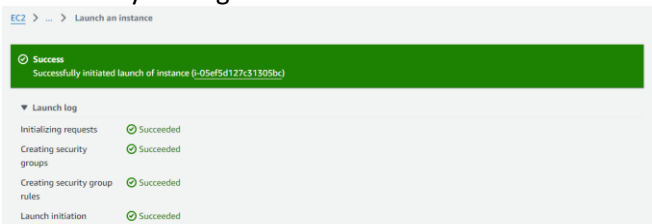
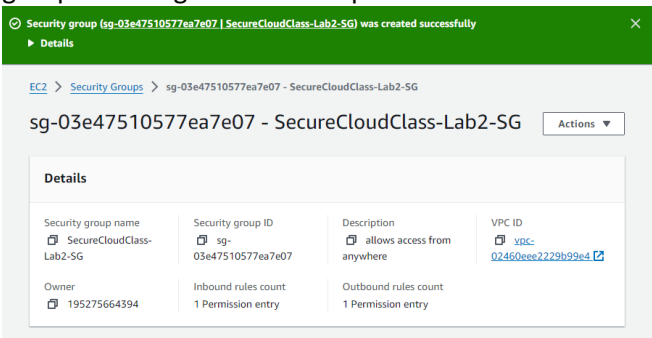
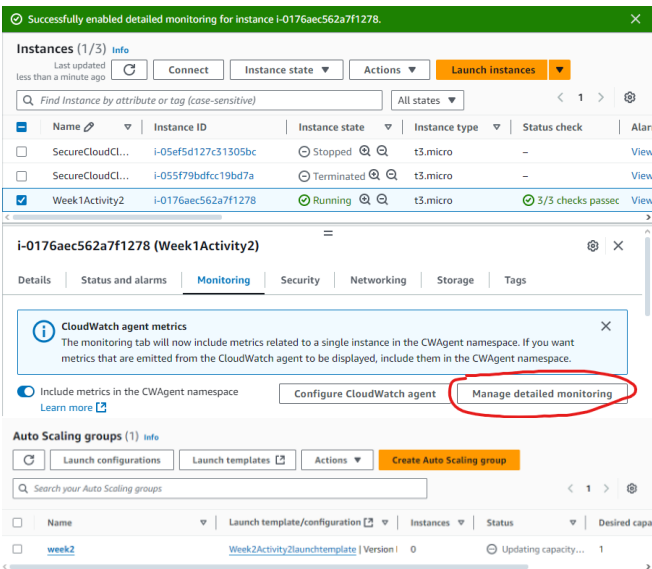


Lab Logbook Week 2	
Student ID GAR22521797	Date-----
Briefly introduce the aim of this lab	The aim of the lab is to provide experience into designing cloud architecture with the right levels of security.
Identify the tools used for each task and why it was required.	<p>The tools required are:</p> <p>EC2 – used for the creation of instances (virtual machines)</p> <p>AWS CLI – it's a command line interface which allows interaction with AWS services through command lines and development environments such as VS code</p> <p>S3 Bucket – provides storage with encryption and access controls it is required to secure data in the cloud</p>
What are your observations from each task?	<p>For activity 1, I noticed that I had to stay within the free tier selections and ensure that I had chosen a subnet in the network configuration. I also had to create a new security group and create a key pair which is stored in the computer before launching the instance.</p> <p>For activity 2, I had to go to the network tab and enable CloudWatch monitoring and for the auto scaling I had to create a new auto scaling group and attach it to a launch template instance.</p> <p>For activity 3, I had to go to the S3 Bucket console and create a new bucket. After I had to enable encryption and access logging and then I had to upload a file, retrieve the object inside the file and then delete the object from the bucket.</p>
Report your lab experimental result for each task	<p>For activity 1, after following all the steps required, I successfully managed to launch the instance.</p>  <p>The screenshot shows the AWS Management Console 'Launch an instance' page. A green banner at the top indicates 'Success' and 'Successfully initiated launch of instance (i-05ef5d127c31305bc)'. Below this, a 'Launch log' section lists the following steps, all marked as 'Succeeded':</p> <ul style="list-style-type: none"> Initializing requests Creating security groups Creating security group rules Launch initiation

For activity 2, I created and customised the security group and assigned different policies.

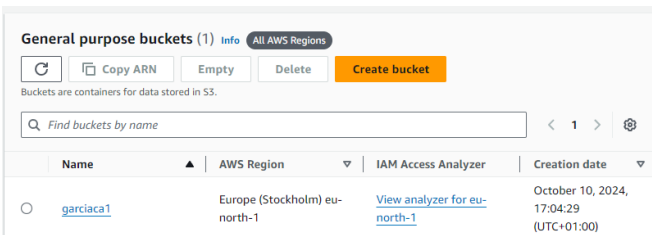


Then I created a new instance and selected my newly created security group, enabled CloudWatch monitoring (through the monitoring tab) and attached the instance to an autoscaling group. I also configured instance-level firewall.

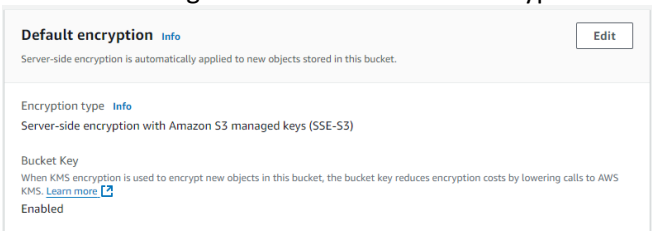


Exercise 1

Here is the bucket I created.



This is the configuration which enables encryption.



This is the configuration where I enabled access logging.

	<div><div>Successfully edited server access logging.</div><div>Create configuration</div><div>Server access logging</div><div>Log requests for access to your bucket. Use CloudWatch to check the health of your server access logging. Learn more</div><div><div>Server access logging</div><div>Enabled</div><div>Destination bucket</div><div>s3://garciaca1</div><div>Log object key format</div><div>[YYYY]-[MM]-[DD]-[hh]-[mm]-[ss]-[UniqueString]</div></div></div> <div>Upload, retrieval and deletion of the file.</div> <div><div>Upload succeeded</div><div>View details below.</div><div>Upload: status</div><div>The information below will no longer be available after you navigate away from this page.</div><div>Summary</div><div><div>Destination</div><div>s3://garciaca1</div><div>Succeeded</div><div>1 file, 109.2 KB (100.00%)</div><div>Failed</div><div>0 files, 0 B (0%)</div></div></div> <div><div>Amazon S3</div><div>Buckets</div><div>garciaca1</div><div>garciaca1</div><div>Objects</div><div>Properties</div><div>Permissions</div><div>Metrics</div><div>Management</div><div>Access Points</div><div>Objects (1)</div><div>Copy S3 URI</div><div>Copy URL</div><div>Download</div><div>Open</div><div>Delete</div><div>Actions</div><div>Create folder</div><div>Upload</div><div>Find objects by prefix</div><div><table><tr><th>Name</th><th>Type</th><th>Last modified</th><th>Size</th><th>Storage class</th></tr><tr><td>Week2 Lab.pdf</td><td>pdf</td><td>November 7, 2024, 01:34:39 (UTC+00:00)</td><td>109.2 KB</td><td>Standard</td></tr></table></div></div> <div><div>Successfully deleted objects</div><div>View details below.</div><div>Delete objects: status</div><div>The information below will no longer be available after you navigate away from this page.</div><div>Summary</div><div><div>Source</div><div>s3://garciaca1</div><div>Successfully deleted</div><div>1 object, 109.2 KB</div><div>Failed to delete</div><div>0 objects</div></div></div>	Name	Type	Last modified	Size	Storage class	Week2 Lab.pdf	pdf	November 7, 2024, 01:34:39 (UTC+00:00)	109.2 KB	Standard
Name	Type	Last modified	Size	Storage class							
Week2 Lab.pdf	pdf	November 7, 2024, 01:34:39 (UTC+00:00)	109.2 KB	Standard							
What was your takeaway from the tasks	<div>From activity 1, I learnt how to create an instance and use the free tier resources, configure the network through the selection of a subnet, adding tags and selecting a security group and the creation of a key pair to launch the instance.</div> <div>From activity 2, I learnt how to secure an EC2 instance by configuring security groups, enabling CloudWatch, setting up instance level firewalls and exploring the auto scaling groups.</div> <div>From exercise 1, I learnt how to set up an S3 bucket with strong security measures by enabling encryption and setting up access controls.</div>										