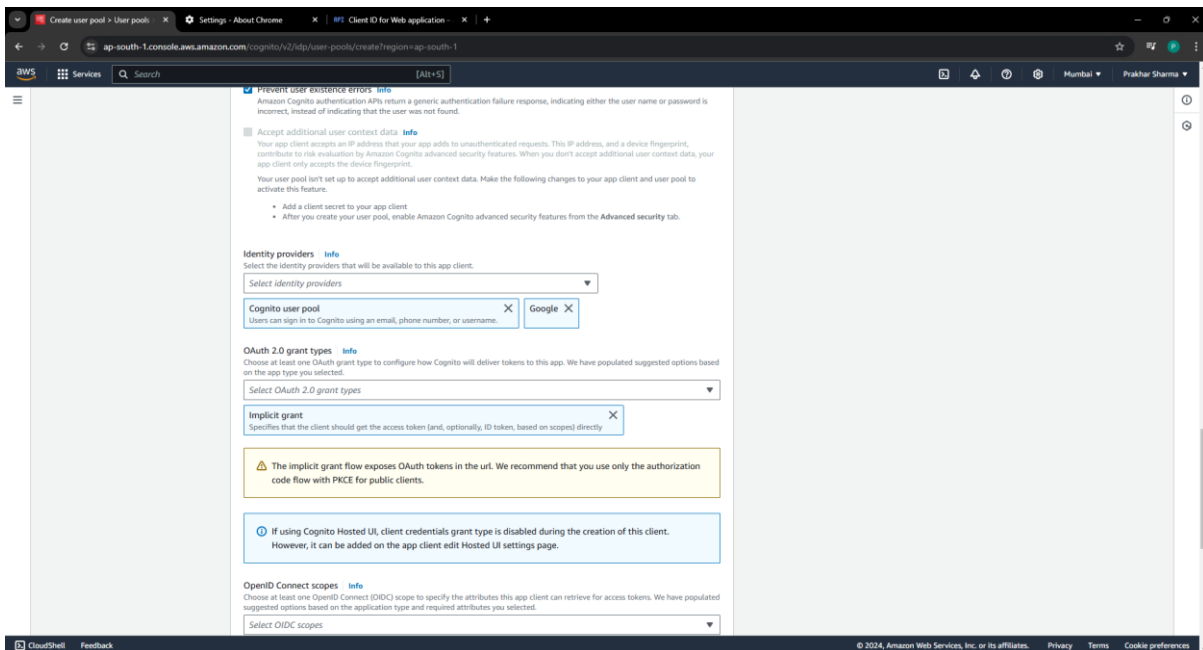
**PRN:   20220801121**

**Title of Practical :       Creating a User Pool in AWS Cognito**

- Click on Next.



The screenshot shows the 'Create user pool' page in the AWS Cognito console, specifically the 'Client secret' and 'Allowed callback URLs' section. The 'Client secret' section has two radio buttons: 'Generate a client secret' (selected) and 'Don't generate a client secret'. A warning message states: 'You cannot change or remove a client secret after you allow Amazon Cognito to generate it for your app client.' The 'Allowed callback URLs' section has a text input field with 'https://google.com/' and a 'Remove' button. Below it, there is an 'Add another URL' button. The 'Advanced app client settings' section is expanded, showing 'Authentication flows' with a dropdown menu set to 'Select authentication flows'. Below the dropdown, there are two tabs: 'ALLOW\_REFRESH\_TOKEN\_AUTH' (selected) and 'ALLOW\_USER\_SRP\_AUTH'. The 'Authentication flow session duration' is set to '3 minutes'.



The screenshot shows the 'Create user pool' page in the AWS Cognito console, specifically the 'Prevent user existence errors' and 'Identity providers' section. The 'Prevent user existence errors' section has a checkbox 'Accept additional user context data' which is checked. Below it, there is a warning message: 'The implicit grant flow exposes OAuth tokens in the url. We recommend that you use only the authorization code flow with PKCE for public clients.' The 'Identity providers' section has a dropdown menu set to 'Select identity providers'. Below the dropdown, there are two tabs: 'Cognito user pool' (selected) and 'Google'. The 'OAuth 2.0 grant types' section is expanded, showing a dropdown menu set to 'Select OAuth 2.0 grant types'. Below the dropdown, there is a tab 'Implicit grant' which is selected. Below the 'Implicit grant' tab, there is a warning message: 'The implicit grant flow exposes OAuth tokens in the url. We recommend that you use only the authorization code flow with PKCE for public clients.' The 'OpenID Connect scopes' section is expanded, showing a dropdown menu set to 'Select OIDC scopes'.

PRN: 20220801121

**School of Computer Science, Engineering and Applications(SCSEA)  
B.C.A. TY (CCSA)**

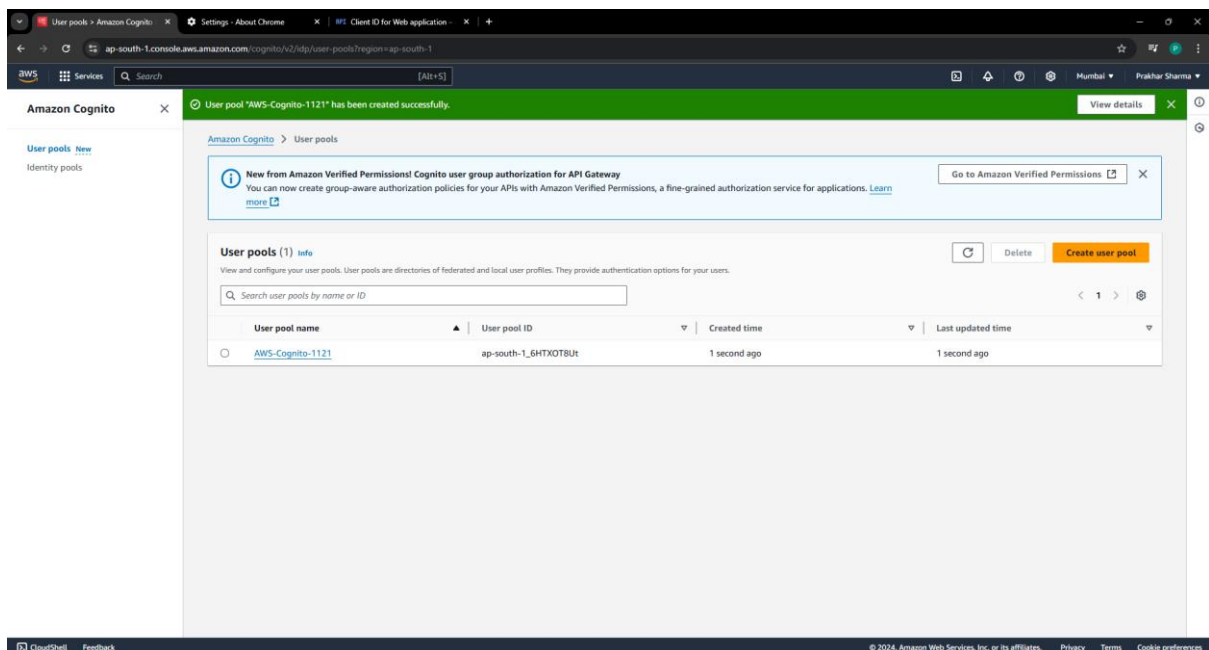
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:     Prakhar Anil Sharma**

**PRN:   20220801121**

**Title of Practical :         Creating a User Pool in AWS Cognito**

- In Review setting steps, copy the domain from the Domain section.
- Click on Create user pool.



- Now go back to google cloud console ,in APIs & Services , go to Credentials option and paste the copied domain by adding it by clicking on add URI under Authorized Javascript origins.
- Now in Authorized redirect URIs , again paste the copied domain by clicking on add URI but just add /oauth2/idpresponse/ at the end.

**School of Computer Science, Engineering and Applications(SCSEA)**

**B.C.A. TY (CCSA)**

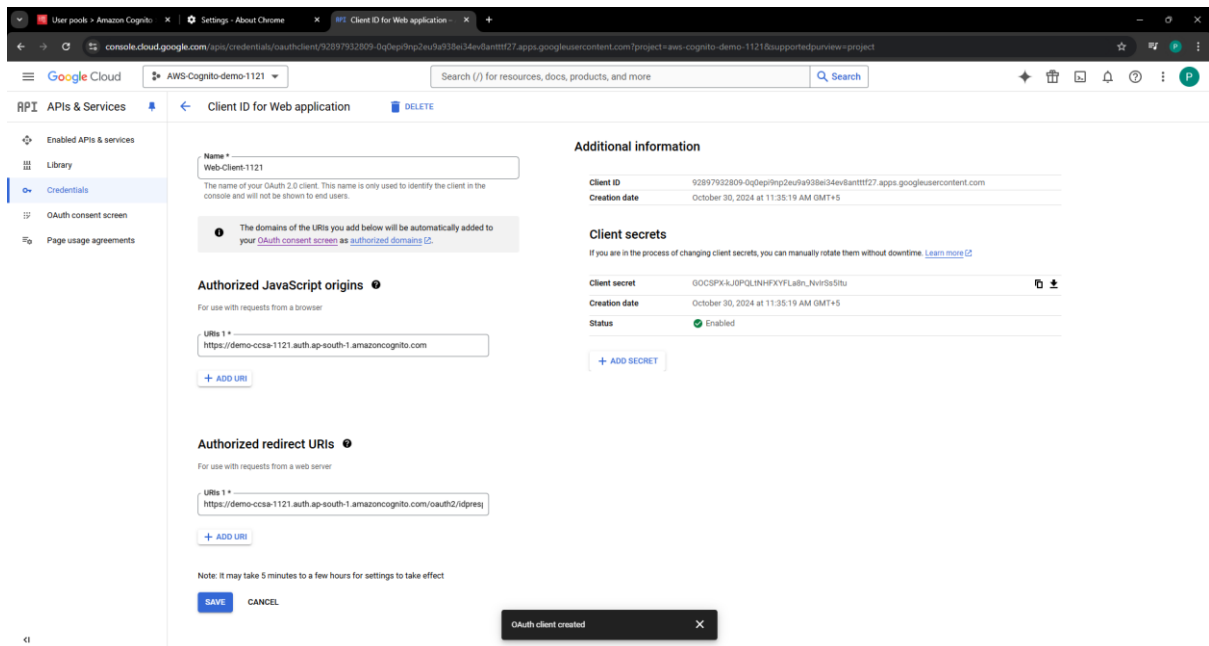
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:     Prakhar Anil Sharma**

**PRN:    20220801121**

**Title of Practical :         Creating a User Pool in AWS Cognito**

- Click on save.



The screenshot shows the AWS Cognito console interface for configuring a 'Client ID for Web application'. The left sidebar contains navigation options like 'Enabled APIs & services', 'Library', 'Credentials', 'OAuth consent screen', and 'Page usage agreements'. The main content area is divided into several sections: 'Name' (Web-Client-1121), 'Additional information' (Client ID, Creation date), 'Client secrets' (Client secret, Creation date, Status), 'Authorized JavaScript origins' (URLs), and 'Authorized redirect URIs' (URLs). A 'SAVE' button is located at the bottom left, and a 'OAuth client created' confirmation message is displayed at the bottom right.

- Now get back to AWS Cognito ,Click on the user pool just created and search for Hosted UI section in the following tabs.

**School of Computer Science, Engineering and Applications(SCSEA)  
B.C.A. TY (CCSA)**

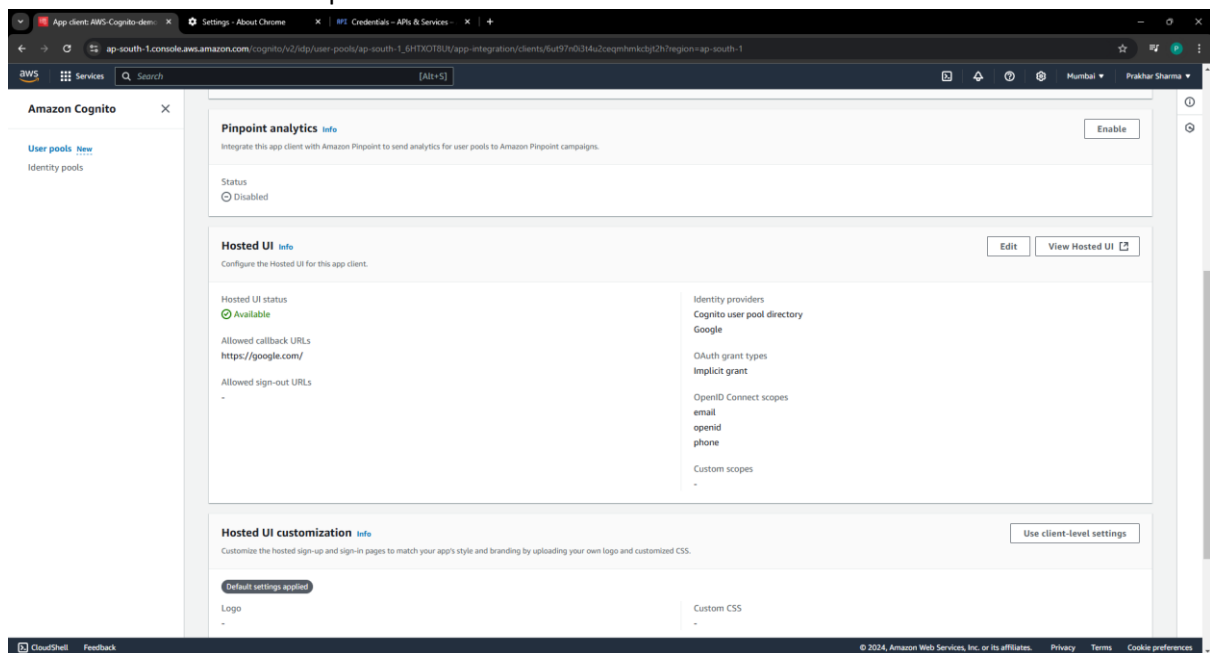
**Subject : Advanced Cloud Computing (P)**

**Name of the Student:     Prakhar Anil Sharma**

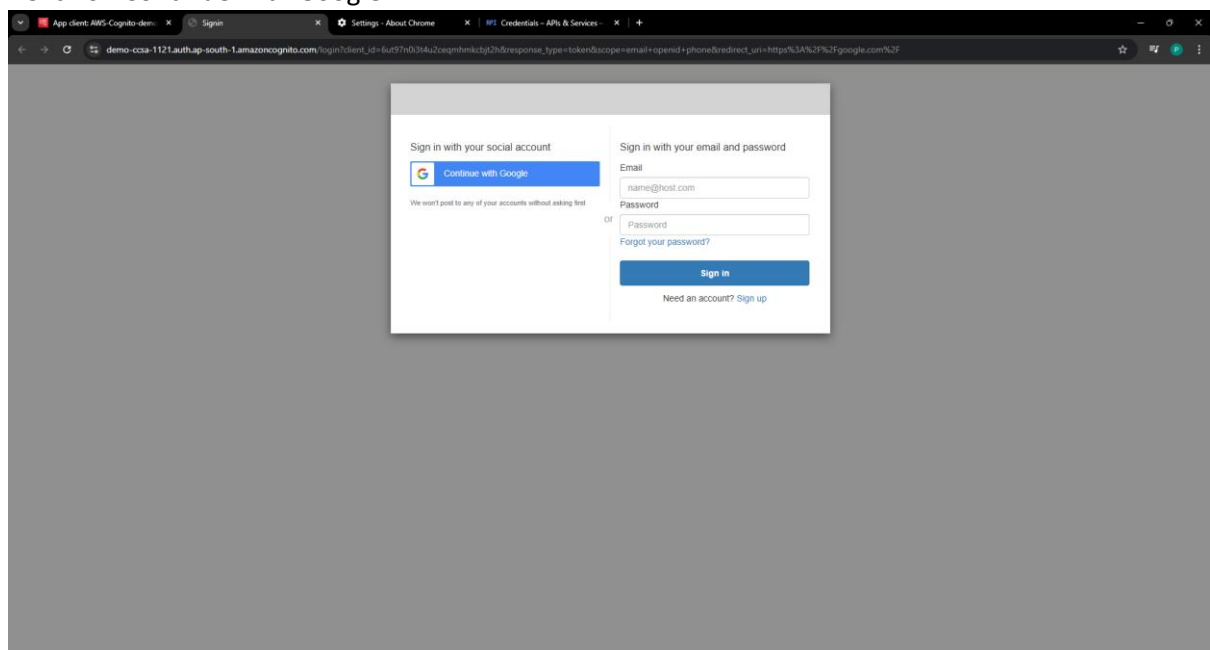
**PRN:    20220801121**

**Title of Practical :         Creating a User Pool in AWS Cognito**

- Click on View Hosted UI option.



- Click on Continue with Google.



PRN: 20220801121

2  
0

**School of Computer Science, Engineering and Applications(SCSEA)**

**B.C.A. TY (CCSA)**

**Subject : Advanced Cloud Computing (P)**

**Name of the Student:**     **Prakhar Anil Sharma**

**PRN: 20220801121**

**Title of Practical :**         **Creating a User Pool in AWS Cognito**

