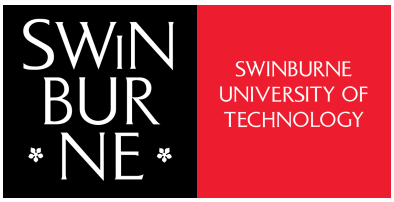

Module 10 Guided Lab - Automating Infrastructure Deployment with AWS CloudFormation

July 1, 2023

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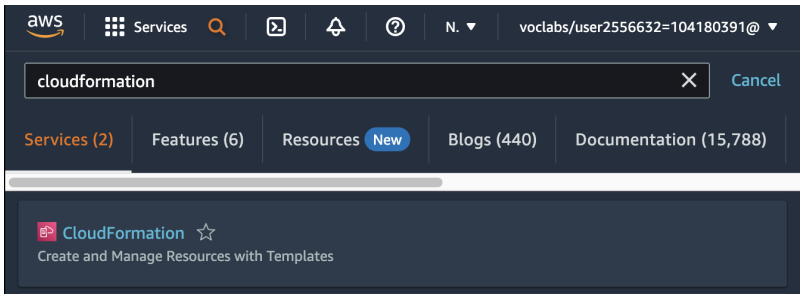
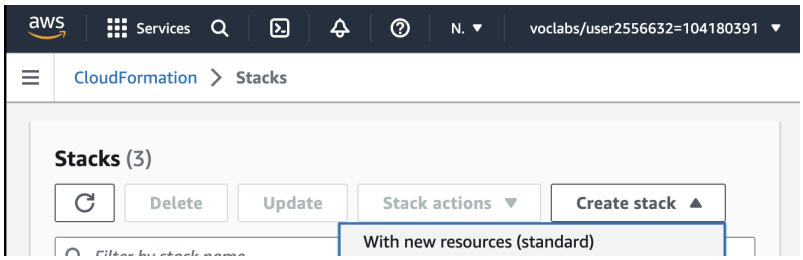
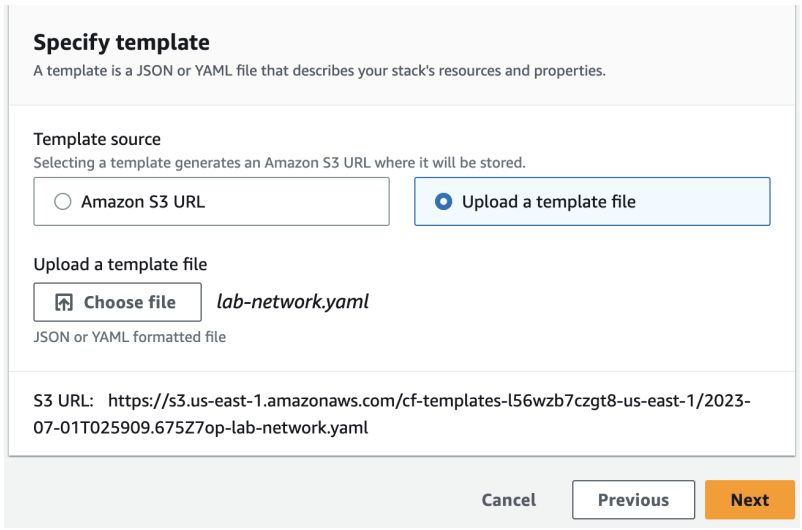
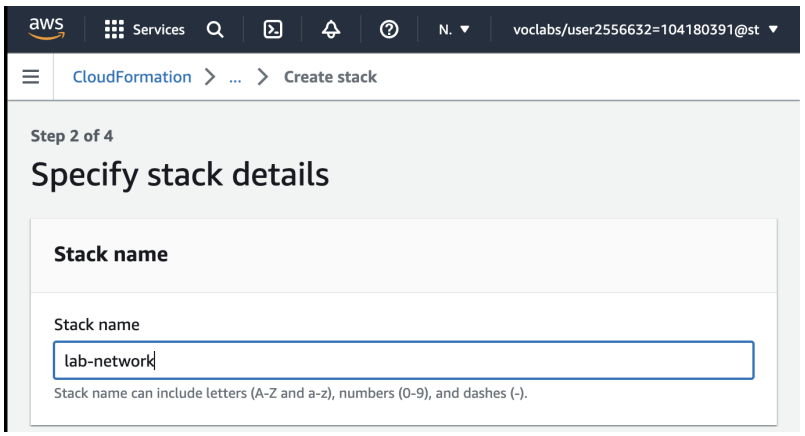
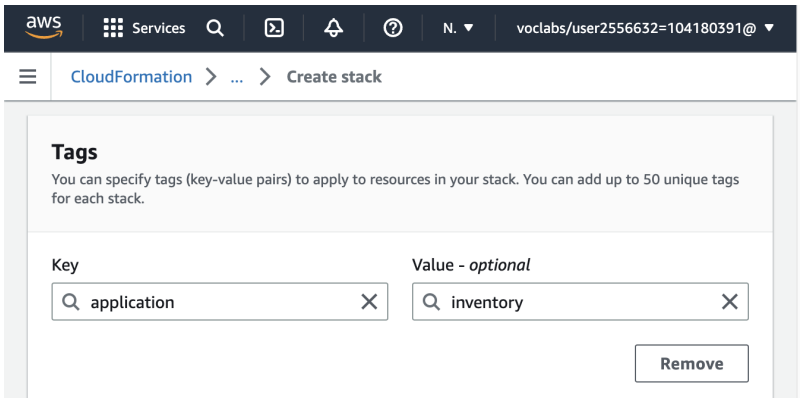
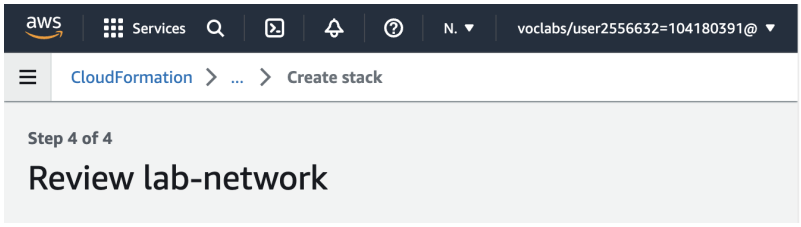
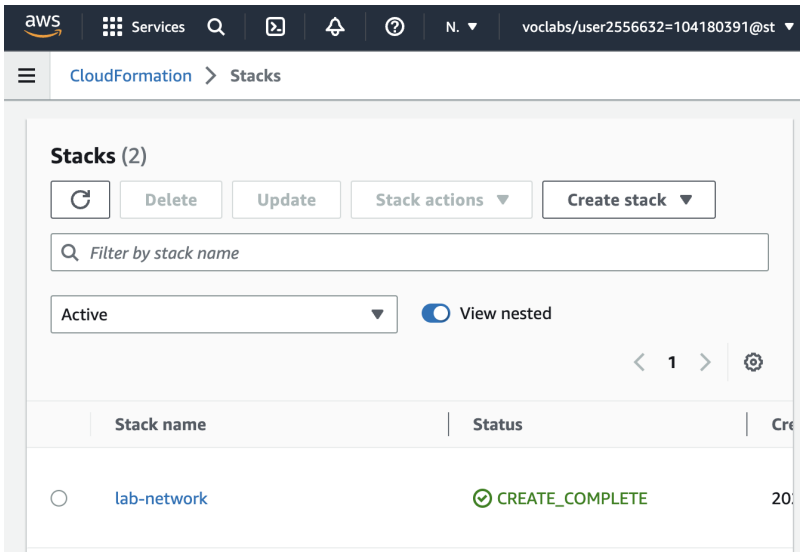
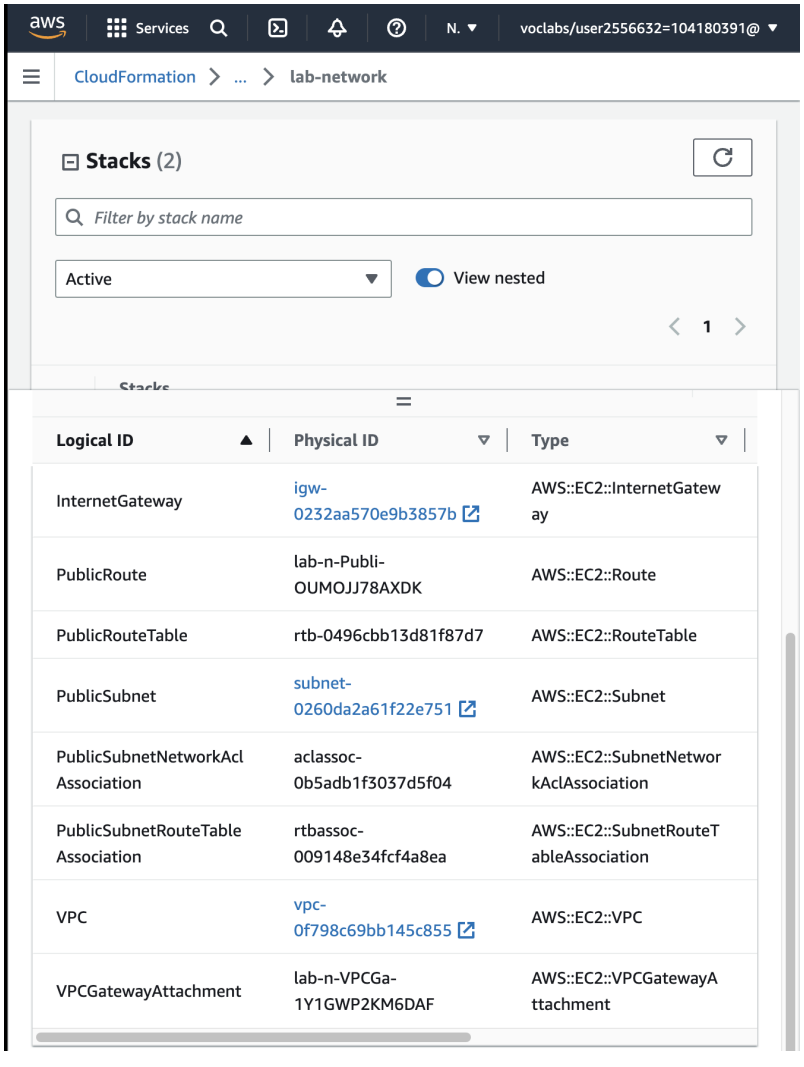
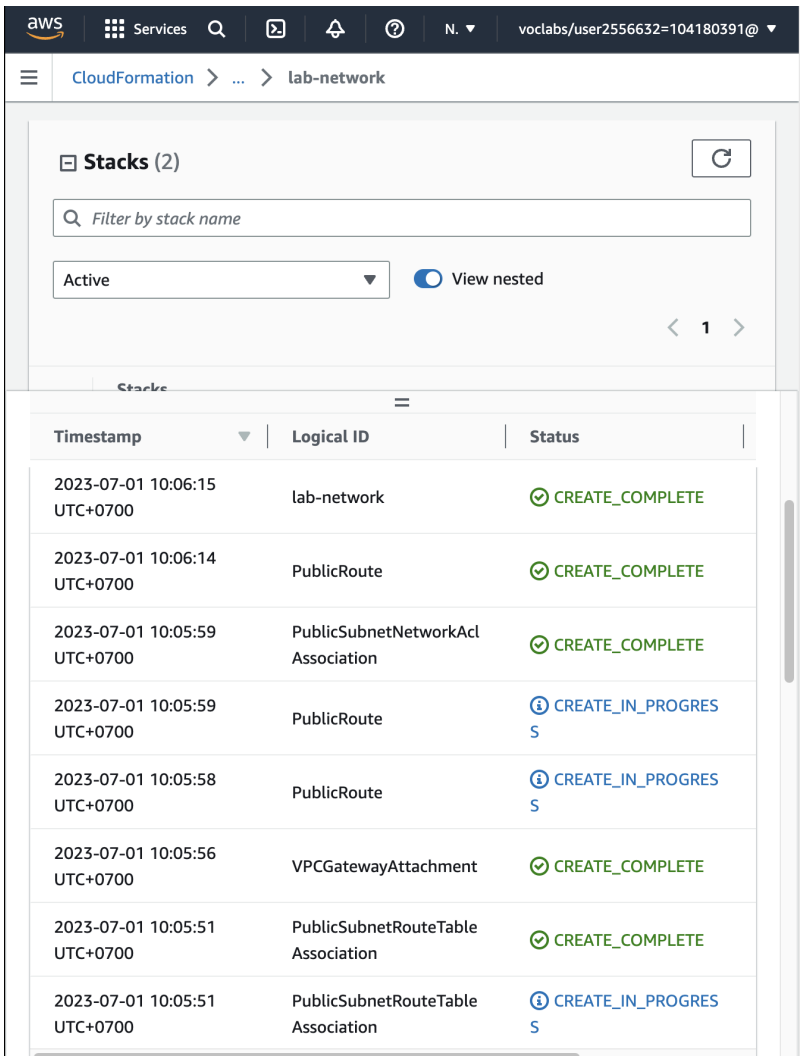
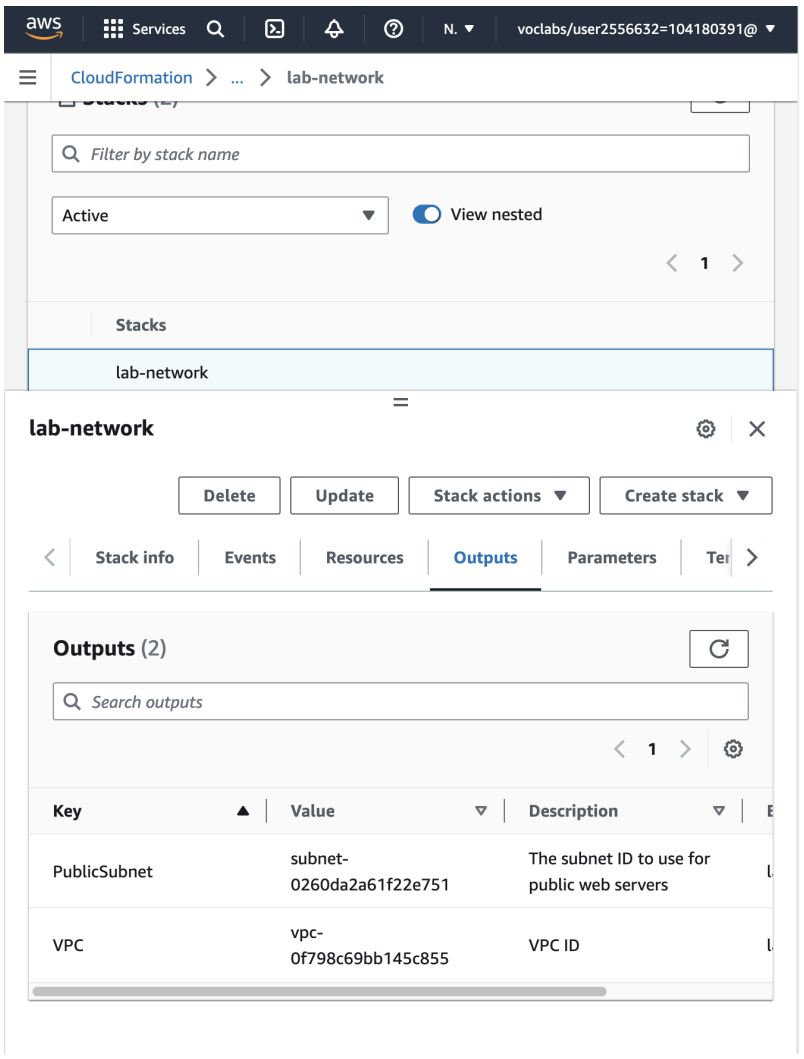
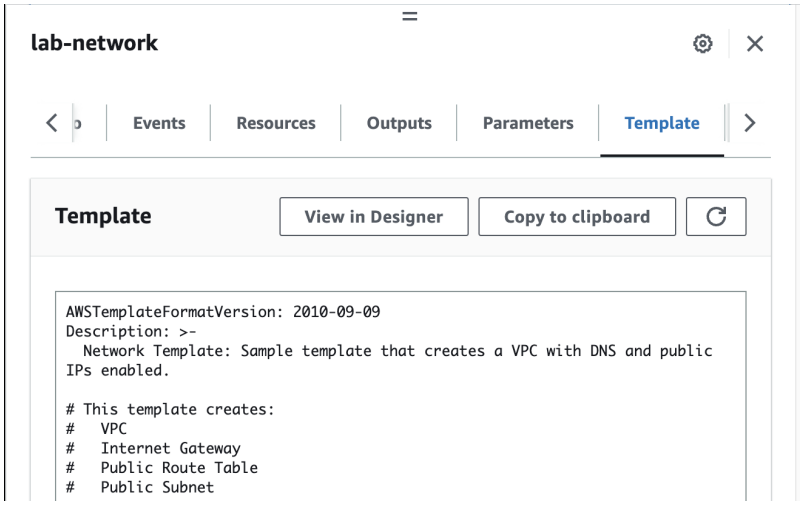
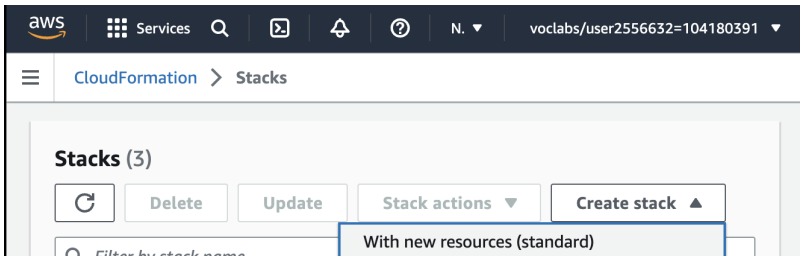
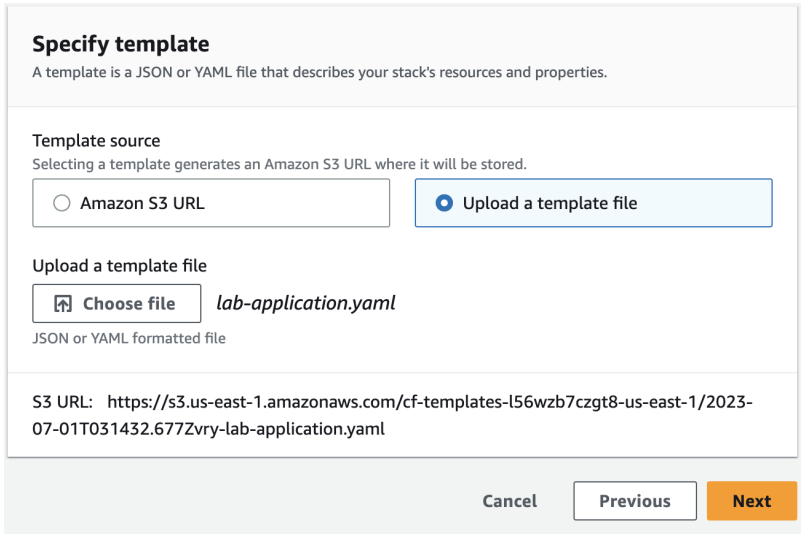
Task 1: Deploying a networking layer		
Step	**Description**	**Screenshot**
1	In the AWS Management Console, from the **Services** menu, choose **CloudFormation**.	
2	Choose **Create stack** > **With existing resources (standard)**	
3	Import downloaded **lab-network.yaml** file.	

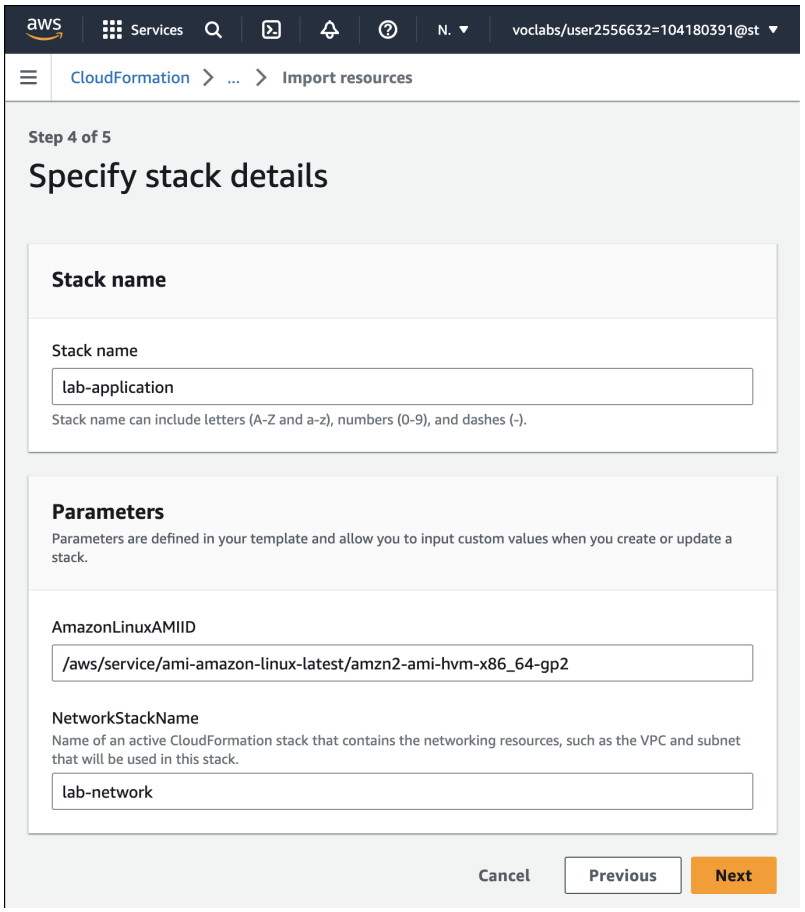
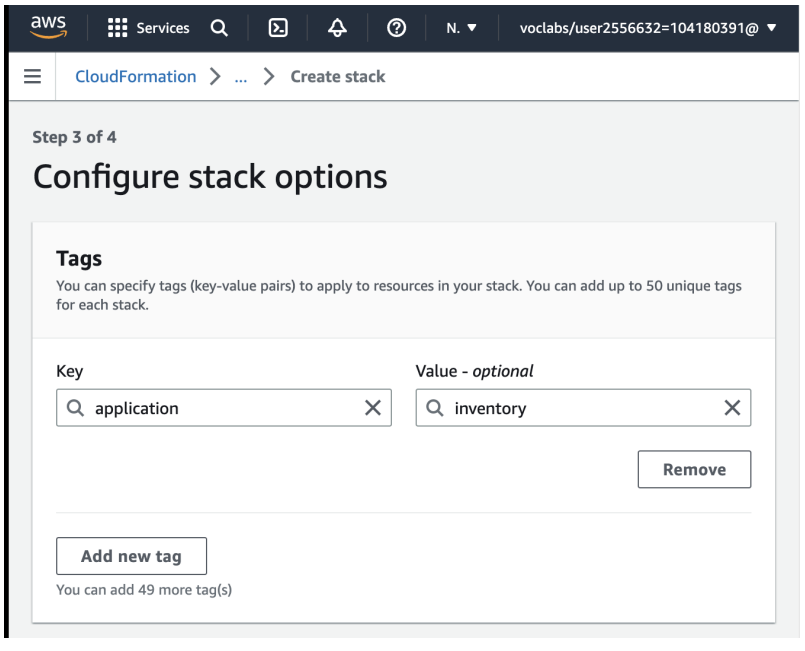
4	- **Stack name**: lab-network - Choose **Next**	
5	In the **Tags** section, enter these values. - **Key**: application - **Value**: inventory - Choose **Next**	
6	Choose **Submit**.	

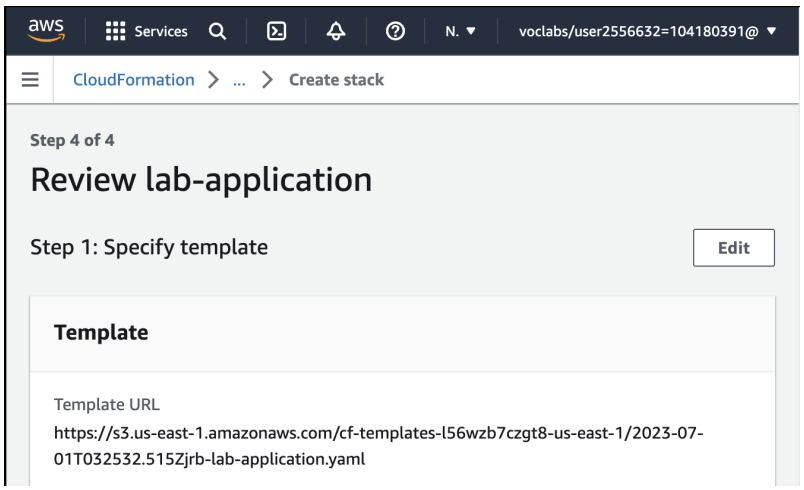
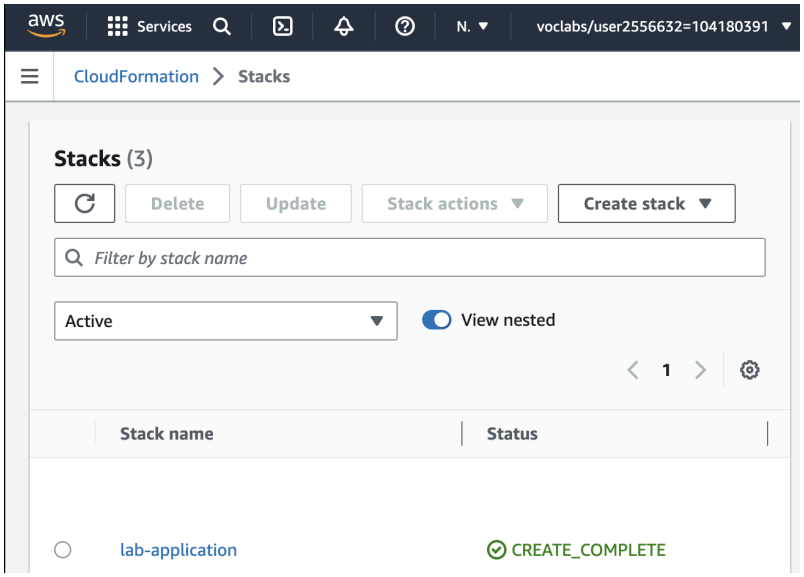
7	**lab-network** stack successfully created.	
8	Choose the **Resources** tab. A list of the resources that were created by the template.	

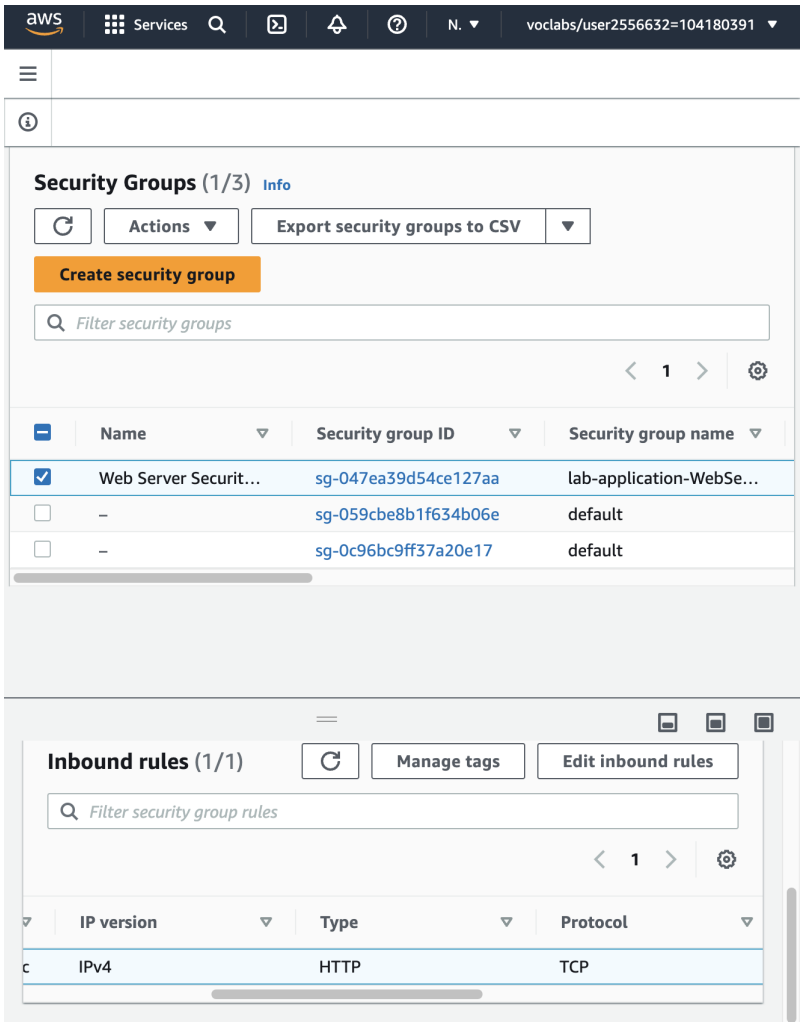
9	Choose the **Events** tab and scroll through the events log. The events log shows (from more recent to less recent) the activities that were performed by AWS CloudFormation.	

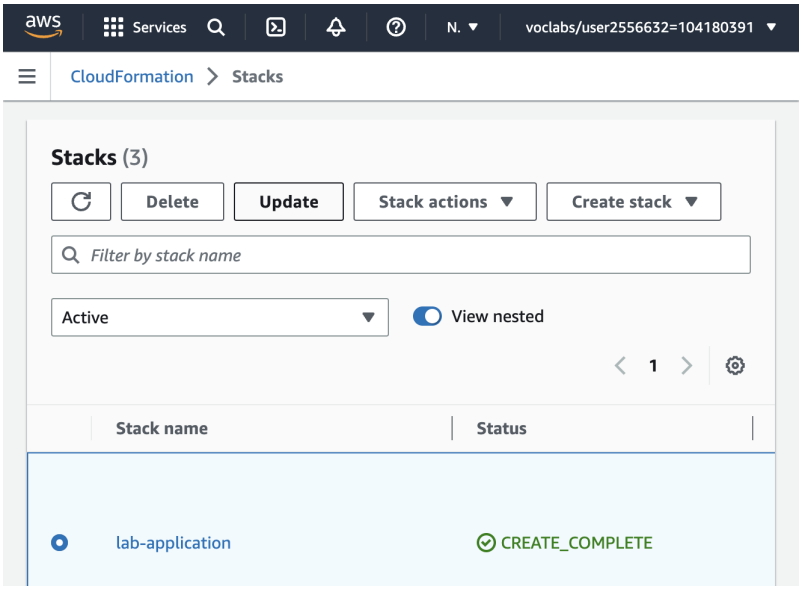
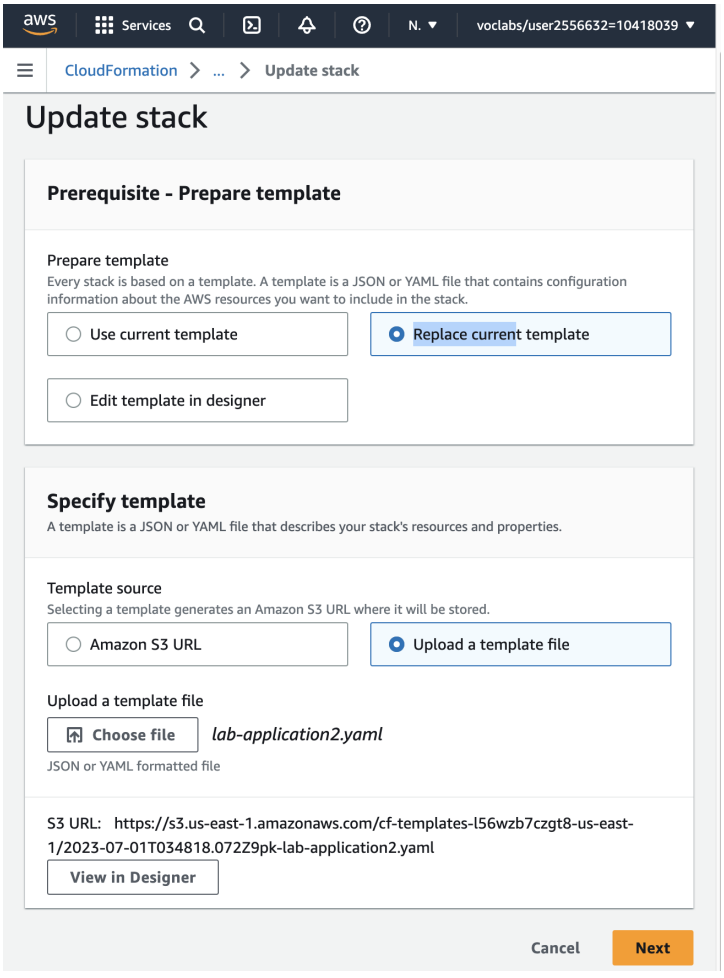
10	Choose the **Outputs** tab. A CloudFormation stack can provide output information, such as the ID of specific resources and links to resources. Two outputs are listed. - **PublicSubnet**: The ID of the public subnet that was created - **VPC**: The ID of the VPC that was created	
11	Choose the **Template** tab. This tab shows the template that was used to create the stack—that is, the template that was uploaded while creating the stack.	

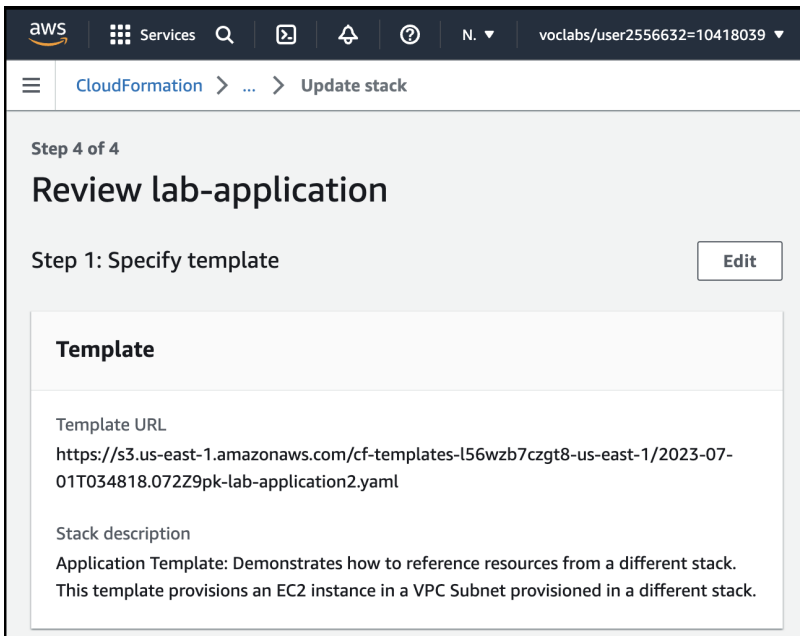
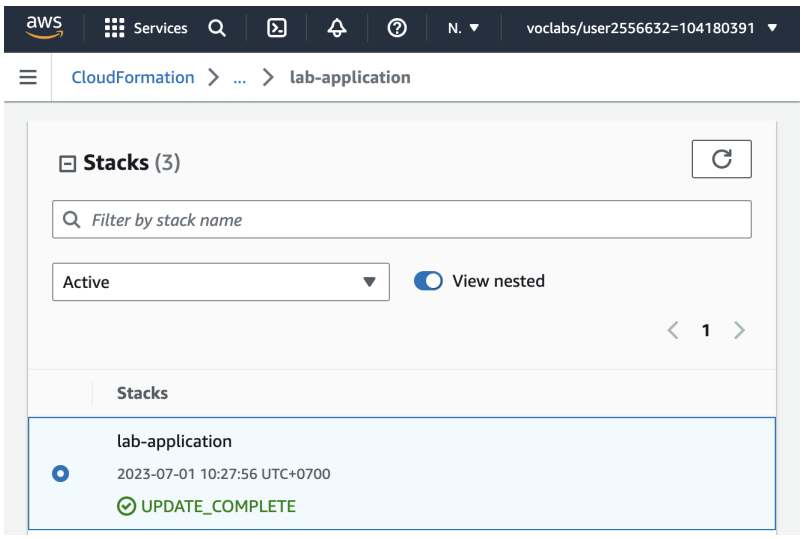
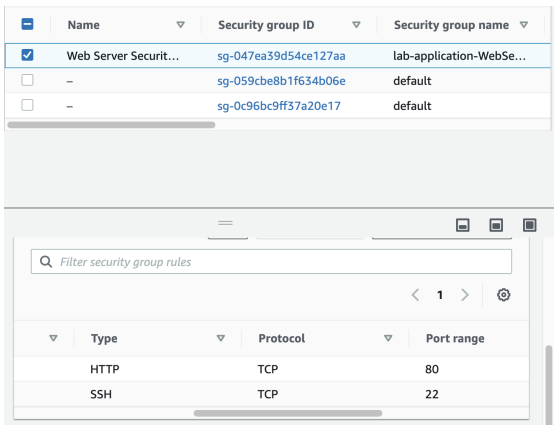
Task 2: Deploying an application layer		
Step	**Description**	**Screenshot**
1	Choose **Create stack** > **With new resources (standard)**	
2	Import downloaded **lab-application.yaml** file.	

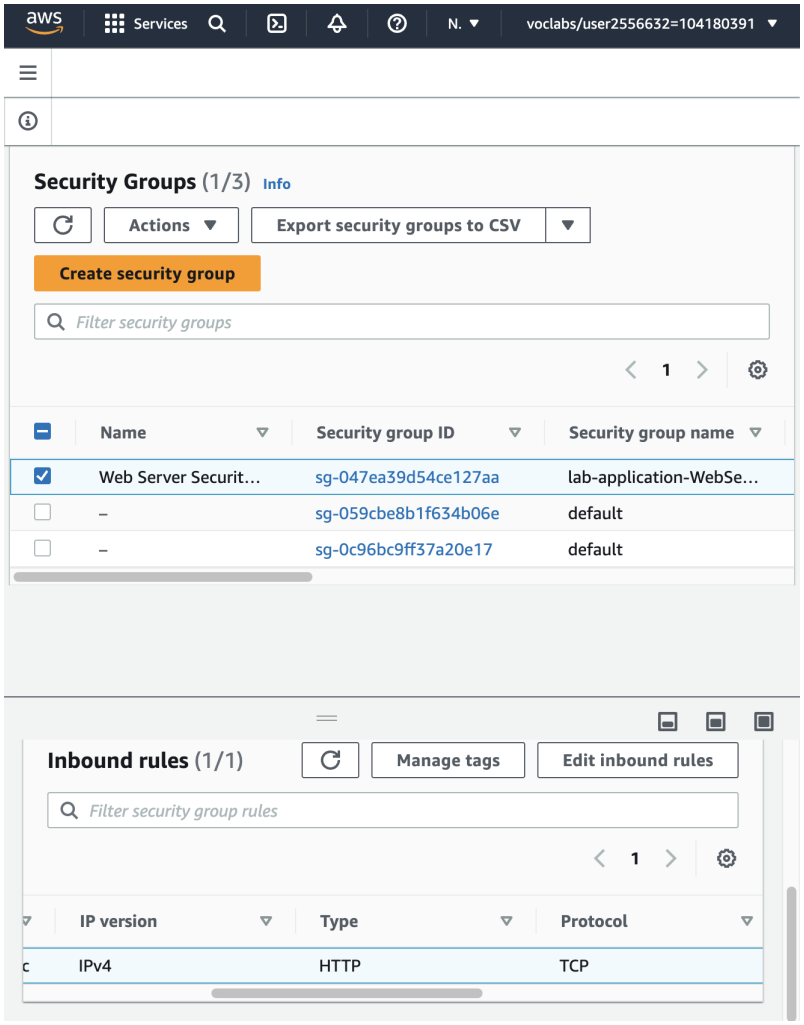
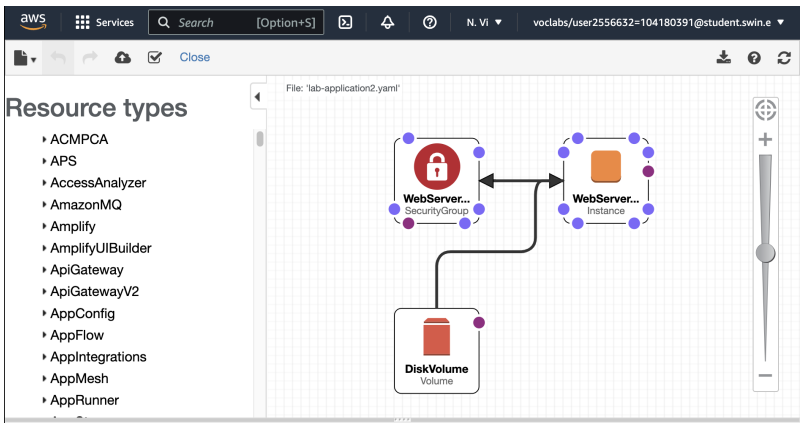
3	Create Stack: - **Stack name**: lab-application - **NetworkStackName**: lab-network - Choose **Next**	
4	In the **Tags** section, enter these values. - **Key**: application - **Value**: inventory Choose **Next**	

5	Choose **Submit**.	
6	**lab-application** stack successfully created.	

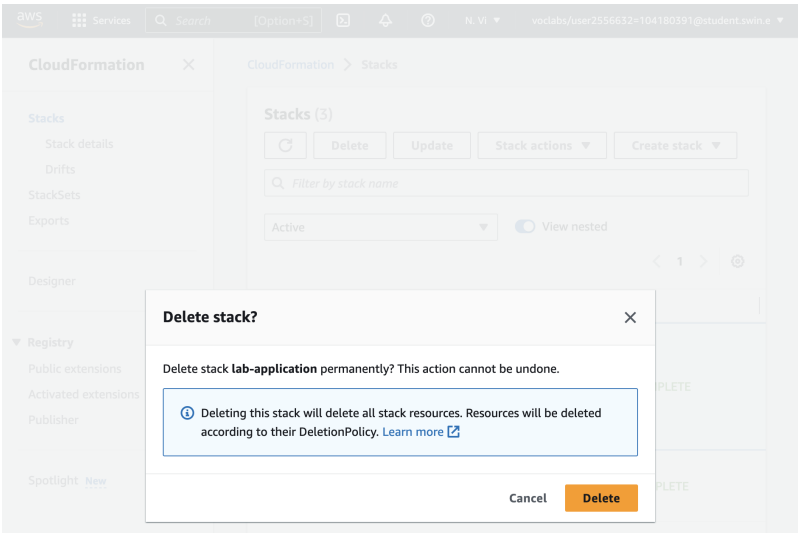
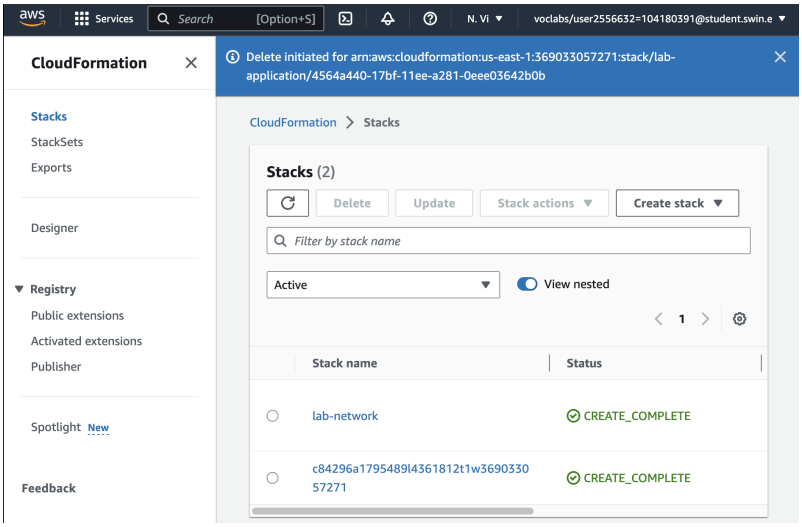
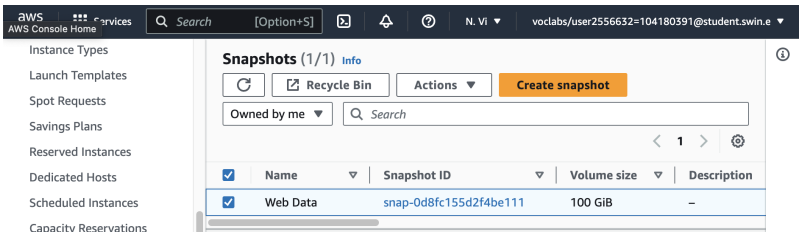
Task 3: Updating a Stack		
Step	**Description**	**Screenshot**
1	In the AWS Management Console, from the **Services** menu, choose **EC2**. In the left navigation pane, choose **Security Groups**. Choose the **Inbound rules** tab. Currently, only one rule is in the security group. The rule permits HTTP traffic.	

2	From the **Services** menu, choose **CloudFormation**. In the **Stacks list** of the AWS CloudFormation console, select **lab-application**. Choose **Update**.	
3	Configure these settings: - Select **Replace current template** - **Template source**: Upload a template file - Upload a template file: Click Choose **file** then select the **lab-application2.yaml** file that was downloaded.	

4	Choose **Next** in each of the next three screens to advance to the **Review lab-application** page. Choose **Update stack**	
5	In the **Stack info** tab, wait for the **Status** to change to **UPDATE_COMPLETE**	
6	In the **Security Groups** list, select **lab-application-WebServerSecurityGroup**. The **Inbound rules** tab should display an additional rule that allows SSH traffic over TCP port 22.	

Task 4: Exploring templates with AWS CloudFormation Designer		
Step	**Description**	**Screenshot**
1	In the AWS Management Console, from the **Services** menu, choose **EC2**. In the left navigation pane, choose **Security Groups**. Choose the **Inbound rules** tab. Currently, only one rule is in the security group. The rule permits HTTP traffic.	
2	From the **Services** menu, choose **CloudFormation**. In the left navigation pane, choose **Designer**. Choose the **File** menu, select **Open** > **Local file**, and select the **lab-application2.yaml** template that you downloaded previously.	

Task 5: Deleting the stack

Step	Description	Screenshot
1	Return to the main AWS CloudFormation console by choosing the **Close** link at the top of the **Designer** page (choose **Leave page** if prompted). In the list of stacks, choose the **lab-application** link. Choose **Delete** Choose **Delete stack**	
2	**lab-application** disappeared from the stacks list.	
3	From the **Services** menu, choose **EC2**. In the left navigation pane, choose **Snapshots**. A snapshot with a **Started** time in the last few minutes.	

4	Lab completed with all tasks done.