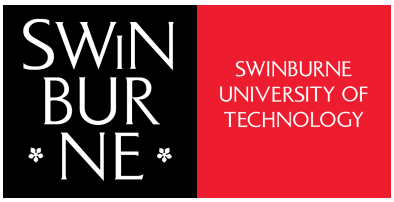

Module 13 Challenge Lab - Implementing a Serverless Architecture for the Cafe

July 11, 2023

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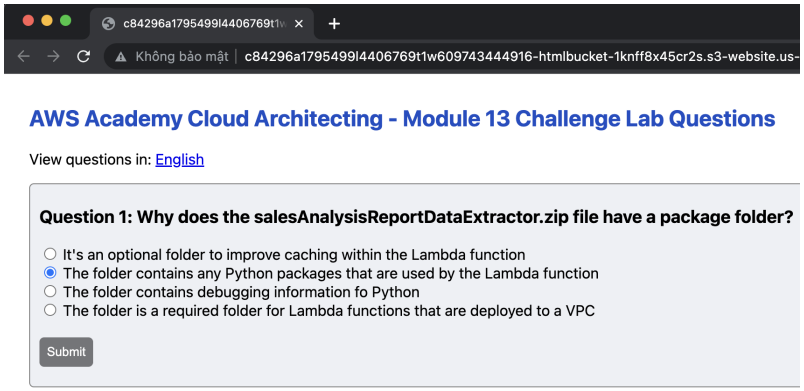
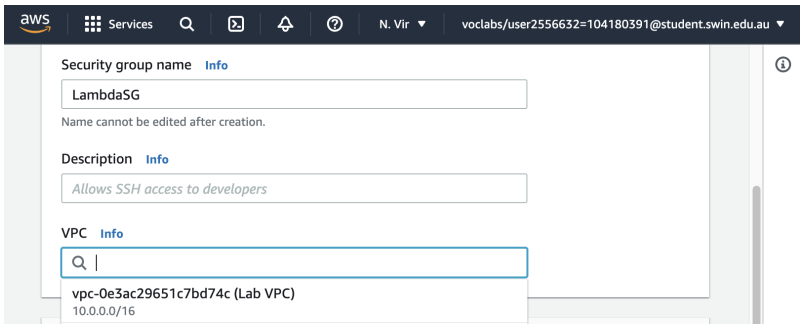
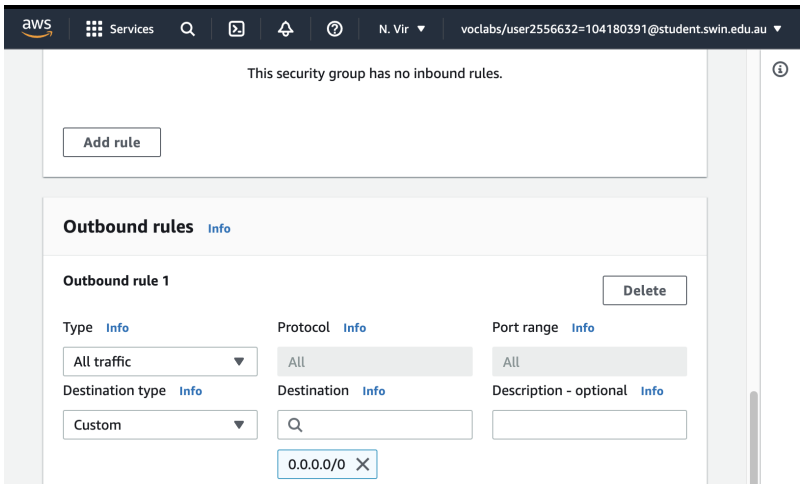
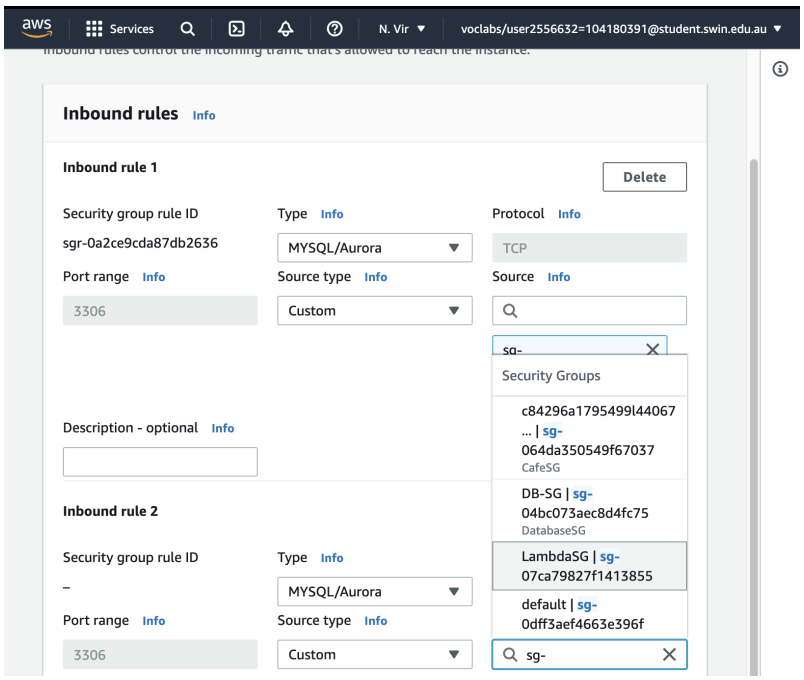
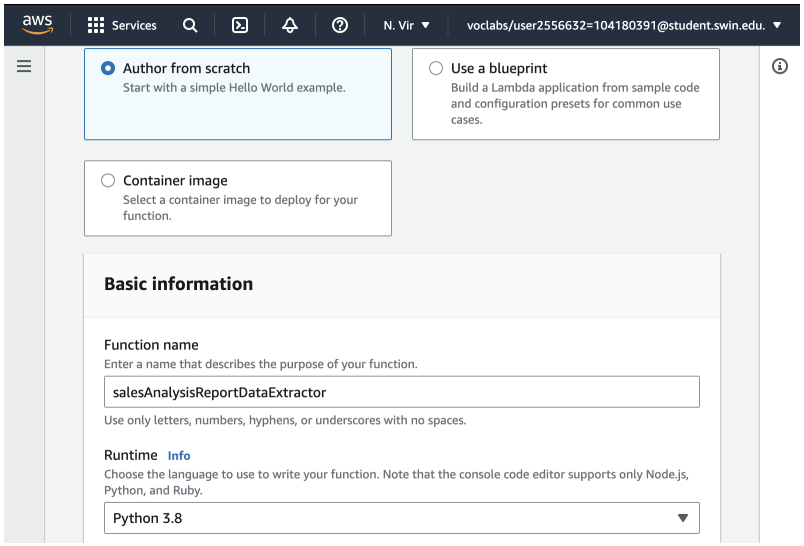
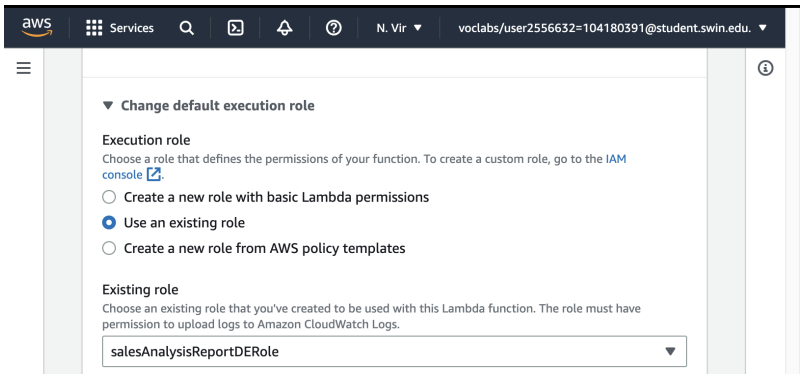
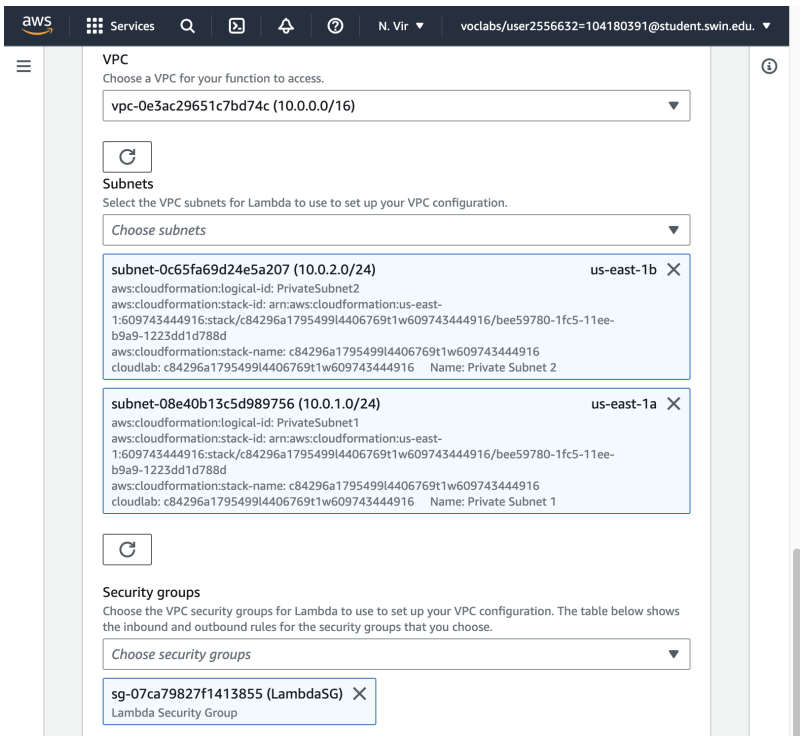
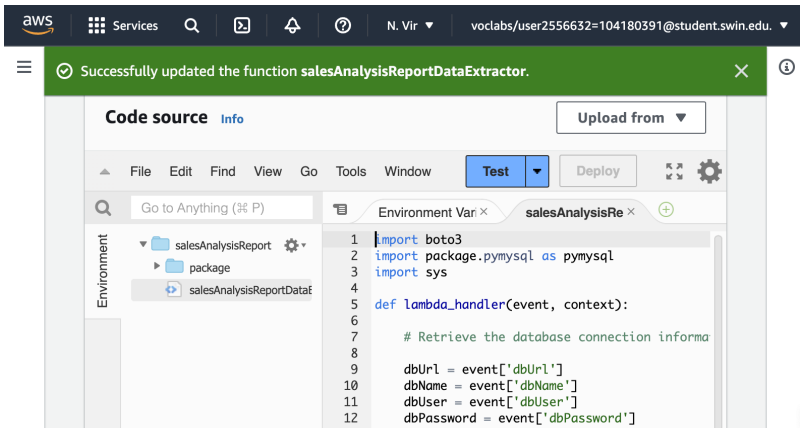
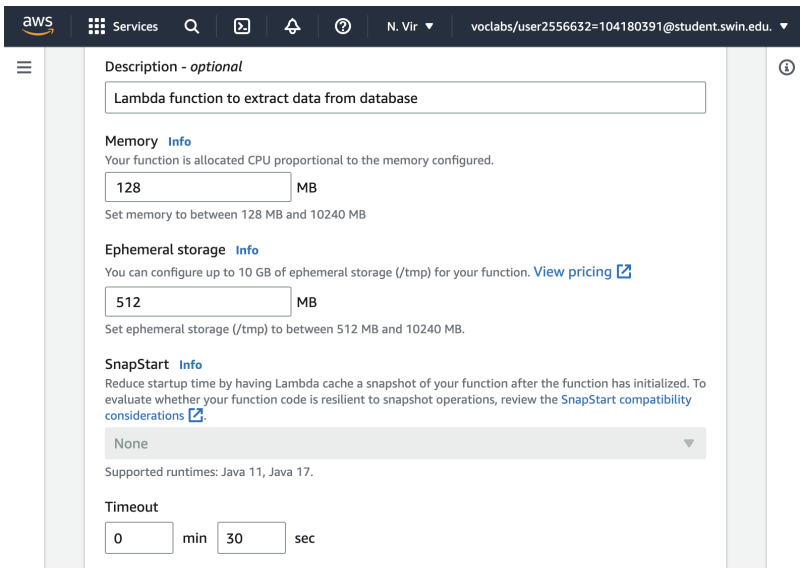
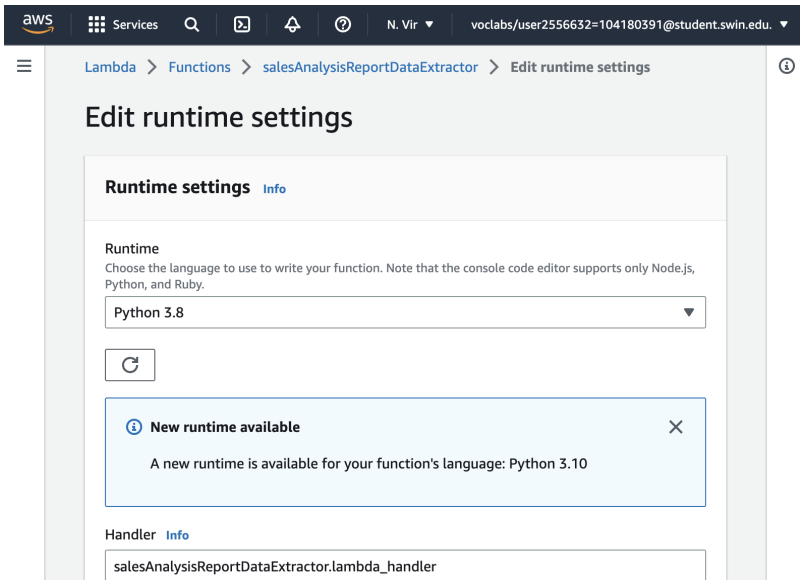
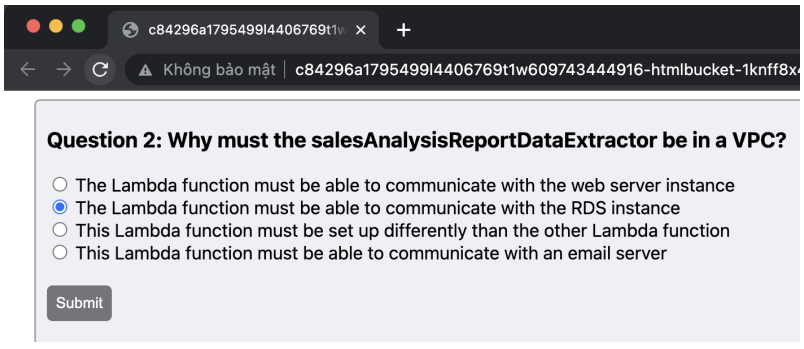
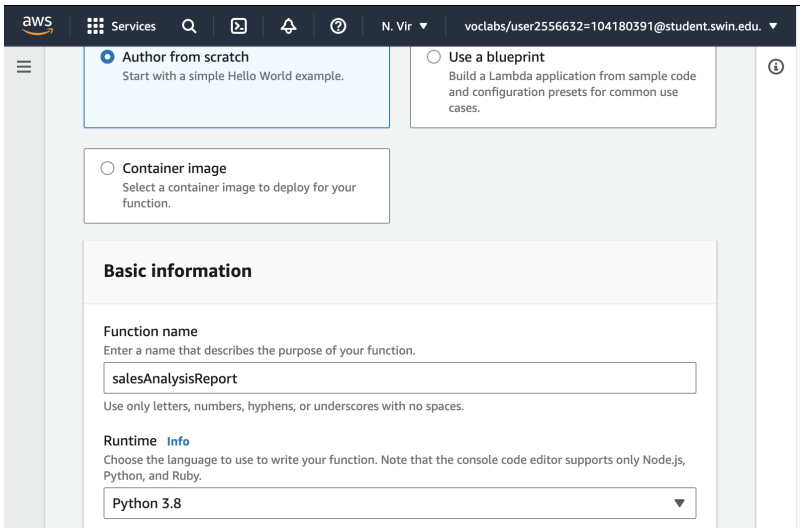
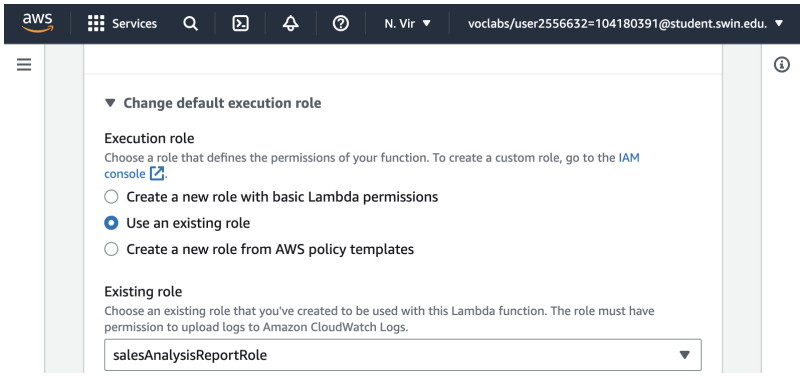
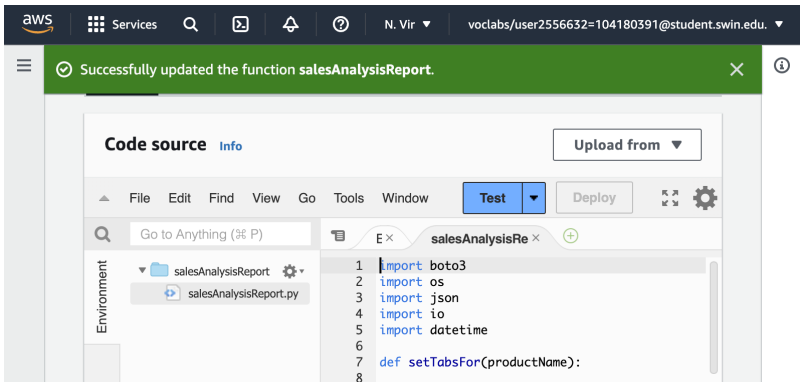
Task 1: Downloading the source code		
Step	**Description**	**Screenshot**
1	Question 1	

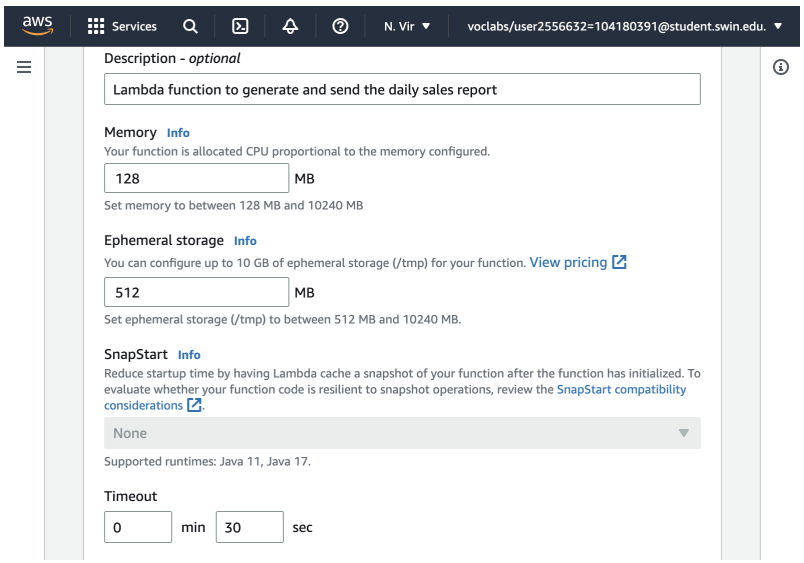
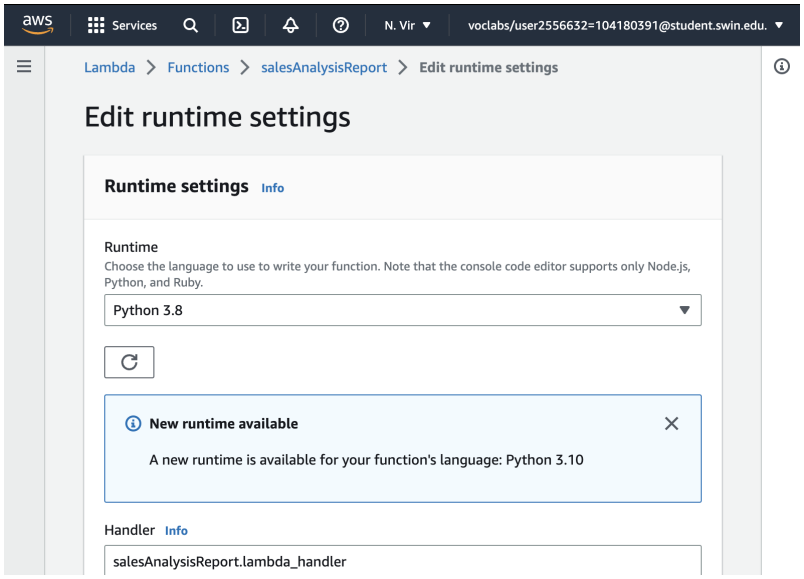
Task 2: Creating the DataExtractor Lambda function in the VPC		
Step	**Description**	**Screenshot**
1	Create a security group for the Lambda function with the following settings: - **Security group name**: LambdaSG - **VPC**: Lab VPC	
2	Outbound rules: All traffic to all addresses	

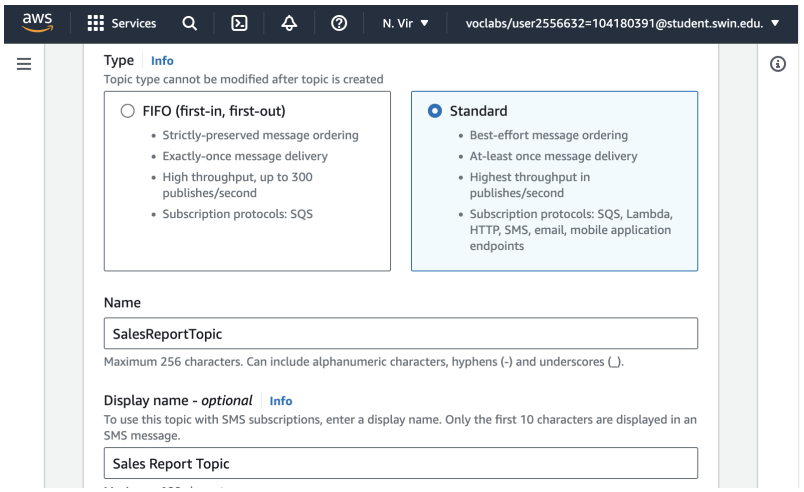
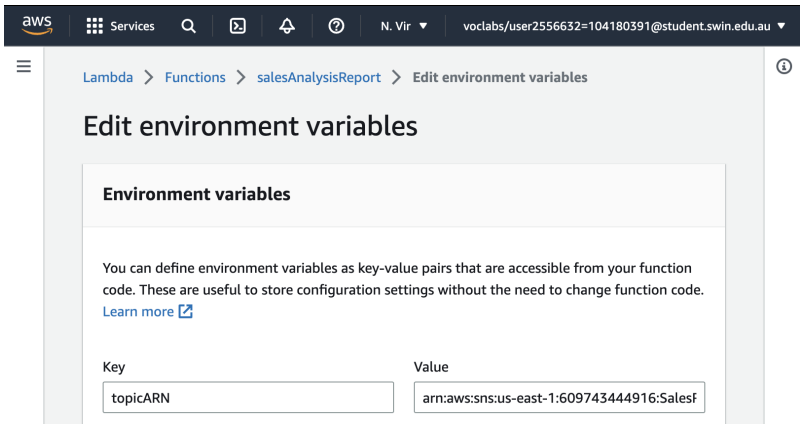
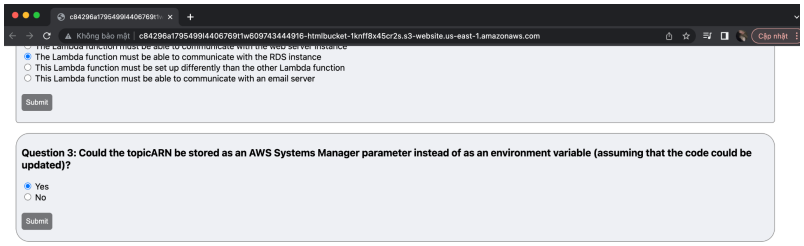
3	Update the **DatabaseSG** security group. Add a second inbound rule. For the new rule, configure the **Type** as **MYSQL/Aurora**. Then, in the search box to the right of **Custom**, type sg- and choose your new **Lambda function** security group as the source. Finally, choose **Save rules**.	
4	Create a Lambda function with the following settings: - **Function name**: salesAnalysisReportDataExtractor - **Runtime**: Python 3.8	
5	**Role**: salesAnalysisReportDERole	

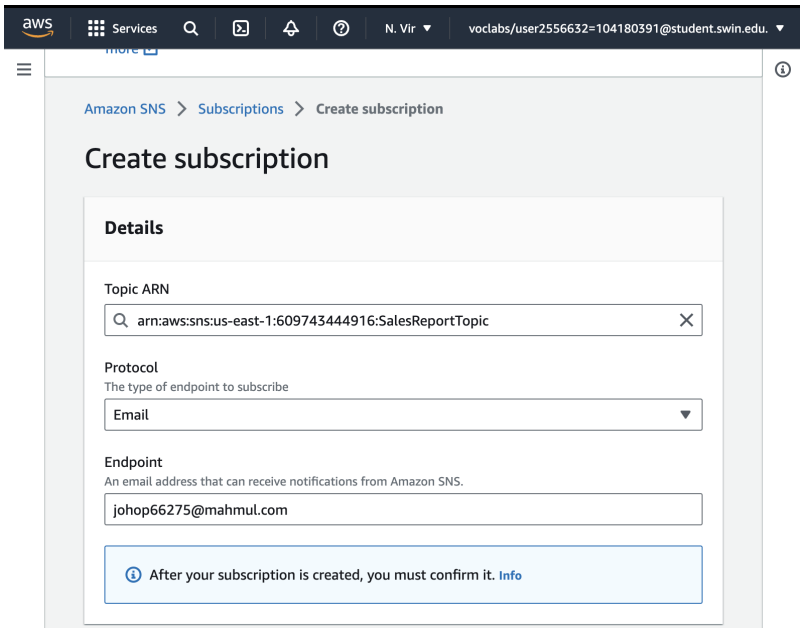
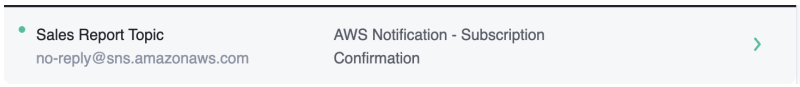
6	VPC: - **VPC**: Lab VPC - **Subnets**: Private subnet 1 and Private subnet 2 - **Security Group**: The Lambda function security group that you created	
7	Upload the **salesAnalysisReportDataExtractor.zip** file	

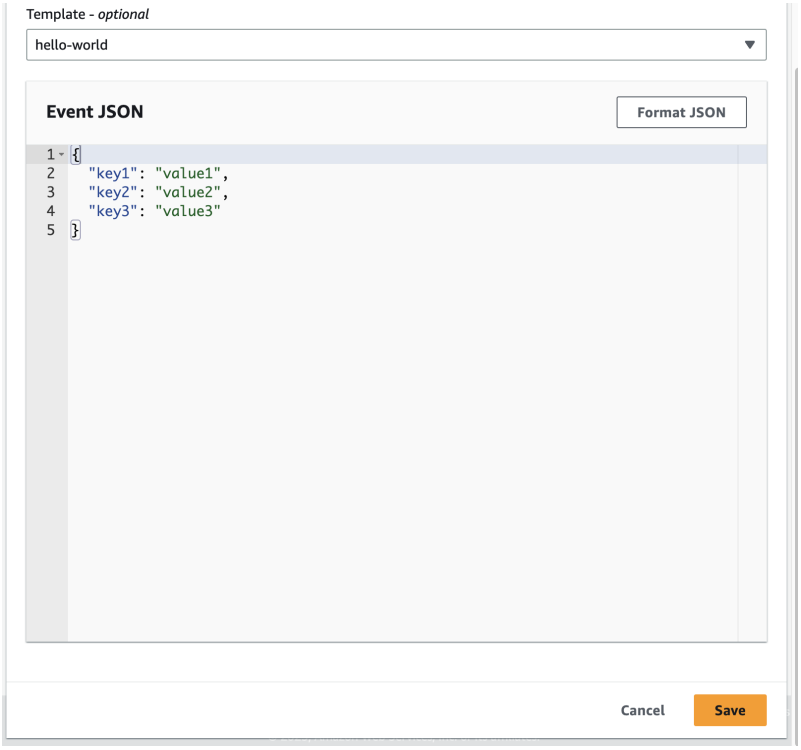
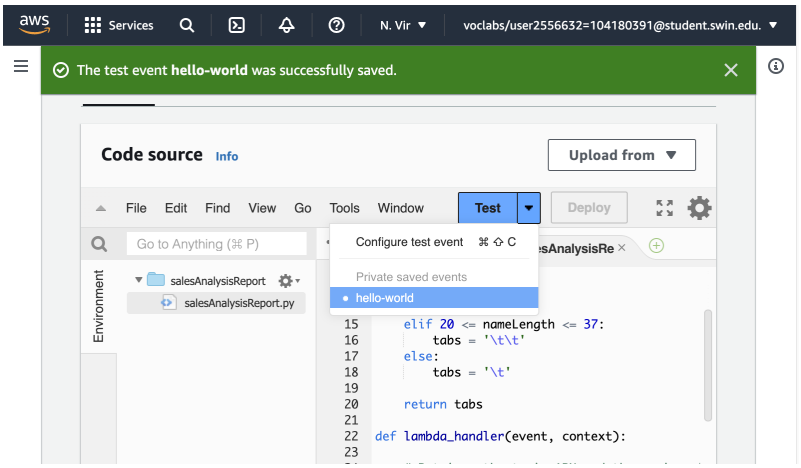
8	Configure the **DataExtractor** Lambda function as follows: - **Description**: Lambda function to extract data from database - **Memory Size**: 128 MB - **Timeout (seconds)**: 30	
10	**Handler**: salesAnalysisReportDataExtractor.lambda_handler	
11	Question 2	

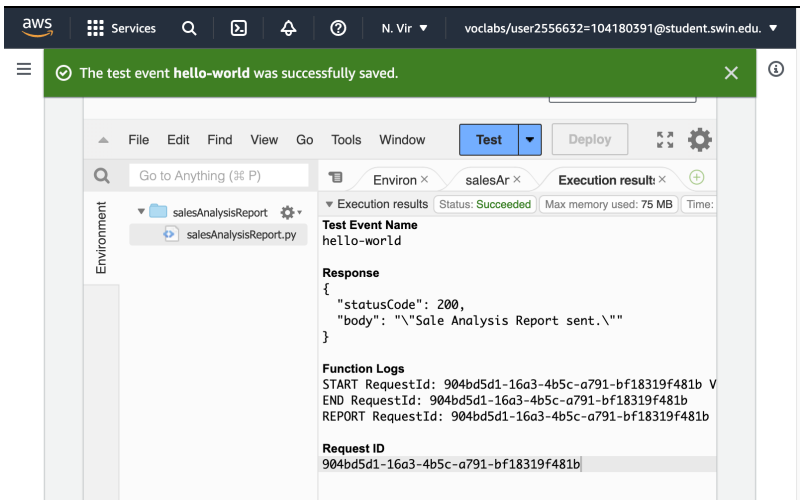
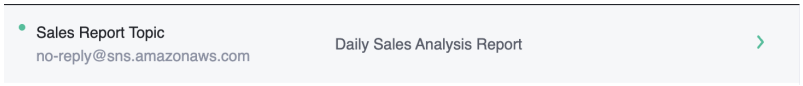
Task 3: Creating the salesAnalysisReport Lambda function		
Step	**Description**	**Screenshot**
1	Create a second Lambda function with the following settings: - **Function name**: salesAnalysisReport - **Runtime**: Python 3.8	
2	**Role**: salesAnalysisReportRole	
3	Upload the **salesAnalysisReport.zip** file	

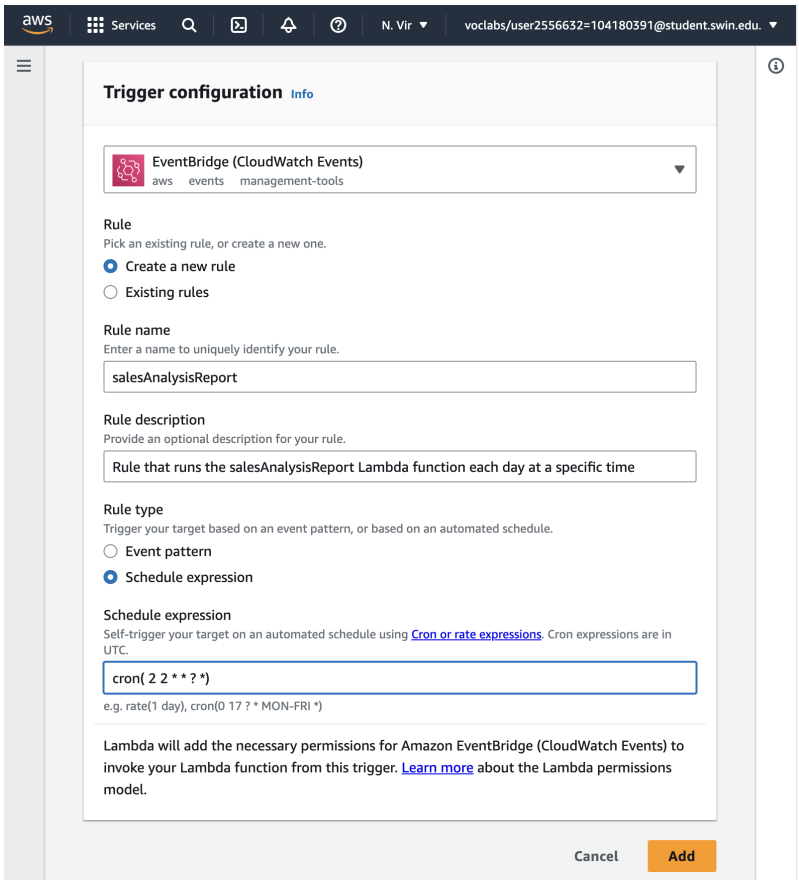
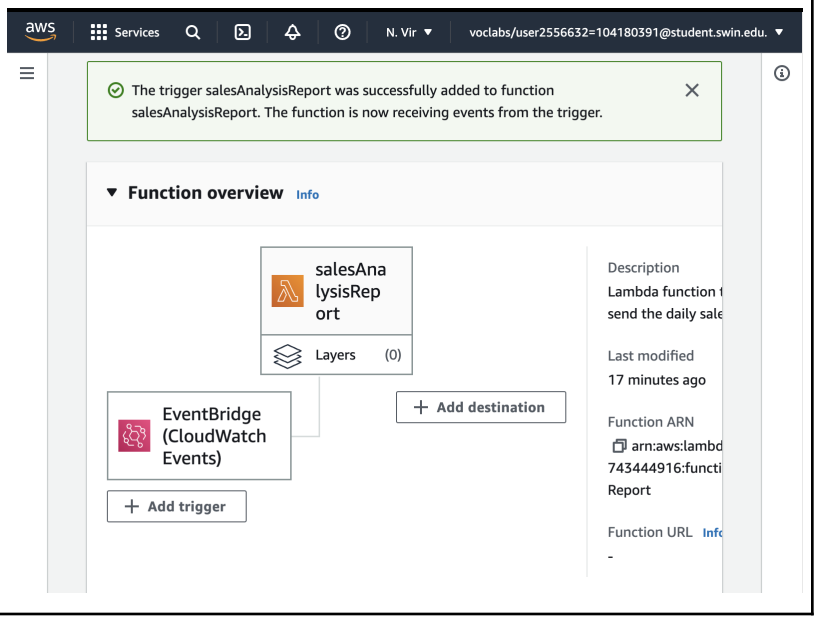
4	Configure the **salesAnalysisReport** Lambda function as follows: - **Description**: Lambda function to generate and send the daily sales report - **Memory Size**: 128 MB - **Timeout (seconds)**: 30	
5	**Handler**: salesAnalysisReport.lambda_handler	

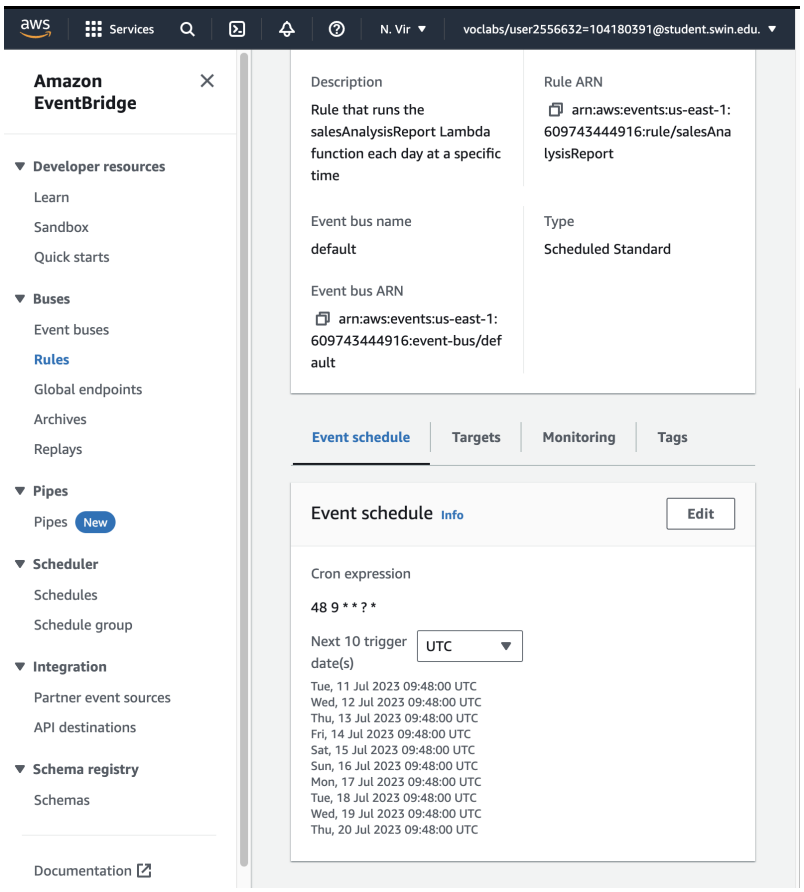
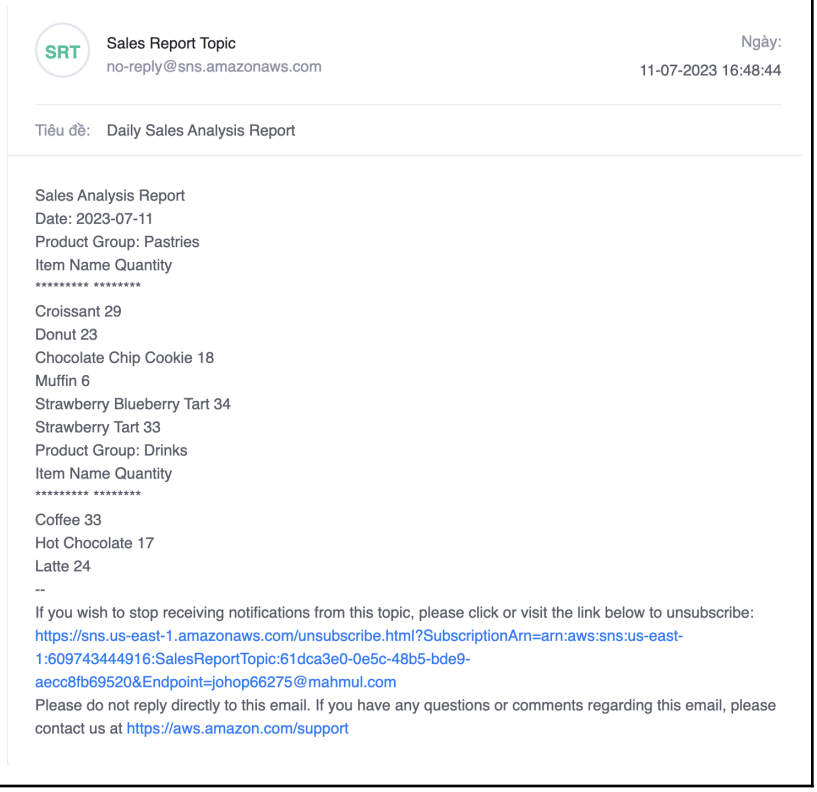
Task 4: Creating an SNS topic		
Step	**Description**	**Screenshot**
1	Create a standard SNS topic with the following configuration: - **Name**: SalesReportTopic - **Display Name**: Sales Report Topic	
2	Update the **salesAnalysisReport** Lambda function by adding the following environment variable: - **Variable Name**: topicARN - **Variable Value**: The ARN of the topic you just created	
3	Question 3	

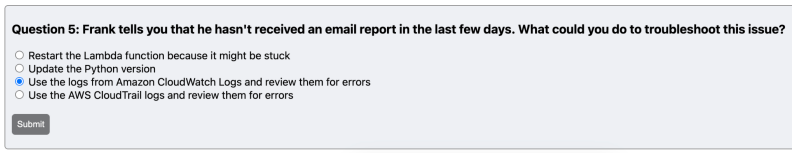
Task 5: Creating an email subscription to the SNS topic		
Step	**Description**	**Screenshot**
1	Create an email subscription to the SNS topic	
2	Confirmation email	
3	Question 4	

Task 6: Testing the salesAnalysisReport Lambda function		
Step	**Description**	**Screenshot**
1	Create a test for the salesAnalysisReport Lambda function.	
2	Run test	

3	Test succeeded	
4	Sales report email	

Task 7: Setting up an Amazon EventBridge event to trigger the Lambda function each day		
Step	**Description**	**Screenshot**
1	Create a test for the salesAnalysisReport Lambda function.	
2	Trigger created	

3	Schedule that I updated again to match with current UTC time.	
4	Email sent at 09:48 UTC (16:48 ITC)	

5	Question 5	
6	All task completed with maximum grade