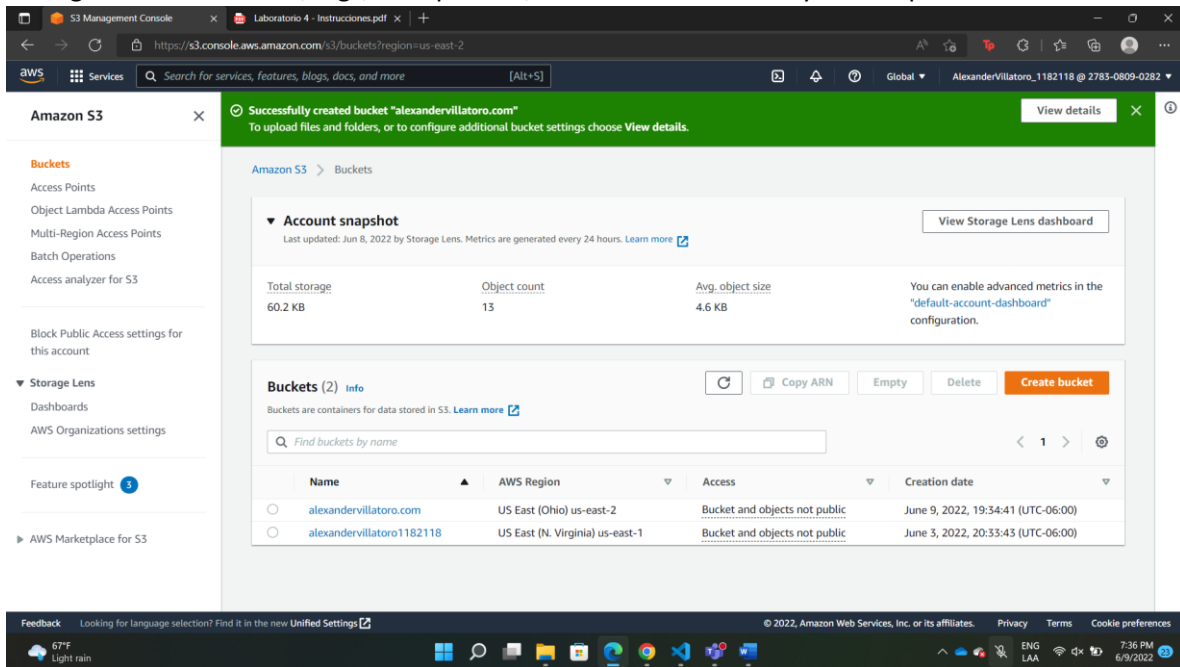


Nombre: Alexander Villatoro  
Carné: 1182118

## Laboratorio # 4

Crear un nuevo bucket con su nombre completo y dominio .com. (cokaescobar.com).  
Denegar versionamiento, logs, encriptación, métricas CloudWatch y acceso público.



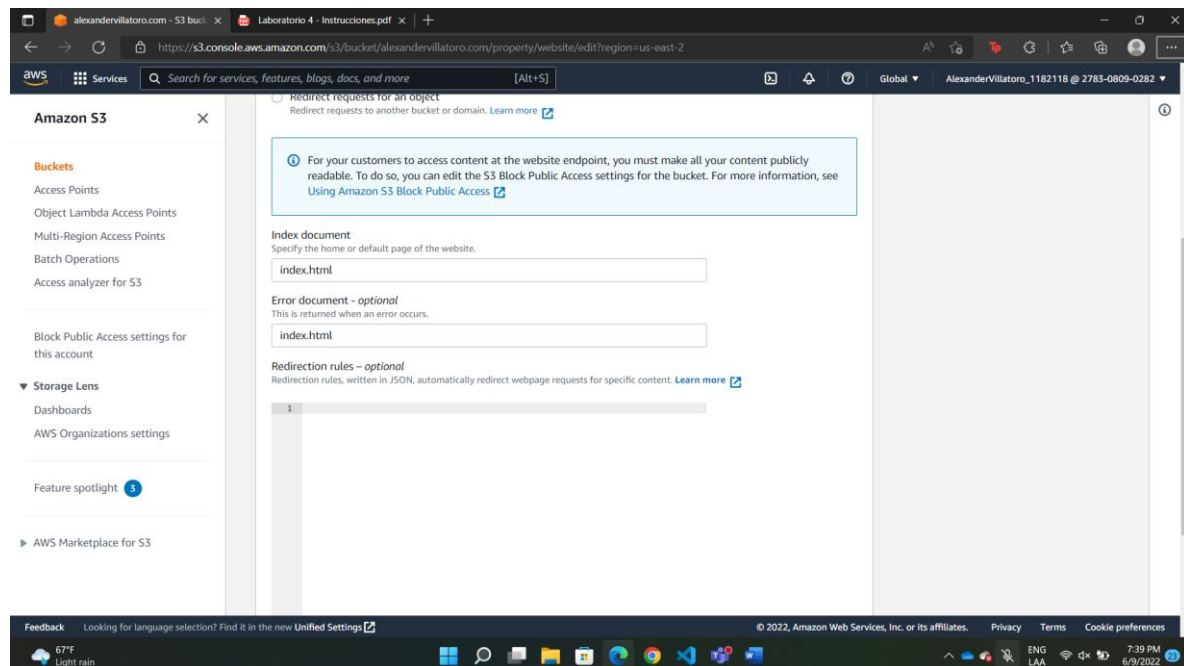
The screenshot shows the AWS S3 Management Console interface. A green notification banner at the top states: "Successfully created bucket 'alexandervillatoro.com'. To upload files and folders, or to configure additional bucket settings choose View details." The left sidebar contains navigation links for Buckets, Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, Access analyzer for S3, Storage Lens, Dashboards, AWS Organizations settings, Feature spotlight, and AWS Marketplace for S3. The main content area displays an "Account snapshot" with metrics: Total storage (60.2 KB), Object count (13), and Avg. object size (4.6 KB). Below this, the "Buckets (2) Info" section shows a table of existing buckets:

Name	AWS Region	Access	Creation date
alexandervillatoro.com	US East (Ohio) us-east-2	Bucket and objects not public	June 9, 2022, 19:34:41 (UTC-06:00)
alexandervillatoro1182118	US East (N. Virginia) us-east-1	Bucket and objects not public	June 3, 2022, 20:33:43 (UTC-06:00)

The bottom of the screenshot shows the Windows taskbar with the date and time as 7:36 PM on 6/9/2022.

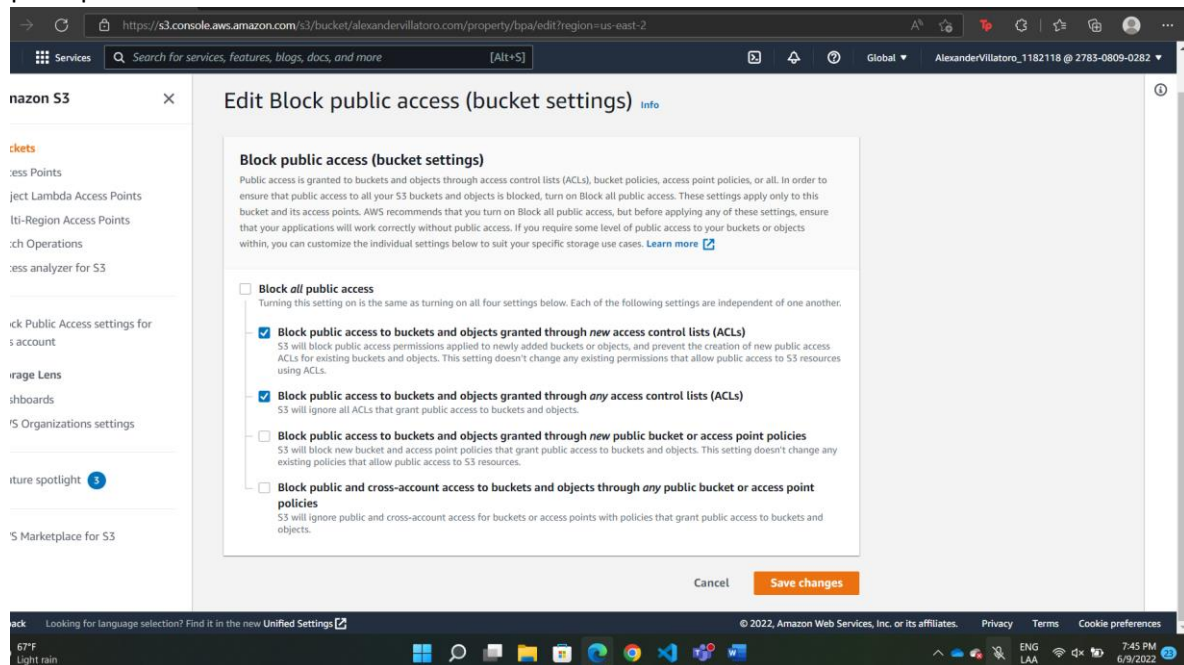
Subir al bucket un archivo con código html de nombre index.html.

En Propiedades, habilitar el Static website hosting, colocando el archivo index.htm como Index Document.

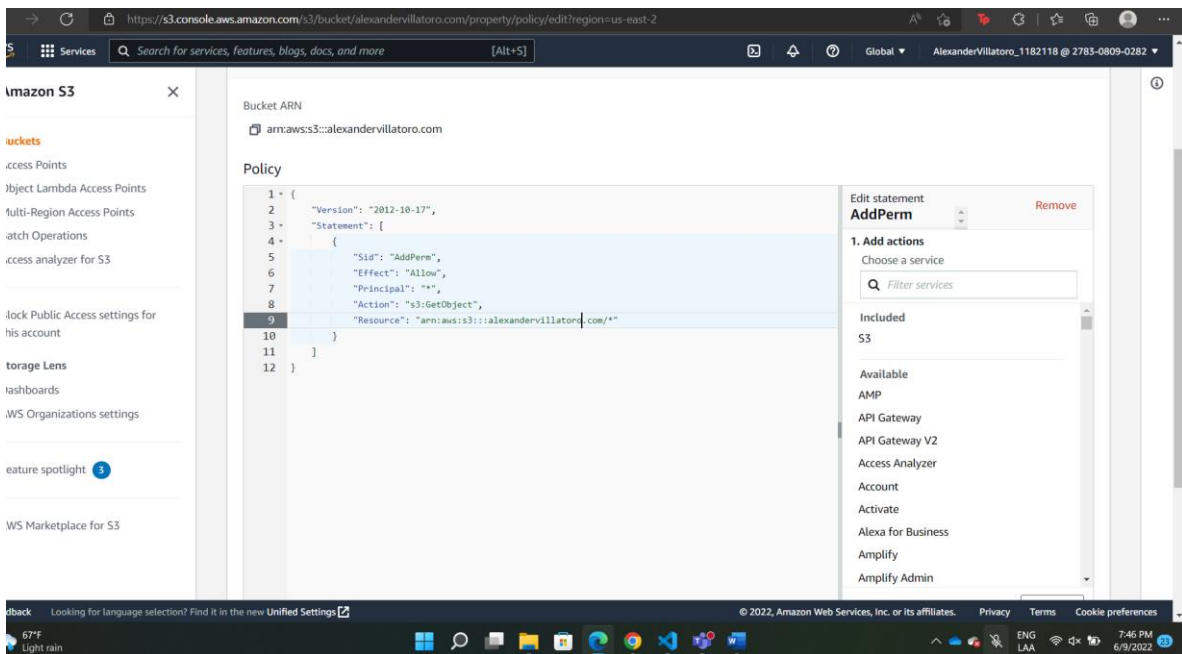
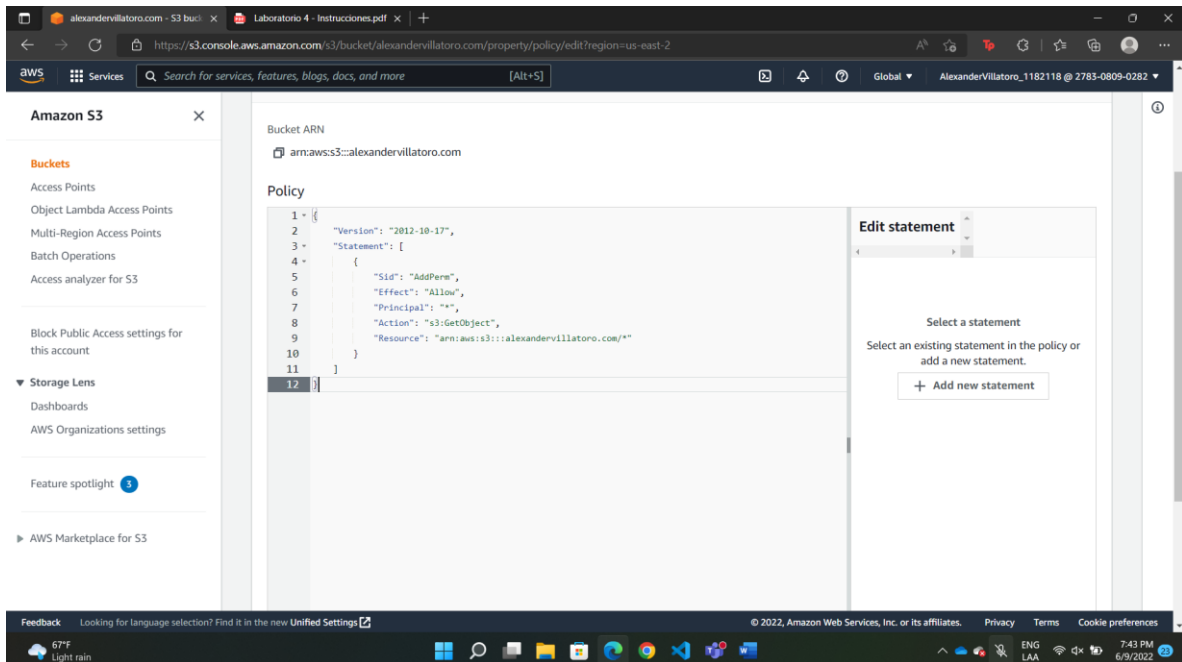


En Permisos, editar los permisos de Public Access desactivando las siguientes opciones.

- Block public access to buckets and objects granted through new public bucket or access point policies
- Block public and cross-account access to buckets and objects through any public bucket or access point policies



En Bucket Policy, copiar y pegar el JSON adjunto en su portal. Sustituir el nombre del bucket en la línea 9.



## Validar que el bucket sea reconocido por AWS como bucket público

The screenshot shows the Amazon S3 console interface. The left sidebar contains navigation links for Buckets, Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, Access analyzer for S3, Storage Lens, Dashboards, AWS Organizations settings, Feature spotlight, and AWS Marketplace for S3. The main content area displays the properties for the bucket 'alexandervillatoro.com'. The 'Properties' tab is selected, showing the following information:

- Bucket overview**
  - AWS Region: US East (Ohio) us-east-2
  - Amazon Resource Name (ARN): arn:aws:s3:::alexandervillatoro.com
  - Creation date: June 9, 2022, 19:34:41 (UTC-06:00)
- Bucket Versioning**
  - Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#)
  - 
  - Bucket Versioning: Disabled
  - Multi-factor authentication (MFA) delete: An additional layer of security that requires multi-factor authentication for changing Bucket Versioning settings and permanently deleting object versions. To modify MFA delete settings, use the AWS CLI, AWS SDK, or the Amazon S3 REST API. [Learn more](#)

The screenshot shows the Amazon S3 console interface. The left sidebar contains navigation links for Buckets, Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, Access analyzer for S3, Storage Lens, Dashboards, AWS Organizations settings, Feature spotlight, and AWS Marketplace for S3. The main content area displays the 'Account snapshot' and a list of buckets.

**Account snapshot**  
Last updated: Jun 8, 2022 by Storage Lens. Metrics are generated every 24 hours. [Learn more](#)

Total storage	Object count	Avg. object size
60.2 KB	13	4.6 KB

You can enable advanced metrics in the "default-account-dashboard" configuration.

**Buckets (2) Info**  
Buckets are containers for data stored in S3. [Learn more](#)

Name	AWS Region	Access	Creation date
<input type="radio"/> alexandervillatoro.com	US East (Ohio) us-east-2	<span style="color: red;">Public</span>	June 9, 2022, 19:34:41 (UTC-06:00)
<input type="radio"/> alexandervillatoro1182118	US East (N. Virginia) us-east-1	Bucket and objects not public	June 3, 2022, 20:33:43 (UTC-06:00)

alexandervillatoro.com - S3 bu... x Laboratorio 4 - Instrucciones.pdf x 404 Not Found x +

Not secure | alexandervillatoro.com.s3-website-us-east-2.amazonaws.com

## 404 Not Found

- Code: NoSuchKey
- Message: The specified key does not exist.
- Key: index.html
- RequestId: RYP4ZF62M17QDRBR
- HostId: WtH5wOEvdPoxvaZF:qRQpR6ajA1/+RIQhNoXKWd5GgVCu55NAeew7b6xhT6ZSpKmT7uxIgUBQ4=

**An Error Occurred While Attempting to Retrieve a Custom Error Document**

- Code: NoSuchKey
- Message: The specified key does not exist.
- Key: index.html



Obtener el endpoint del bucket y probar su funcionalidad.

Services Search for services, features, blogs, docs, and more [Alt+S]

Drag and drop files and folders you want to upload here, or choose **Add files**, or **Add folders**.

**Files and folders** (1 Total, 247.0 B) Remove Add files Add folder

All files and folders in this table will be uploaded.

Find by name < 1 >

<input type="checkbox"/>	Name	Folder	Type	Size
<input type="checkbox"/>	index.html	-	text/html	247.0 B

**Destination**

Destination  
[s3://alexandervillatoro.com](https://alexandervillatoro.com)

► **Destination details**  
Bucket settings that impact new objects stored in the specified destination.

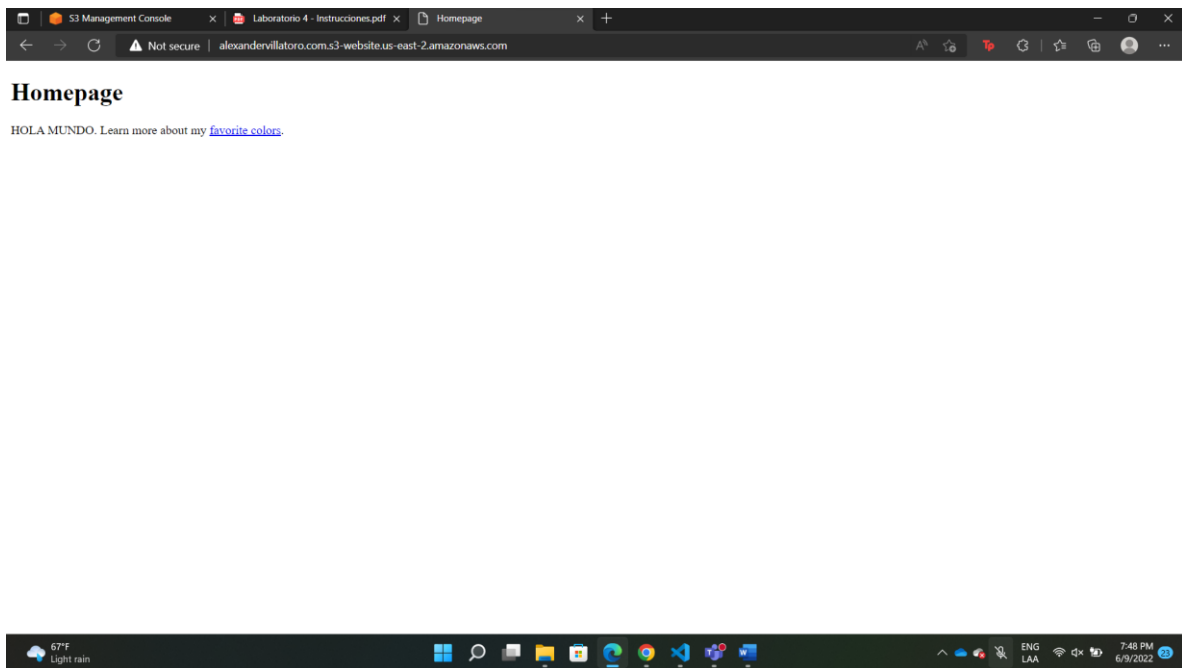
► **Permissions**  
Grant public access and access to other AWS accounts.

► **Properties**  
Specify storage class, encryption settings, tags, and more.

Cancel Upload

Looking for language selection? Find it in the new [Unified Settings](#)

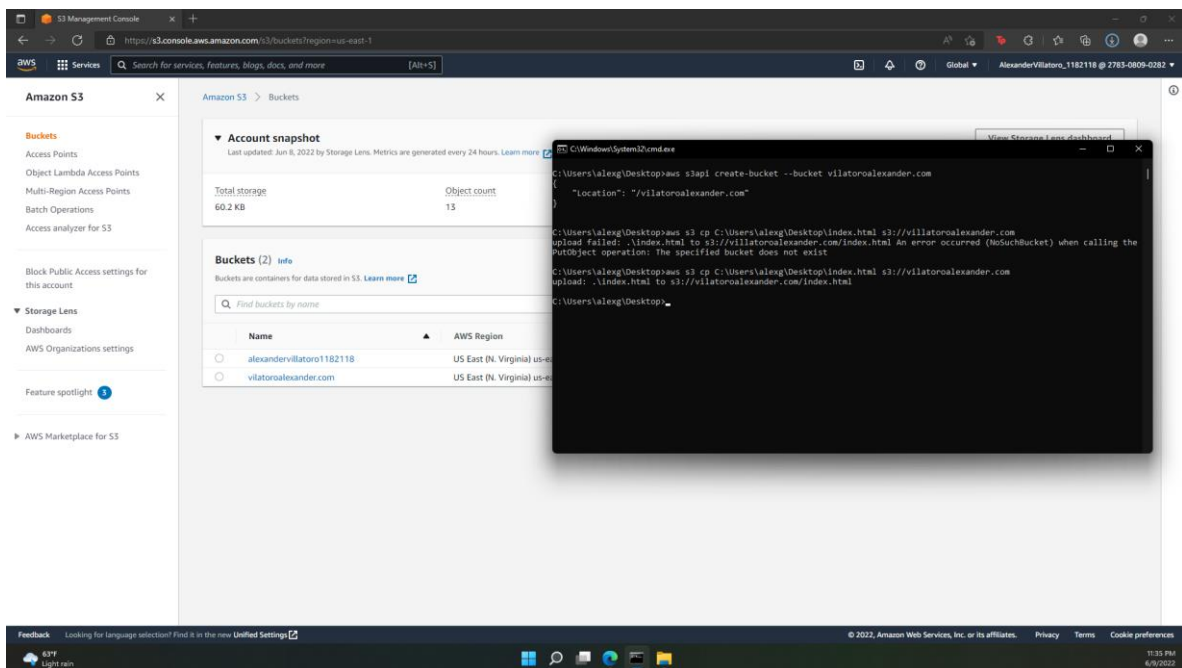
© 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences



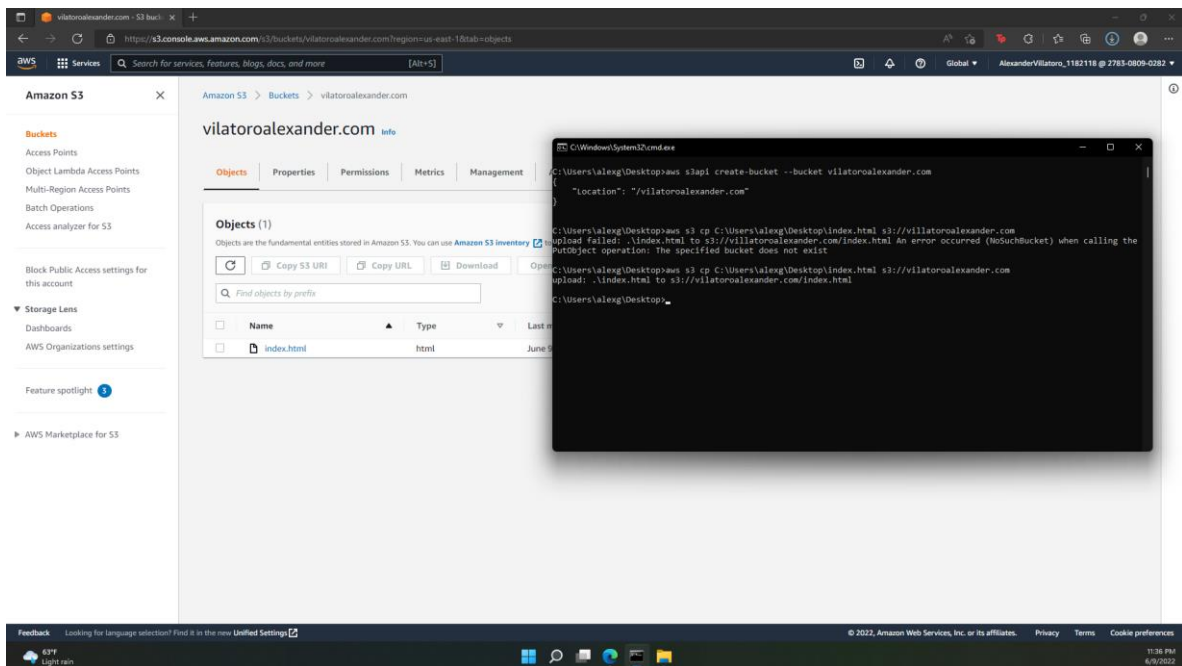
## Parte 2

Repetir toda la parte 1 del laboratorio utilizando la AWS CLI.

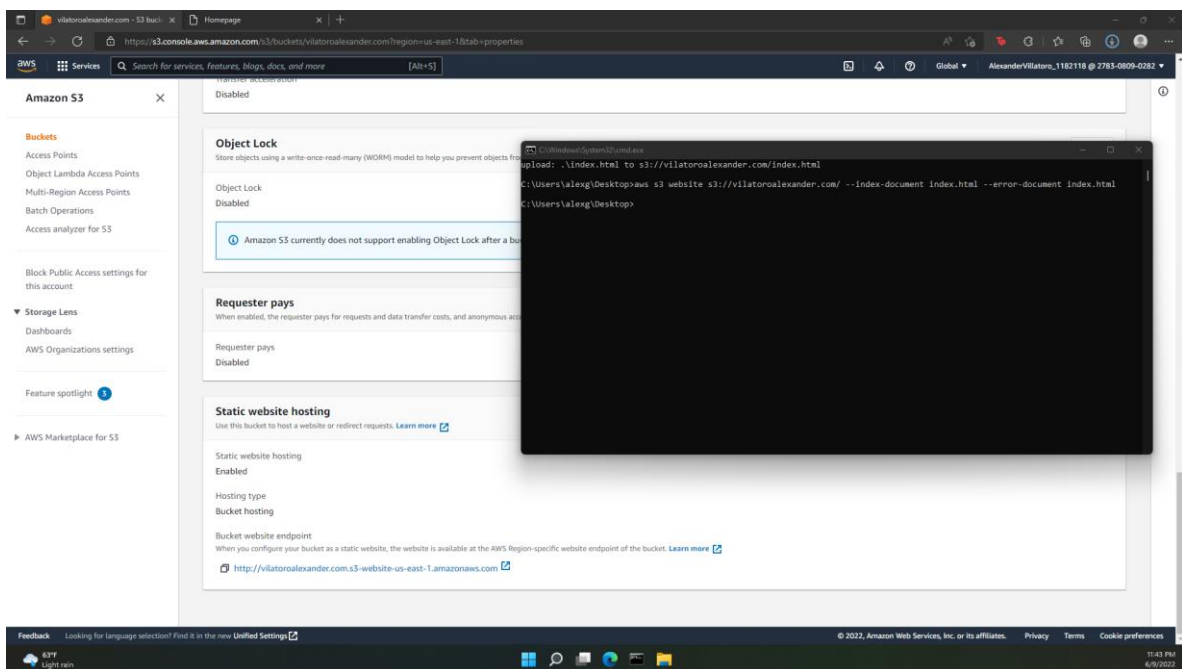
- Los pasos correspondientes a permisos de acceso público y bucket policy pueden realizarse de forma manual.
- Dejar por escrito los comandos utilizados y los screenshot correspondientes para validar las configuraciones.



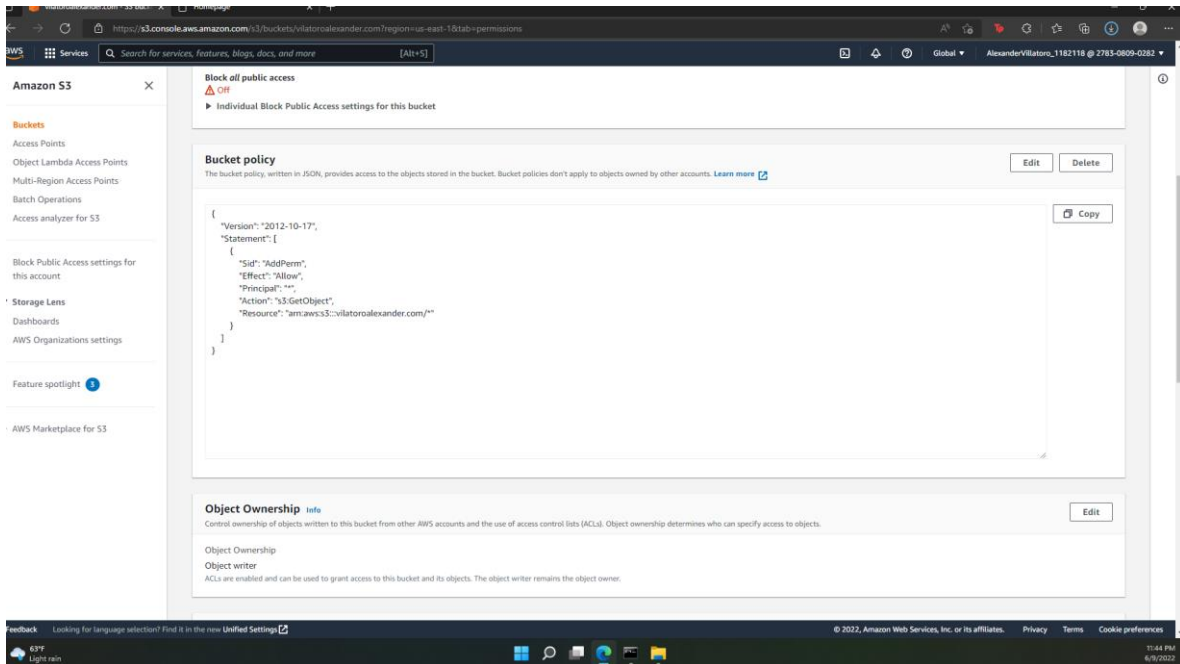
El comando create-bucket crea un bucket con un nombre dado bajo el parámetro -bucket/



El comando `aws s3 cp C:\Users\alevg\Desktop\index.html s3://vilatoroalexander.com` nos indica que se va a subir un archivo llamado `index.html` en el bucket (`s3://vilatoroalexander.com`) en donde se va a estar subiendo el archivo `html`.



Se utilizo el siguiente comando `aws s3 website s3://vilatoroalexander.com/ --index-document index.html --error-document index.html` en donde se habilita el static wesite hosting.



### Parte 3

La empresa guatemalteca Molinos del Sur desea migrar una de sus aplicaciones legacy a nueva tecnología, la cual debe ser alojada en un servidor cloud, con sistema operativo Windows y bajo cualquiera de los proveedores siguientes: Microsoft Azure, Amazon Web Services, Google Cloud Platform.

Los requerimientos del sistema son los siguientes:

- Altamente disponible
- Seguridad en acceso.
- Active Directory se encuentra en servidor local de la empresa.
- Cantidad máxima de 100 usuarios concurrentes.

La aplicación debe alojar en el mismo servidor la aplicación y la base de datos, la base de datos actualmente es manejada en MySQL y el cliente está abierto a nuevas propuestas en caso exista una opción más eficiente en rendimiento y costo para los requerimientos ya descritos.

### Entregables

- Utilizando lo aprendido en la sección teórica del curso, justificar el mejor servidor, gestor de base de datos y proveedor cloud para dar solución al problema presentado por Molinos del Sur.
- Utilizar la calculadora de costos de cada uno de los proveedores para justificar la parte económica. Validar y justificar el mejor costo mensual.



## AWS

The screenshot shows the AWS Pricing Calculator interface. At the top, a green banner states "Successfully added Amazon Simple Storage Service (S3) estimate." Below this, the "My Estimate" section displays a summary table:

Category	Cost
Upfront cost	0.00 USD
Monthly cost	193.17 USD
Total 12 months cost (Includes upfront cost)	2,318.04 USD

To the right of the summary is a "Getting Started with AWS" section with buttons for "Contact Us" and "Sign in to the Console". Below the summary is a table listing the services included in the estimate:

Service Name	Upfront cost	Monthly cost	Description	Region	Config Summary
Amazon EC2	0.00 USD	27.02 USD		US East (Ohio)	Operating syste...
Amazon RDS for MySQL	0.00 USD	148.78 USD		US East (Ohio)	Storage for each...
Amazon Route 53	0.00 USD	0.90 USD		US East (Ohio)	Hosted Zones (1)
Amazon Simple Storage Service (S3)	0.00 USD	0.00 USD		US East (Ohio)	S3 Standard sto...
Elastic Load Balancing	0.00 USD	16.47 USD		US East (Ohio)	Number of Appli...

At the bottom, there is an "Acknowledgement" section stating that the calculator provides only an estimate and that actual fees depend on various factors.

## [AWS Pricing Calculator](#)

Se necesita un balanceador de cargar por las 2 instancias, un RDS de 100GB, frontend en s3 y zona alojada en route 53 para el dominio al que se tiene que acceder.

## AZURE

The screenshot shows the Azure Pricing Calculator interface. At the top, there is a "Free account" button. Below this, the "Your Estimate" section displays a summary table:

Service	Configuration	Upfront	Monthly
App Service	Basic Tier; 2 B1 (1 Core(s), 1.75 GB RAM, 10 GB Stor...	\$0.00	\$26.28
Azure SQL Database	Single Database, vCore, RA-GRS Backup Storage, G...	\$0.00	\$52.37

Below the summary table, there is a "Support" section with a dropdown menu set to "Included" and a cost of "\$0.00". There is also a "Select your program/offer" section with a dropdown menu set to "Microsoft Customer Agreement (MCA)". At the bottom, there is a summary of costs:

Category	Cost
Estimated upfront cost	\$0.00
Estimated monthly cost	\$78.65

At the bottom right, there is a "CURRENCY" dropdown menu set to "United States - Dollar (\$) USD".

## GPC

The screenshot shows the Google Cloud Pricing Calculator interface. The left panel is for configuring the service, and the right panel shows the resulting cost breakdown.

**Configuration (Left Panel):**

- Instances using static public IP: ☐
  - Committed usage: 
    - Average hours per day each server is running:  hours
    - Average days per week each server is running:
- Use the [Network Engine Express](#) tab to add Express costs to your estimate.
- Sole-tenant nodes: ☐
  - Number of nodes: 
    - What are these nodes for?
    - Node type: 
      - ☐ Add GPUs
      - ☐ CPU Overcommit
    - Local SSD:
    - Datacenter location:
    - Committed usage: 
      - Average hours per day each server is running:  hours

**Cost Breakdown (Right Panel):**

- Class B operations: 1 million
  - \* Upcoming price: USD 6.40
- Always Free usage included: No
  - USD 6.40
- Cloud SQL for MySQL Server
  - DB HA ☐
  - Number of instances: 1
  - Instance type: db-custom-2-7680
  - Database Version: STANDARD
  - Location: Northern Virginia
  - Total Hours: 730
  - Storage: 100 GB
  - Backup: 100 GB
  - USD 635.73
- Total Estimated Cost: USD 681.91 per 1 month
- Estimate Currency: USD - US Dollar

Buttons: EMAIL, SAVE, DOWNLOAD

AppEngine nos da la opción de poder hostear una pagina web o móvil, cloud storage es para almacenar los objetos que se necesitan, y el servidor SQL para el almacenamiento de 100 GB de datos.

Conclusión: podemos darnos cuenta que en costos es mejor Azure al tener los servicios necesarios al menor costo mensual y poder hostear paginas o aplicaciones escalables al menor costo.