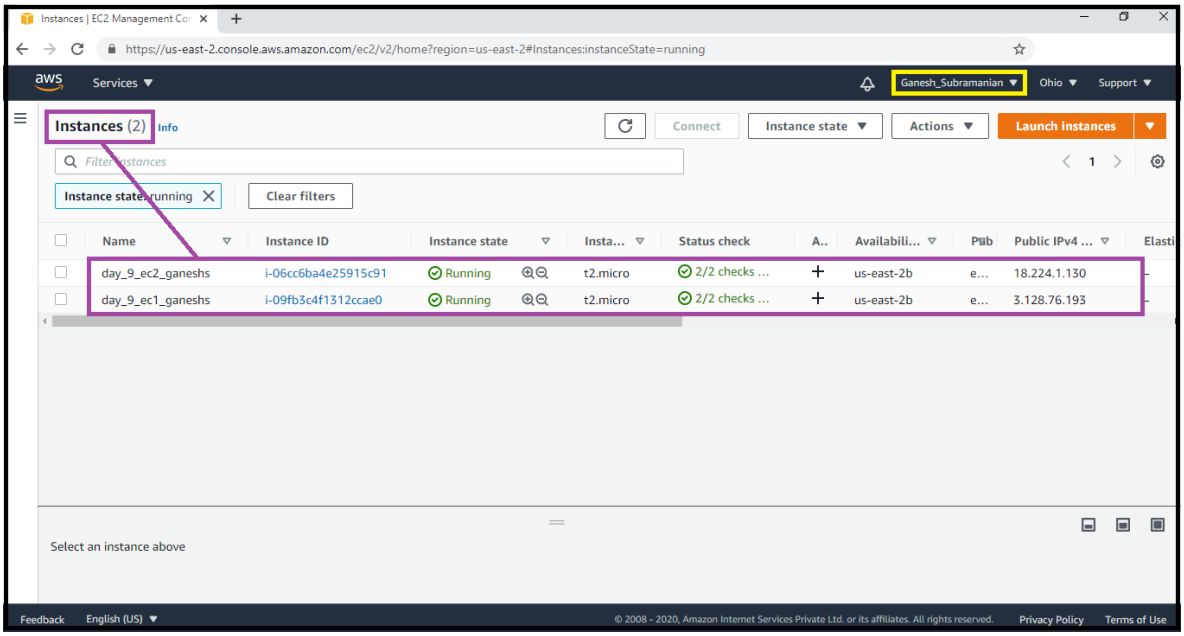
Project 3:

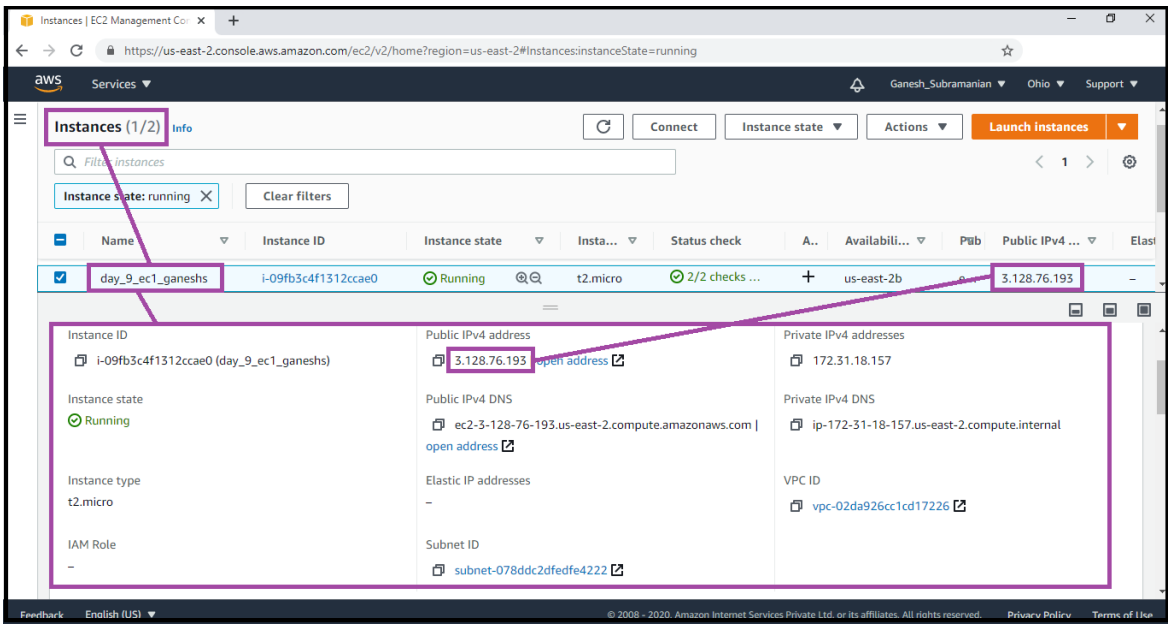
Step 1: Create two linux instances

Screenshot 1: Instances List



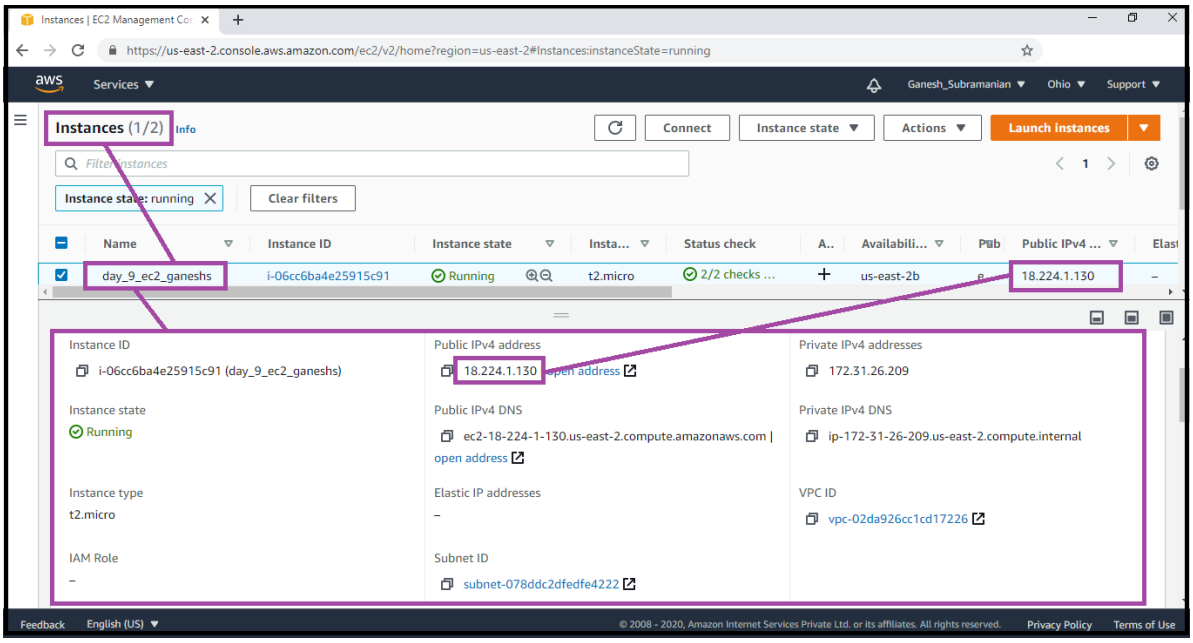
⇨ 2 Instance's Created: - "**day_9_ec1_ganeshs**" / "**day_9_ec2_ganeshs**".

Screenshot 2: Select an instance and display instance details of server1



⇨ Instance 1 Details: - "**day_9_ec1_ganeshs**".

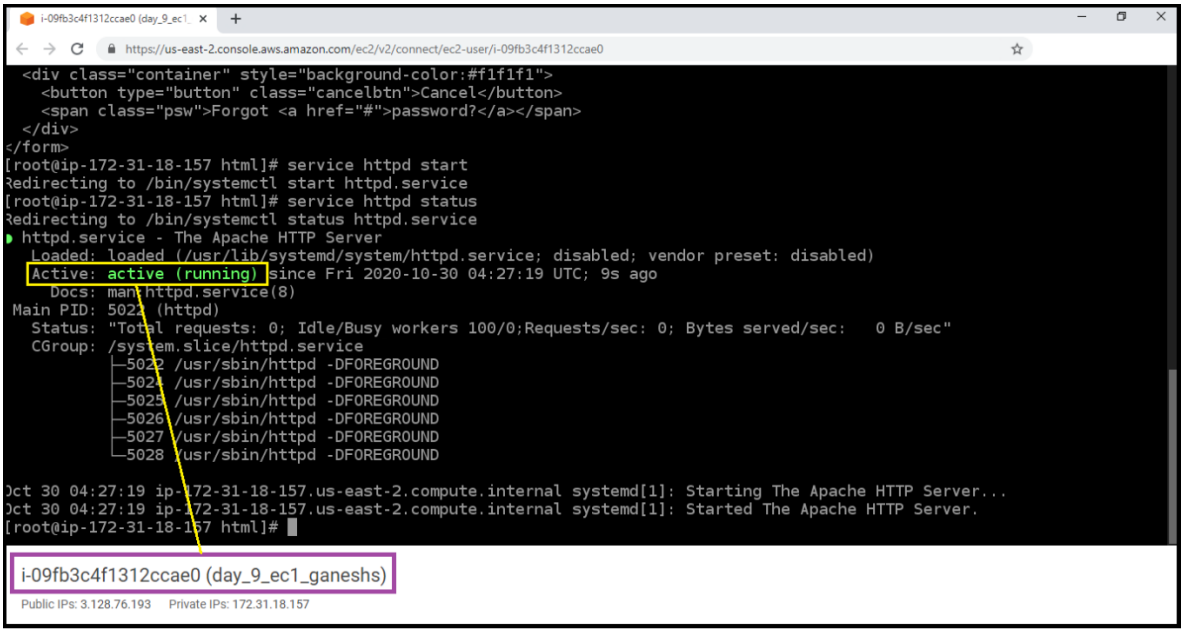
⇨ **Screenshot 3:** Select an instance and display instance details of server2



⇨ Instance 2 Details: - "**day_9_ec2_ganeshs**".

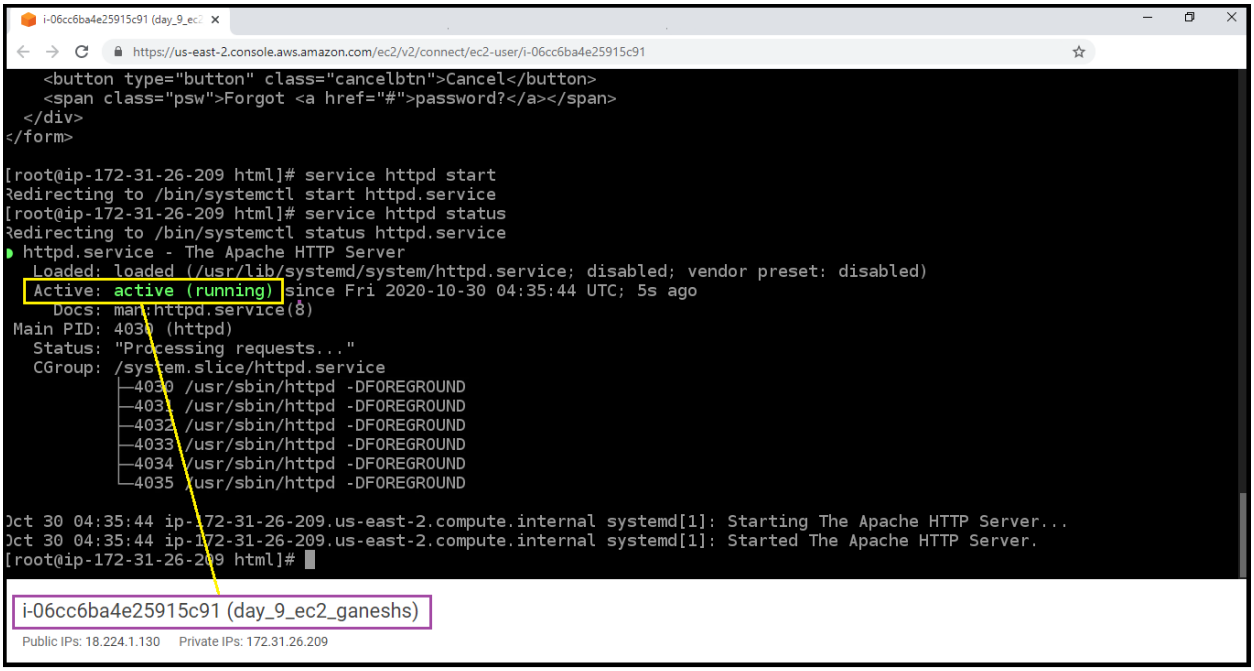
Step 2: Launch both Instance and host html login webpage on both servers

Screenshot 4: Status: Active running- black screen for Server 1



⇨ Active Status Running for Server 1: - "**day_9_ec1_ganeshs**".

Screenshot 5: Status: Active running- black screen for Server 2

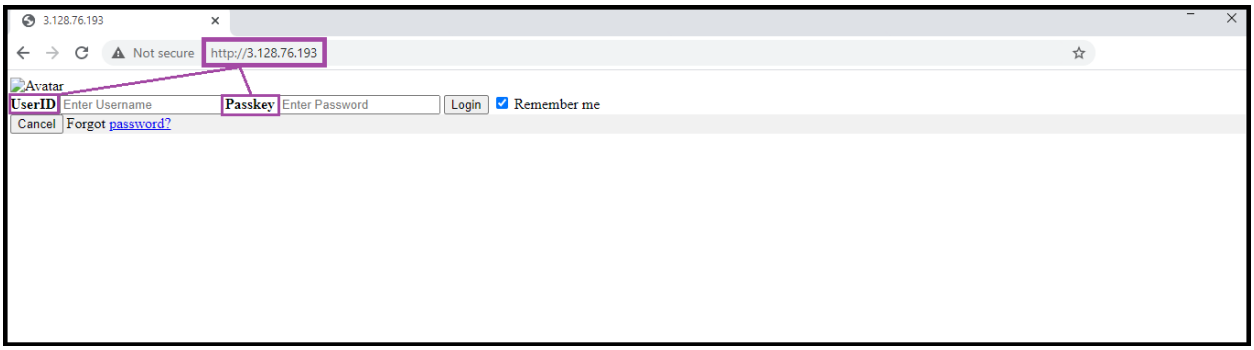



```
    <button type="button" class="cancelbtn">Cancel</button>
    <span class="psw">Forgot <a href="#">password?</a></span>
  </div>
</form>

[root@ip-172-31-26-209 html]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@ip-172-31-26-209 html]# service httpd status
Redirecting to /bin/systemctl status httpd.service
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: disabled)
   Active: active (running) since Fri 2020-10-30 04:35:44 UTC; 5s ago
     Docs: man:httpd.service(8)
 Main PID: 4030 (httpd)
   Status: "Processing requests..."
   CGroup: /system.slice/httpd.service
           ├─4030 /usr/sbin/httpd -DFOREGROUND
           ├─4031 /usr/sbin/httpd -DFOREGROUND
           ├─4032 /usr/sbin/httpd -DFOREGROUND
           ├─4033 /usr/sbin/httpd -DFOREGROUND
           ├─4034 /usr/sbin/httpd -DFOREGROUND
           └─4035 /usr/sbin/httpd -DFOREGROUND

Oct 30 04:35:44 ip-172-31-26-209.us-east-2.compute.internal systemd[1]: Starting The Apache HTTP Server...
Oct 30 04:35:44 ip-172-31-26-209.us-east-2.compute.internal systemd[1]: Started The Apache HTTP Server.
[root@ip-172-31-26-209 html]#
```

⇨ Active Status Running for Server 2: - “**day_9_ec2_ganeshs**”.

Step 3: Check if application is deployed on both servers by copy pasting the public IP of the servers into the browser.

Screenshot 6: User id & Passkey Page



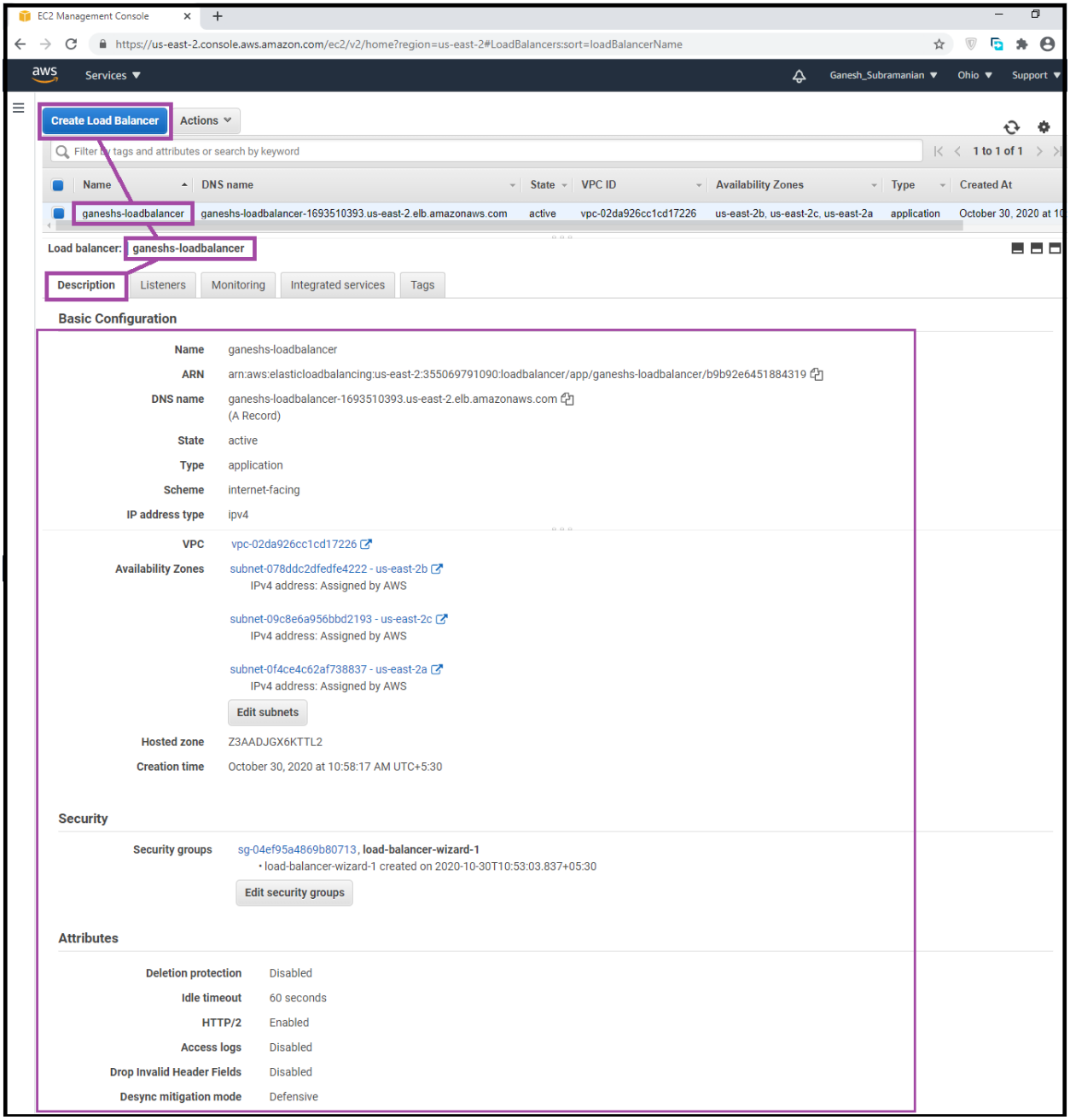
⇨ Application successfully deployed (UserID / Passkey) on Server 1 and the same is displayed in the browser by accessing the Public IP of the Server 1: - "**3.128.76.193**" (Public IP of Server 1).

Screenshot 7: Username & Password Page

⇨ Application successfully deployed (Username / Password) on Server 2 and the same is displayed in the browser by accessing the Public IP of the Server 2: - "**18.224.1.130**" (Public IP of Server 2).

Step 4: Create an application Load balancer with the above two instances as targets

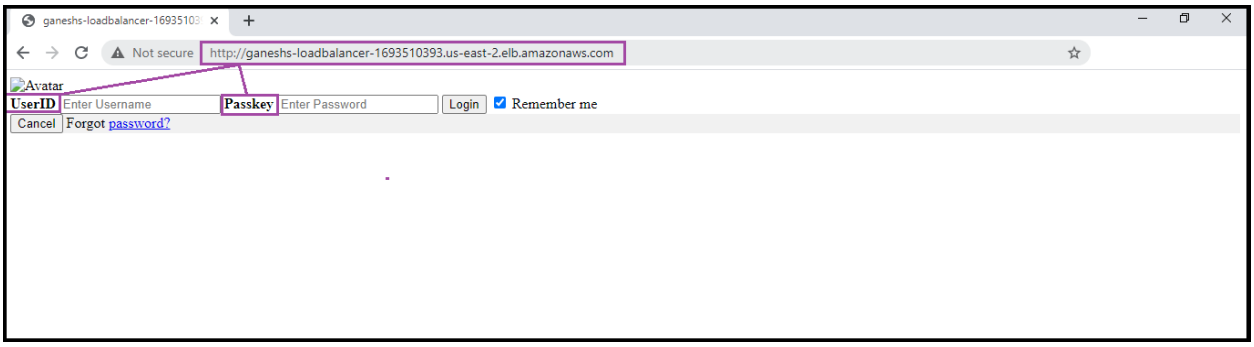
Screenshot 8: Load balancer screenshot



⇨ Load Balancer Creation: - “**ganeshs-loadbalancer**”

Step 5: Check the functioning of ELB using the DNS of the ELB use the DNS

Screenshot 8: Reply from Server 1



⇨ Reply from Server 1: - Trying to access the DNS Name link on the browser of the Elastic Load Balancer

Screenshot 8: Reply from Server 2

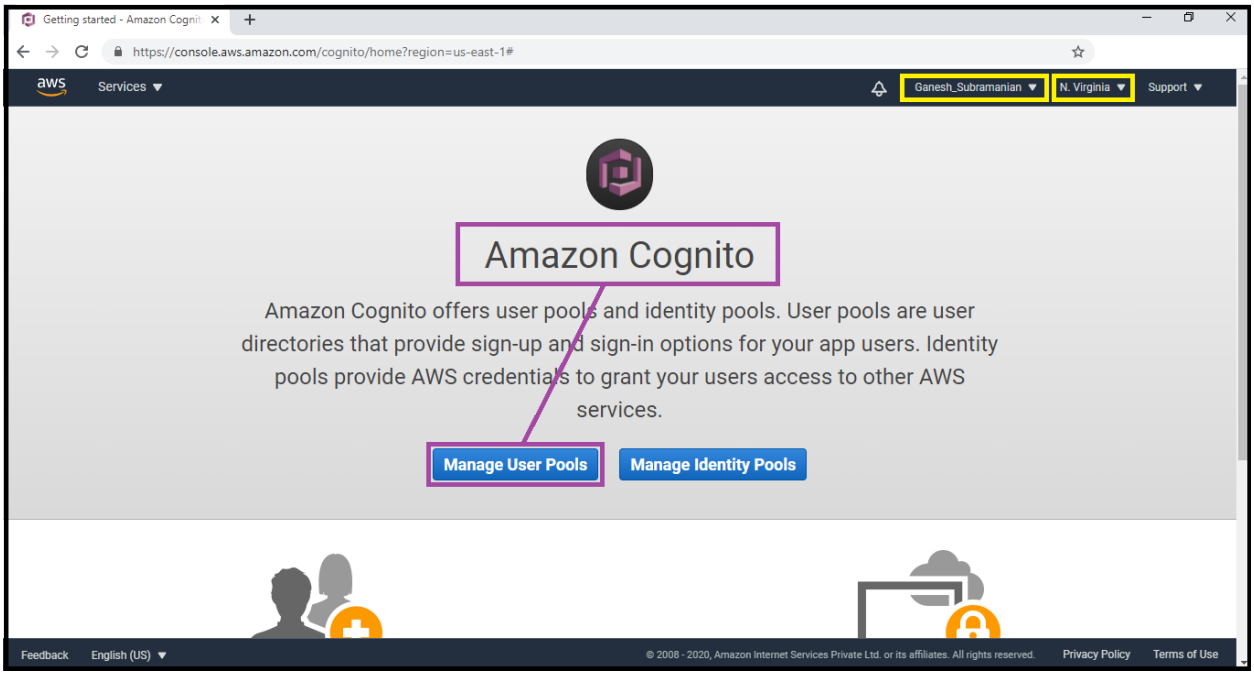
⇨ Reply from Server 2: - Trying to access the DNS Name link on the browser of the Elastic Load Balancer

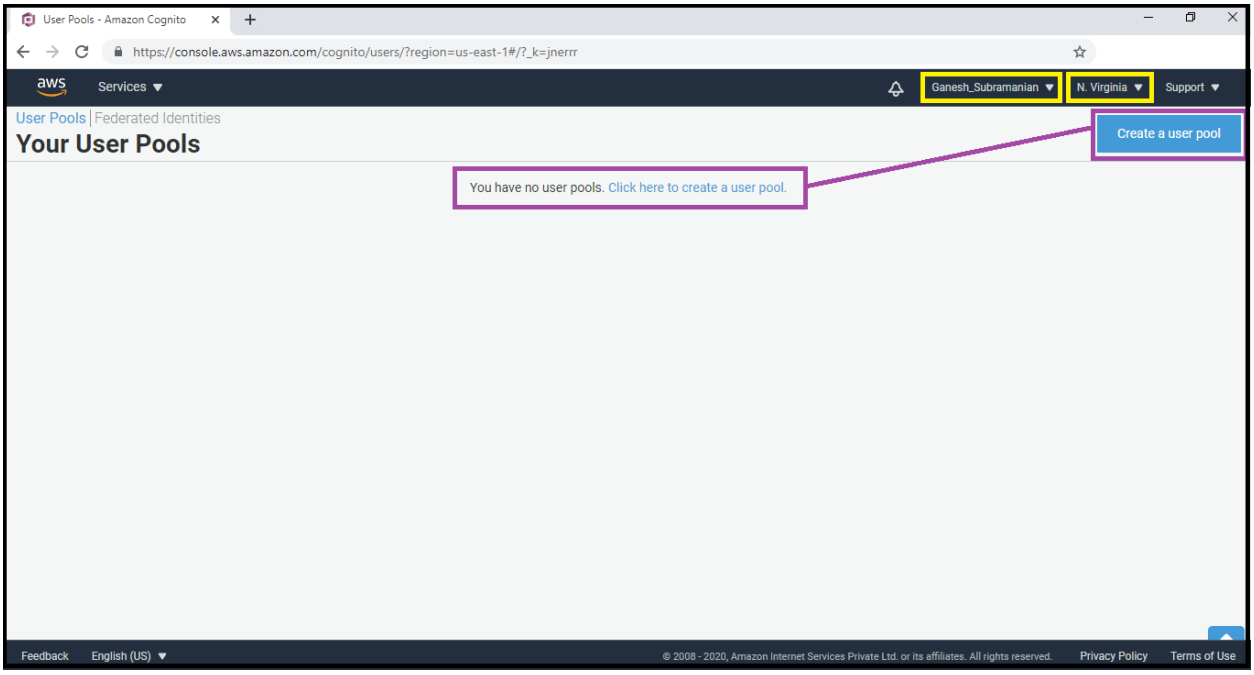
Creating a User Pool in AWS Cognito

Creating a User Pool

1. Navigate to Cognito by clicking on the menu at the top, click on Cognito under the section.
2. Make sure you are in the US East (N. Virginia) us-east-1 Region. Click on **Manage User Pools**.
3. Click on **Create a User Pool**.

Screenshot 1:



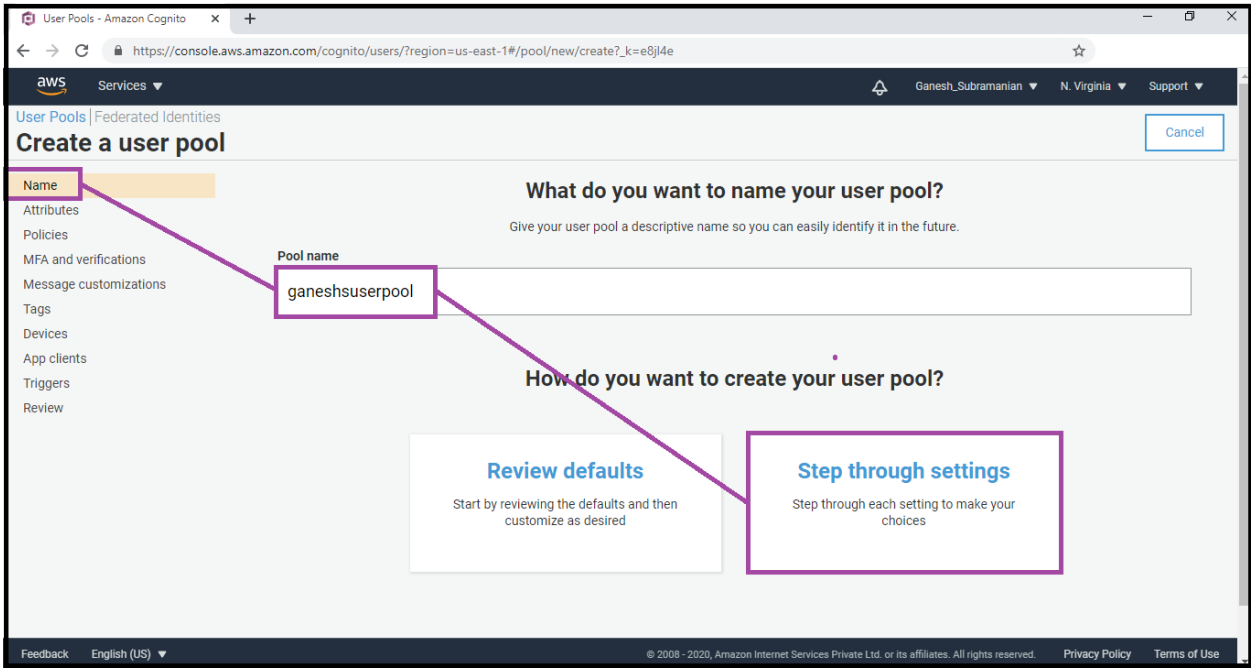

User Pools - Amazon Cognito
https://console.aws.amazon.com/cognito/users/?region=us-east-1#/?_k=jnerrr
aws
Services
Ganesh_Subramanian
N. Virginia
Support
User Pools | Federated Identities
Your User Pools
Create a user pool
You have no user pools. Click here to create a user pool.
Feedback
English (US)
© 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.
Privacy Policy
Terms of Use

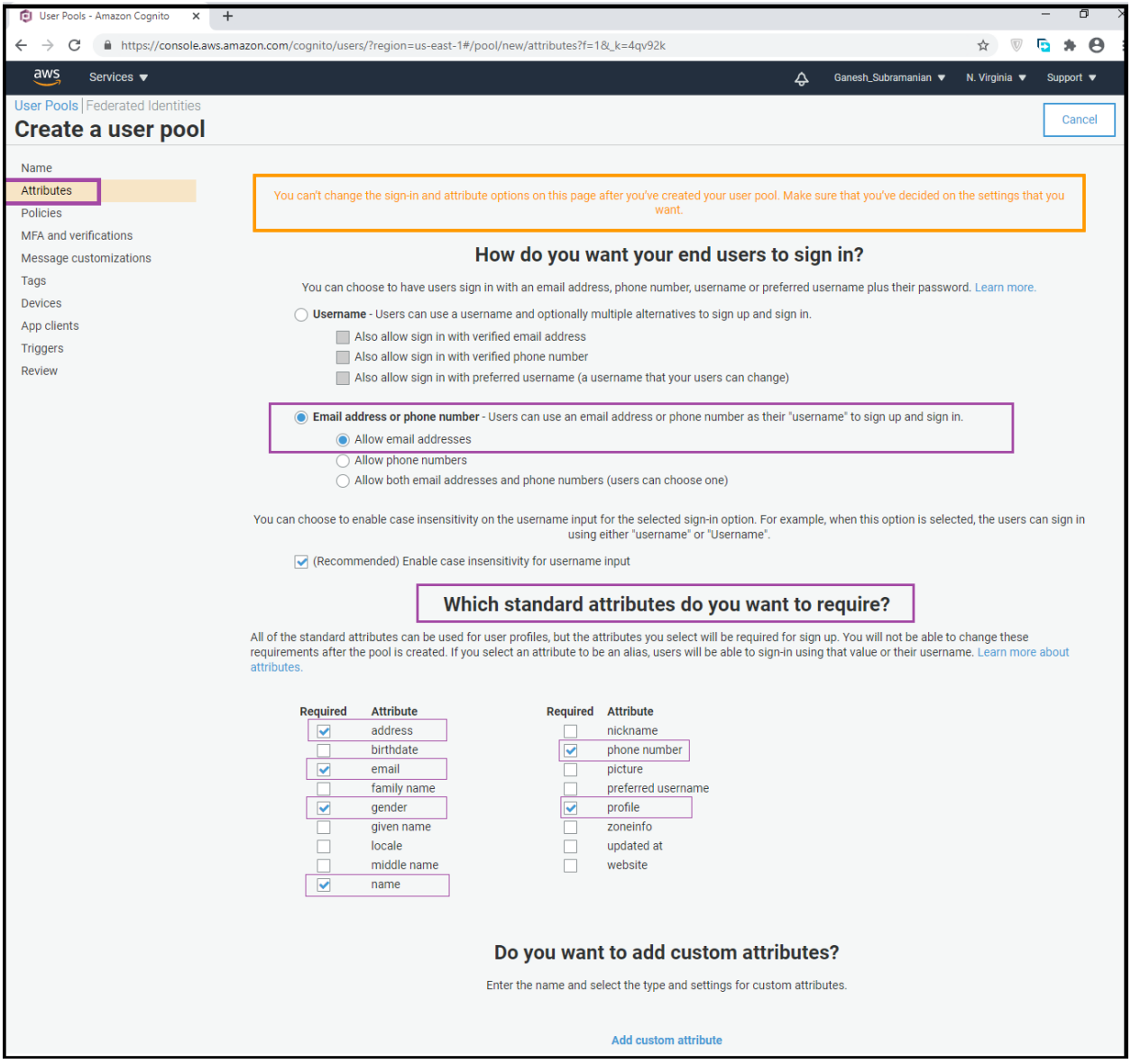
Name and Attributes

4. Give your User Pool a descriptive name, (which is required for the identity).
5. We choose **Step through settings** to make each setting our own choice as shown below.
6. In the Attributes page, we can mention how a user could perform a sign in.
7. You can choose to have users sign in with an email address, phone number, username or preferred username plus their password.
8. Here we choose **Email address or Phone number**, where Users can use an email address or phone number as their username to sign up and sign in. Here, choose Allow email addresses.
9. We can choose the **Standard Attributes**, which will be required while performing a sign up. Here, we choose **Address**, **Email**, **Gender**, **Name**, **Phone Number**, **Profile** which are required to perform a signup.

7 We can also customize our attributes that are required while signup by clicking Add Custom Attribute.

Screenshot 2:

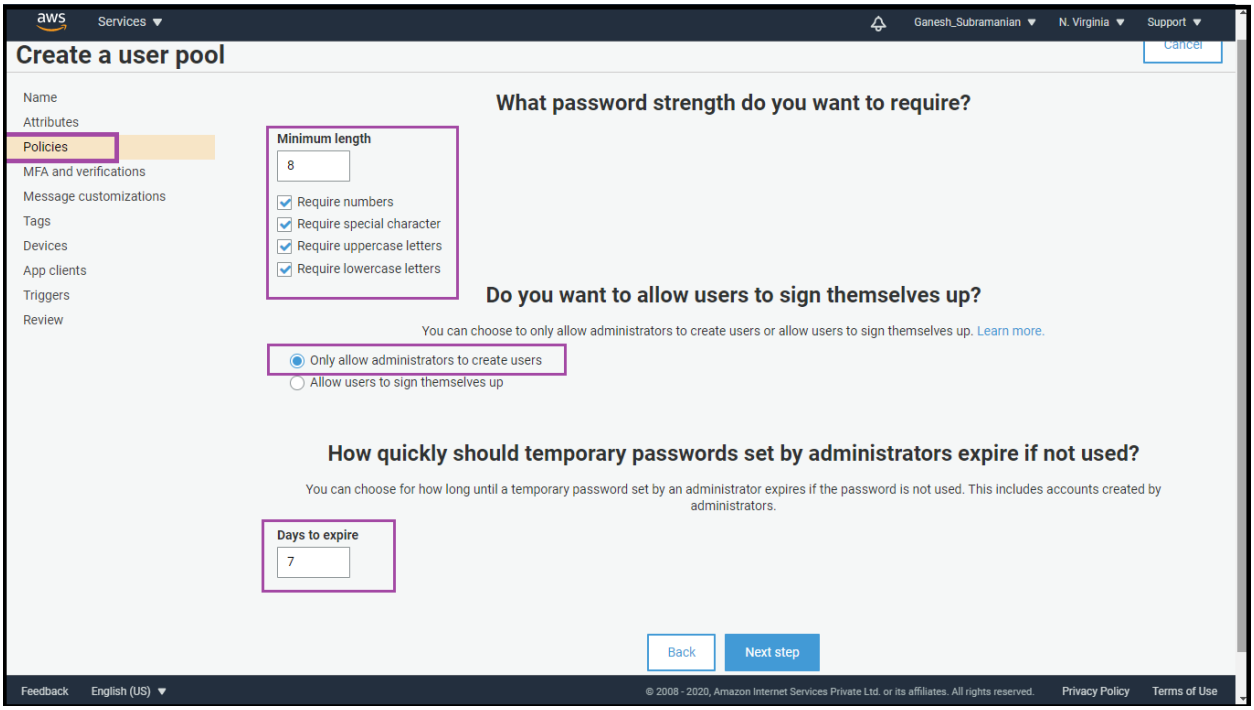



User Pools - Amazon Cognito
https://console.aws.amazon.com/cognito/users/?region=us-east-1#/pool/new/attributes?f=1&_k=4qv92k
aws
Services
Ganesh_Subramanian
N. Virginia
Support
User Pools | Federated Identities
Create a user pool
Cancel
Name
Attributes
Policies
MFA and verifications
Message customizations
Tags
Devices
App clients
Triggers
Review
You can't change the sign-in and attribute options on this page after you've created your user pool. Make sure that you've decided on the settings that you want.
How do you want your end users to sign in?
You can choose to have users sign in with an email address, phone number, username or preferred username plus their password. Learn more.
Username - Users can use a username and optionally multiple alternatives to sign up and sign in.
Also allow sign in with verified email address
Also allow sign in with verified phone number
Also allow sign in with preferred username (a username that your users can change)
Email address or phone number - Users can use an email address or phone number as their "username" to sign up and sign in.
Allow email addresses
Allow phone numbers
Allow both email addresses and phone numbers (users can choose one)
You can choose to enable case insensitivity on the username input for the selected sign-in option. For example, when this option is selected, the users can sign in using either "username" or "Username".
(Recommended) Enable case insensitivity for username input
Which standard attributes do you want to require?
All of the standard attributes can be used for user profiles, but the attributes you select will be required for sign up. You will not be able to change these requirements after the pool is created. If you select an attribute to be an alias, users will be able to sign-in using that value or their username. Learn more about attributes.
Required
Attribute
address
birthdate
email
family name
gender
given name
locale
middle name
name
Required
Attribute
nickname
phone number
picture
preferred username
profile
zoneinfo
updated at
website
Do you want to add custom attributes?
Enter the name and select the type and settings for custom attributes.
Add custom attribute

Policies

1. We give the **Minimum Password Strength** and can add the required parameters like numbers, lowercase, uppercase and special characters. Here, we select all the parameters.
2. Choose **Only allow administrators to create users**.
3. As admin, you can configure when temporary passwords should expire. This includes accounts created by administrators i.e. if you choose **only allow administrators to create users**. Here, we can leave the option as we don't select it.
4. Choose **Days to Expire**.
5. Click on **Next Step**.

Screenshot 3:



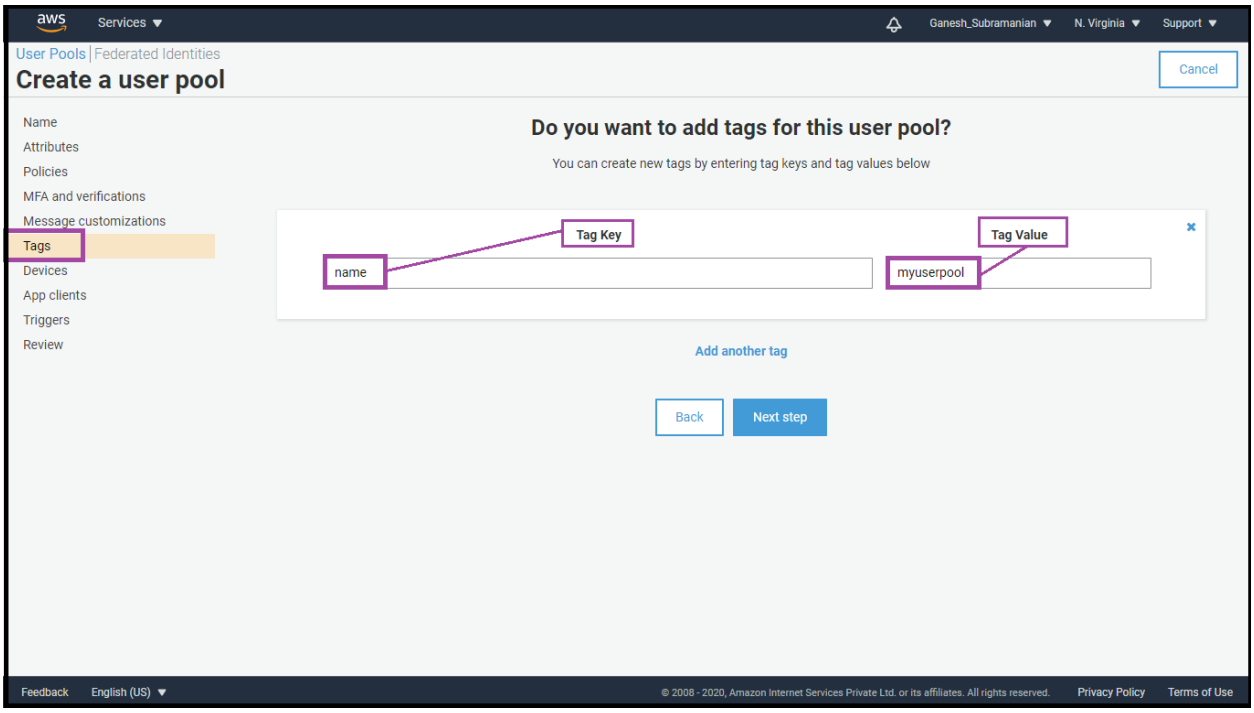
Tags:

1. You can create new tags by entering tag keys and tag values.

- **Tag Key**: Enter **name**
- **Tag Value**: Enter **myuserpool**

2. Click on **Next Step**.

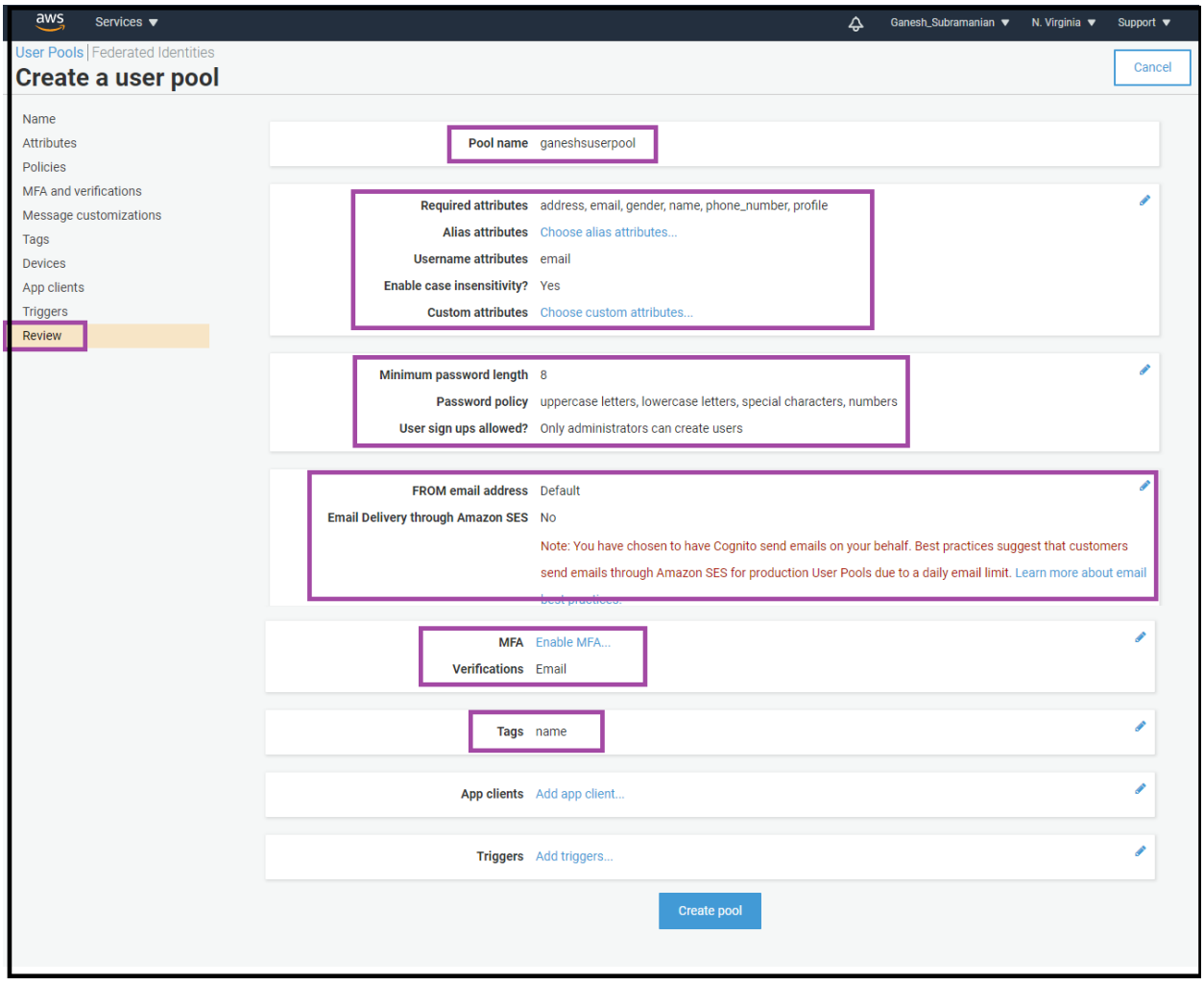
Screenshot 4:

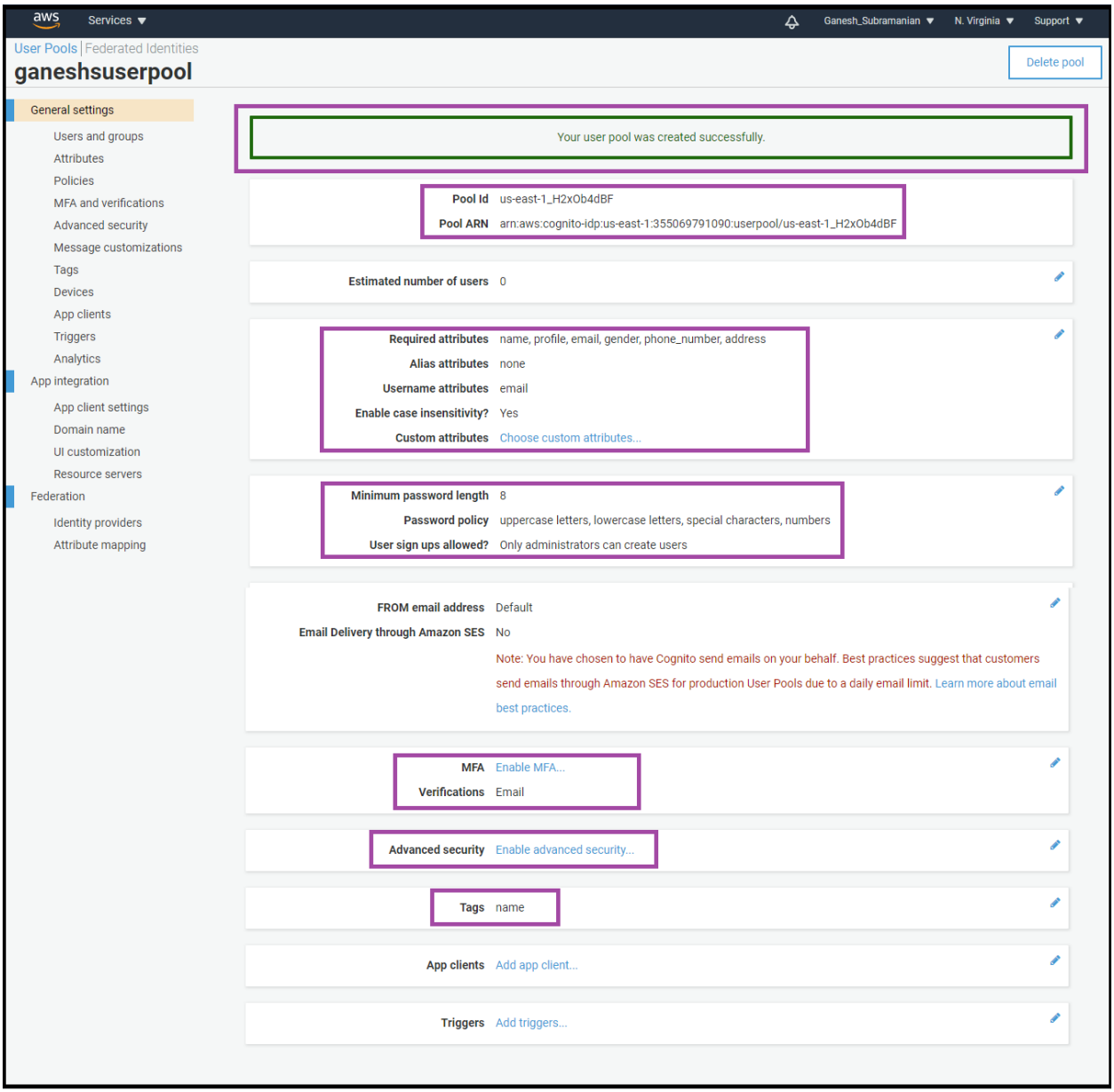


Review:

1. Review all the settings and click on Create Pool as shown below.
2. You'll get a message as **Your user pool was created successfully**.
3. On the Top left, click on User Pools to see **Your User Pools**.
4. Navigate to Cognito, click on Users and groups to navigate to the Users page as shown below.
5. Here, we can start creating Users and **Groups**.
6. From an Administrative perspective, if we have an application, the application would then invoke the Amazon Cognito to create User itself.

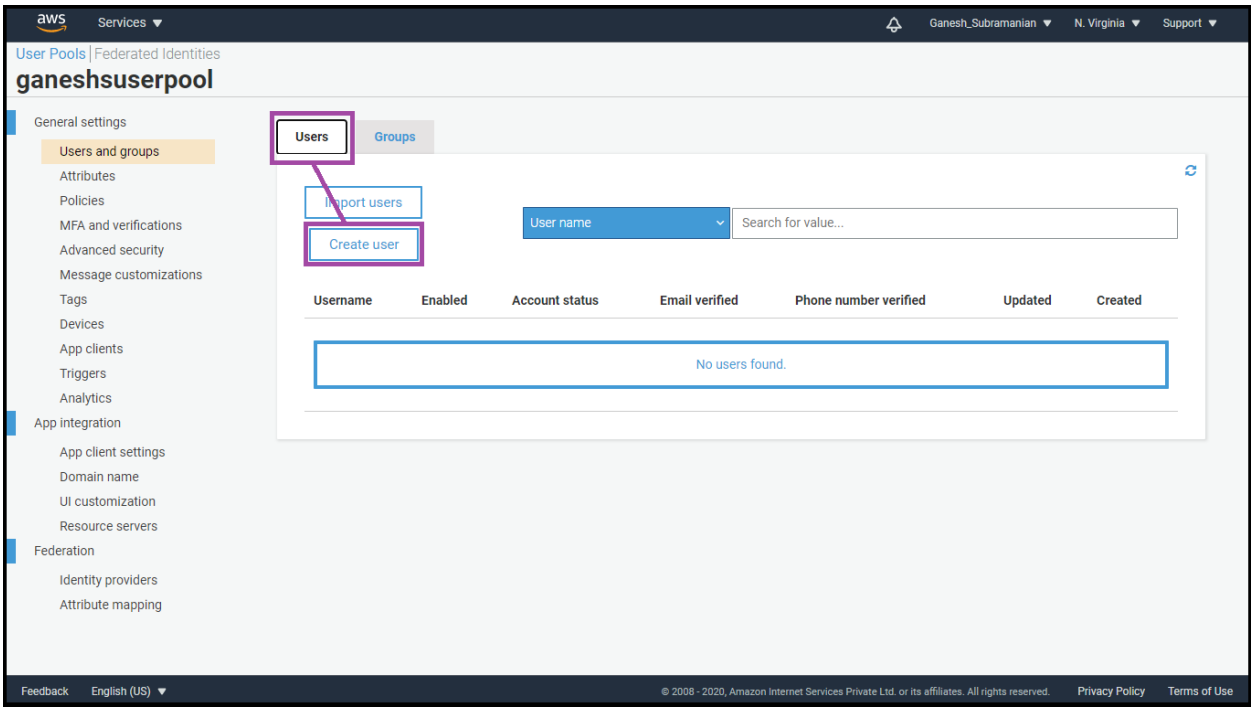
Screenshot 5:

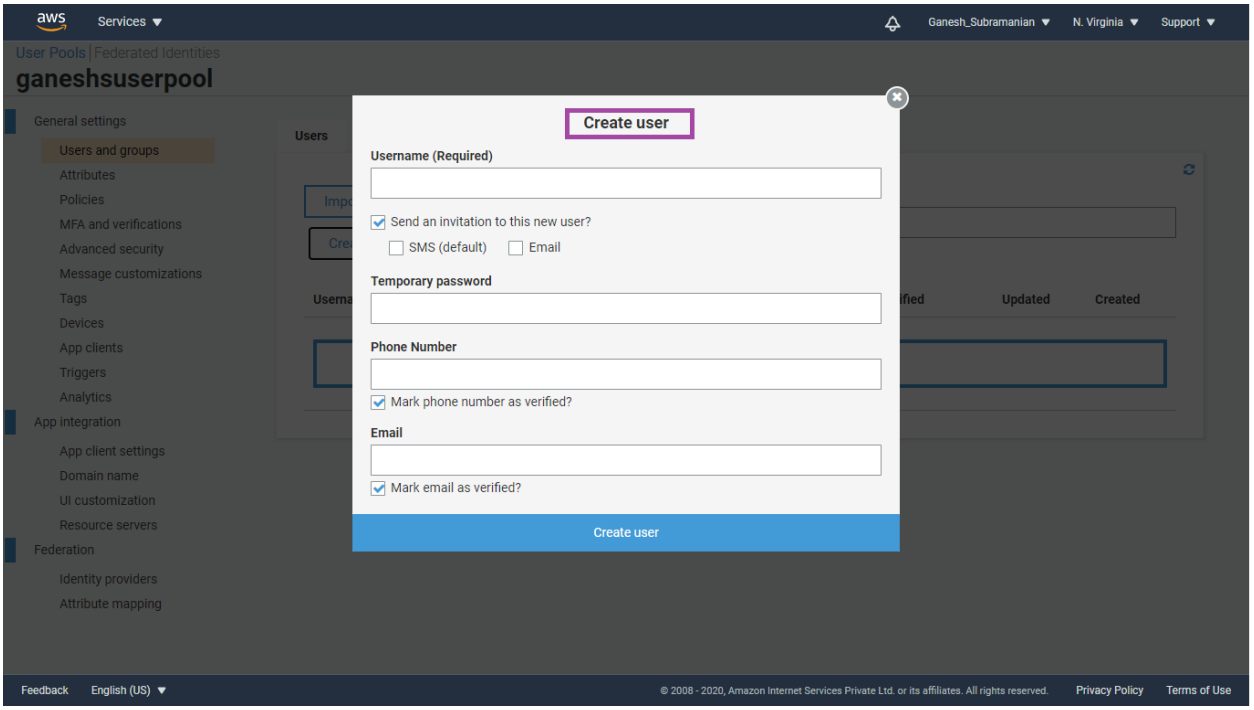



aws
Services
Ganesh_Subramanian
N. Virginia
Support
User Pools | Federated Identities
ganeshsuserpool
Delete pool
General settings
Users and groups
Attributes
Policies
MFA and verifications
Advanced security
Message customizations
Tags
Devices
App clients
Triggers
Analytics
App integration
App client settings
Domain name
UI customization
Resource servers
Federation
Identity providers
Attribute mapping
Your user pool was created successfully.
Pool Id us-east-1_H2xOb4dBF
Pool ARN arn:aws:cognito-idp:us-east-1:355069791090:userpool/us-east-1_H2xOb4dBF
Estimated number of users 0
Required attributes name, profile, email, gender, phone_number, address
Alias attributes none
Username attributes email
Enable case insensitivity? Yes
Custom attributes Choose custom attributes...
Minimum password length 8
Password policy uppercase letters, lowercase letters, special characters, numbers
User sign ups allowed? Only administrators can create users
FROM email address Default
Email Delivery through Amazon SES No
Note: You have chosen to have Cognito send emails on your behalf. Best practices suggest that customers send emails through Amazon SES for production User Pools due to a daily email limit. Learn more about email best practices.
MFA Enable MFA...
Verifications Email
Advanced security Enable advanced security...
Tags name
App clients Add app client...
Triggers Add triggers...

Create Users page with Details:

Screenshot 6:





Create groups page with Details:

Screenshot 7: