10/7/2024

CLOUD MANAGEMENT

LAB #3AWS STORAGE AND SERVICE INTEGRATION LAB

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Lab Report:

1. a) S3 Bucket:
   An S3 bucket is a public or private container within AWS's Simple Storage Service (S3) where data is stored. Objects such as files, images, and videos can be uploaded and organized within these buckets. Each S3 bucket has a unique name and can be used for storing large amounts of data, backups, or static website content.

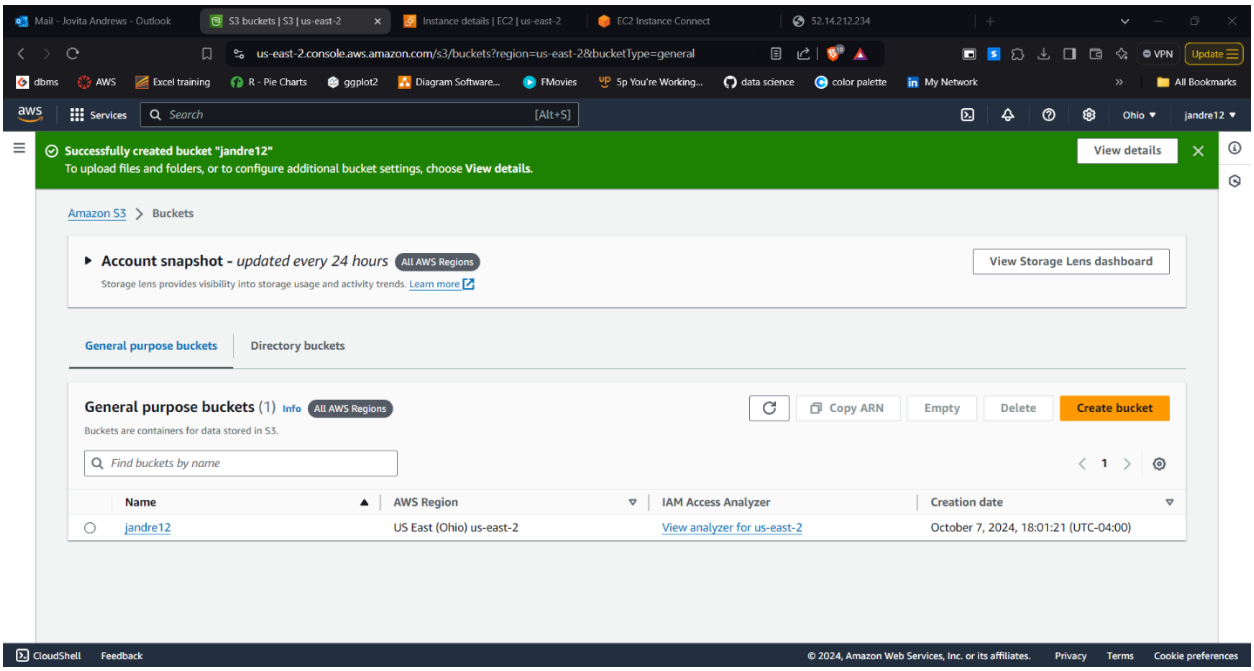
   b) IAM Policy:
   An IAM (Identity and Access Management) Policy is a document that defines permissions for users, groups, or roles. Policies are written in JSON format and specify the actions that are allowed or denied on AWS resources, such as S3 buckets, EC2 instances, etc. IAM policies are essential to controlling access within AWS.

   c) IAM Role:
   An IAM Role is an AWS identity that you can create with specific permissions to access certain AWS services and resources. Roles are used to delegate access to resources without sharing long-term credentials like a password. IAM roles are assumed by trusted entities such as EC2 instances, users, or other AWS services.

2.

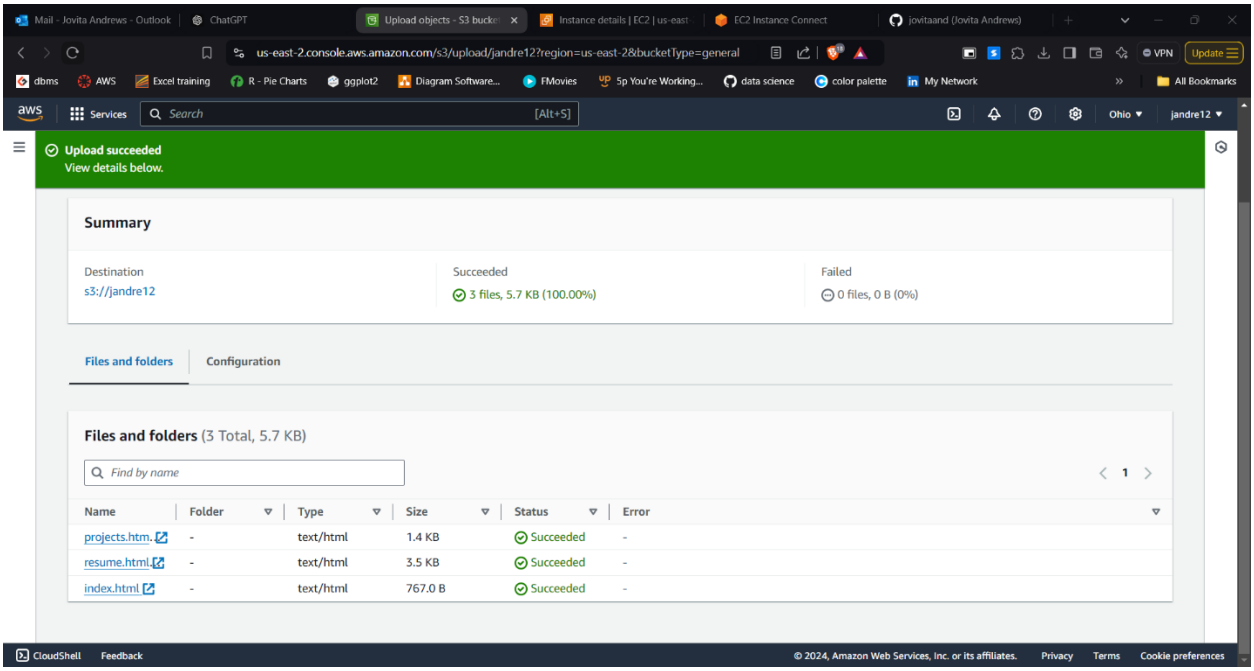
   S01: **Connecting to S3 bucket**

- Description: In this step we create the storage container that will hold the website files. It demonstrates that the s3 storage setup has been configured properly and is ready for further operations like uploading files or configuring policies.



S02: **Uploading folders to the S3 bucket**

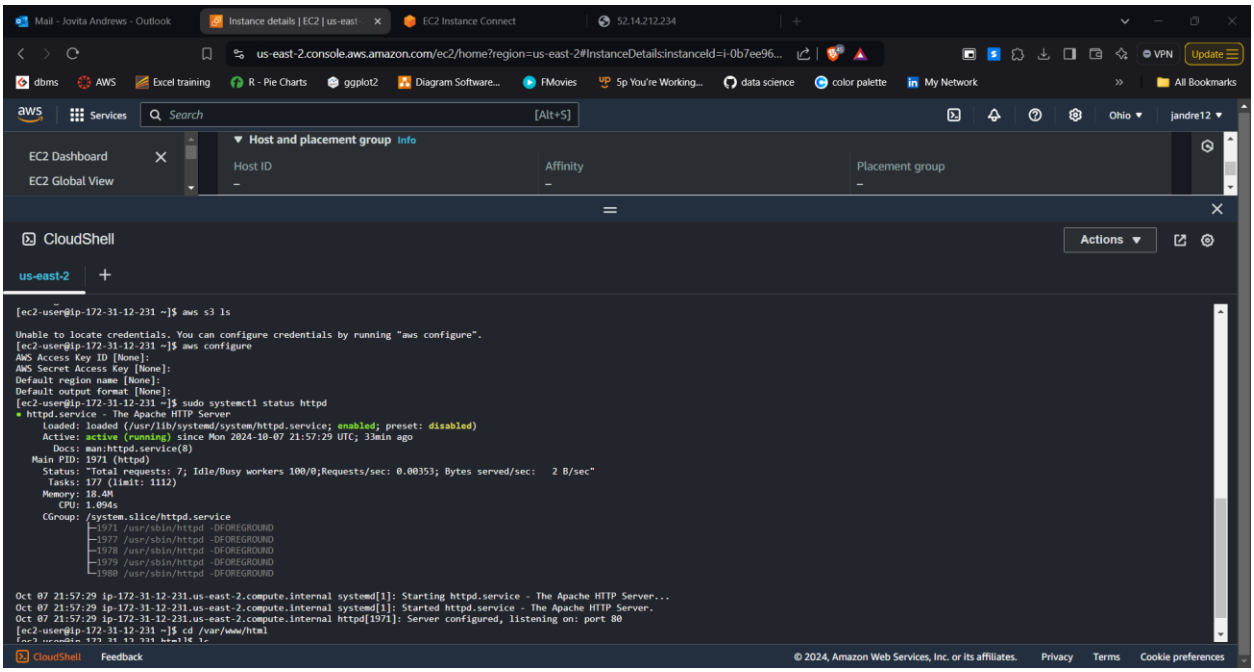
- Description: In this screenshot I have uploaded 3 webpages: index.html, project.html, resume.html to the S3 bucket called jandre12. These files can either be served from the S3 bucket as a static website or used by your EC2 instance to render content.



S03: **SSH Session connected to the EC2 instance**

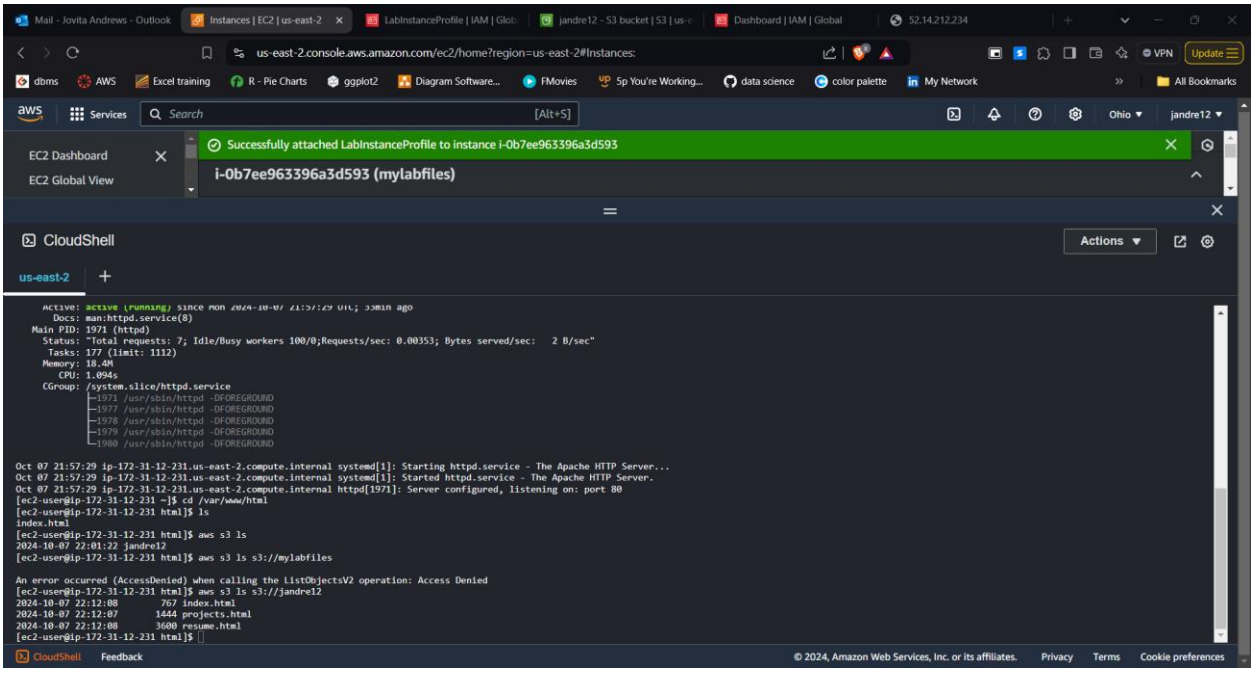
The command that fails to list out the S3 buckets, prompting an error stating, “ Unable to locate credentials. In order to configure it we use “ aws configure”.

This error usually occurs when there is a lack of either IAM role access to S3 or IAM role permissions which we later created using the “LabsInstanceProfile” which attached to EC2 instance.



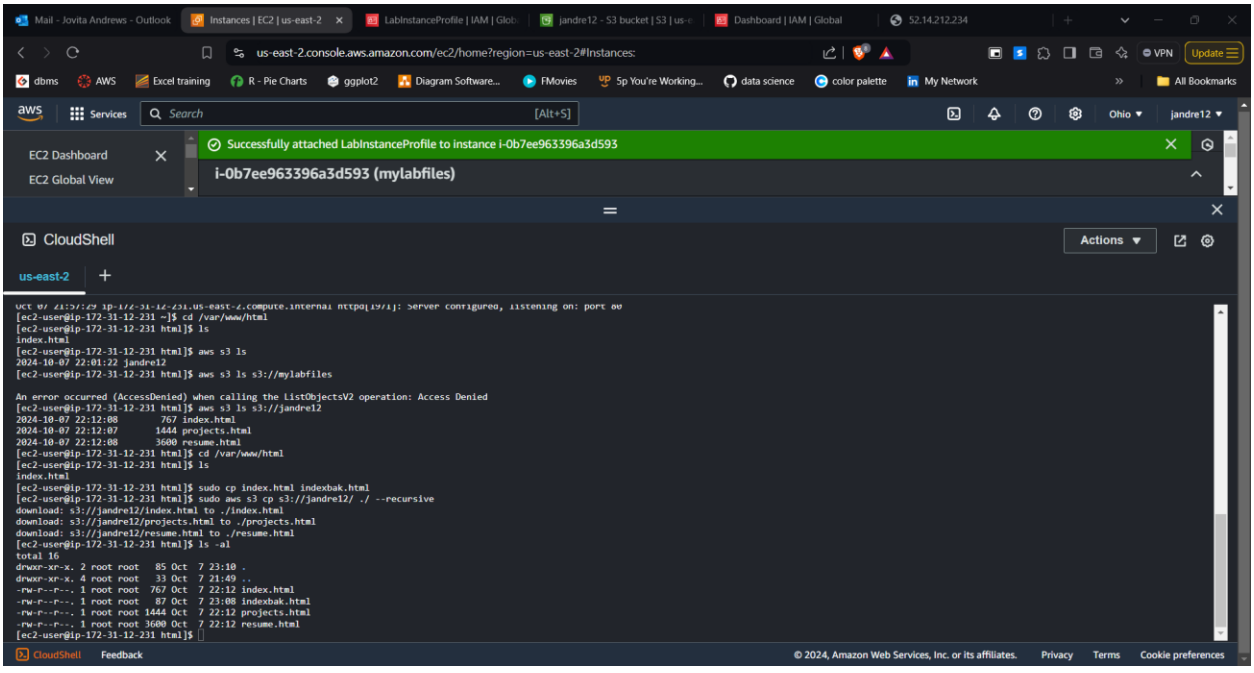
S04 **Successful Display of the webpages attached to EC2 instance**

From the screenshot the Apache server is running, confirming that the EC2 instance is correctly set up for hosting content, but there is still a permissions issue with S3.



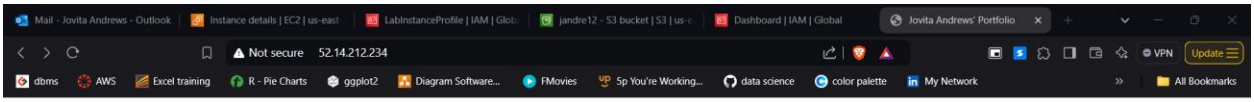
S05: **Web Content Hosting**

The HTML files seem to be correctly placed in /var/www/html, and the Apache server is running. These files are ready to be served via the EC2 instance's public IP address. In the last command we ensure that permissions allow the web server to access and serve these files.



S06 **Hosting the Web Pages:**

The Apache HTTP server is confirmed to be active and running, which ensures that the web server is operational and able to serve the website files located in the /var/www/html directory.



Welcome to Jovita Andrews' Portfolio

Hello! My name is Jovita Andrews, and this is my personal website. Here you'll find information about me, my projects, and my resume.

About Me

I'm a happy go lucky ray of sunshine paddling through life one smile at a time.

Projects

Click below to read about my project:

Project Summary

Resume

You can view my resume here.

Jovita Andrews' Resume

Email: jandre12@syr.edu | **Phone:** +1 (315) 795-8420 | **LinkedIn:** linkedin.com/in/jovitaandrews

Education

Syracuse University
MS in Applied Data Science '24
Relevant Coursework: Introduction to Data Science, Database Administration, Data Structures and Algorithms, Applied Machine Learning, Natural Language Processing, Big Data Analytics, Cloud Management, Responsible AI.

NMAM Institute of Technology
BE in Computer Science '21
Relevant Coursework: Data Structures, Design & Analysis of Algorithms, Programming in Java, Relational Database Management Systems, Software Engineering, Big Data Analytics, Social Web Analytics.

Skills

- **Soft Skills:** Communication, Attention to Detail, Teamwork, Problem Solving, Presentation Skills
- **Languages:** Python, C, SQL, R
- **Techniques:** Data Extraction, Data Manipulation, Data Visualization, Statistical Modeling, Web Scraping, Data Integration
- **ML Libraries:** Scikit-Learn, NumPy, Matplotlib, NLTK, Pandas, Seaborn
- **Tools:** Google Analytics, R Studio, Google Colab, Jupyter Notebook, Microsoft Excel, Microsoft PowerBI
- **Cloud Platforms:** Amazon AWS, Microsoft Azure
- **Certification:** IBM Data Science Professional, Google Advanced Data Analytics Professional
- **Version Control:** Git, Github

Work Experience

DLithe
Machine Learning Intern
May 2020 – Jun 2020

- Developed and fine-tuned machine learning models, improving accuracy by 15%.
- Automated web scraping using Selenium WebDriver, increasing data collection efficiency by 40%.

https://www.linkedin.com/in/jovitaandrews sing Python libraries, reducing manual processing time by 60%.

Comments about the Lab3 Assignment:

1. I was unable to determine how to accomplish the same task using the canvas "aws academy" that the professor had offered.

2. Determining the mistakes was challenging, particularly when setting up the role's IAM Permissions AmazonS3ReadOnlyAccess policy.

3. Throughout the entire procedure, there were additional errors that prevented me from moving on. To make sense of it, I needed to review the earlier labs.

4. I thought it was interesting to host the website on a public IP.