IST 615 – Cloud Management

School of Information Studies, Syracuse University
Fall 2024

Lab - 3

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Lab Due: 10/08/2024

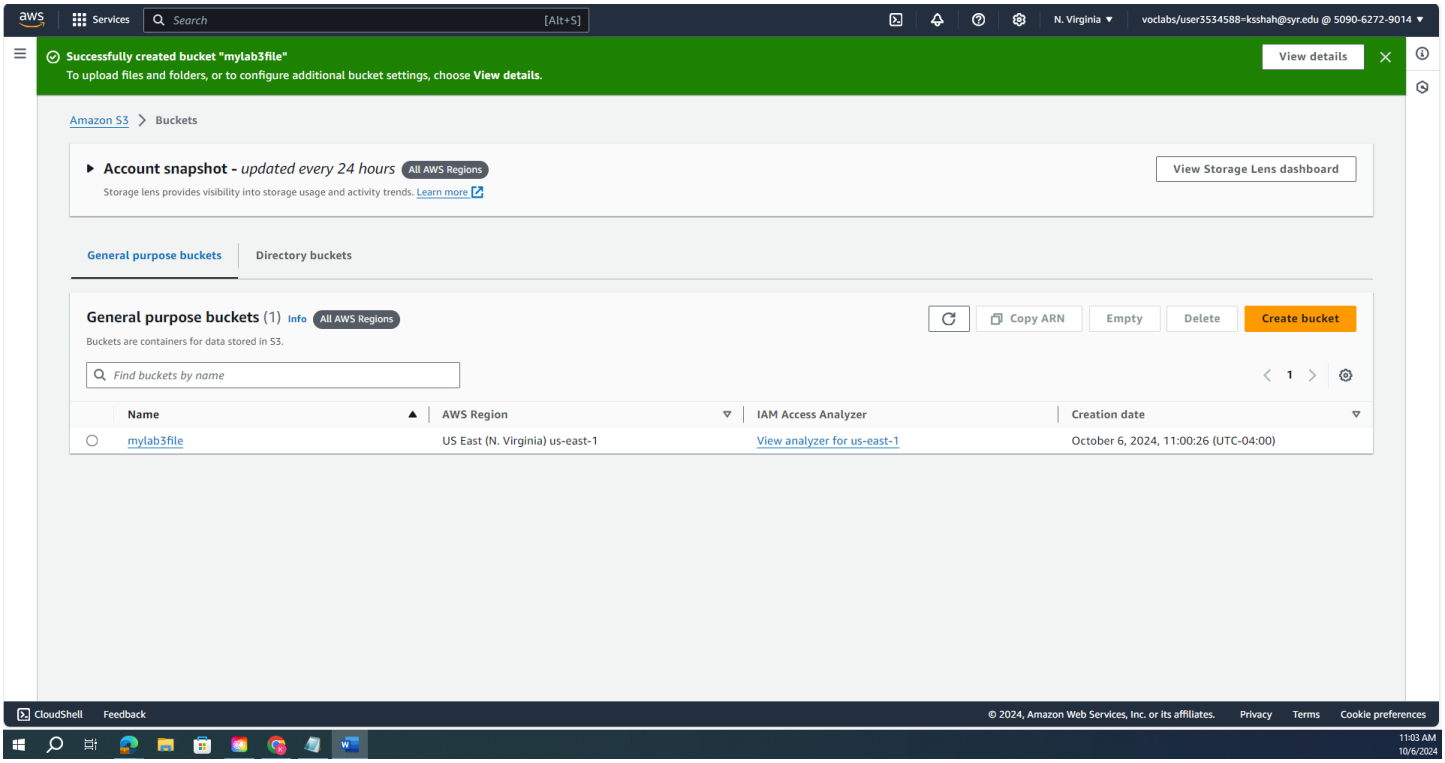
Assignment Submitted: 10/06/2024

(The document has **6 pages** with the cover page)

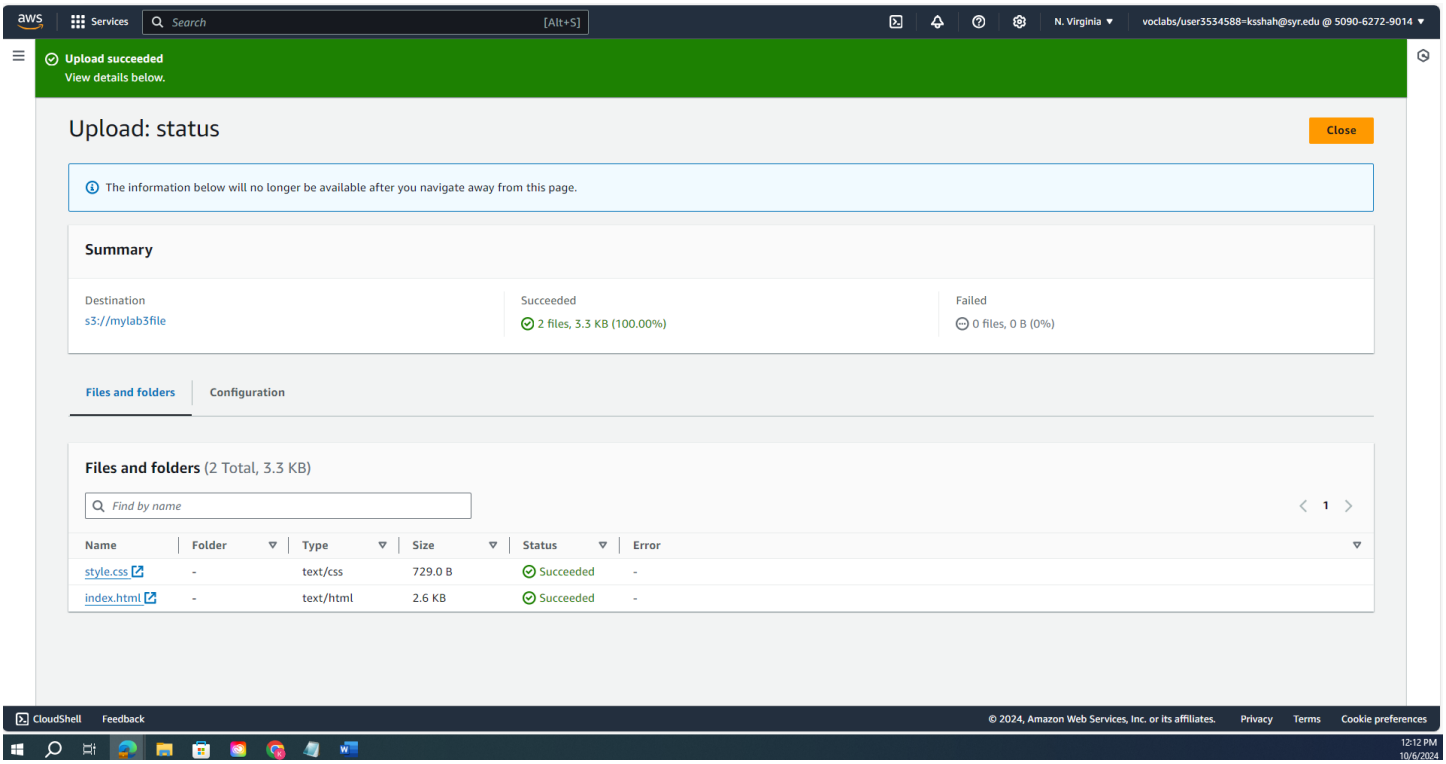
Lab Report

1. **Find definitions of following concepts: (15 POINTS)**
    a) **S3 Bucket** - An Amazon S3 bucket is a container used to store objects within the Amazon Simple Storage Service (S3). Each bucket can hold an unlimited number of objects, which are composed of the object data and its metadata.
    b) **IAM Policy** - An IAM (Identity and Access Management) policy is a set of permissions that define what actions are allowed or denied for specific AWS resources. Policies in AWS are written in JSON (JavaScript Object Notation) and can be attached to IAM users, groups, or roles, helping to manage access to AWS services and resources.
    c) **IAM Role** - An IAM (Identity and Access Management) role is an AWS resource that defines a set of permissions for making AWS service requests. IAM roles are similar to IAM users in that they provide access to resources; however, roles are intended to be assumed by entities such as users, applications, or AWS services rather than being associated with a specific user or group.

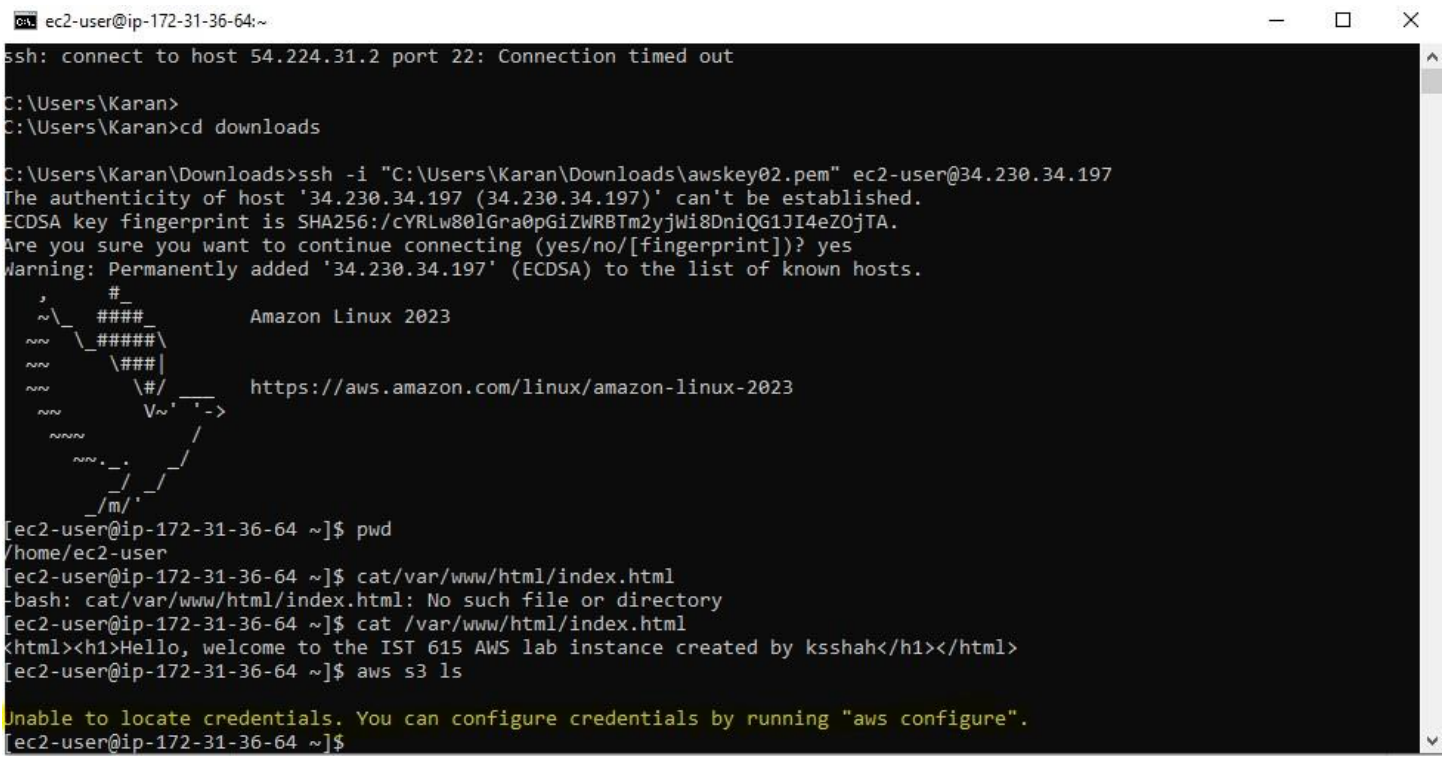
2. **Submit the screenshots requested in Section III with a brief description.**



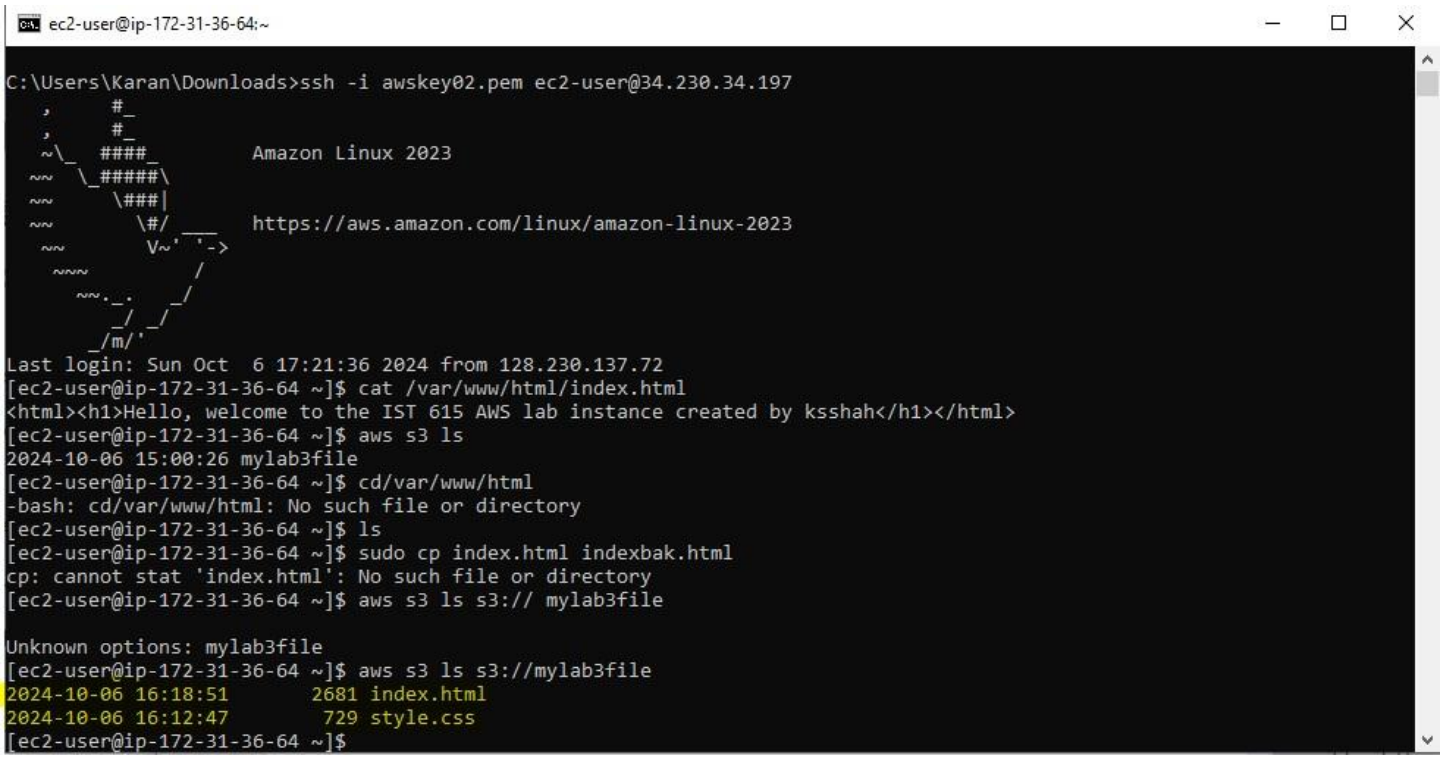
SCS01 - A screenshot above shows that the 'mylab3file' bucket has been created, and the bucket name is different from the purpose of the lab.



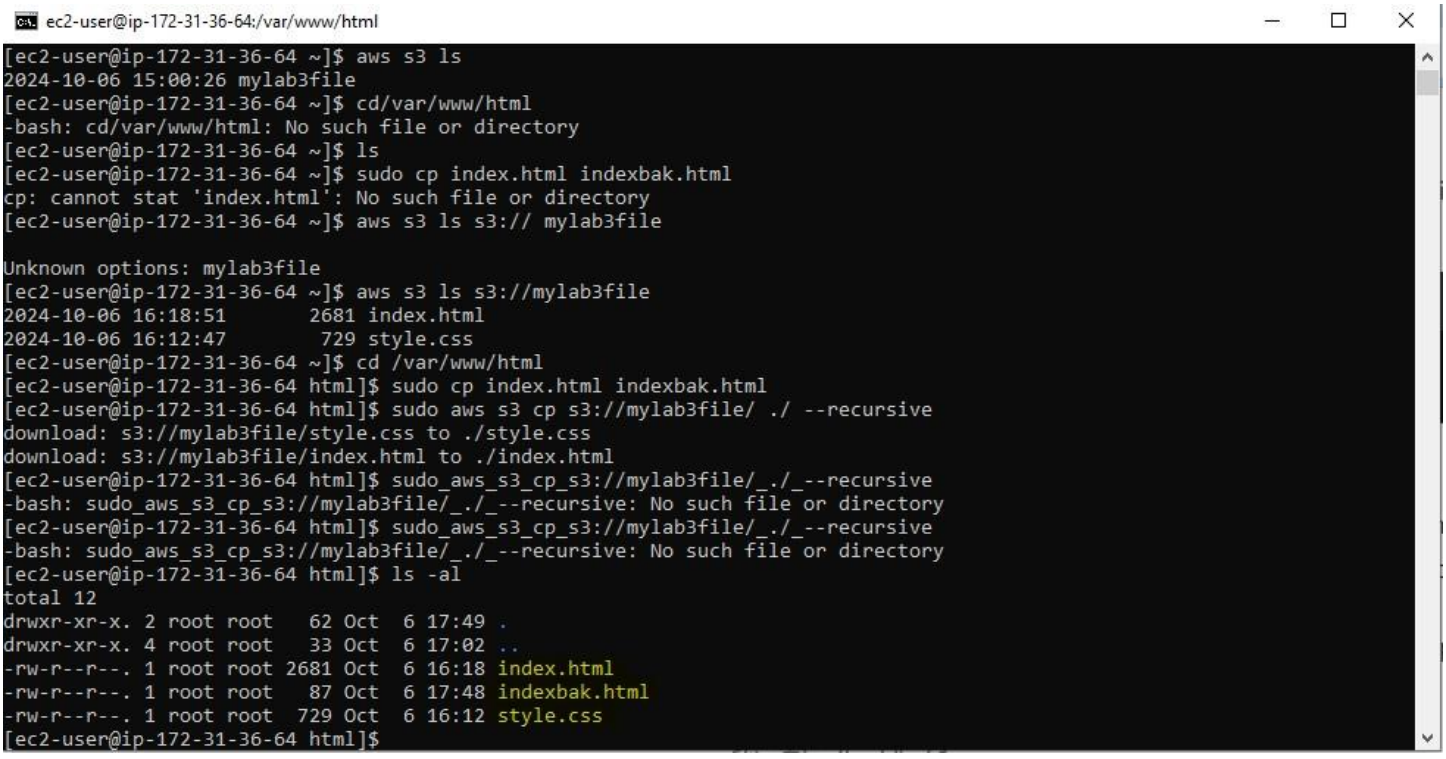
SCS02 - The screenshot above indicates that 'mylab3file' contains two files: index.html and style.css.



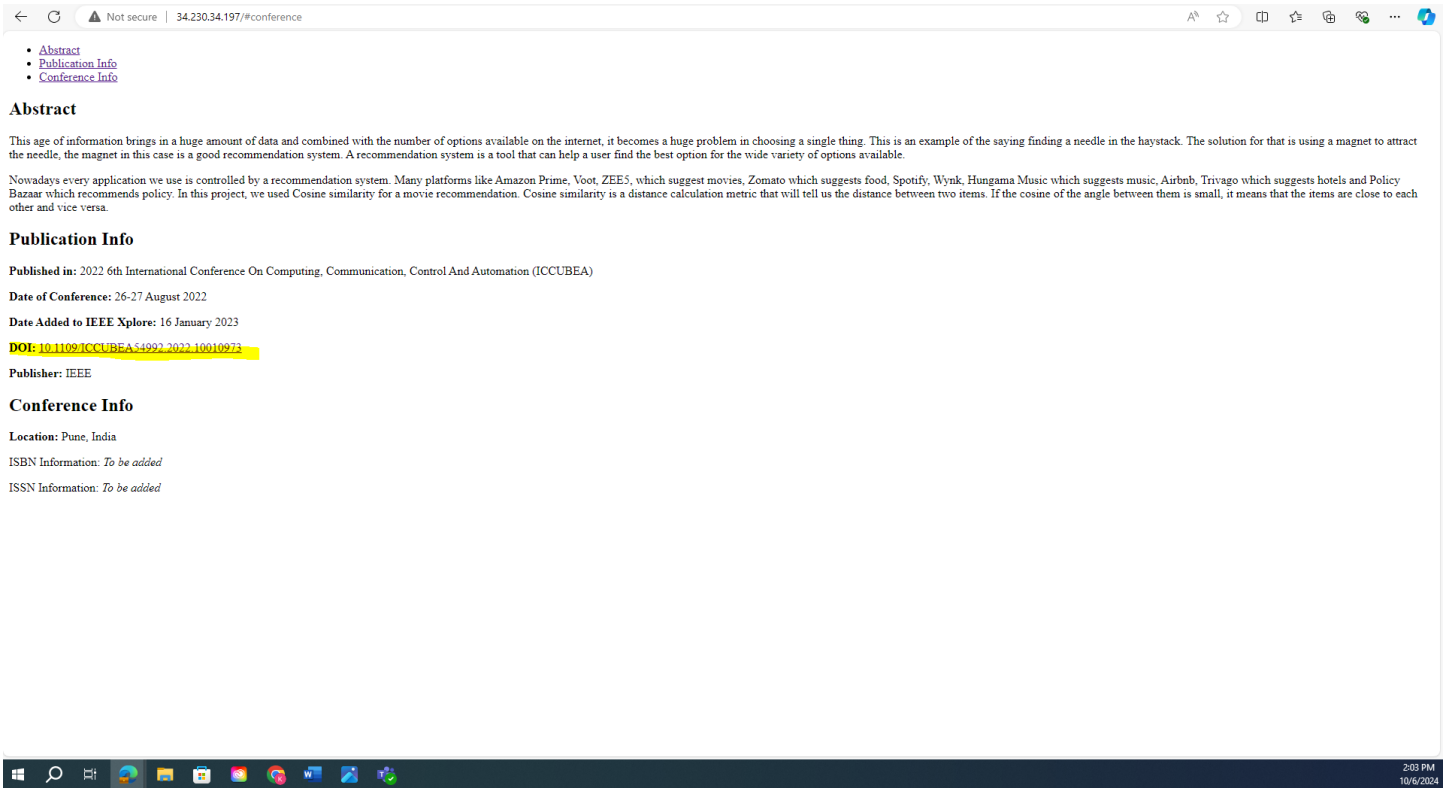
SCS03 - The screenshot above shows all the results up to step 12. When I try accessing my S3 bucket from an EC2 instance, I receive the message *"Unable to locate credentials…"* This indicates that my EC2 instance does not have access to the S3 bucket.



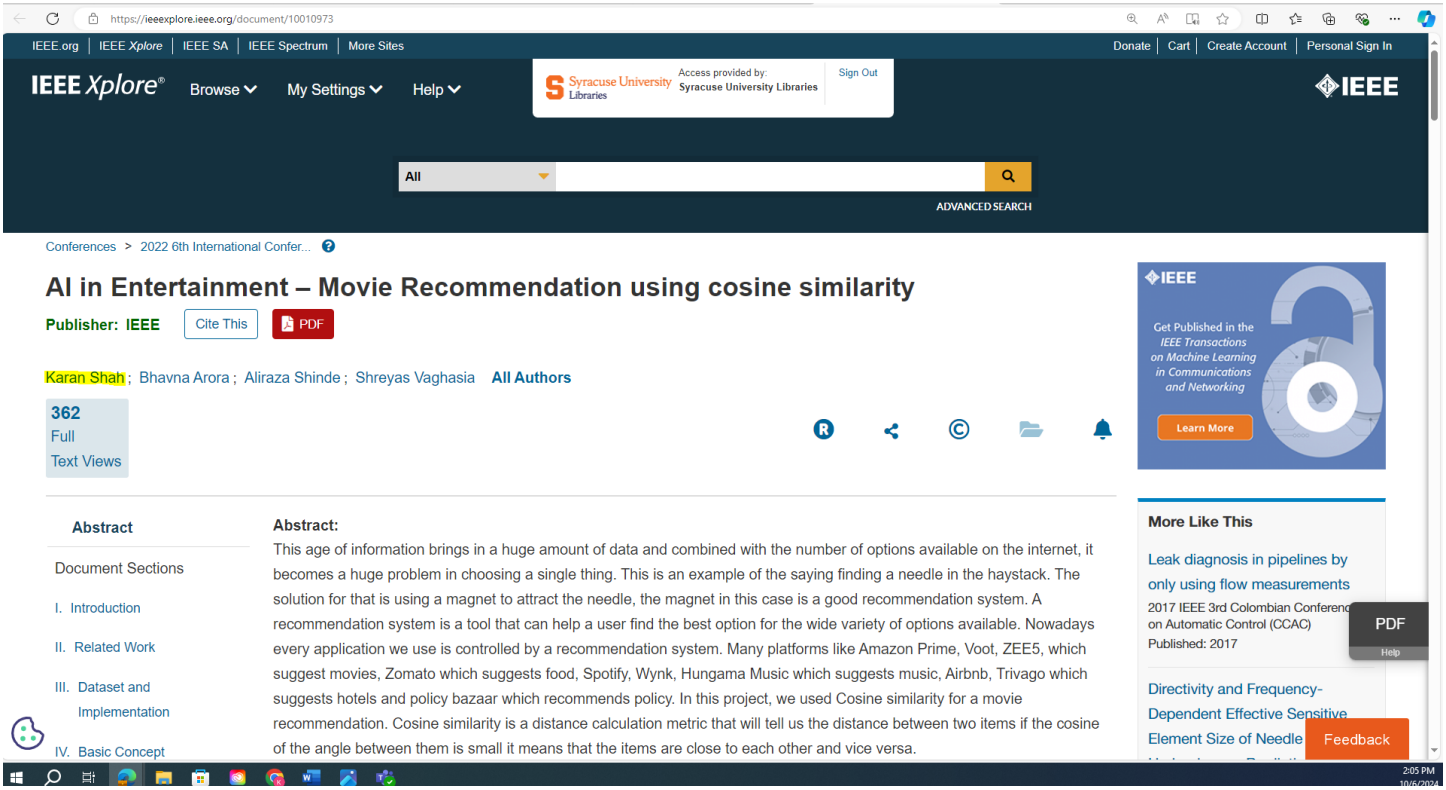
SCS04 - The screenshot above displays the files within 'mylab3file,' highlighted in yellow. (o/p of steps 16 & 17)



SCS05 – The screenshot above shows the files that were in my S3 bucket and have now been copied to my EC2 instance.



SCS06 – The screenshot above shows customized content from my research paper along with publication information. The document link directs you to the publication page, as highlighted in the screenshot.



SCS07 – When you click on the document link mentioned in the previous section, it takes you to the IEEE page.

3. **Provide a comment on what was the most difficult and or interesting step of this lab. (10 Points)**
   The lab was relatively straightforward as long as all the steps were followed correctly. However, I encountered a challenge when I was unable to SSH into my local instance, which caused some delays. To resolve the issue, I created a new instance and successfully retried the process. This troubleshooting experience helped deepen my understanding of managing instances on AWS. While we, as students, have deployed several projects using free services in the past, this lab provided valuable hands-on experience in using AWS, offering insight into how industries handle similar tasks. It was interesting to learn the practical side of cloud deployment, which is crucial for scalable and efficient project management.