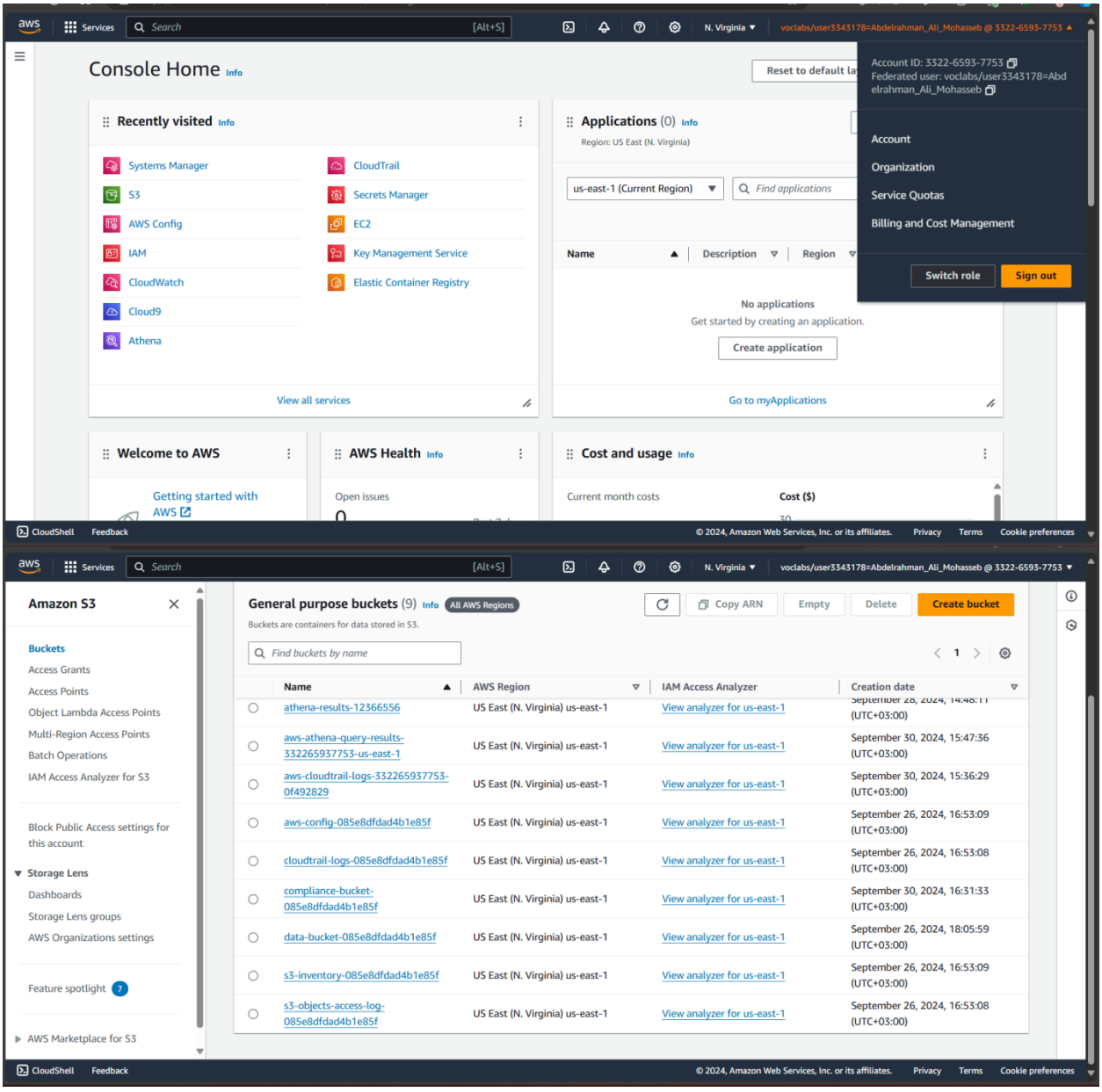
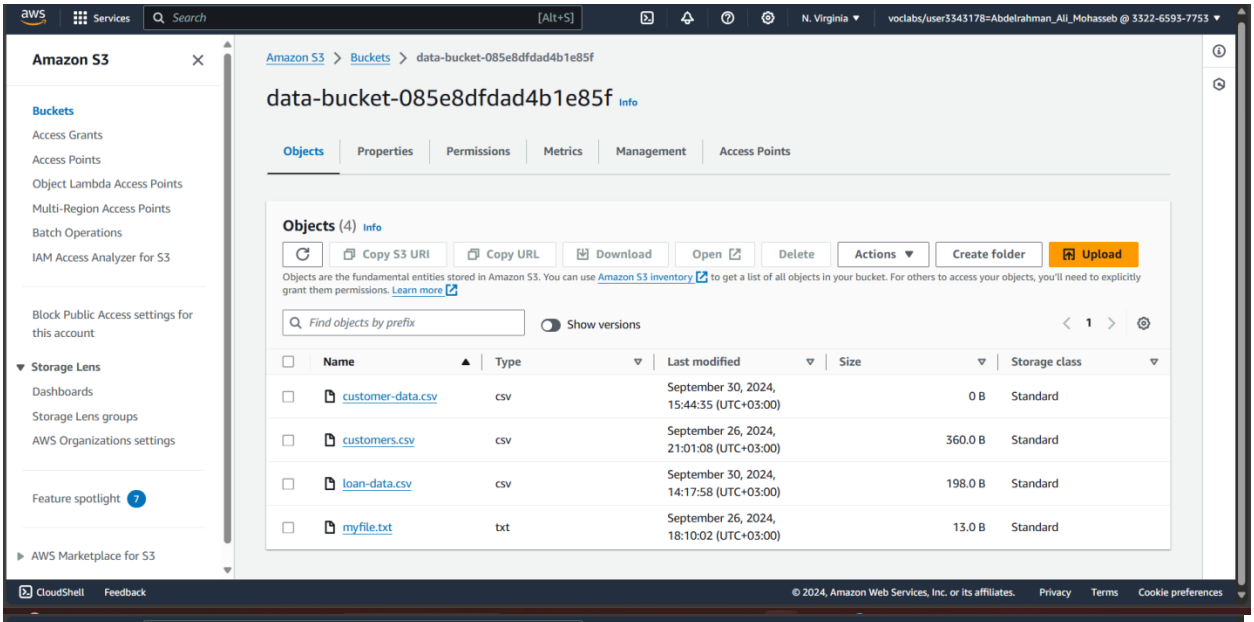
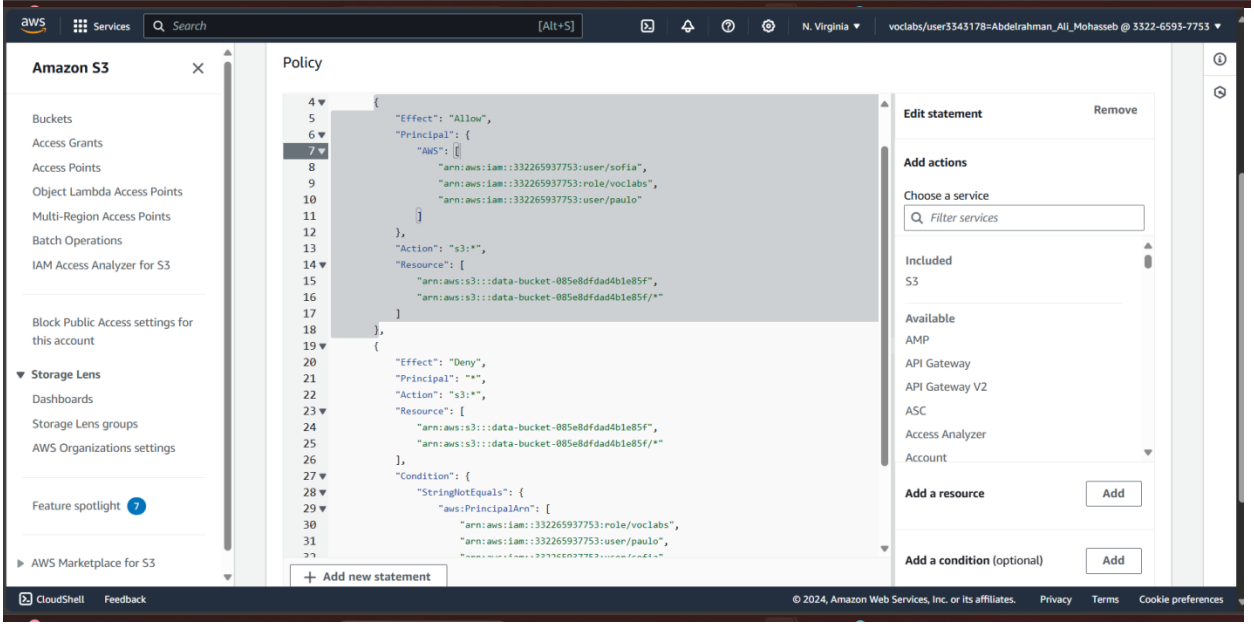
Report 2

Phase 1: Securing data in Amazon S3

Task 1.1: Create a bucket, apply a bucket policy, and test access




aws
Services
Search
[Alt+S]
N. Virginia
voclabs/user3343178=Abdelrahman_Ali_Mohasseb @ 3322-6593-7753
Amazon S3
Buckets
Access Grants
Access Points
Object Lambda Access Points
Multi-Region Access Points
Batch Operations
IAM Access Analyzer for S3
Block Public Access settings for this account
Storage Lens
Dashboards
Storage Lens groups
AWS Organizations settings
Feature spotlight
AWS Marketplace for S3
Amazon S3 > Buckets > data-bucket-085e8dfdad4b1e85f
data-bucket-085e8dfdad4b1e85f Info
Objects
Properties
Permissions
Metrics
Management
Access Points
Objects (4) Info
Copy S3 URI
Copy URL
Download
Open
Delete
Actions
Create folder
Upload
Objects are the fundamental entities stored in Amazon S3. You can use Amazon S3 inventory to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. Learn more
Find objects by prefix
Show versions
Name
Type
Last modified
Size
Storage class
customer-data.csv
csv
September 30, 2024, 15:44:35 (UTC+03:00)
0 B
Standard
customers.csv
csv
September 26, 2024, 21:01:08 (UTC+03:00)
360.0 B
Standard
loan-data.csv
csv
September 30, 2024, 14:17:58 (UTC+03:00)
198.0 B
Standard
myfile.txt
txt
September 26, 2024, 18:10:02 (UTC+03:00)
13.0 B
Standard
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


aws
Services
Search
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N. Virginia
voclabs/user3343178=Abdelrahman_Ali_Mohasseb @ 3322-6593-7753
Amazon S3
Buckets
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Multi-Region Access Points
Batch Operations
IAM Access Analyzer for S3
Block Public Access settings for this account
Storage Lens
Dashboards
Storage Lens groups
AWS Organizations settings
Feature spotlight
AWS Marketplace for S3
Policy
{
"Effect": "Allow",
"Principal": {
"AWS": [
"arn:aws:iam::332265937753:user/sofia",
"arn:aws:iam::332265937753:role/voclabs",
"arn:aws:iam::332265937753:user/paulo"
]
},
"Action": "s3:*",
"Resource": [
"arn:aws:s3:::data-bucket-085e8dfdad4b1e85f",
"arn:aws:s3:::data-bucket-085e8dfdad4b1e85f/*"
]
},
{
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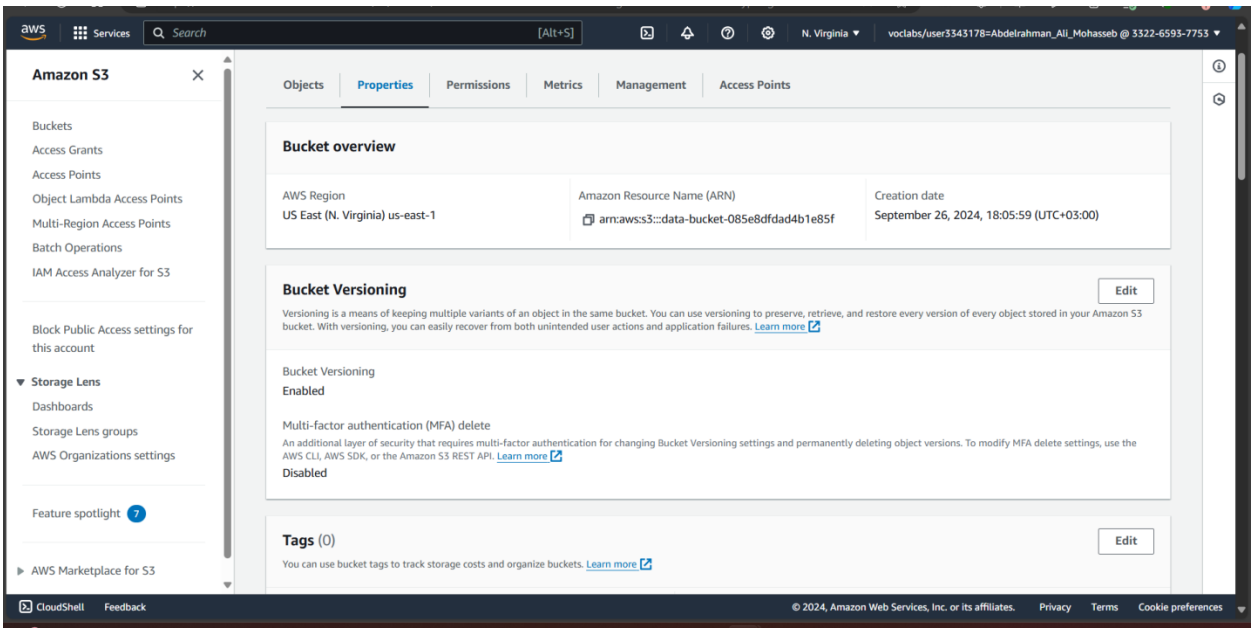
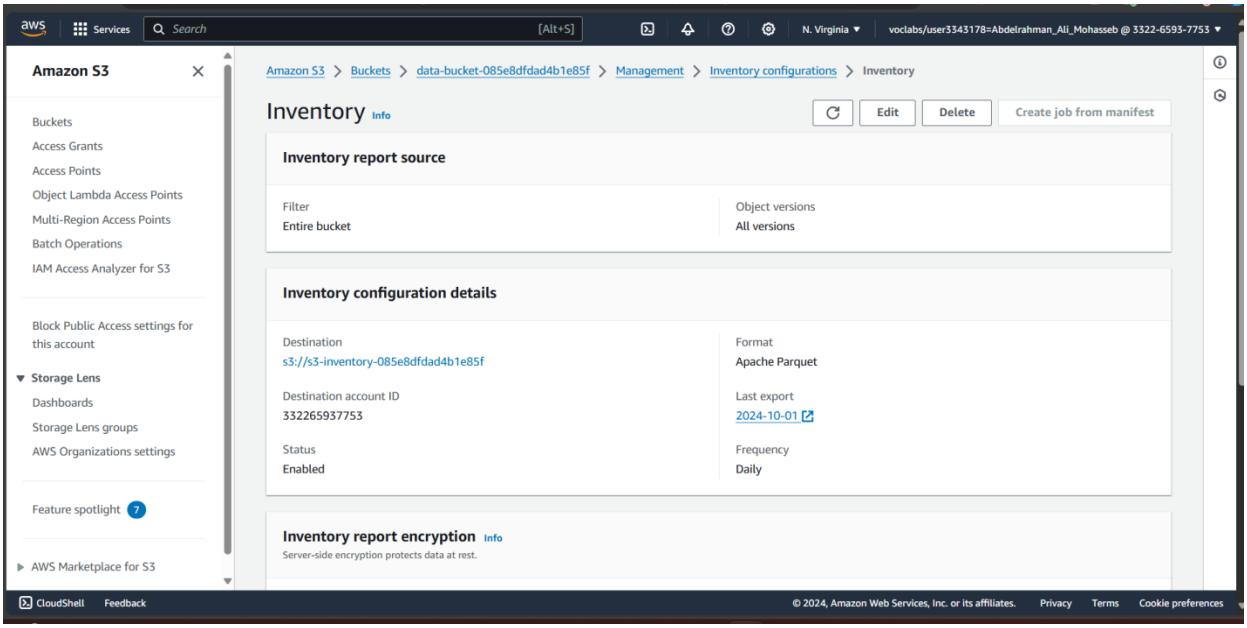
"Principal": "*",
"Action": "s3:*",
"Resource": [
"arn:aws:s3:::data-bucket-085e8dfdad4b1e85f",
"arn:aws:s3:::data-bucket-085e8dfdad4b1e85f/*"
],
"Condition": {
"StringNotEquals": {
"aws:PrincipalArn": [
"arn:aws:iam::332265937753:role/voclabs",
"arn:aws:iam::332265937753:user/paulo",
Add new statement
Edit statement
Remove
Add actions
Choose a service
Filter services
Included
S3
Available
AMP
API Gateway
API Gateway V2
ASC
Access Analyzer
Account
Add a resource
Add
Add a condition (optional)
Add
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

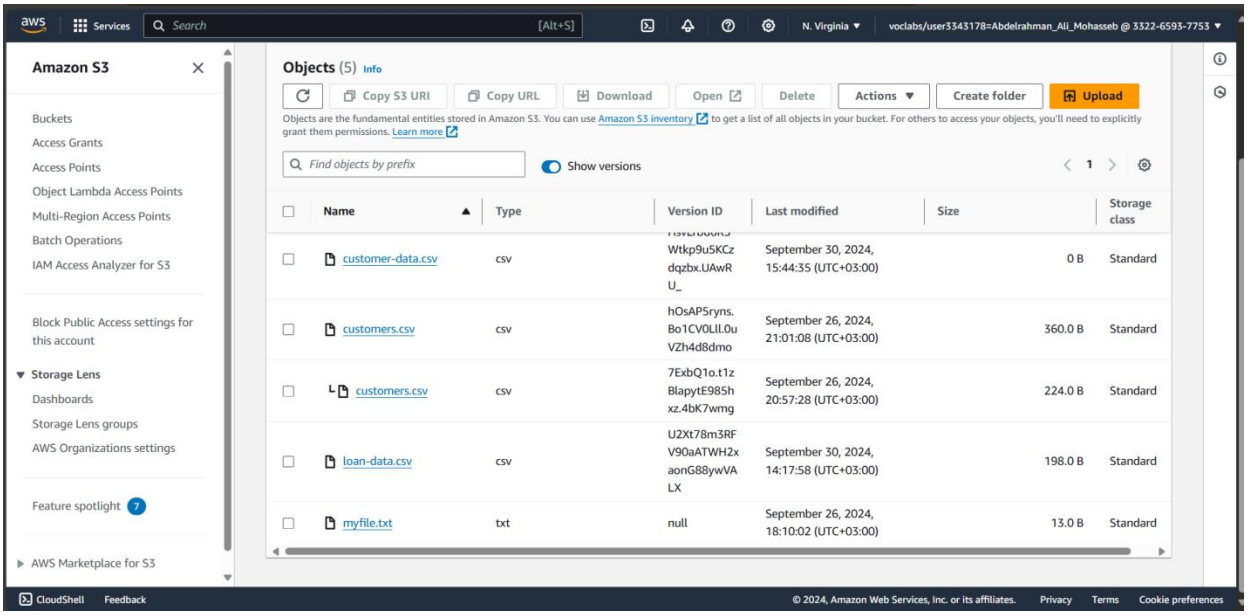
Task 1.2: Enable versioning and object-level logging on a bucket



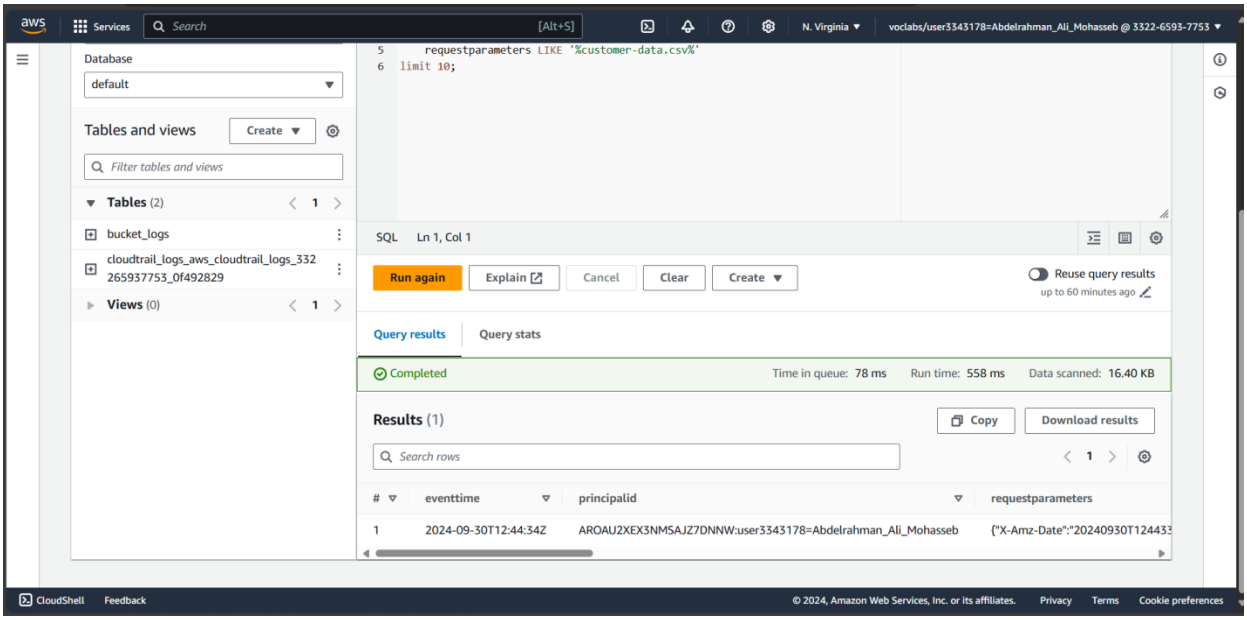
Task 1.3: Implement the S3 Inventory feature on a bucket



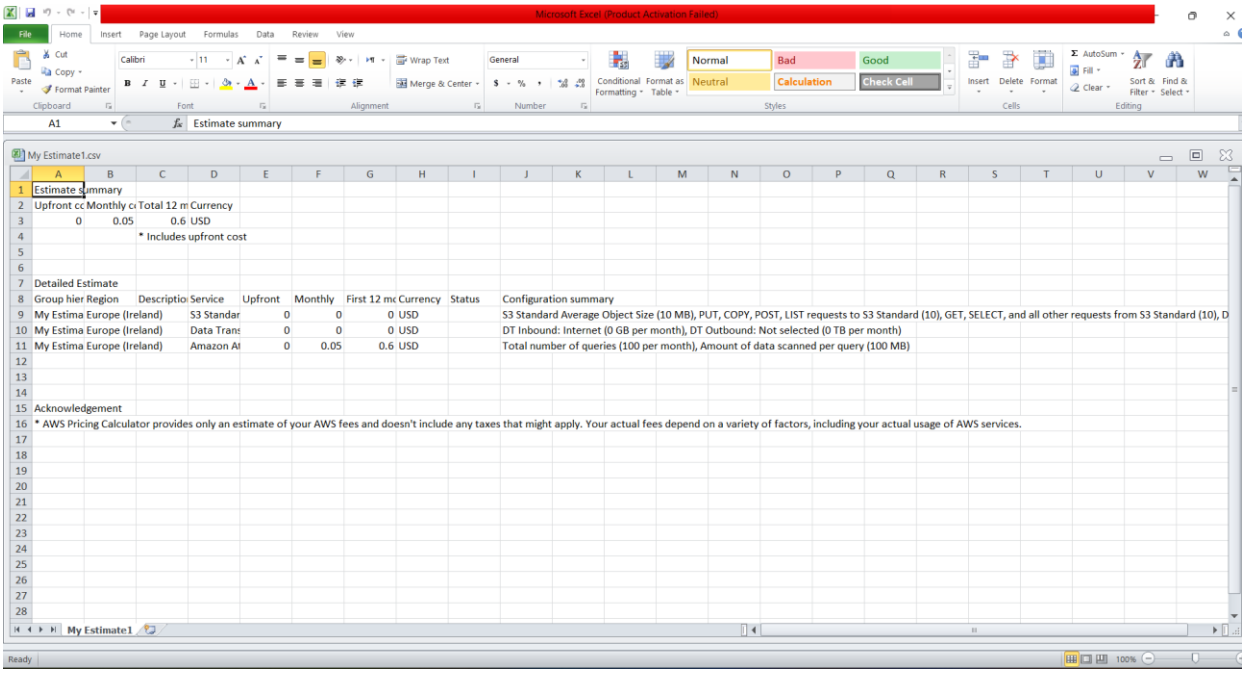
Task 1.4: Confirm that versioning works as intended



Task 1.5: Confirm object-level logging and query the access logs by using Athena

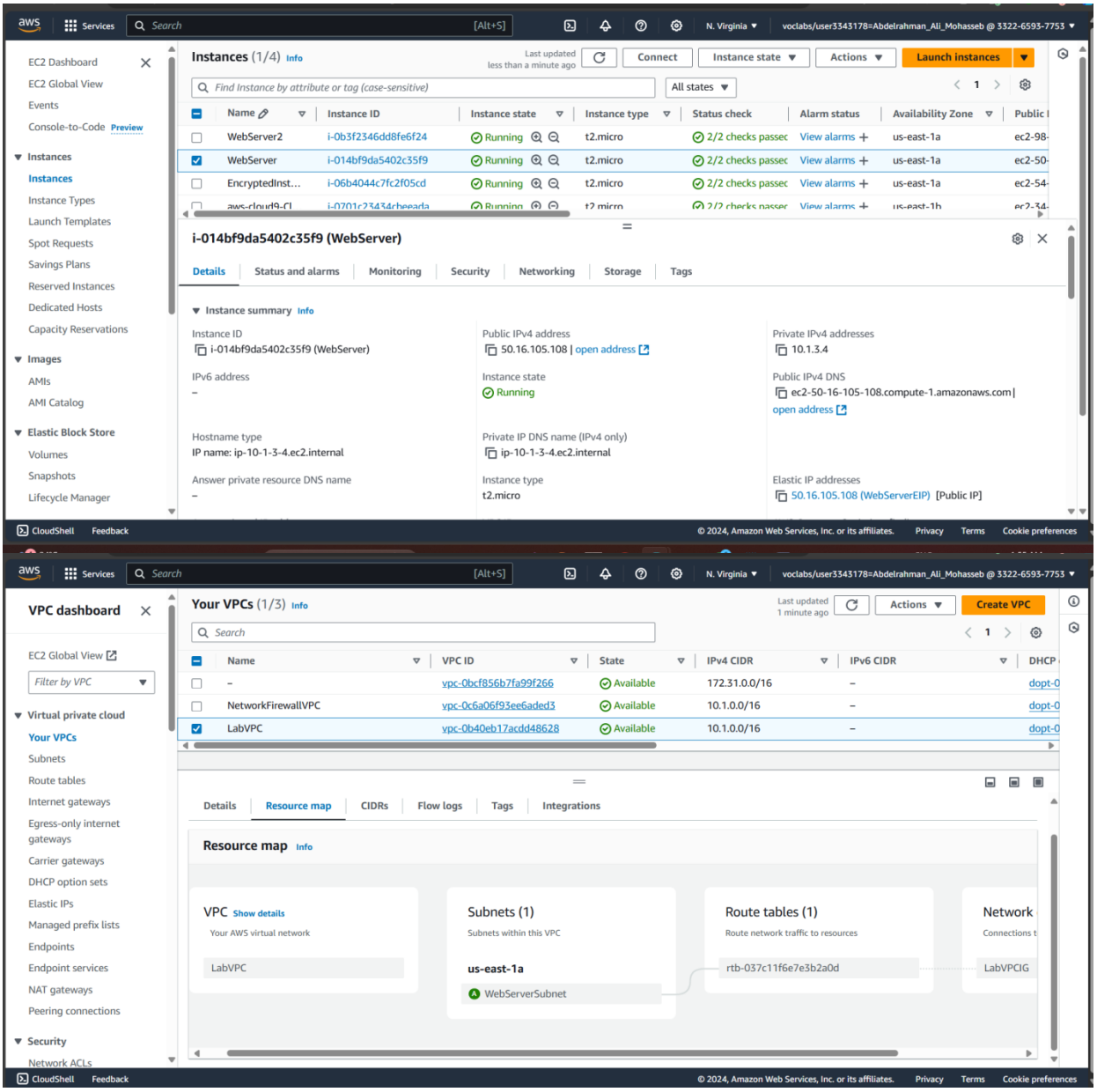


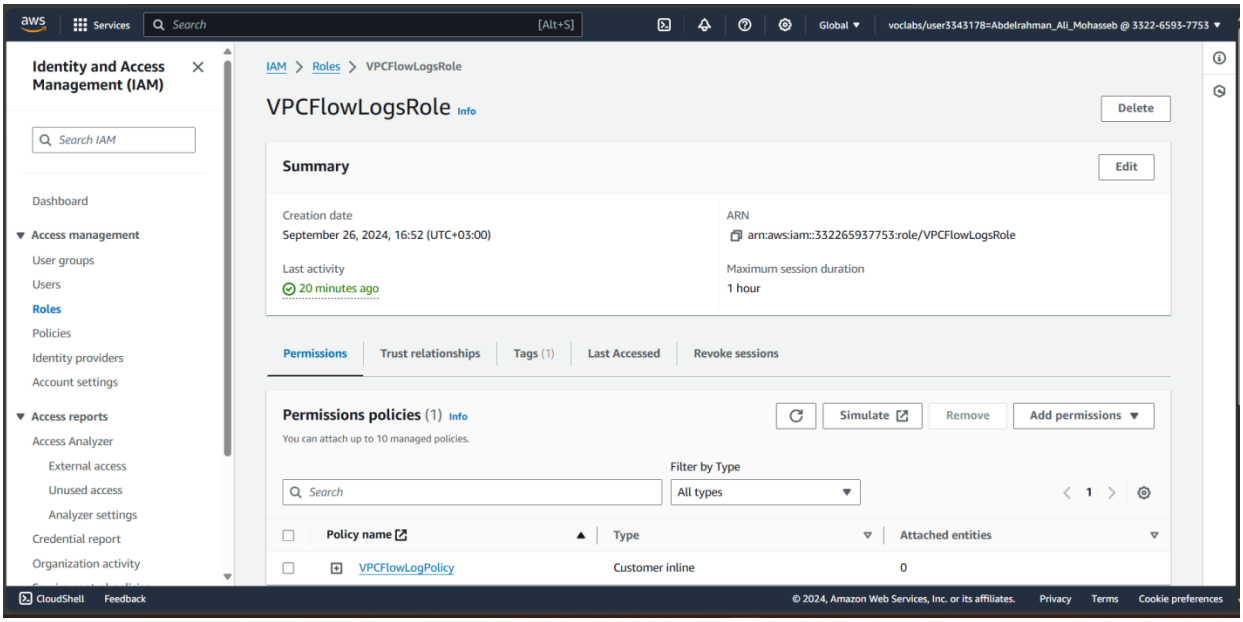
Cost assessment to secure Amazon S3



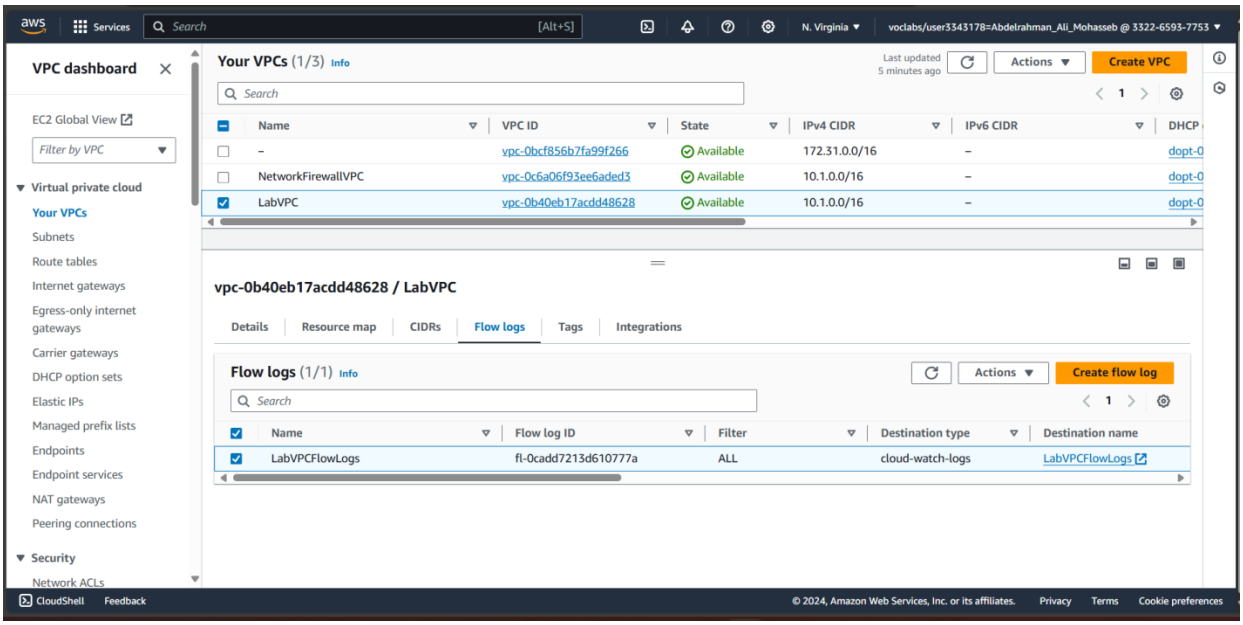
Phase 2: Securing VPCs

Task 2.1: Review LabVPC and its associated resources

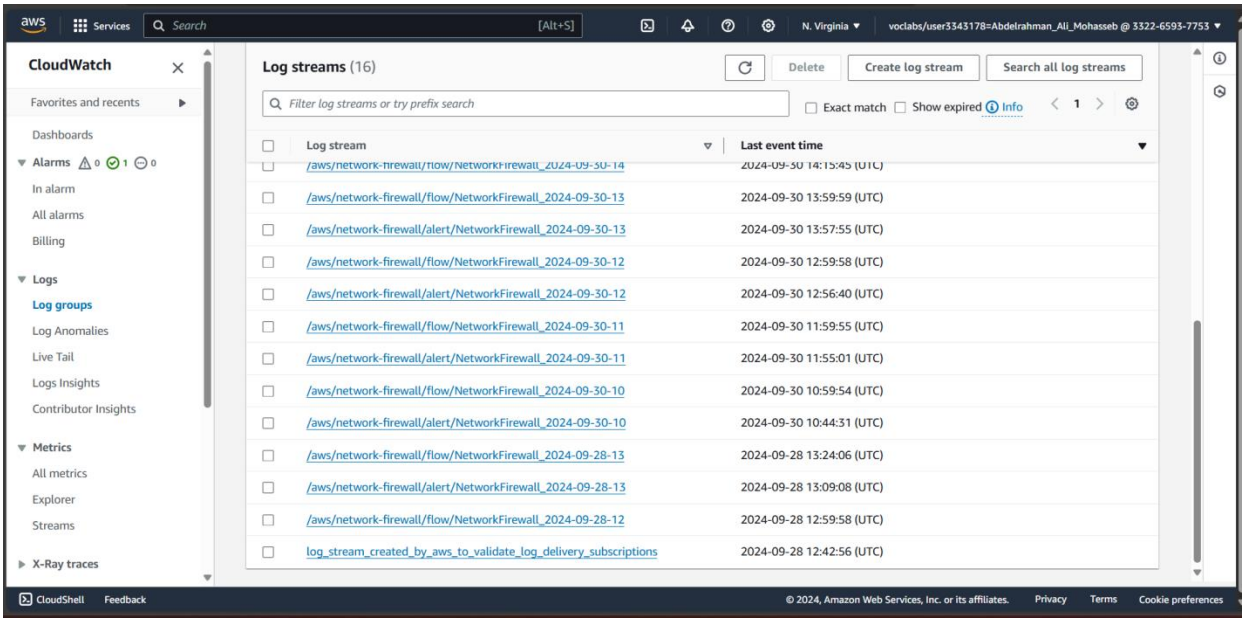




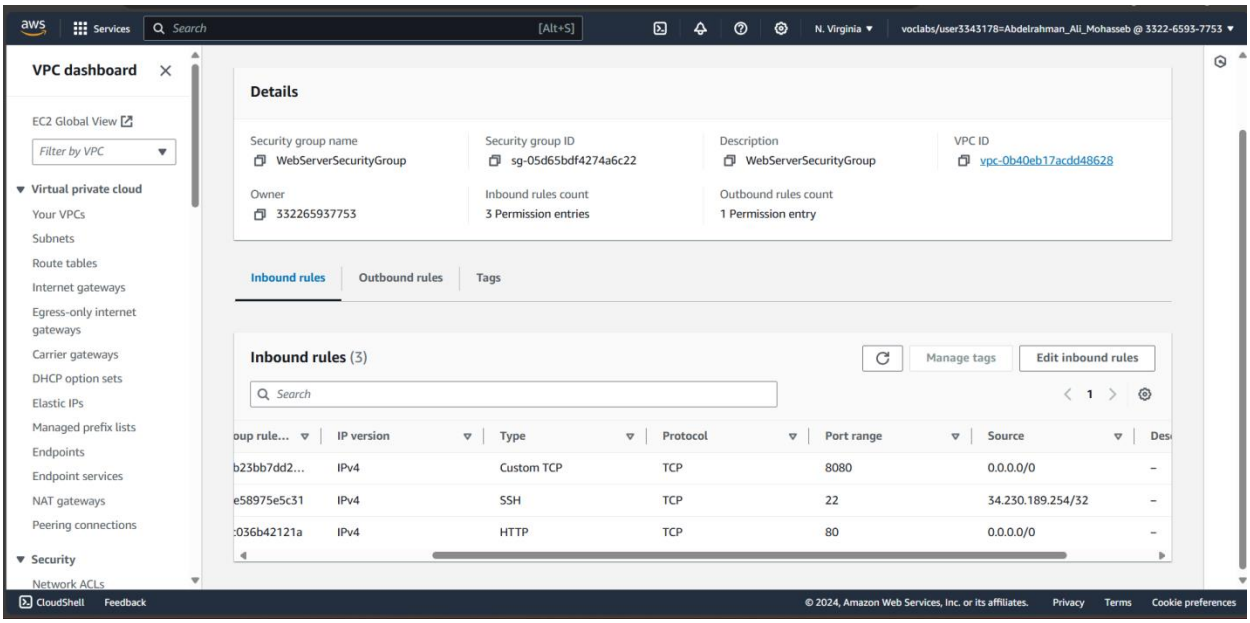
Task 2.2: Create a VPC flow log



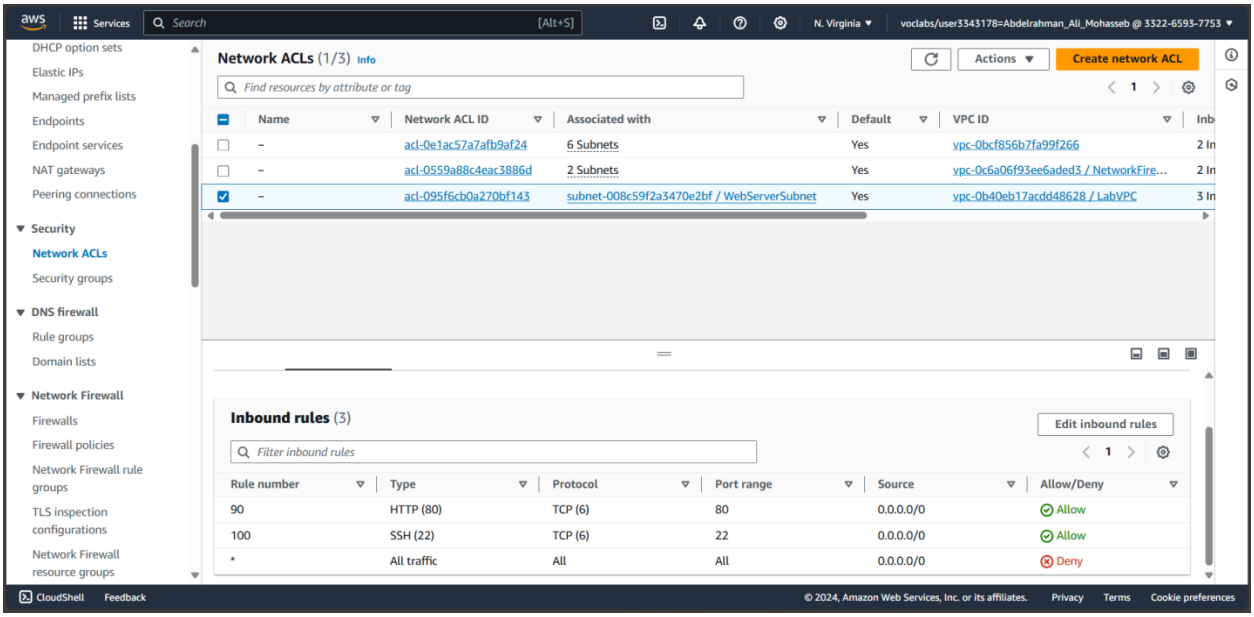
Task 2.3: Access the WebServer instance from the internet and review VPC flow logs in CloudWatch



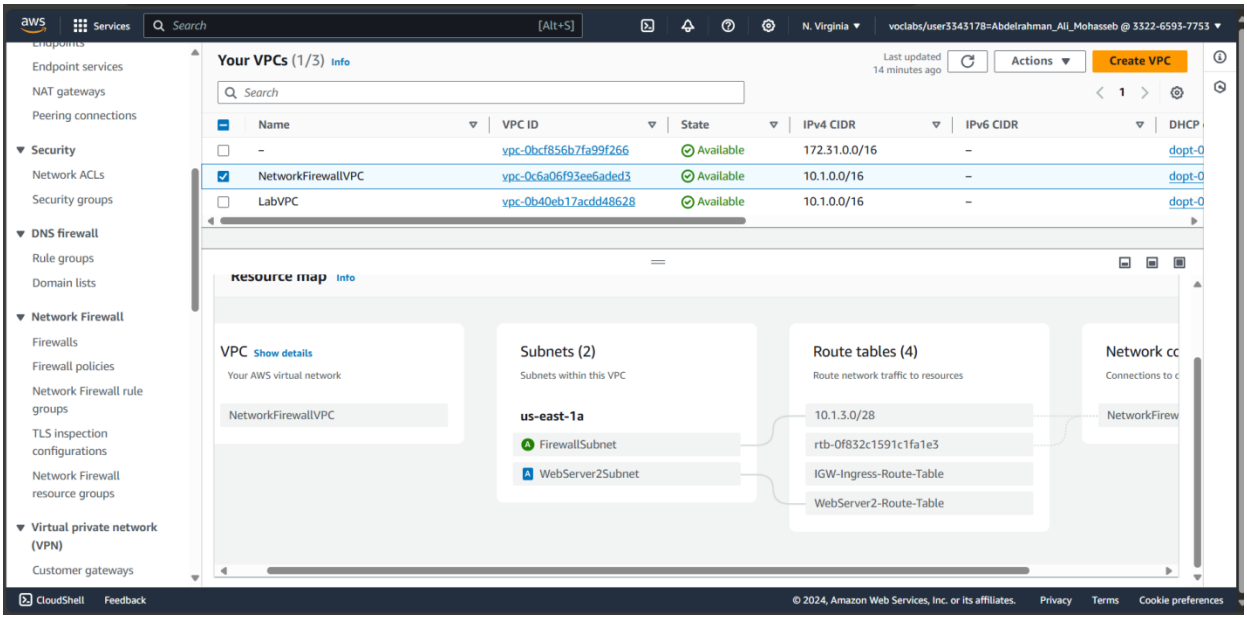
Task 2.4: Configure route table and security group settings



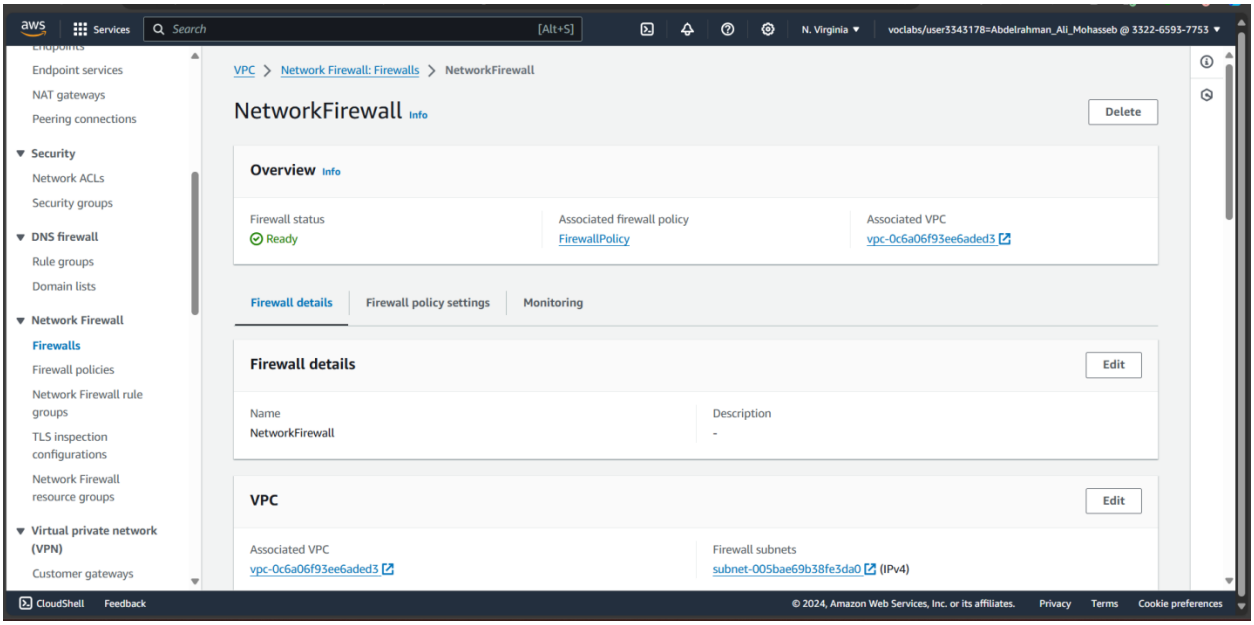
Task 2.5: Secure the WebServerSubnet with a network ACL



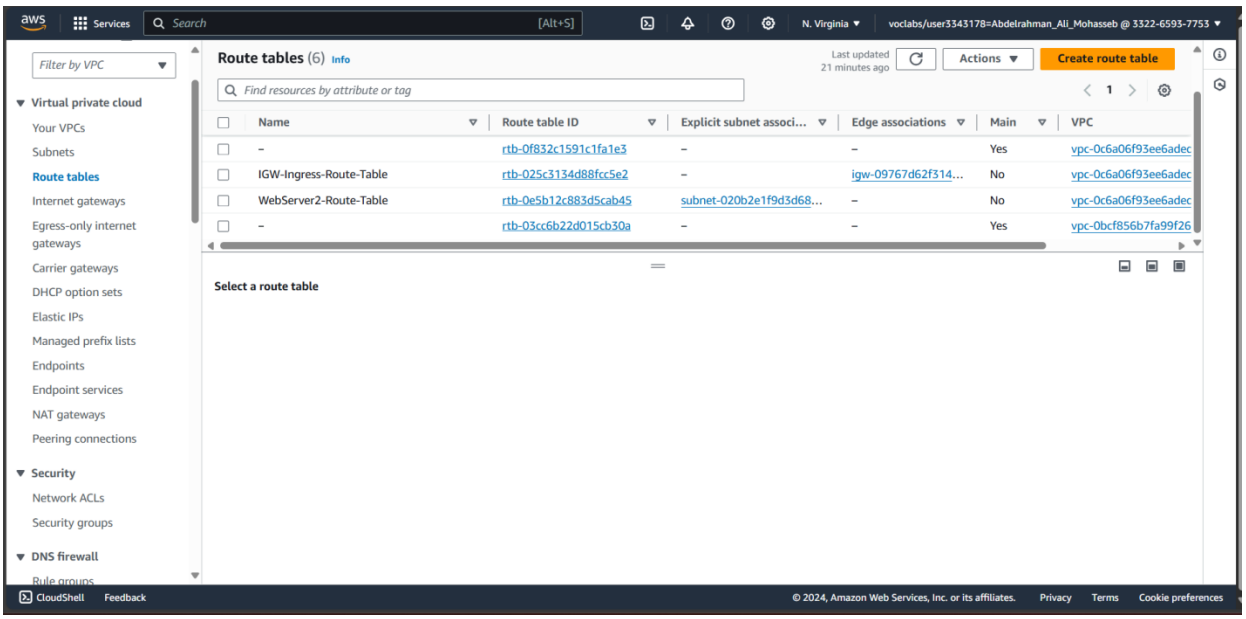
Task 2.6: Review NetworkFirewallVPC and its associated resources



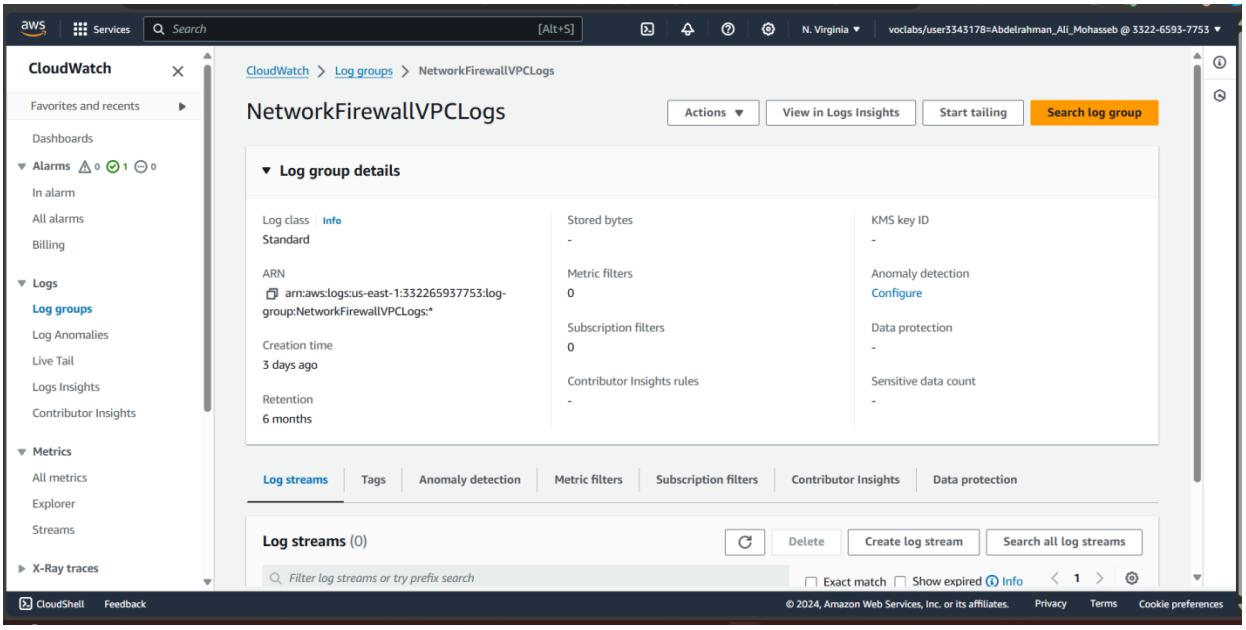
Task 2.7: Create a network firewall



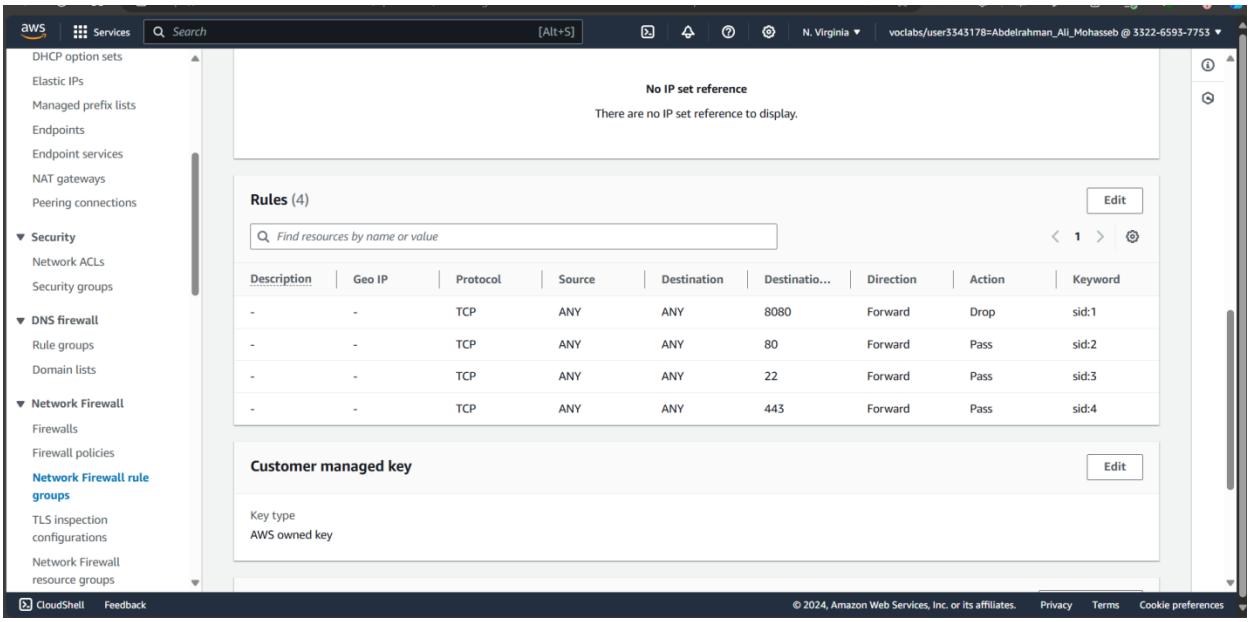
Task 2.8: Create route tables



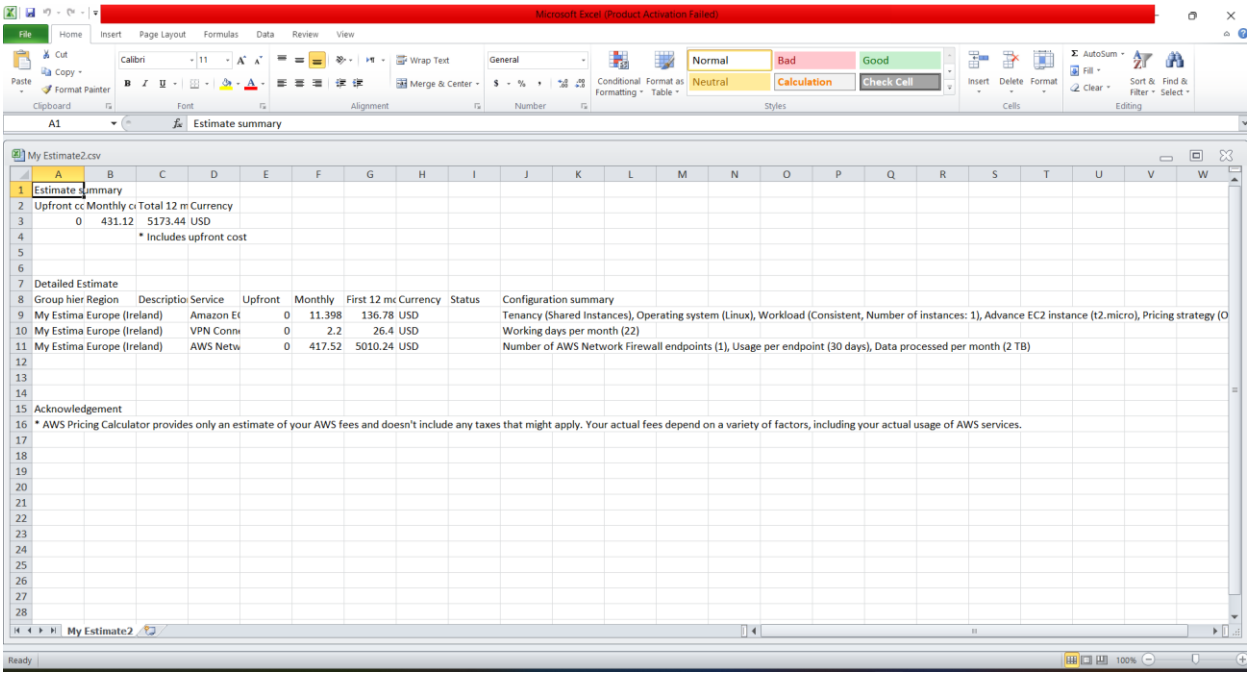
Task 2.9: Configure logging for the network firewall



Task 2.10: Configure the firewall policy and test access



Cost estimate to secure a VPC with a network firewall



Microsoft Excel (Product Activation Failed)

My Estimate2.csv

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	Estimate summary																						
2	Upfront cc	Monthly cc	Total 12 m	Currency																			
3	0	431.12	5173.44	USD																			
4			* Includes upfront cost																				
5																							
6																							
7	Detailed Estimate																						
8	Group hier	Region	Descriptio	Service	Upfront	Monthly	First 12 mc	Currency	Status	Configuration summary													
9	My Estima	Europe (Ireland)		Amazon EC	0	11.398	136.78	USD		Tenancy (Shared Instances), Operating system (Linux), Workload (Consistent, Number of instances: 1), Advance EC2 instance (t2.micro), Pricing strategy (O													
10	My Estima	Europe (Ireland)		VPN Conne	0	2.2	26.4	USD		Working days per month (22)													
11	My Estima	Europe (Ireland)		AWS Netw	0	417.52	5010.24	USD		Number of AWS Network Firewall endpoints (1), Usage per endpoint (30 days), Data processed per month (2 TB)													
12																							
13																							
14																							
15	Acknowledgement																						
16	* AWS Pricing Calculator provides only an estimate of your AWS fees and doesn't include any taxes that might apply. Your actual fees depend on a variety of factors, including your actual usage of AWS services.																						
17																							
18																							
19																							
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21																							
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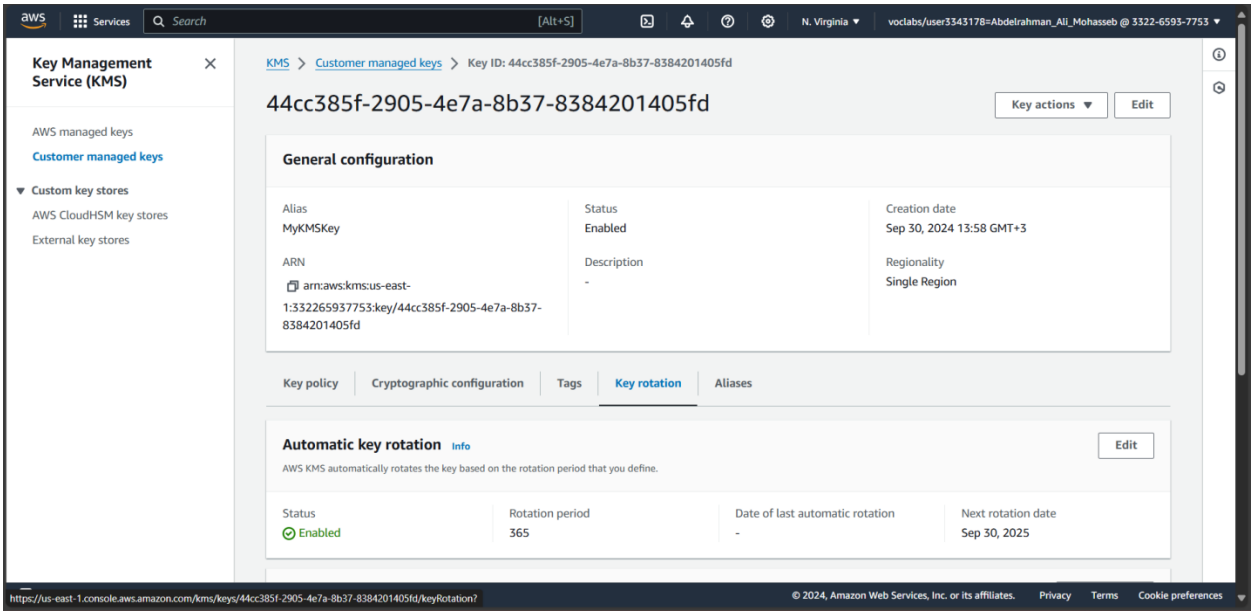
23																							
24																							
25																							
26																							
27																							
28																							

My Estimate2

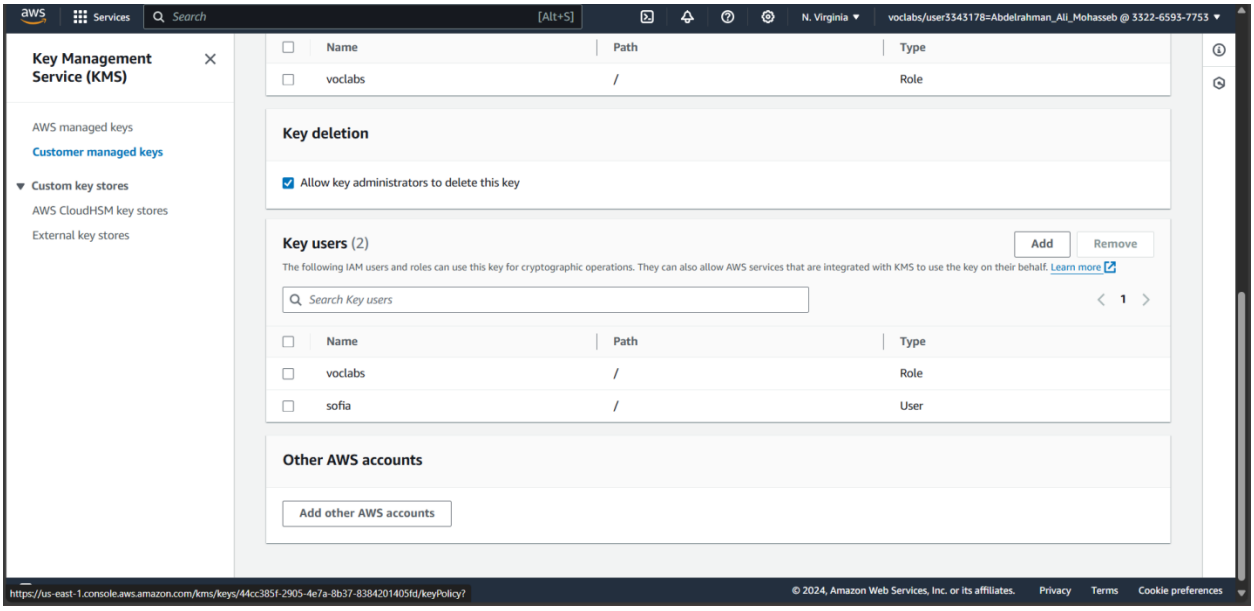
Ready

Phase 3: Securing AWS resources by using AWS KMS

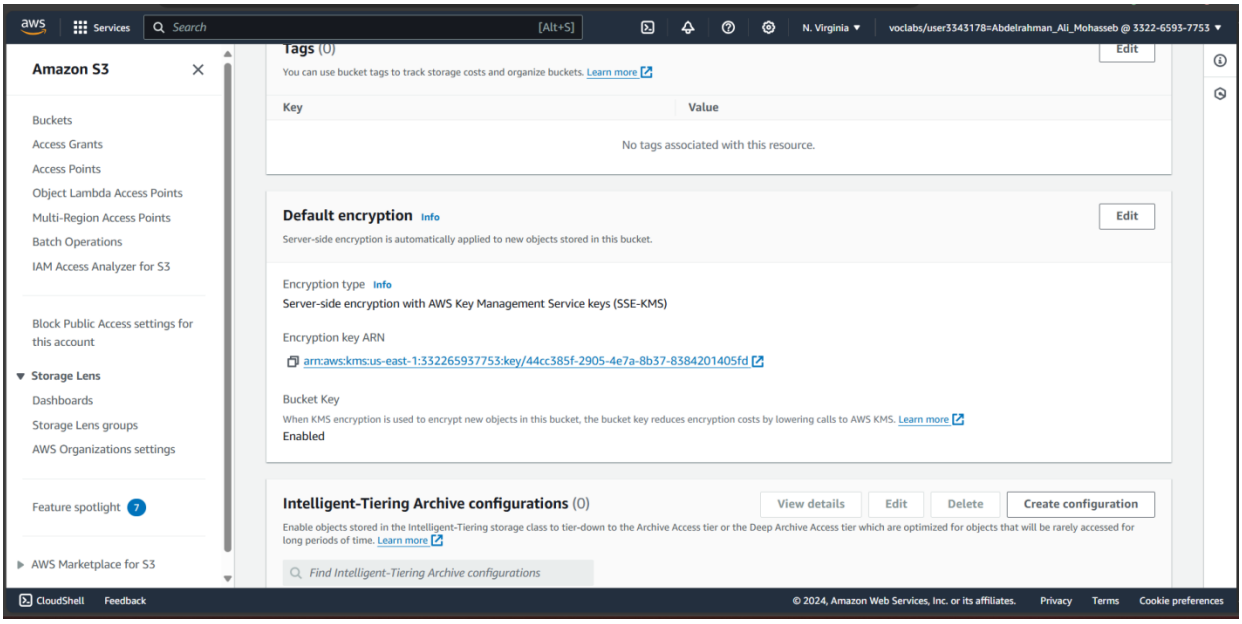
Task 3.1: Create a customer managed key and configure key rotation



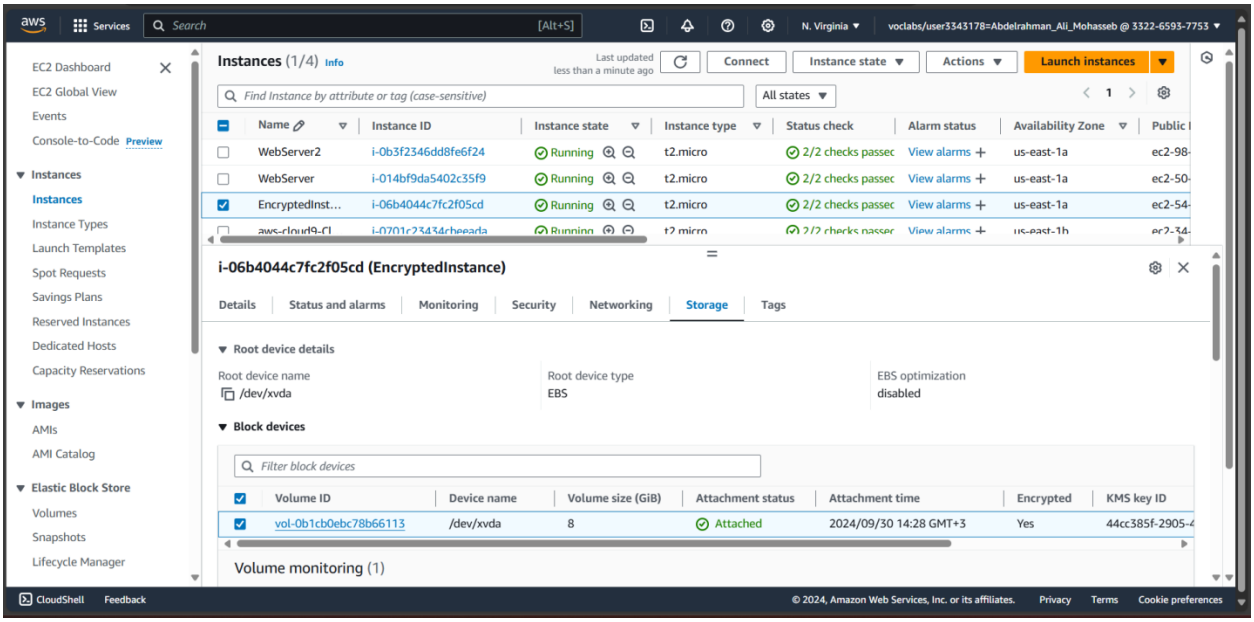
Task 3.2: Update the AWS KMS key policy and analyze an IAM policy



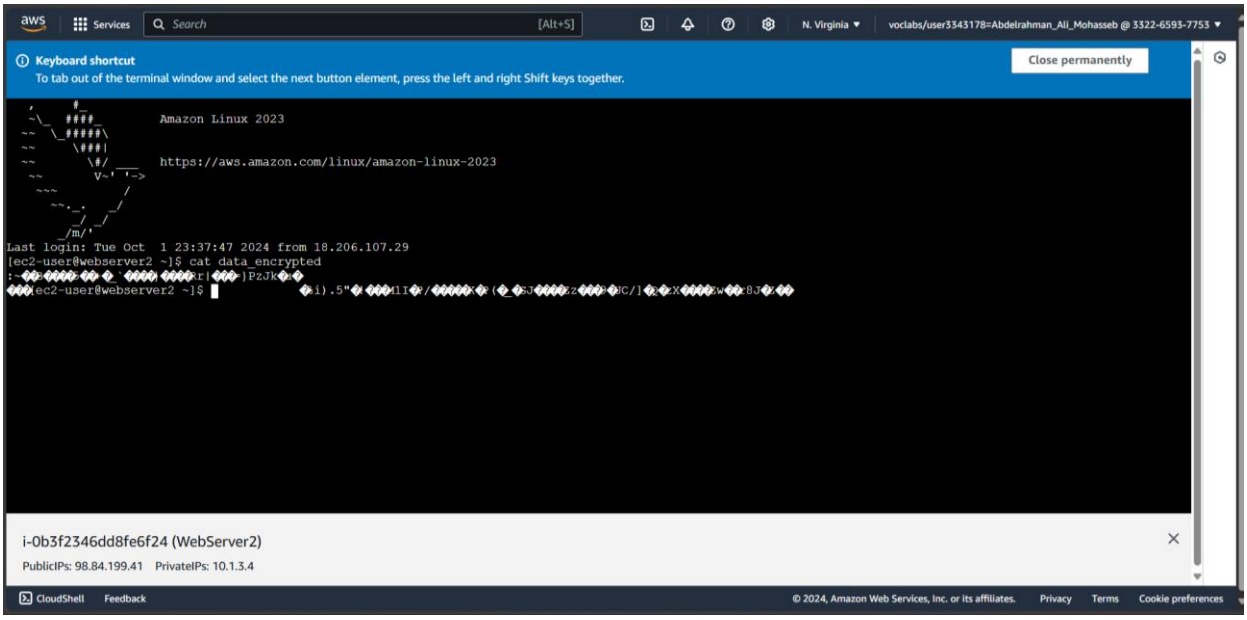
Task 3.3: Use AWS KMS to encrypt data in Amazon S3

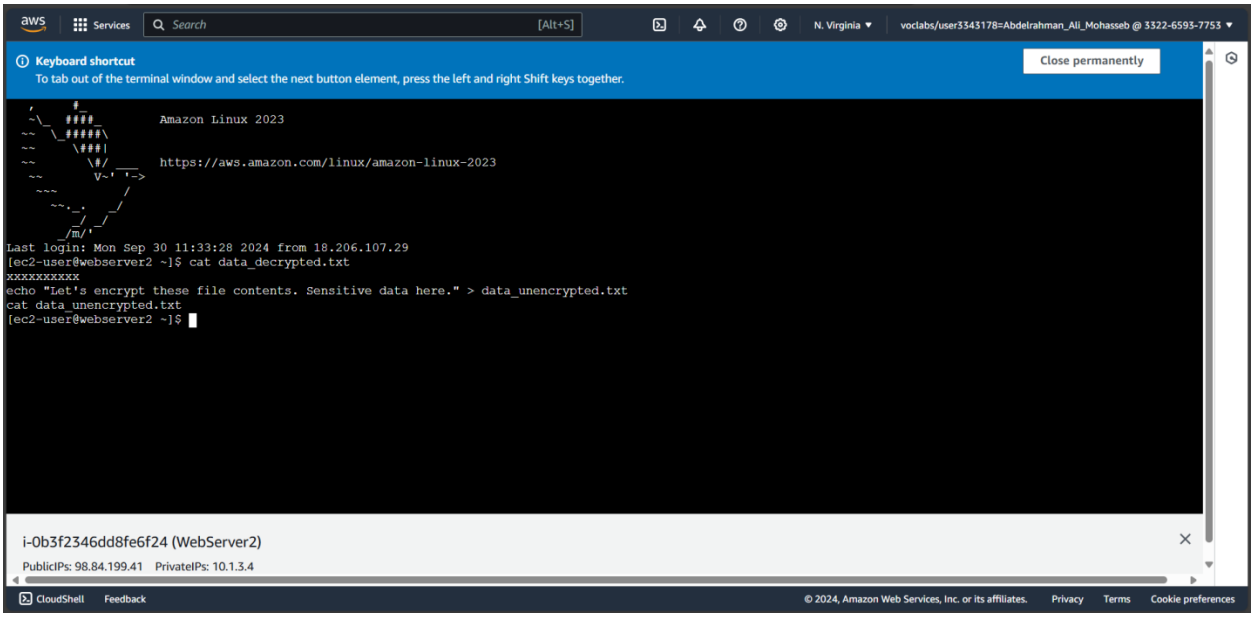


Task 3.4: Use AWS KMS to encrypt the root volume of an EC2 instance

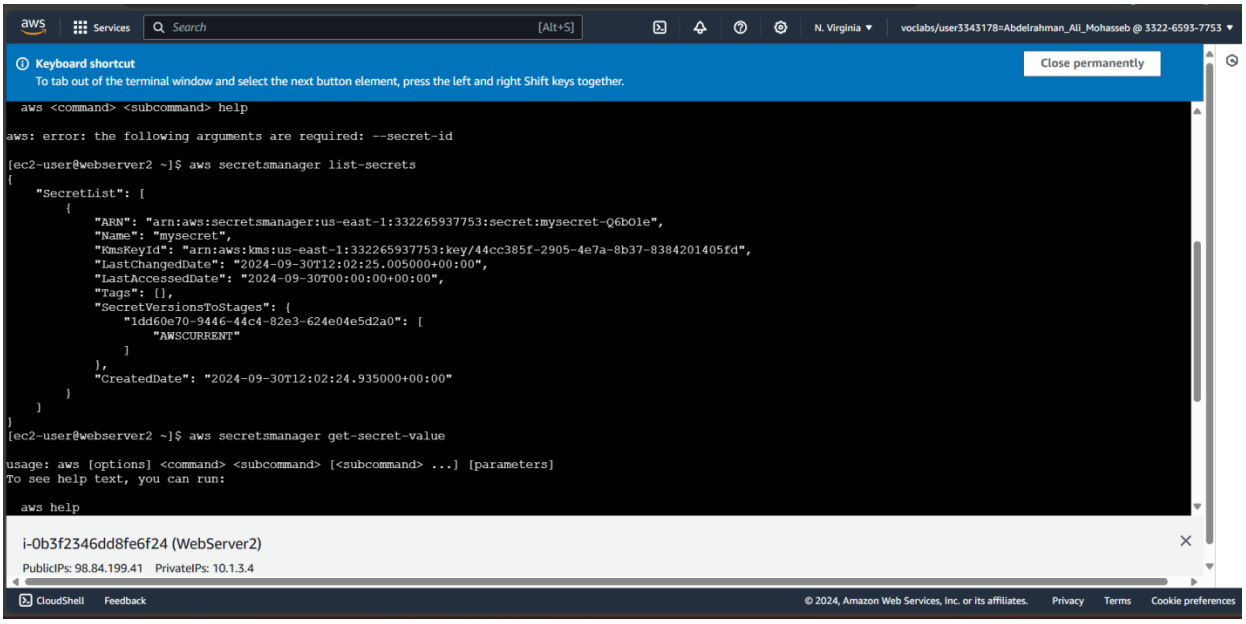


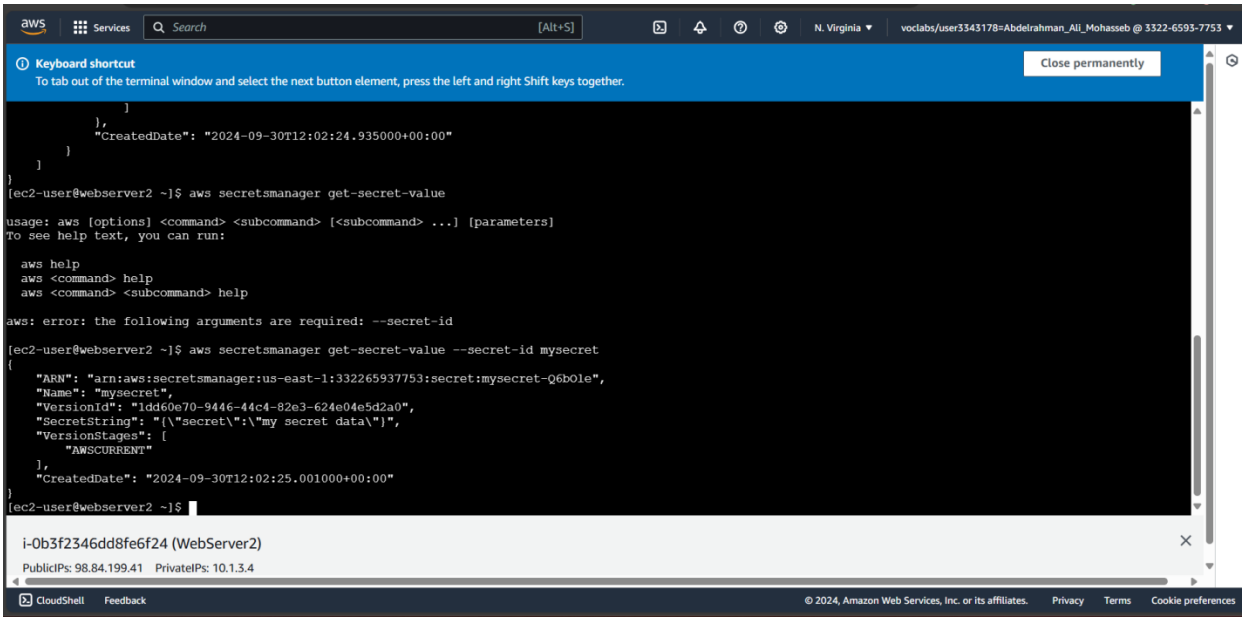
Task 3.5: Use AWS KMS envelope encryption to encrypt data in place



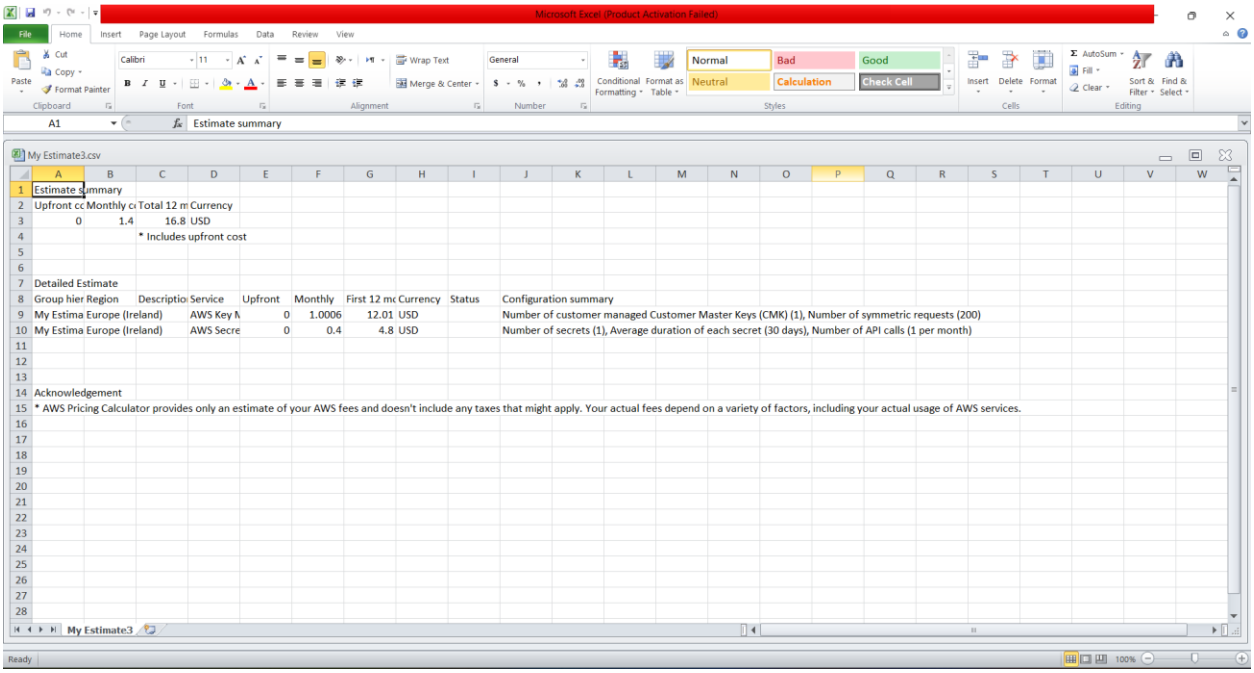


Task 3.6: Use AWS KMS to encrypt a Secrets Manager secret



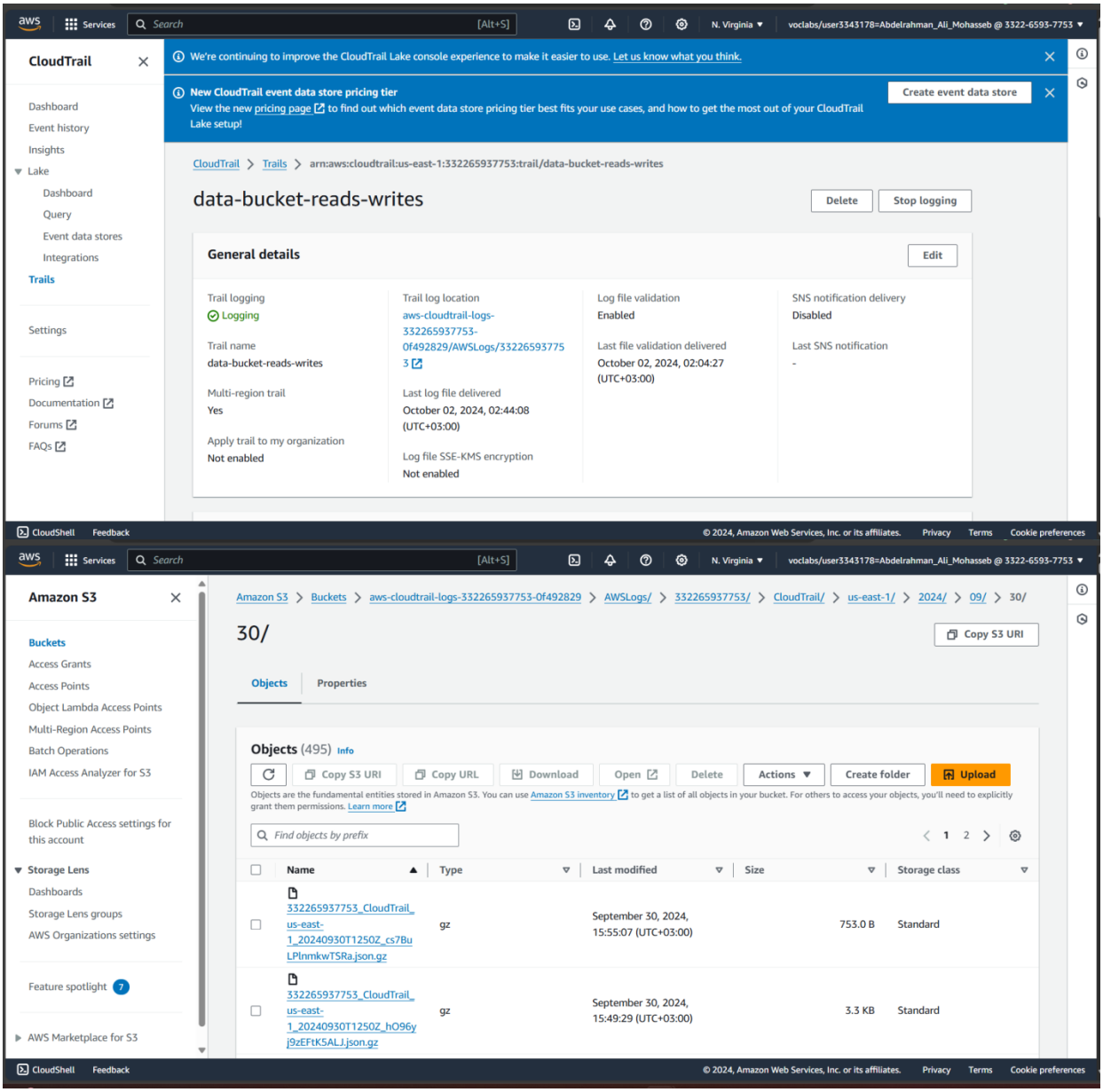


Cost assessment for using AWS KMS

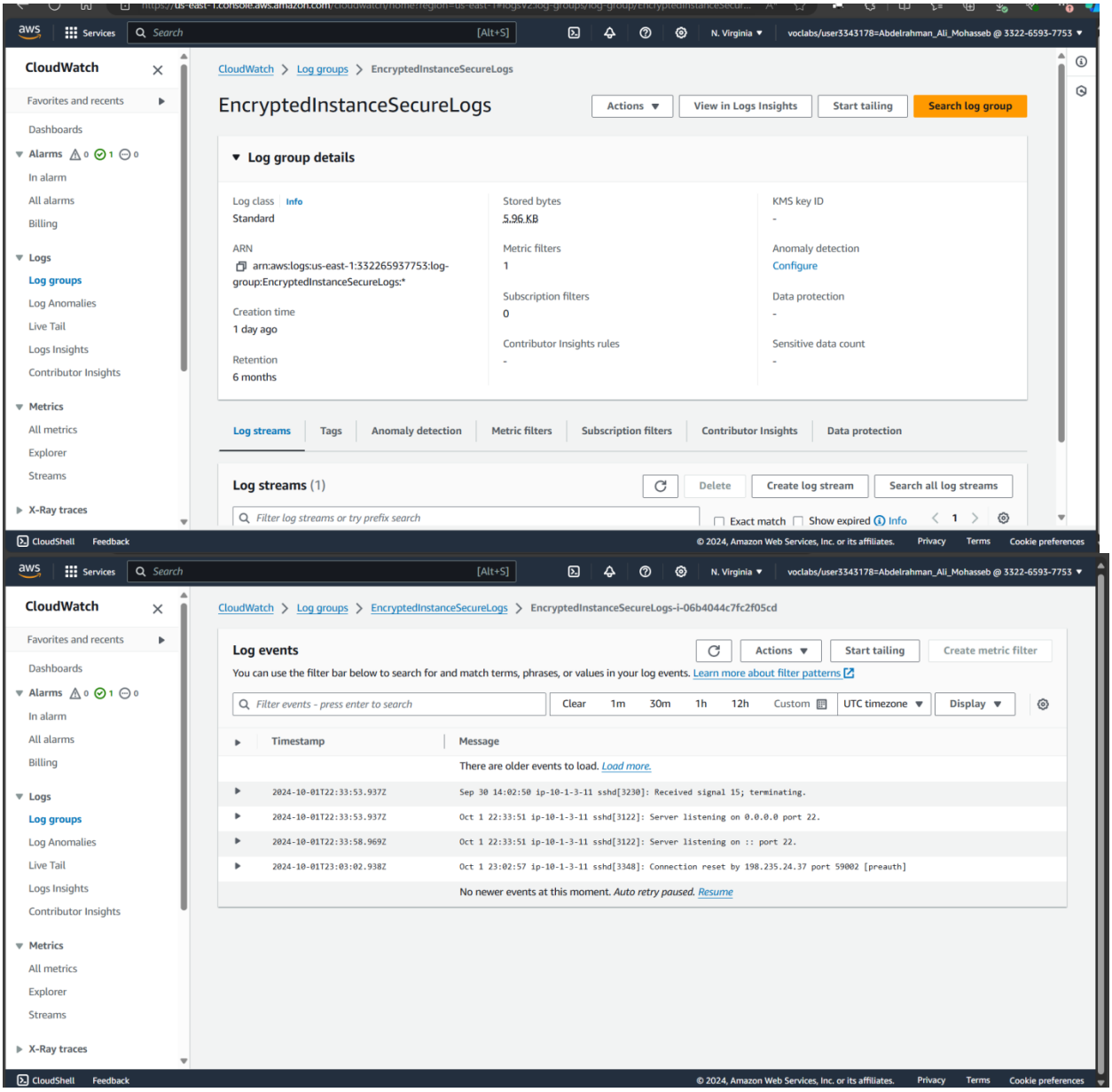


Phase 4: Monitoring and logging

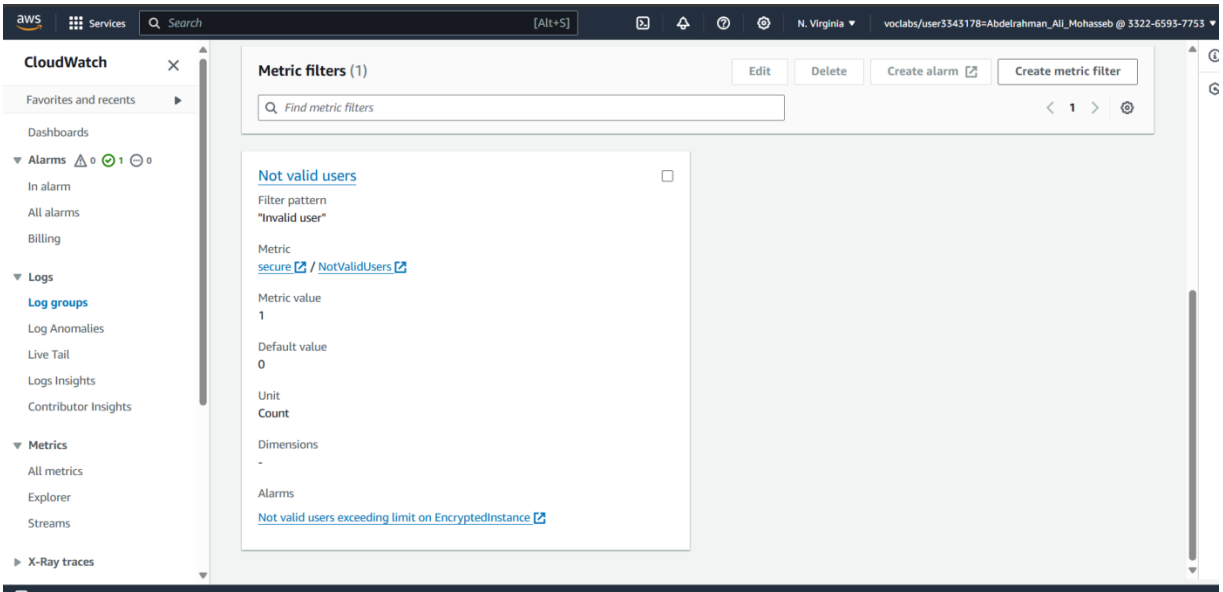
Task 4.1: Use CloudTrail to record Amazon S3 API callsTask

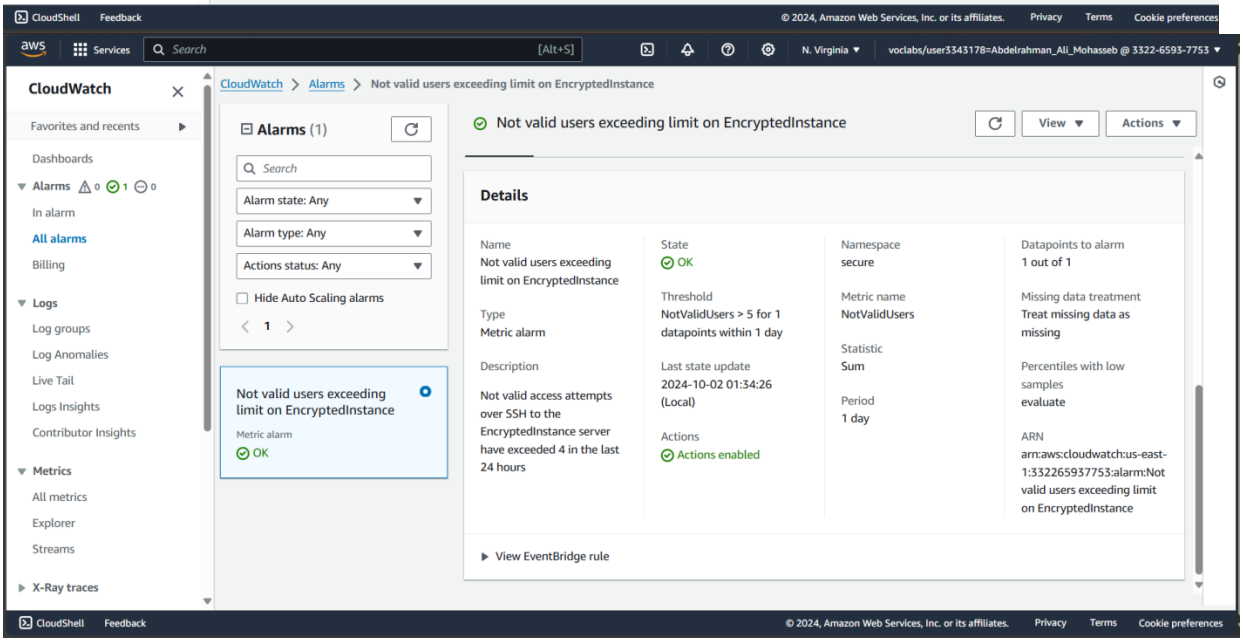


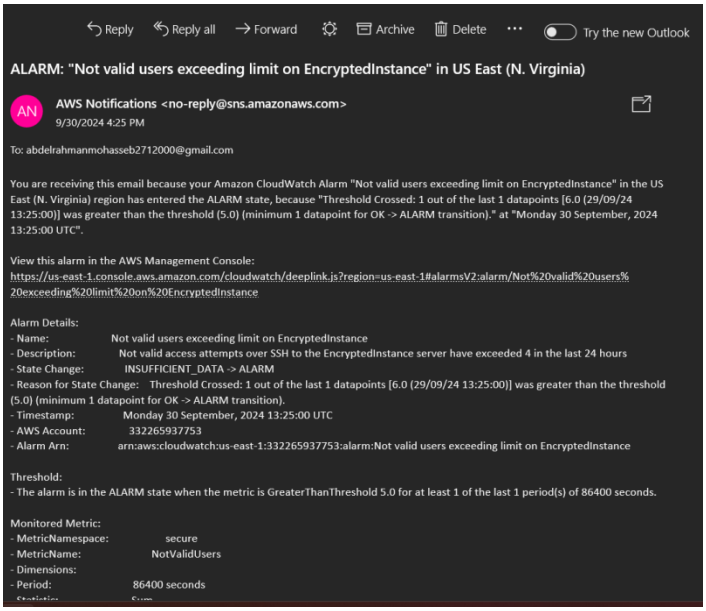
4.2: Use CloudWatch Logs to monitor secure logs



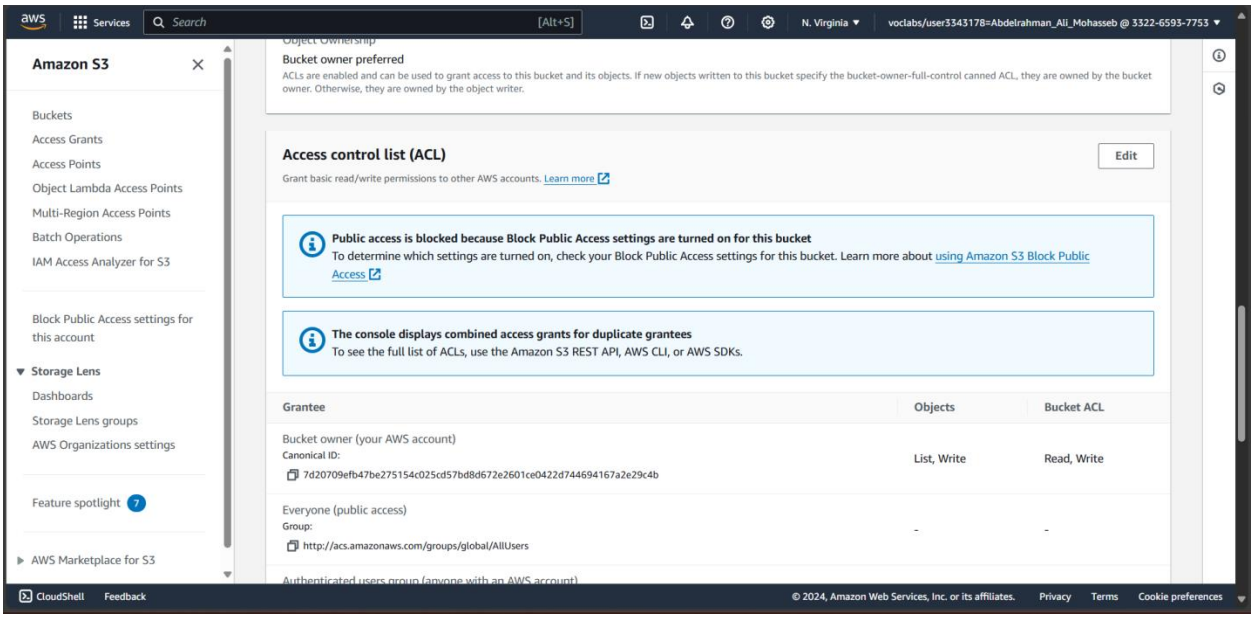
Task 4.3: Create a CloudWatch alarm to send notifications for security incidents

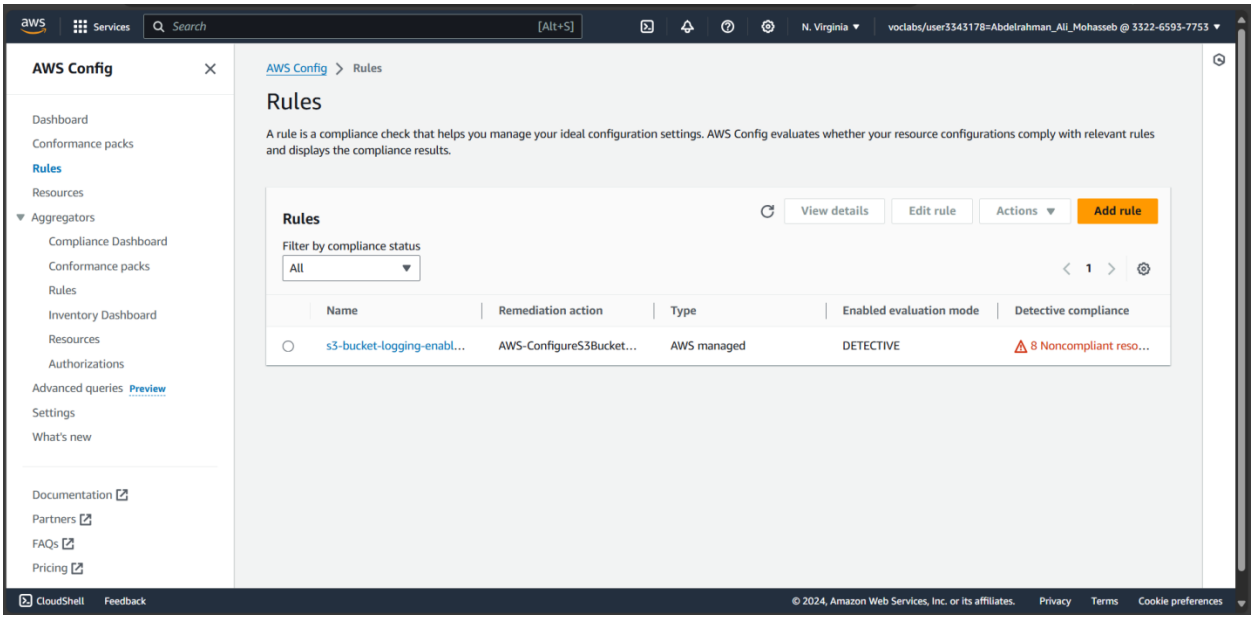




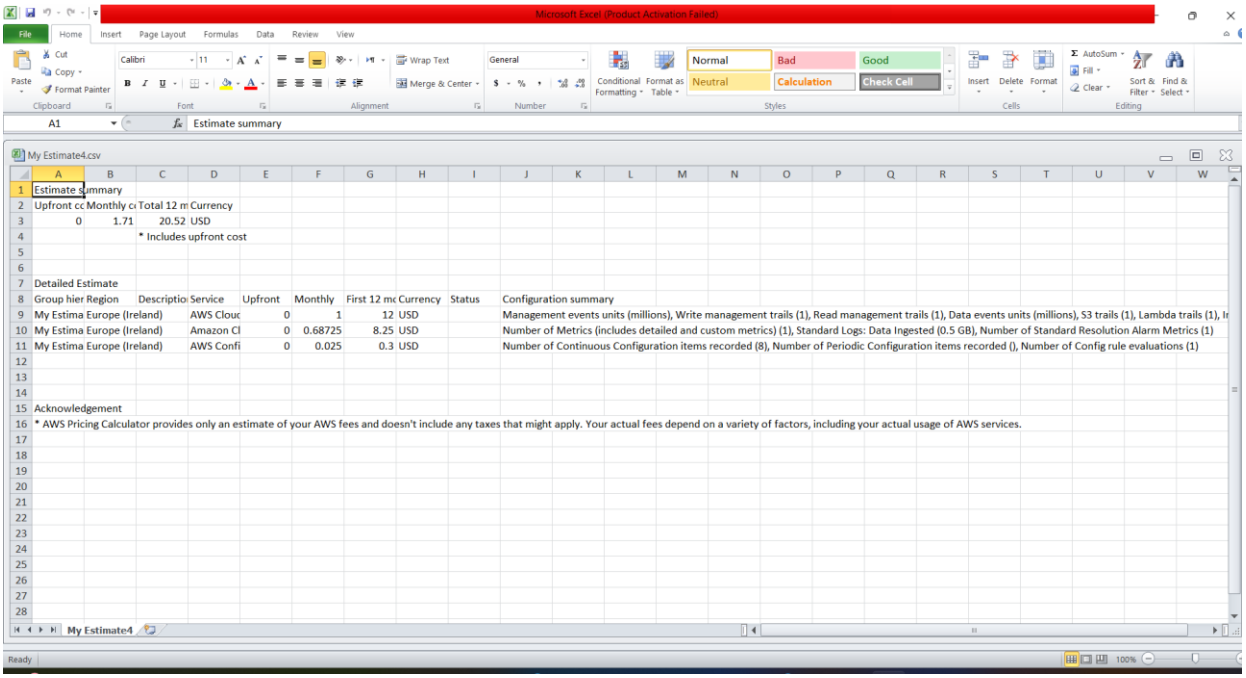


Task 4.4: Configure AWS Config to assess security settings and remediate the configuration of AWS resources





Cost assessment for monitoring and logging



Badges and Completion Certificates - Cloud Security Builder