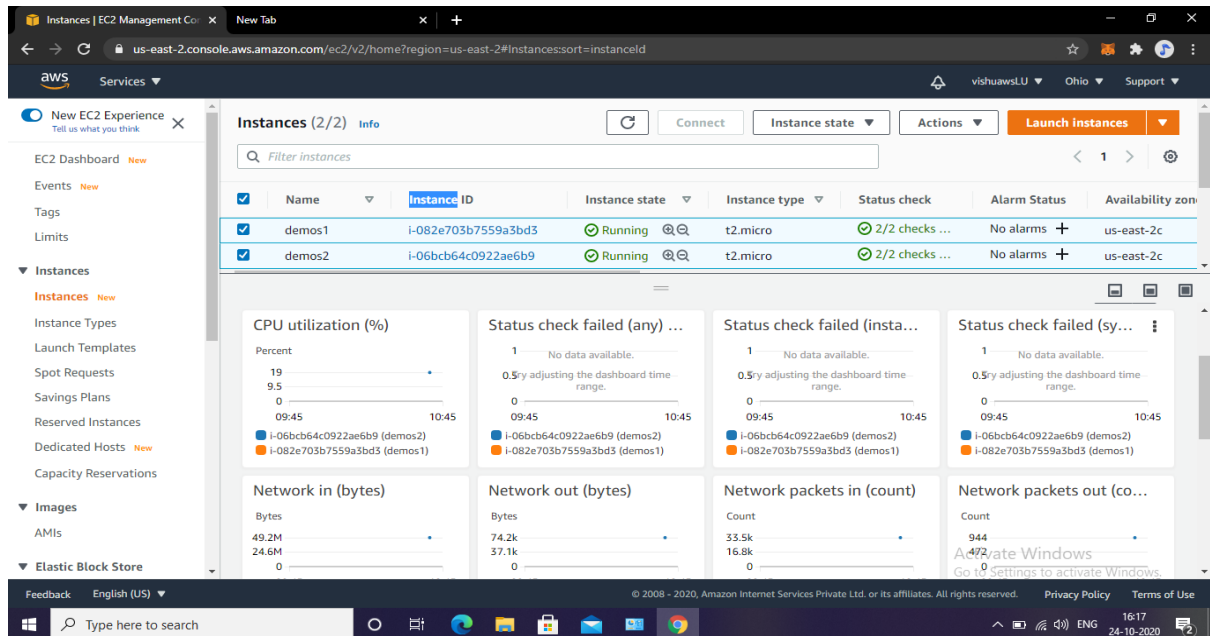


LetsUpgrade AWS Advance Project-4

WEEK-5 (Day-9):

Task 1: Create two Linux instances, Use the first free Linux AMI

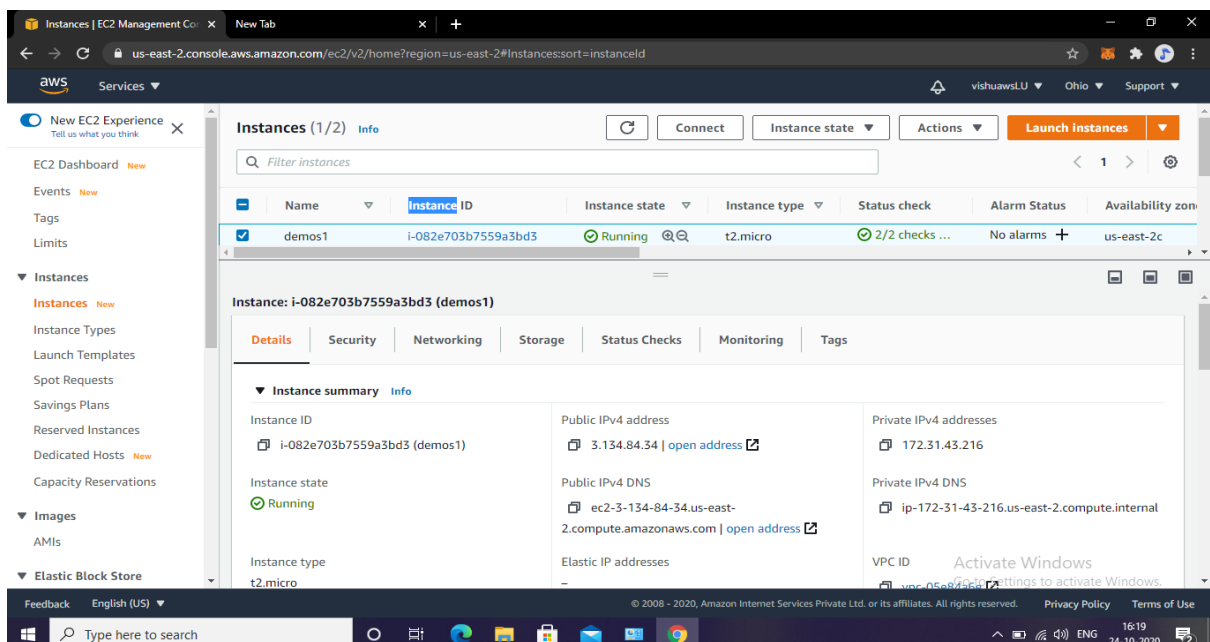
SS1: Instances List:



The screenshot displays the AWS Management Console's EC2 Instances page. The top navigation bar shows the user is logged in as 'vishuawsLU' in the 'Ohio' region. The left sidebar contains navigation links for various AWS services. The main content area shows a table of instances with columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm Status, and Availability zone. Two instances are listed: 'demos1' (ID: i-082e703b7559a3bd3) and 'demos2' (ID: i-06bcb64c0922ae6b9), both in a 'Running' state. Below the table, there are several monitoring graphs for CPU utilization, network, and status checks.

Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability zone
demos1	i-082e703b7559a3bd3	Running	t2.micro	2/2 checks ...	No alarms	us-east-2c
demos2	i-06bcb64c0922ae6b9	Running	t2.micro	2/2 checks ...	No alarms	us-east-2c

SS2: Select a Instance and Display instance details of Server 1.



The screenshot displays the AWS Management Console's EC2 Instance details page for the instance 'demos1' (ID: i-082e703b7559a3bd3). The 'Instance summary' tab is selected, showing details about the instance's configuration, including its state, type, and network settings. The instance is in a 'Running' state and is a 't2.micro' type. The public IPv4 address is 3.134.84.34, and the private IPv4 address is 172.31.43.216. The public IPv4 DNS is ec2-3-134-84-34.us-east-2.compute.amazonaws.com, and the private IPv4 DNS is ip-172-31-43-216.us-east-2.compute.internal. The VPC ID is vpc-05e89564.

Instance summary	Security	Networking	Storage	Status Checks	Monitoring	Tags
Instance ID i-082e703b7559a3bd3 (demos1)	Public IPv4 address 3.134.84.34 open address	Private IPv4 addresses 172.31.43.216				
Instance state Running	Public IPv4 DNS ec2-3-134-84-34.us-east-2.compute.amazonaws.com open address	Private IPv4 DNS ip-172-31-43-216.us-east-2.compute.internal				
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-05e89564				

SS2: Select a Instance and Display instance details of Server 2.

The screenshot shows the AWS Management Console for the 'us-east-2' region. The 'Instances (1/2)' page is active, displaying a table of EC2 instances. The table has columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm Status, and Availability zone. Two instances are listed: 'demos1' (ID: i-082e703b7559a3bd3) and 'demos2' (ID: i-06bcb64c0922ae6b9). 'demos2' is selected, and its details are shown in the main pane. The details include the Instance ID, Instance state (Running), Instance type (t2.micro), Public IPv4 address (3.138.110.182), and Private IPv4 addresses (172.31.33.226). The console also shows a sidebar with navigation options like EC2 Dashboard, Events, Tags, Limits, and a top navigation bar with the AWS logo and user information.

Task 2: Status Active Running Black Screen.

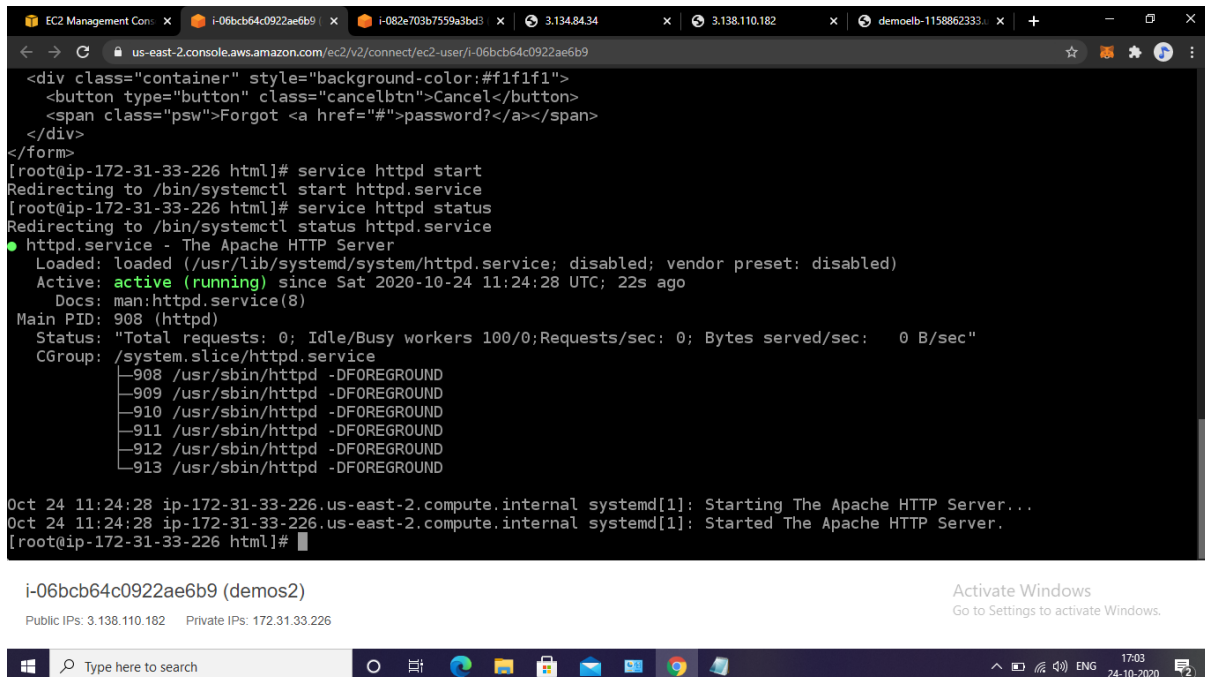
SS4: Active Running of Server 1

The screenshot shows the AWS Management Console for the 'us-east-2' region. The 'Connect to instance' page is active, displaying the terminal output of the 'service httpd status' command. The output shows that the httpd service is active (running) and has started successfully. The console also shows a sidebar with navigation options like EC2 Dashboard, Events, Tags, Limits, and a top navigation bar with the AWS logo and user information.

```
<div class="container" style="background-color:#f1f1f1">
  <button type="button" class="cancelbtn">Cancel</button>
  <span class="psw">Forgot <a href="#">password?</a></span>
</div>
</form>
[root@ip-172-31-43-216 html]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@ip-172-31-43-216 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 Sat 2020-10-24 11:03:42 UTC; 16s ago
     Docs: man:httpd.service(8)
  Main PID: 4043 (httpd)
   Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec:  0 B/sec"
    CGroup: /system.slice/httpd.service
            └─4043 /usr/sbin/httpd -DFOREGROUND
              └─4044 /usr/sbin/httpd -DFOREGROUND
                └─4045 /usr/sbin/httpd -DFOREGROUND
                  └─4046 /usr/sbin/httpd -DFOREGROUND
                    └─4047 /usr/sbin/httpd -DFOREGROUND
                      └─4048 /usr/sbin/httpd -DFOREGROUND

Oct 24 11:03:42 ip-172-31-43-216.us-east-2.compute.internal systemd[1]: Starting The Apache HTTP Server...
Oct 24 11:03:42 ip-172-31-43-216.us-east-2.compute.internal systemd[1]: Started The Apache HTTP Server.
[root@ip-172-31-43-216 html]#
```

SS5: Active Running of Server 2



The screenshot shows a terminal window with the following commands and output:

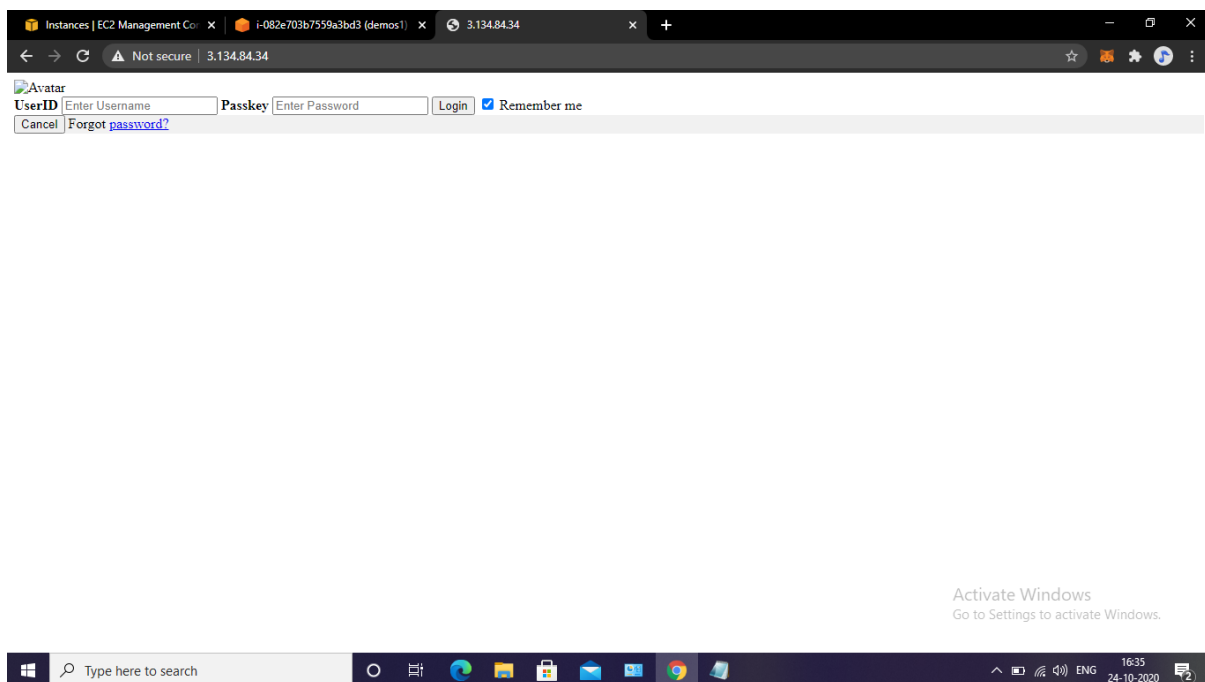
```
<div class="container" style="background-color:#f1f1f1">
  <button type="button" class="cancelbtn">Cancel</button>
  <span class="psw">Forgot <a href="#">password?</a></span>
</div>
</form>
[root@ip-172-31-33-226 html]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@ip-172-31-33-226 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 Sat 2020-10-24 11:24:28 UTC; 22s ago
     Docs: man:httpd.service(8)
   Main PID: 908 (httpd)
   Status: "Total requests: 0; Idle/Busy workers 100/0; Requests/sec: 0; Bytes served/sec: 0 B/sec"
   CGroup: /system.slice/httpd.service
           └─908 /usr/sbin/httpd -DFOREGROUND
             └─909 /usr/sbin/httpd -DFOREGROUND
               └─910 /usr/sbin/httpd -DFOREGROUND
                 └─911 /usr/sbin/httpd -DFOREGROUND
                   └─912 /usr/sbin/httpd -DFOREGROUND
                     └─913 /usr/sbin/httpd -DFOREGROUND

Oct 24 11:24:28 ip-172-31-33-226.us-east-2.compute.internal systemd[1]: Starting The Apache HTTP Server...
Oct 24 11:24:28 ip-172-31-33-226.us-east-2.compute.internal systemd[1]: Started The Apache HTTP Server.
[root@ip-172-31-33-226 html]#
```

Below the terminal window, the instance ID `i-06bcb64c0922ae6b9 (demos2)` is displayed, along with public and private IP addresses. An "Activate Windows" watermark is visible in the bottom right corner.

Task 3: Check if Application is Deployed on both Servers by Copy Pasting the Public IP of the Servers into the Browser.

SS6: UserId Passkey.

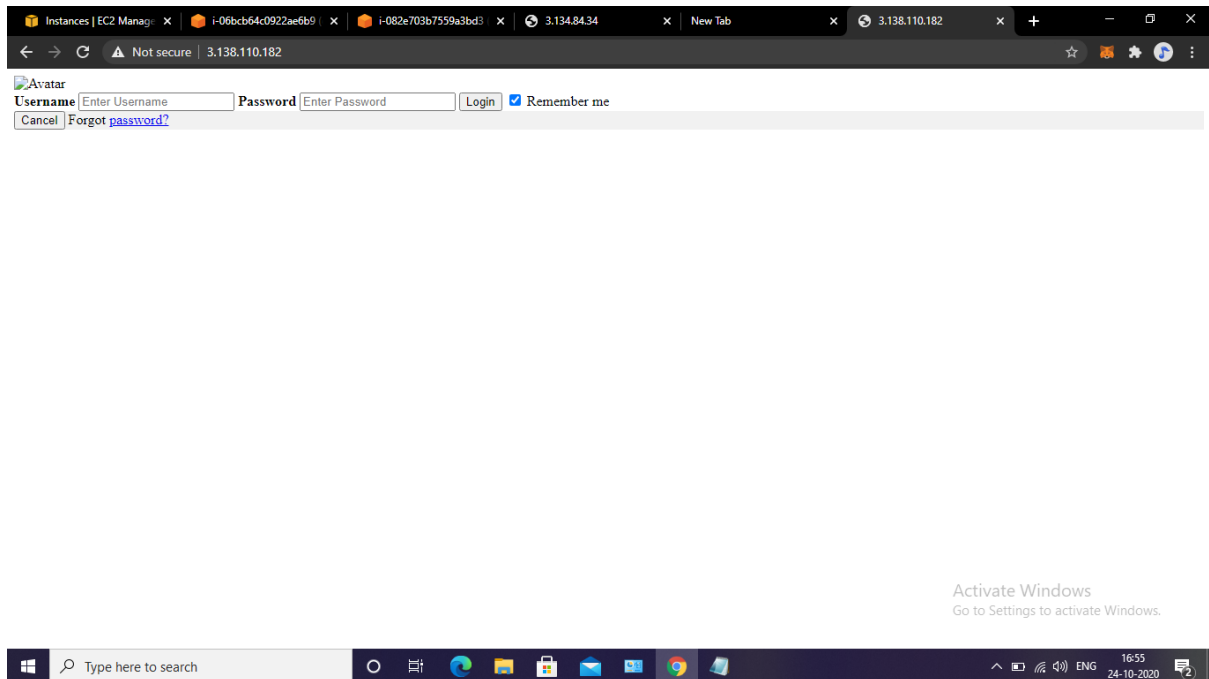


The screenshot shows a web browser window with the address `3.134.84.34`. The page displays a login form with the following fields and buttons:

- UserID**: Enter Username
- Passkey**: Enter Password
- Login** button
- ☒ **Remember me**
- Cancel** button
- [Forgot password?](#) link

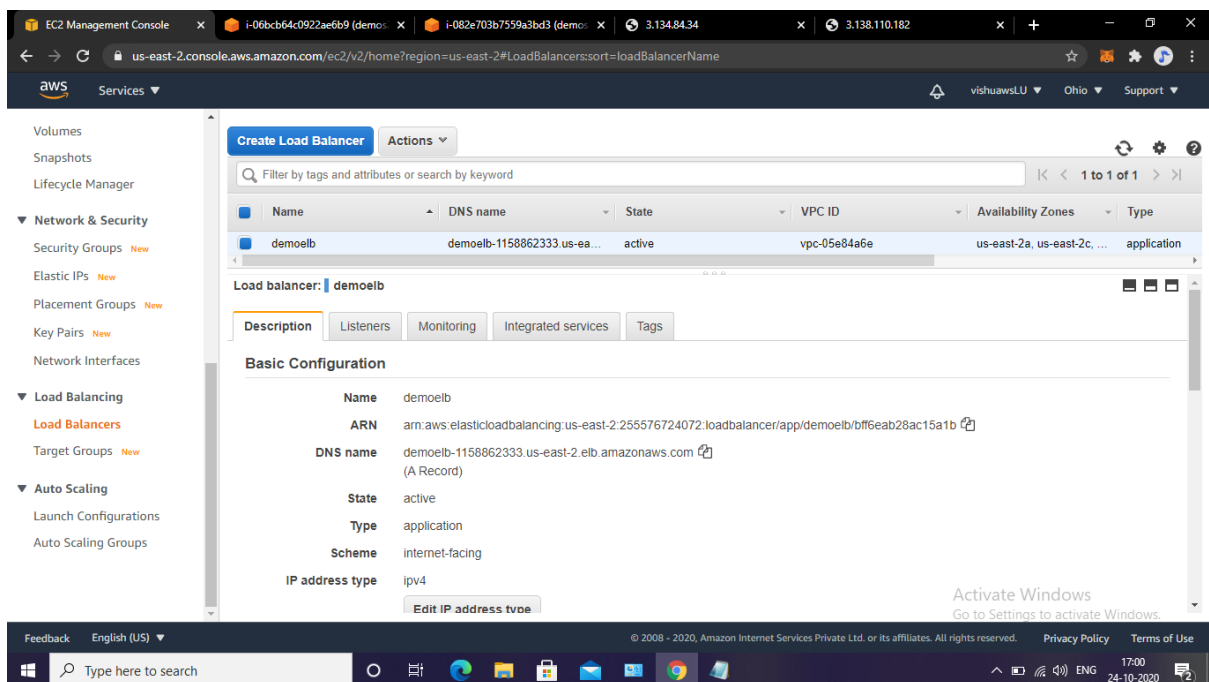
An "Avatar" icon is visible in the top left corner of the page. An "Activate Windows" watermark is visible in the bottom right corner.

SS7: Username Password Page.



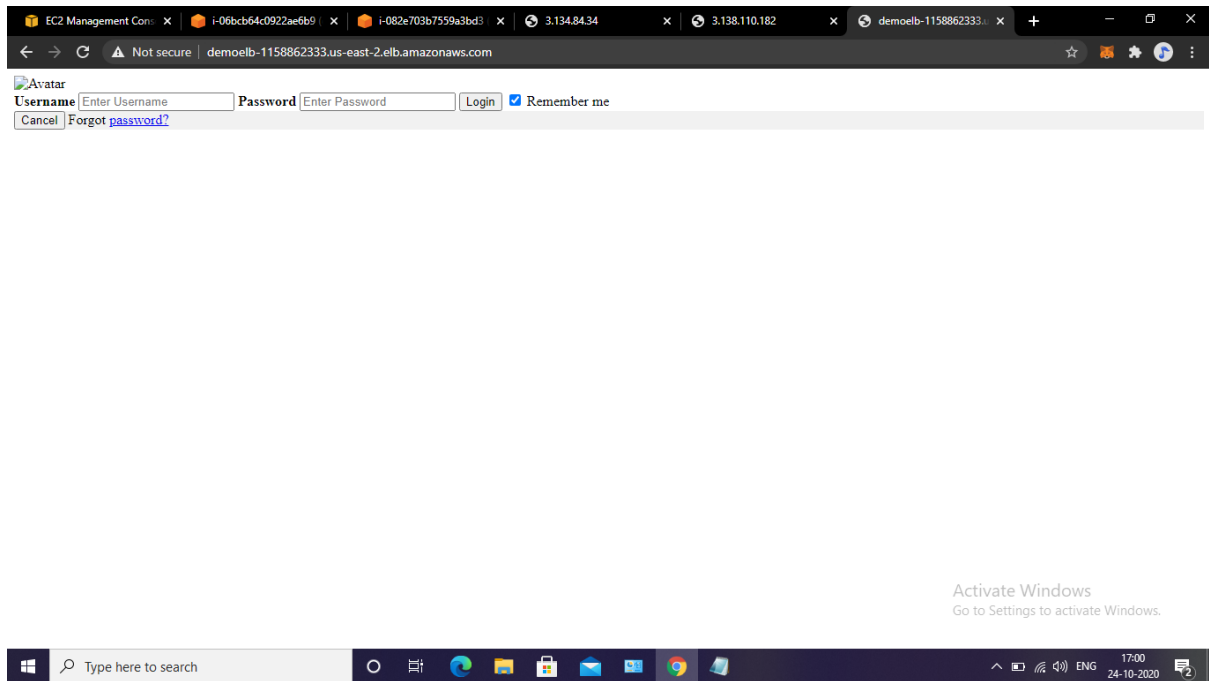
Step4: Create a Application Load balancer With the above Two Instances as Targets.

SS8: Load Balancer Screenshot.

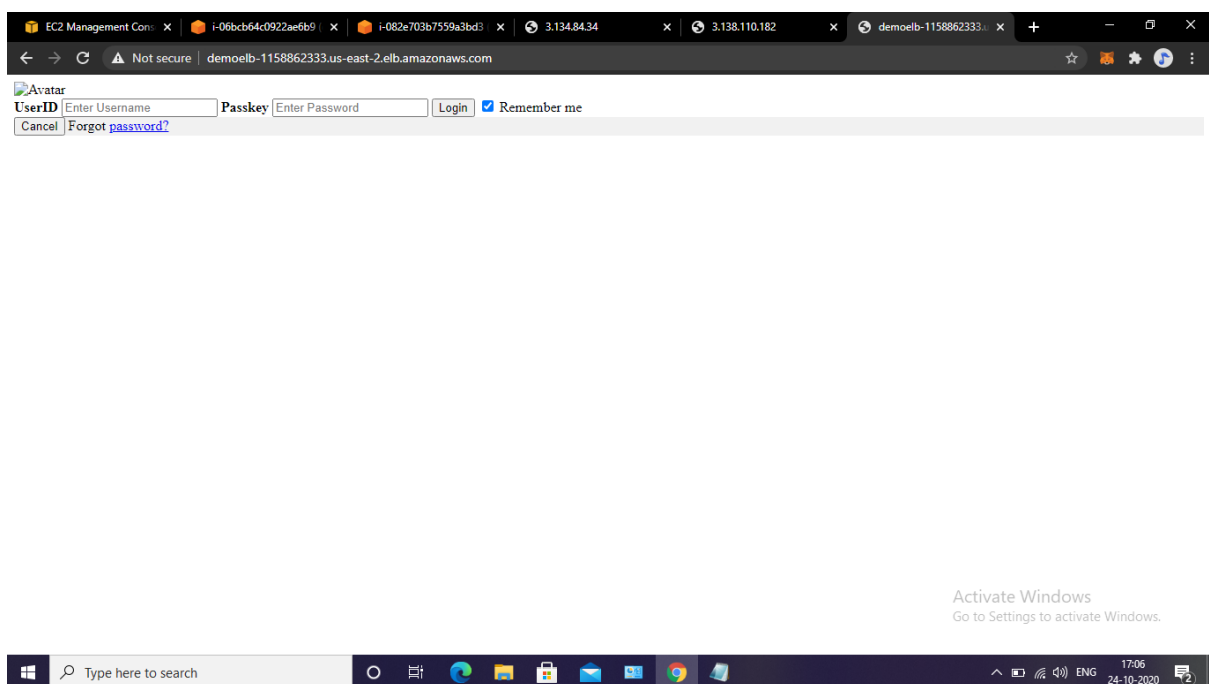


Step5: Check the Functioning of ELB Using the DNS of the ELB use the DNS.

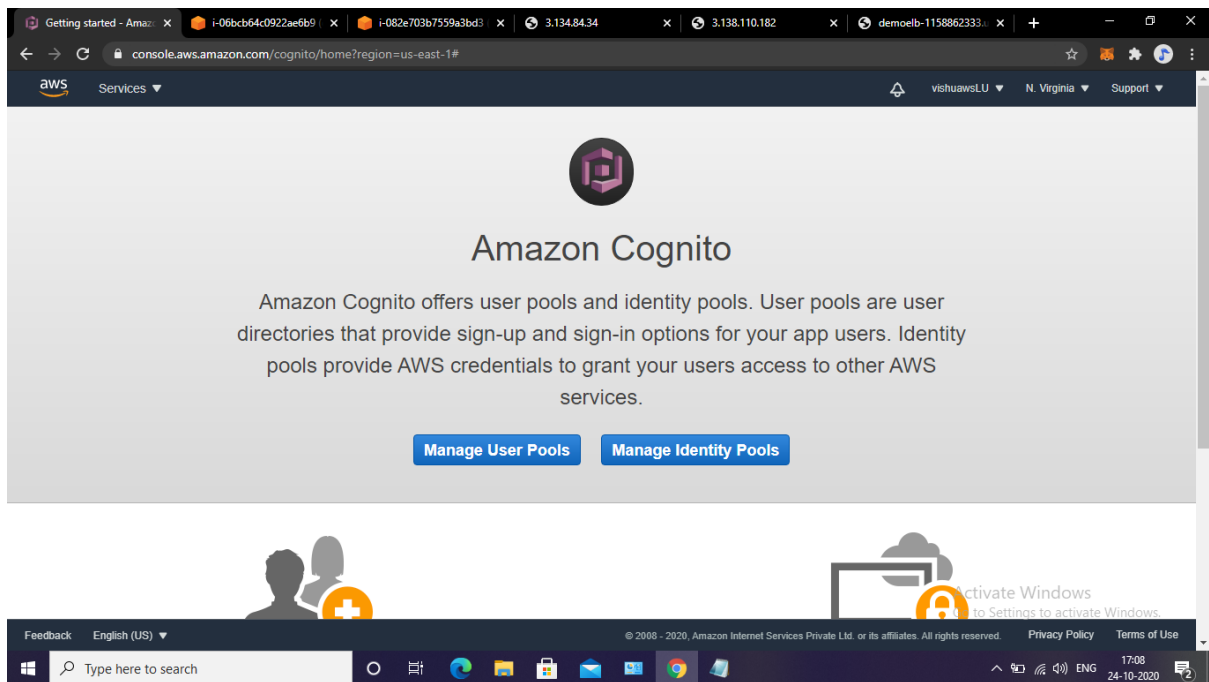
SS9: Reply from Server 1



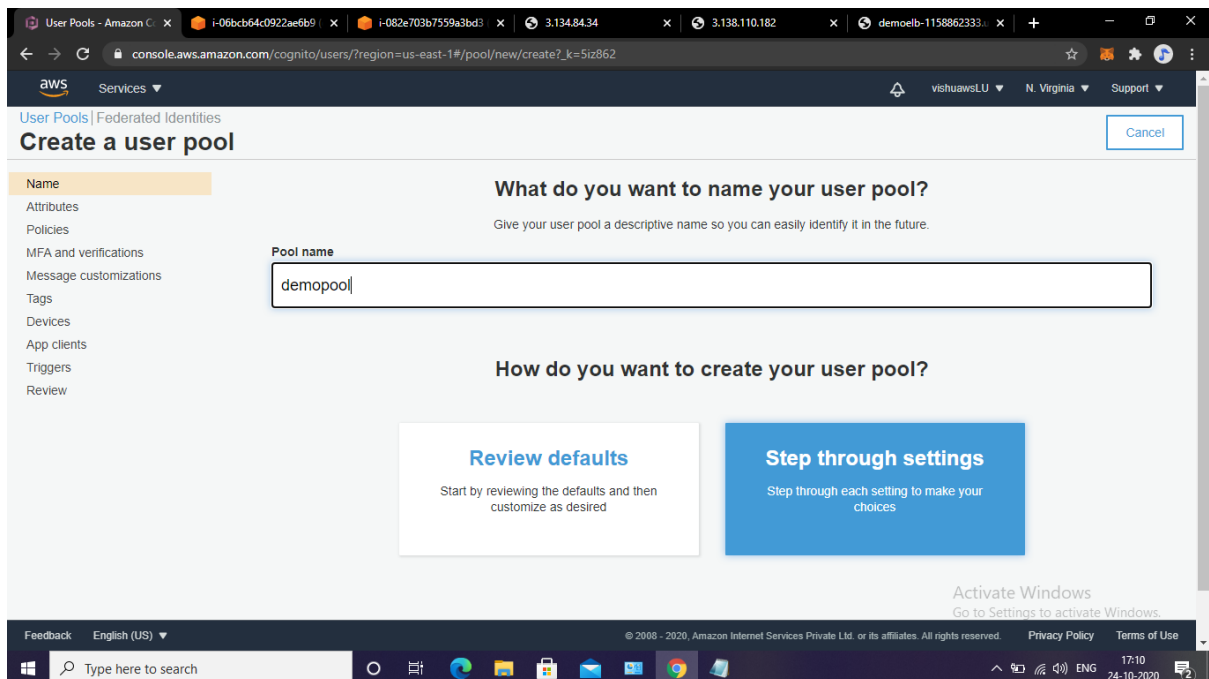
SS10: Reply from Server 2



Creating a User Pool in AWS Cognito.



Task 1: Create a User Pool.



Task 2: Attributes.

This screenshot shows the 'How do you want your end users to sign in?' configuration page in the AWS IAM console. The page is titled 'How do you want your end users to sign in?' and includes a warning box at the top stating: '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.' The page offers two main sign-in options: 'Username' and 'Email address or phone number'. The 'Email address or phone number' option is selected. Below this, there are checkboxes for 'Also allow sign in with verified email address', 'Also allow sign in with verified phone number', and 'Also allow sign in with preferred username (a username that your users can change)'. A section titled 'Which standard attributes do you want to require?' follows, with a note that all standard attributes can be used for user profiles, but selected ones will be required for sign-up. A checkbox for '(Recommended) Enable case insensitivity for username input' is checked. The page footer includes the AWS logo, 'Feedback', 'English (US)', and copyright information for 2008-2020.

Attributes

Policies

MFA and verifications

Message customizations

Tags

Devices

App clients

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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.](#)

Feedback English (US)

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This screenshot shows the 'Which standard attributes do you want to require?' configuration page in the AWS IAM console. The page is titled 'Which standard attributes do you want to require?' and includes a note that all standard attributes can be used for user profiles, but selected ones will be required for sign-up. A checkbox for '(Recommended) Enable case insensitivity for username input' is checked. The page displays two columns of attributes, each with a 'Required' checkbox. The first column includes 'address', 'birthdate', 'email', 'family name', 'gender', 'given name', 'locale', 'middle name', and 'name'. The second column includes 'nickname', 'phone number', 'picture', 'preferred username', 'profile', 'zoneinfo', 'updated at', and 'website'. The 'Required' checkboxes for 'address', 'email', 'gender', 'profile', and 'name' are checked. Below the attribute lists is a section titled 'Do you want to add custom attributes?' with a note to 'Enter the name and select the type and settings for custom attributes.' The page footer includes the AWS logo, 'Feedback', 'English (US)', and copyright information for 2008-2020.

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	Required	Attribute
<input checked="" type="checkbox"/>	address	<input type="checkbox"/>	nickname
<input type="checkbox"/>	birthdate	<input checked="" type="checkbox"/>	phone number
<input checked="" type="checkbox"/>	email	<input type="checkbox"/>	picture
<input type="checkbox"/>	family name	<input type="checkbox"/>	preferred username
<input checked="" type="checkbox"/>	gender	<input checked="" type="checkbox"/>	profile
<input type="checkbox"/>	given name	<input type="checkbox"/>	zoneinfo
<input type="checkbox"/>	locale	<input type="checkbox"/>	updated at
<input type="checkbox"/>	middle name	<input type="checkbox"/>	website
<input checked="" type="checkbox"/>	name		

Do you want to add custom attributes?

Enter the name and select the type and settings for custom attributes.

Activate Windows
Go to Settings to activate Windows.

Feedback English (US)

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Task 3: Policies.

The screenshot shows the AWS IAM console 'Create a user pool' page, specifically the 'Policies' tab. The left sidebar contains a navigation menu with options: Name, Attributes, Policies (selected), MFA and verifications, Message customizations, Tags, Devices, App clients, Triggers, and Review. The main content area is titled 'What password strength do you want to require?'. It includes a 'Minimum length' input field set to 8, and four checked checkboxes: 'Require numbers', 'Require special character', 'Require uppercase letters', and 'Require lowercase letters'. Below this is a section 'Do you want to allow users to sign themselves up?' with two radio buttons: 'Only allow administrators to create users' (selected) and 'Allow users to sign themselves up'. The next section is 'How quickly should temporary passwords set by administrators expire if not used?' with a 'Days to expire' input field. The bottom of the page shows the AWS footer with copyright information and a Windows taskbar at the very bottom.

aws Services

User Pools | Federated Identities

Create a user pool

Name

Attributes

Policies

MFA and verifications

Message customizations

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Review

What password strength do you want to require?

Minimum length

8

☒ Require numbers

☒ Require special character

☒ Require uppercase letters

☒ Require lowercase letters

Do you want to allow users to sign themselves up?

You can choose to only allow administrators to create users or allow users to sign themselves up. [Learn more.](#)

☒ Only allow administrators to create users

☐ Allow users to sign themselves up

How quickly should temporary passwords set by administrators expire if not used?

You can choose for how long until a temporary password set by an administrator expires if the password is not used. This includes accounts created by administrators.

Days to expire

Activate Windows
Go to Settings to activate Windows.

Feedback English (US)

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Type here to search

Task 4: MFA and Verification.

The screenshot shows the AWS IAM console 'Create a user pool' page, specifically the 'MFA and verifications' tab. The left sidebar contains a navigation menu with options: Name, Attributes, Policies, MFA and verifications (selected), Message customizations, Tags, Devices, App clients, Triggers, and Review. The main content area is titled 'Do you want to enable Multi-Factor Authentication (MFA)?'. It includes a paragraph explaining MFA and a note: 'Note: separate charges apply for sending text messages.' Below this are three radio buttons: 'Off' (selected), 'Optional', and 'Required'. The next section is 'How will a user be able to recover their account?'. It includes a paragraph explaining account recovery and a list of five radio button options: 'Email if available, otherwise phone, but don't allow a user to reset their password via phone if they are also using it for MFA', 'Phone if available, otherwise email, but don't allow a user to reset their password via phone if they are also using it for MFA', 'Email only' (selected), 'Phone only, but don't allow a user to reset their password via phone if they are also using it for MFA', and '(Not Recommended) Phone if available, otherwise email, and do allow a user to reset their password via phone if they are also using it for MFA'. The bottom of the page shows the AWS footer with copyright information and a Windows taskbar at the very bottom.

aws Services

User Pools | Federated Identities

Create a user pool

Name

Attributes

Policies

MFA and verifications

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Review

Do you want to enable Multi-Factor Authentication (MFA)?

Multi-Factor Authentication (MFA) increases security for your end users. If you choose 'optional', individual users can have MFA enabled. You can only choose 'required' when initially creating a user pool, and if you do, all users must use MFA. Phone numbers must be verified if MFA is enabled. You can configure adaptive authentication on the Advanced security tab to require MFA based on risk scoring of user sign in attempts. [Learn more about multi-factor authentication.](#)

Note: separate charges apply for sending text messages.

☒ Off ☐ Optional ☐ Required

How will a user be able to recover their account?

When a user forgets their password, they can have a code sent to their verified email or verified phone to recover their account. You can choose the preferred way to send codes below. We recommend not allowing phone to be used for both password resets and multi-factor authentication (MFA). [Learn more.](#)

☐ Email if available, otherwise phone, but don't allow a user to reset their password via phone if they are also using it for MFA

☐ Phone if available, otherwise email, but don't allow a user to reset their password via phone if they are also using it for MFA

☒ Email only

☐ Phone only, but don't allow a user to reset their password via phone if they are also using it for MFA

☐ (Not Recommended) Phone if available, otherwise email, and do allow a user to reset their password via phone if they are also using it for MFA.

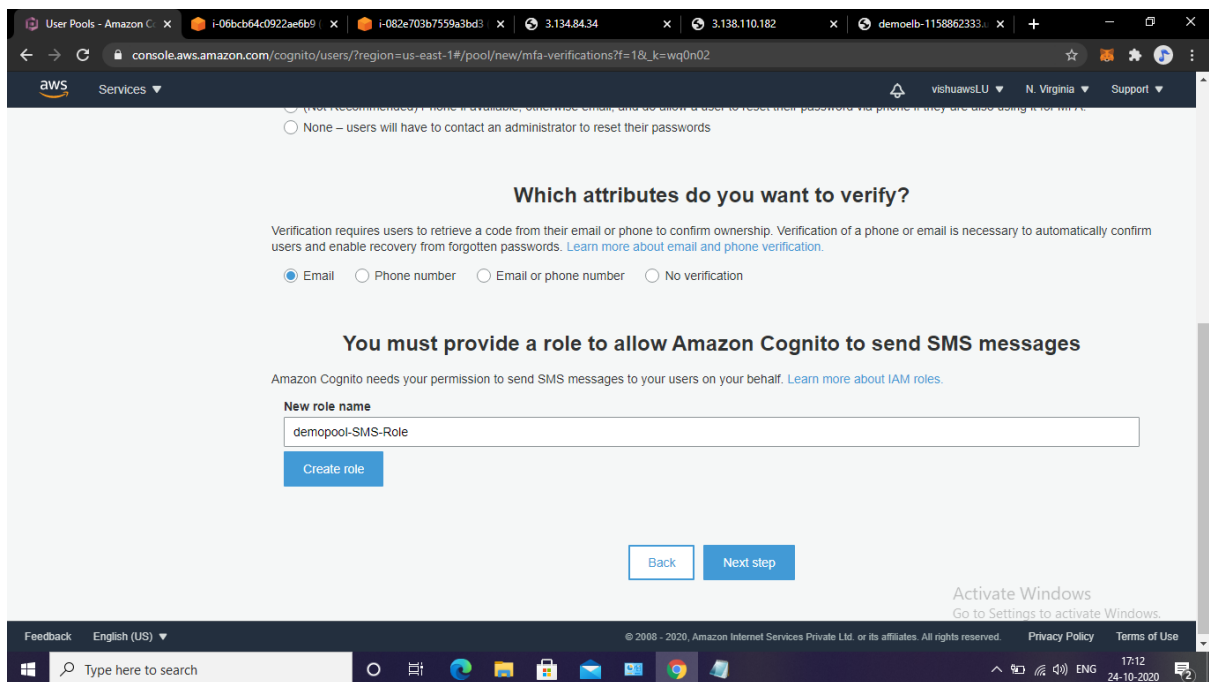
☐ None – users will have to contact an administrator to reset their passwords

Activate Windows
Go to Settings to activate Windows.

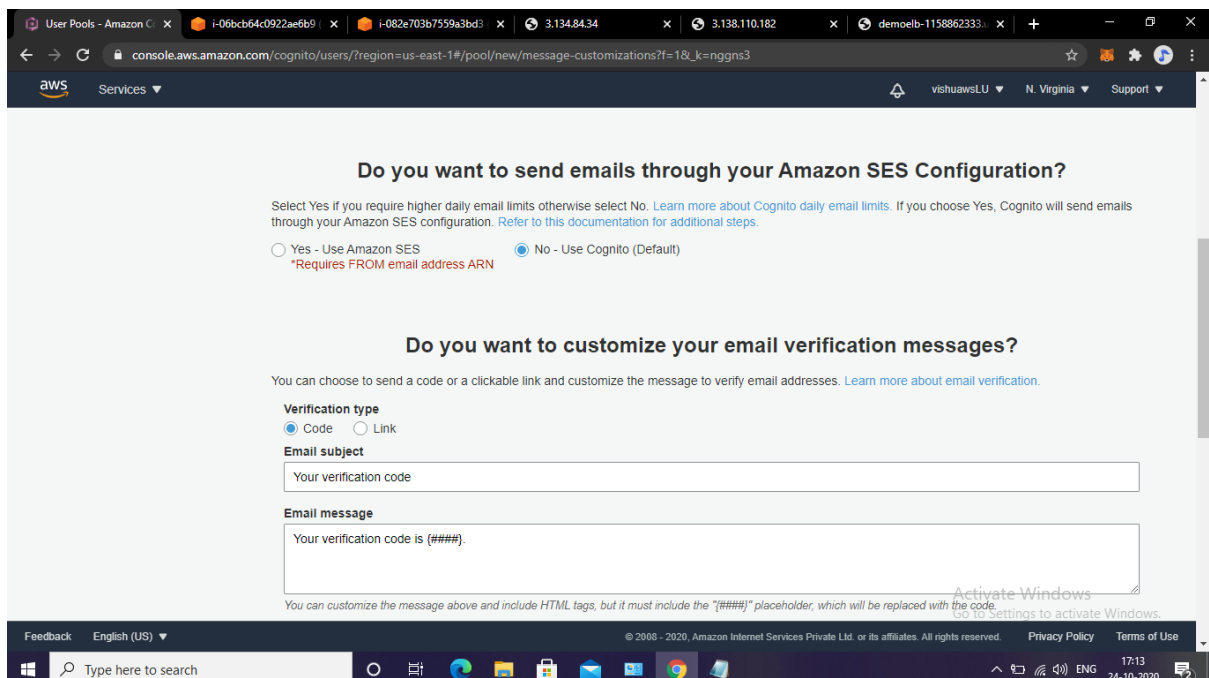
Feedback English (US)

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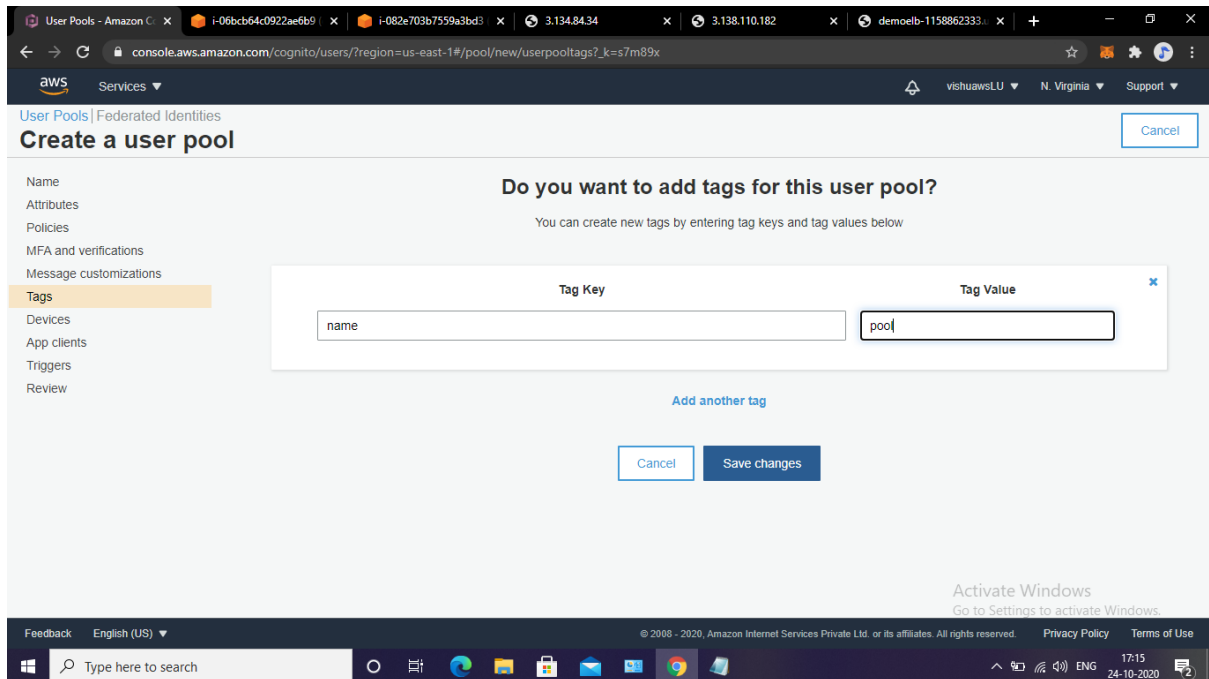
Type here to search



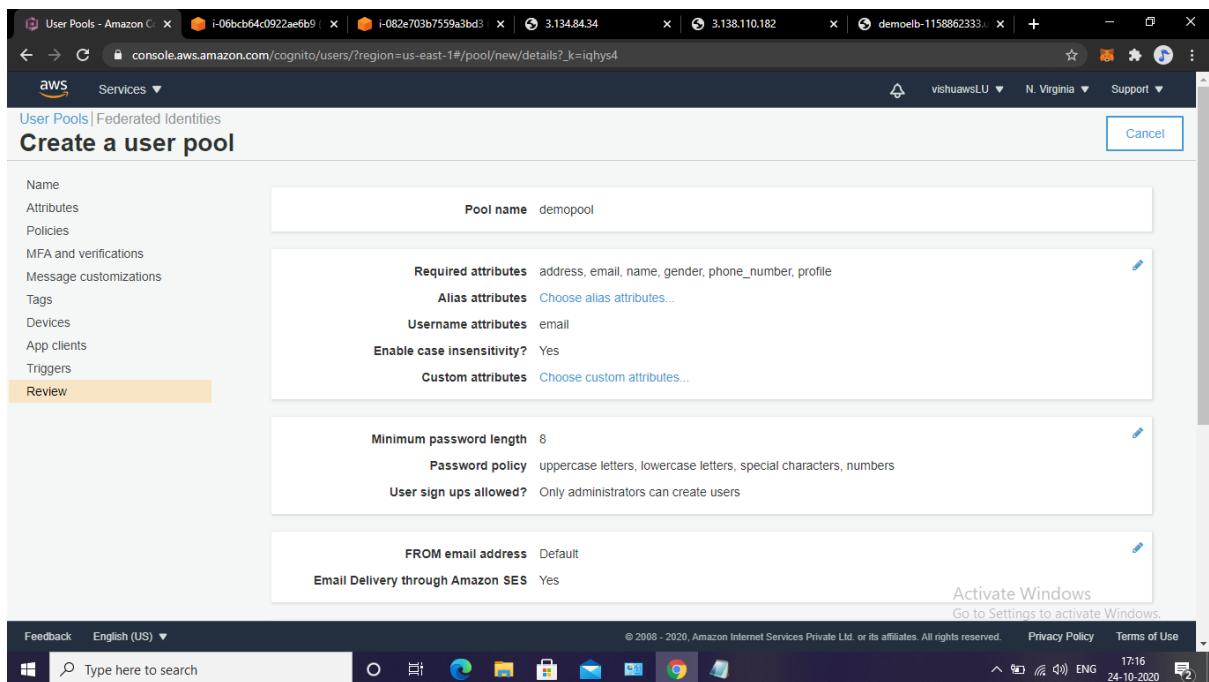
Task 5: Message Customization.

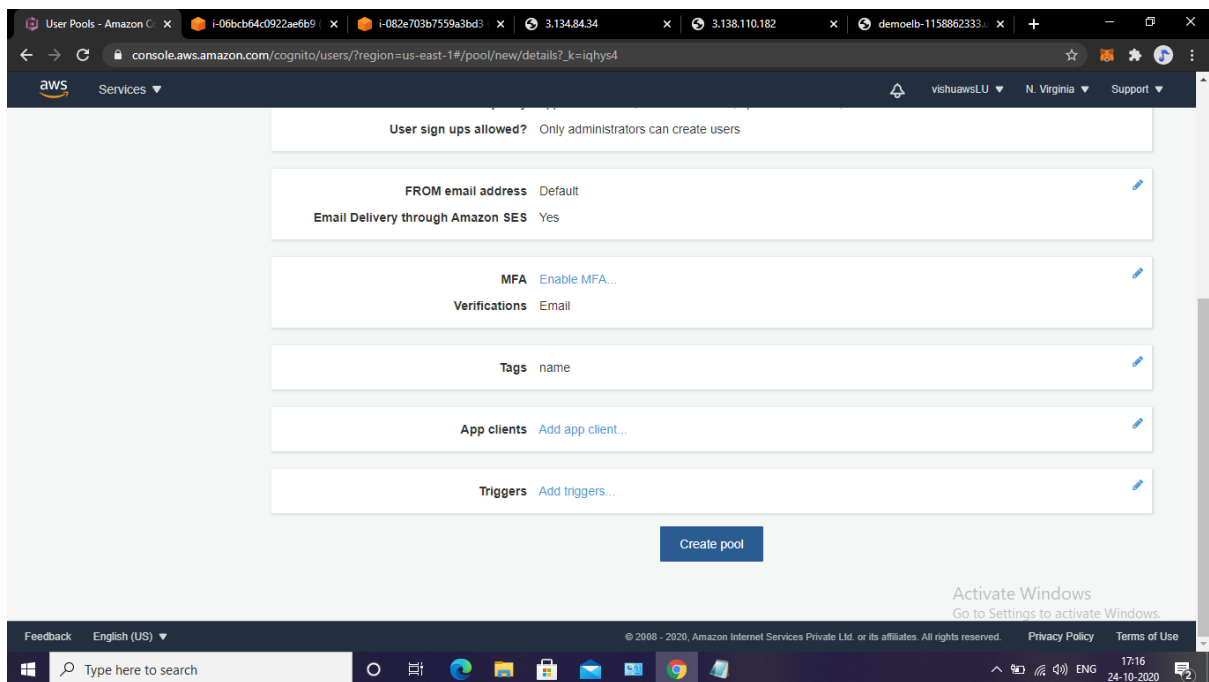


Task 6: Tags

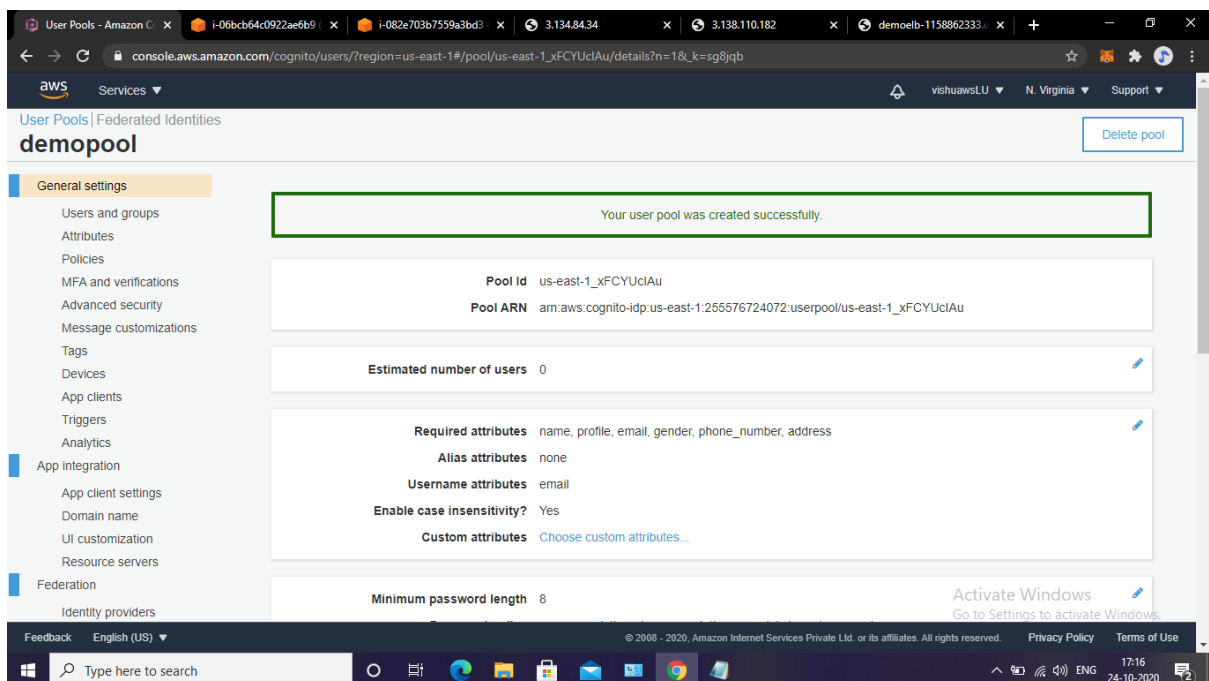


Task 7: Review

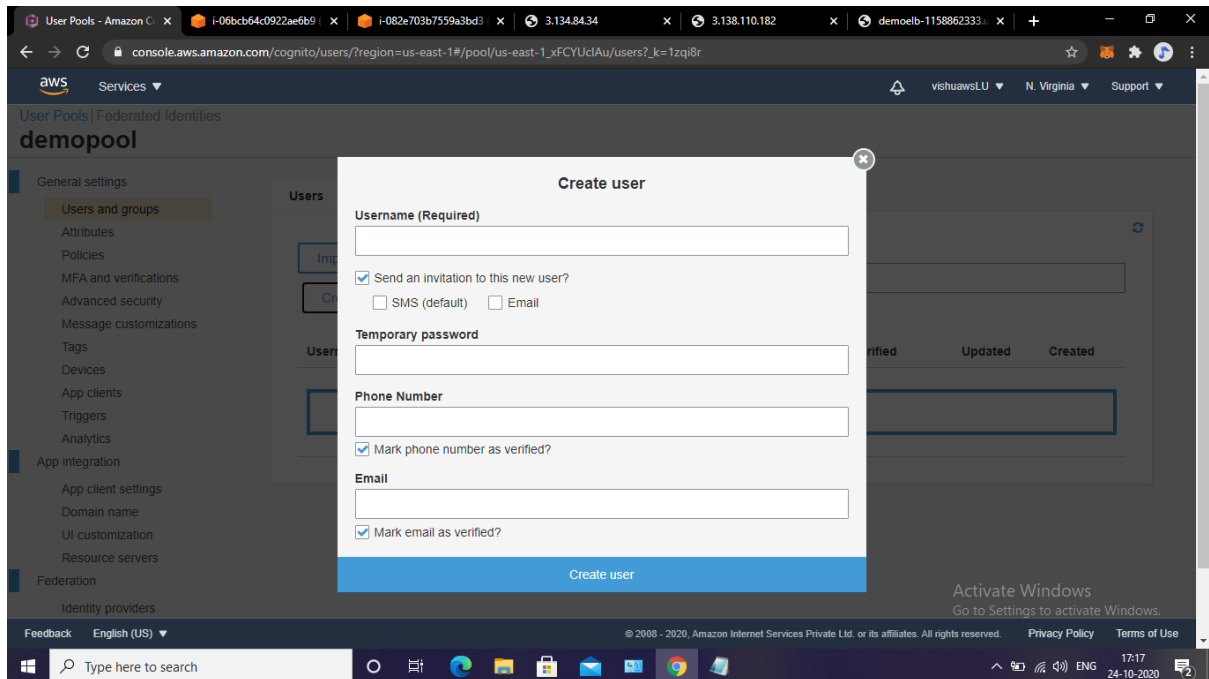




Task 8: You have Successfully Used AWS Management Console to Create a User Pool.



Task 9: Create User.



Task 10: Create Group.

