

Laboratorio  
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1. Alojar un sitio web estático
  - a. Create an S3 Bucket

The screenshot shows the AWS S3 Management Console interface. On the left, there's a sidebar with 'Amazon S3' and 'Buckets'. The main area is titled 'S3 buckets' and contains a search bar, a dropdown for 'All access types', and buttons for '+ Create bucket', 'Edit public access settings', 'Empty', and 'Delete'. It displays 1 Bucket, 1 Regions, and a single entry for 'cesareduardolanoscamacho'. The entry details show it was created on Feb 26, 2019, at 9:28:39 AM GMT-0500, located in US West (Oregon), and contains bucket and objects not public.

## 2. Upload Content

The screenshot shows the 'Overview' tab of the AWS S3 bucket 'cesareduardolanoscamacho'. At the top, there are tabs for 'Overview', 'Properties', 'Permissions', and 'Management'. Below is a search bar and buttons for 'Upload', 'Create folder', 'Download', and 'Actions'. The main area is a table listing files with columns for Name, Last modified, Size, and Storage class. The table includes files like 'apply.html', 'faq.html', 'favicon.ico', 'index.html', 'investors.html', 'register.html', 'ride.html', 'robots.txt', 'signin.html', 'unicorns.html', and 'unicorn.html'. All files are in Standard storage class and were uploaded on Feb 26, 2019.

Name	Last modified	Size	Storage class
css	Feb 26, 2019 9:37:20 AM GMT-0500	2.9 KB	Standard
fonts	Feb 26, 2019 9:37:20 AM GMT-0500	6.4 KB	Standard
images	Feb 26, 2019 9:37:21 AM GMT-0500	1.4 KB	Standard
apply.html	Feb 26, 2019 9:37:22 AM GMT-0500	6.6 KB	Standard
faq.html	Feb 26, 2019 9:37:22 AM GMT-0500	5.9 KB	Standard
favicon.ico	Feb 26, 2019 9:37:22 AM GMT-0500	2.7 KB	Standard
index.html	Feb 26, 2019 9:37:22 AM GMT-0500	4.2 KB	Standard
investors.html	Feb 26, 2019 9:37:23 AM GMT-0500	43.0 B	Standard
register.html	Feb 26, 2019 9:37:23 AM GMT-0500	2.5 KB	Standard
ride.html	Feb 26, 2019 9:37:24 AM GMT-0500	4.9 KB	Standard
robots.txt	Feb 26, 2019 9:37:25 AM GMT-0500	0 B	Standard
signin.html	Feb 26, 2019 9:37:25 AM GMT-0500	0 B	Standard
unicorns.html	Feb 26, 2019 9:37:25 AM GMT-0500	0 B	Standard
unicorn.html	Feb 26, 2019 9:37:26 AM GMT-0500	0 B	Standard

### 3. Agregar una política de cubo para permitir lecturas públicas

The screenshot shows the AWS Management Console for an S3 bucket named 'cesareduardolanoscamacho'. The 'Bucket Policy' tab is selected under the 'Permissions' section. The policy editor displays the following JSON code:

```
1 {
2     "Version": "2012-10-17",
3     "Statement": [
4         {
5             "Effect": "Allow",
6             "Principal": "*",
7             "Action": "s3:GetObject",
8             "Resource": "arn:aws:s3:::cesareduardolanoscamacho/*"
9         }
10    ]
11 }
```

Type to add a new policy or edit an existing policy in the text area below.

Bucket policy editor ARN: arn:aws:s3:::cesareduardolanoscamacho

Buttons at the bottom right: Delete, Cancel, Save.

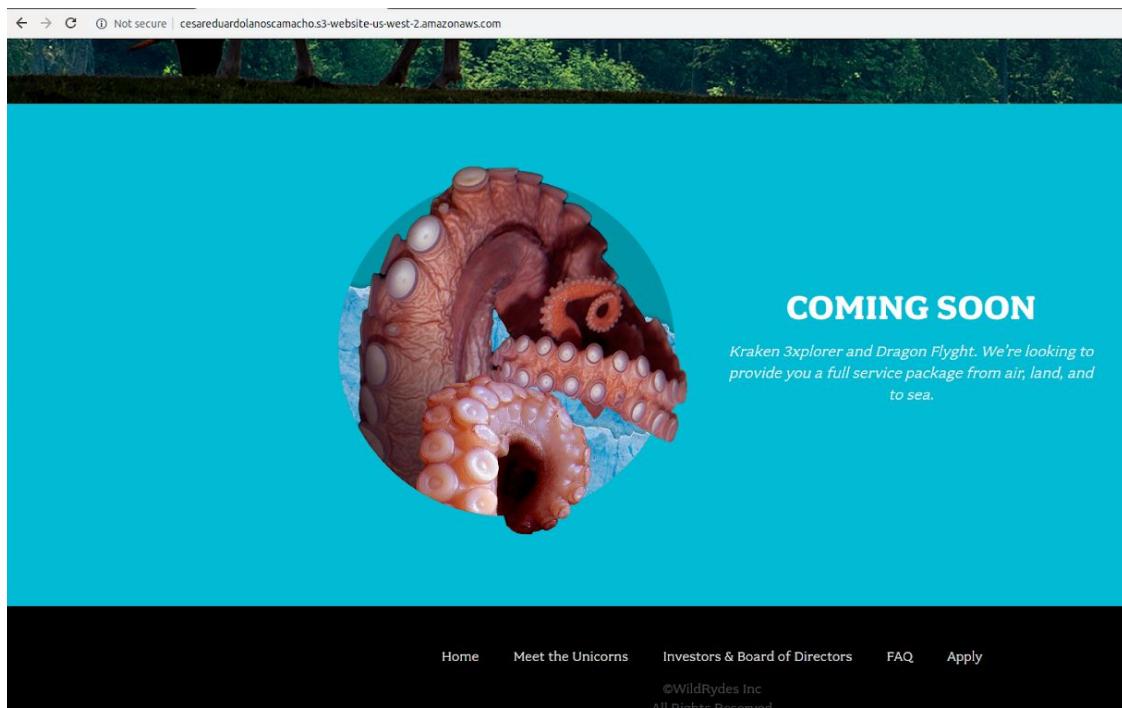
### 4. Enable Website Hosting

The screenshot shows the AWS Management Console for the same S3 bucket. On the left, under 'Properties', there are sections for 'Versiones' and 'Registro de acceso al servidor'. On the right, a modal window titled 'Alojamiento de sitios web estáticos' (Static Website Hosting) is open. It contains the following configuration:

- Punto final: `http://cesareduardolanoscamacho.s3-website-us-west-2.amazonaws.com`
- Utilice este cubo para alojar un sitio web [Aprende más](#)
- Documento de índice
- Documento de error
- Reglas de redirección (opcional)
- Solicitudes de redirección [Aprende más](#)
- Deshabilitar el alojamiento de sitios web

Buttons at the bottom right: Cancelar, **Guardar**.

## 6.VALIDA tu idea



## 2. Administración de Usuarios

### 1 Crear un grupo de usuarios de Cognito de Amazon

A screenshot of the AWS Cognito User Pools configuration interface. The left sidebar shows a navigation menu with sections like 'Configuración general', 'Usuarios y grupos', 'Atributos', etc. The main content area shows a success message: 'Su grupo de usuarios fue creado con éxito.' Below this, there are several configuration fields: 'Id. De piscina' (us-east-1\_5SUQh4qw), 'Pool ARN' (arn: aws: cognito-idp: us-east-1: 429508083264: userpool / us-east-1\_5SUQh4qw), 'Número estimado de usuarios' (0), 'Atributos requeridos' (correo electrónico), 'Atributos de alias' (ninguno), 'Atributos de nombre de usuario' (ninguno), 'Atributos personalizados' (personalizados), 'Longitud mínima de la contraseña' (8), 'Política de contraseñas' (letras mayúsculas, minúsculas, caracteres especiales, números), '¿Se permiten registros de usuarios?' (Los usuarios pueden registrarse), 'MFA' (Habilitar MFA ...), 'Verificaciones' (Email), 'Seguridad avanzada' (Habilitar seguridad avanzada ...), 'Etiquetas' (Elija etiquetas para su grupo de usuarios), and 'Clientes de la aplicación' (aplicación Agregar cliente de la aplicación ...). The entire configuration page has a light gray background with green and blue highlights for certain fields.

## Agrega una aplicación a tu grupo de usuarios

The screenshot shows the AWS Management Console interface for managing user groups. The left sidebar lists various configuration options under the 'WildRydes' group. The 'Creadores de aplicaciones' (Clients of applications) option is selected. A modal window titled '¿Qué clientes de aplicaciones tendrán acceso a este grupo de usuarios?' (Which application clients will have access to this user group?) is open. It contains a text input field with 'WildRydesWebApp' and a text area labeled 'ID de cliente de la aplicación' (Client application ID) containing '1fpfe4bqg1knb9760isbdohivj'. A 'Mostrar detalles' (Show details) button is visible at the bottom of the modal. Below the modal, there are buttons for 'Añadir otro cliente de aplicaciones' (Add another application client) and 'Volver a los detalles de la piscina' (Return to pool details).

## Actualice el archivo config.js en su sitio web Bucket

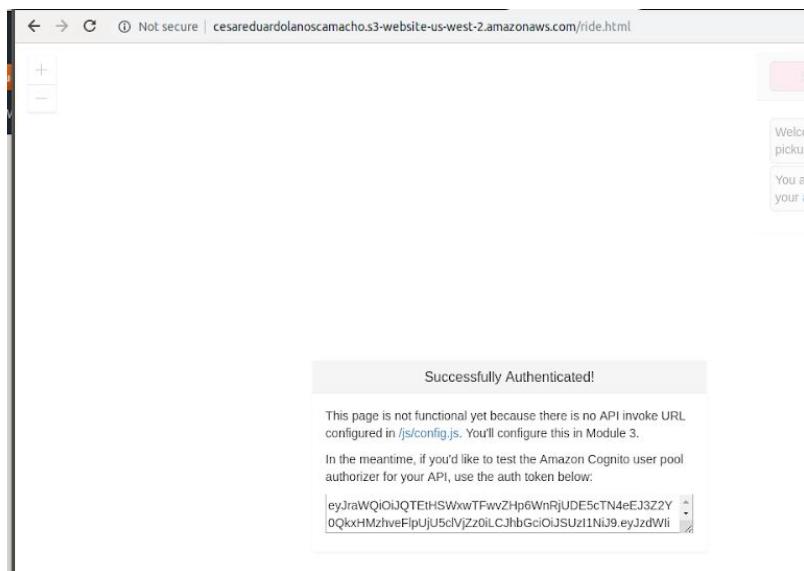
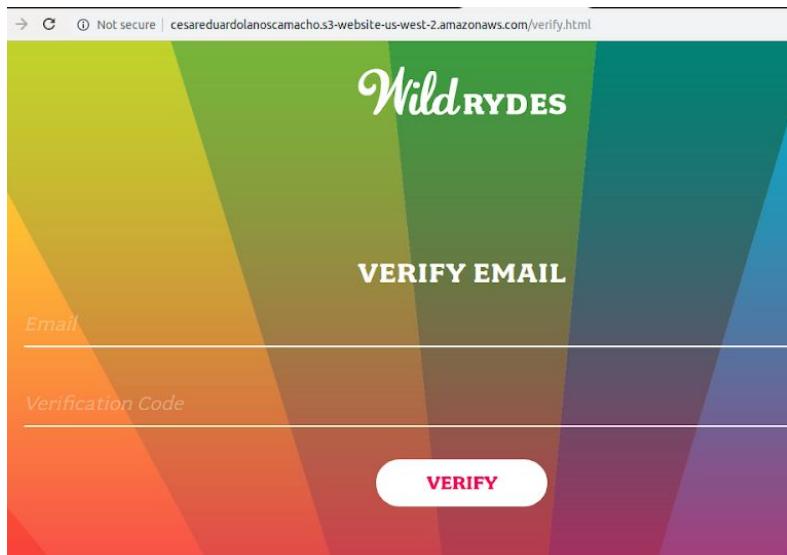
The screenshot shows a code editor window with the file 'config.js' open. The file contains the following JavaScript code:

```
window._config = {
  cognito: {
    userPoolId: '', // us-east-1_5SUQh4qqjw
    userPoolClientId: '', // 1fpfe4bqg1knb9760isbdohivj
    region: '' // us-east-1
  },
  api: [
    invokeUrl: '' // e.g. https://rc7nyt4tql.execute-api.us-west-2.amazonaws.com/prod,
  ]
};
```

```
← → C https://s3.us-west-2.amazonaws.com/cesareduardolanoscamacho/js/config.js?response-content-disposition=public-read

window._config = {
    cognito: {
        userPoolId: '', // us-east-1_5SUQh4qjw
        userPoolClientId: '', // 1fpfe4bqg1knb9760isbdohivj
        region: '' // us-east-1
    },
    api: {
        invokeUrl: '' // e.g. https://rc7nyt4tql.execute-api.us-west-2.amazonaws.com/prod',
    }
};
```

## Valida tu implementación



## Módulo 3: Backend de servicio sin servidor

### Crear una tabla de Amazon DynamoDB

The screenshot shows the AWS DynamoDB console with the 'Rides' table selected. The left sidebar has 'Tables' selected. The main area displays the 'Rides' table details:

Name	Status	Partition key
Rides	Active	RideId (String)

**Stream details**

Stream enabled	No
View type	-
Latest stream ARN	-

**Table details**

Table name	Rides
Primary partition key	RideId (String)
Point-in-time recovery	DISABLED Enable
Encryption Type	DEFAULT
KMS Master Key ARN	Not Applicable
Time to live attribute	DISABLED Manage TTL
Table status	Active
Creation date	February 26, 2019 at 11:10:26 AM UTC-5
Read/write capacity mode	Provisioned
Last change to on-demand mode	-
Provisioned read capacity units	5 (Auto Scaling Disabled)
Provisioned write capacity units	5 (Auto Scaling Disabled)
Last decrease time	-
Last increase time	-
Storage size (in bytes)	0 bytes
Item count	0 Manage live count
Region	US East (N. Virginia)
Amazon Resource Name (ARN)	arn:aws:dynamodb:us-east-1:429508083264:table/Rides

Storage size and item count are not updated in real-time. They are updated periodically, roughly every six hours.

## 2. Create an IAM Role for Your Lambda function

The screenshot shows the AWS IAM console with the 'WildRidesLambda' role selected. The left sidebar has 'Roles' selected. The main area displays the 'Summary' tab of the role:

Role ARN	arn:aws:iam::429508083264:role/WildRidesLambda
Role description	Allows Lambda functions to call AWS services on your behalf.   Edit
Instance Profile ARNs	-
Path	/
Creation time	2019-02-26 11:19 EST
Maximum CLI/API session duration	1 hour Edit

**Permissions**

- Permissions policies (2 policies applied)
  - AWSLambdaBasicExecutionRole (AWS managed policy)
  - DynamoDBWriteAccess (Inline policy)
- Permissions boundary (not set)

## 4. Crear una función Lambda para solicitudes de manejo

The screenshot shows two tabs in the AWS Lambda console:

- Lambda Management Console**: Shows the RequestUnicorn function has been successfully created. It includes tabs for Configuration, Monitoring, and Designer.
- SolicitudUnicornio**: Shows the function code editor with the file index.js open. The code implements a function to find an optimal unicorn based on location and gender.

```

    // This is where you would implement logic to find the optimal unicorn for
    // this ride (possibly invoking another Lambda function as a microservice.)
    const db = new AWS.DynamoDB.DocumentClient();
    const pickLocation = require('picklocation');
    const Fleet = require('fleet');

    exports.handler = async (event) => {
        const {Gender} = event;
        const {lat, lon} = pickLocation.getEventCoordinates(event);
        const rideId = Fleet[Math.floor(Math.random() * Fleet.length)];
        const ride = await db.get({ TableName: 'Rides', ItemKey: { RideId: rideId } }).promise();
        const unicorn = await db.get({ TableName: 'Unicorns', ItemKey: { UnicornName: ride.UnicornName } }).promise();
        return {
            statusCode: 200,
            body: JSON.stringify({
                RideId: ride.RideId,
                RideTime: ride.RideTime,
                UnicornName: unicorn.UnicornName,
                Gender: Gender,
                Latitude: lat,
                Longitude: lon
            })
        };
    };
  
```

### Valide su implementación

The screenshot shows the RequestUnicorn function configuration and the execution results of a test event:

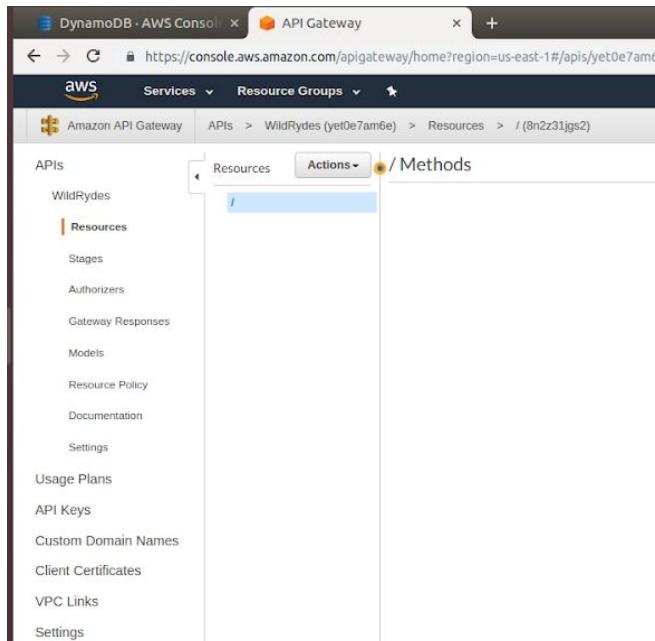
- Function code**: Shows the code entry type as Edit code inline, runtime as Node.js 6.10, and handler as index.handler.
- Execution results**: Shows the response to a test event with status Succeeded, max memory used 34 MB, and execution time 1041.74 ms. The response body contains the details of the selected unicorn.

```

    {
      "status": "SUCCEEDED",
      "maxMemoryUsed": "34 MB",
      "executionTime": "1041.74 ms"
    }
  
```

## Module 4. RESTful APIs

### Create a New REST API



### Crear un Autorizador de Grupos de Usuarios de Cognito

The screenshot shows the AWS API Gateway console with the URL <https://console.aws.amazon.com/apigateway/home?region=us-east-1#/apis/yet0e7am6>. The left sidebar is open with the 'APIs' tab selected, showing the 'WildRydes' API. The main area displays the 'Authorizers' section, showing a single entry named 'WildRydes'. The right side shows a browser window with the URL <cesareduardolanoscama.s3-website-us-west-2.amazonaws.com/ride.html>, which displays a map of Washington D.C. and the message 'Successfully Authenticated!'. Below the browser window, there is a note: 'This page is not functional yet because there is no API invoke URL configured in `js/config.js`. You'll configure this in Module 3.' and 'In the meantime, if you'd like to test the Amazon Cognito user pool authorizer for your API, use the auth token below:' followed by a long token string.

WildRydes - Test Authorizer

You can test your authorizer by providing values that will be used to invoke your Lambda function or make a call to your Cognito User Pool.

**Authorization Token**

Authorization (header) eyJraWQiOJQTEtHSWxxwTFvvzHpw6WnRjUDE5cTN4eEJ3Z2YQkx

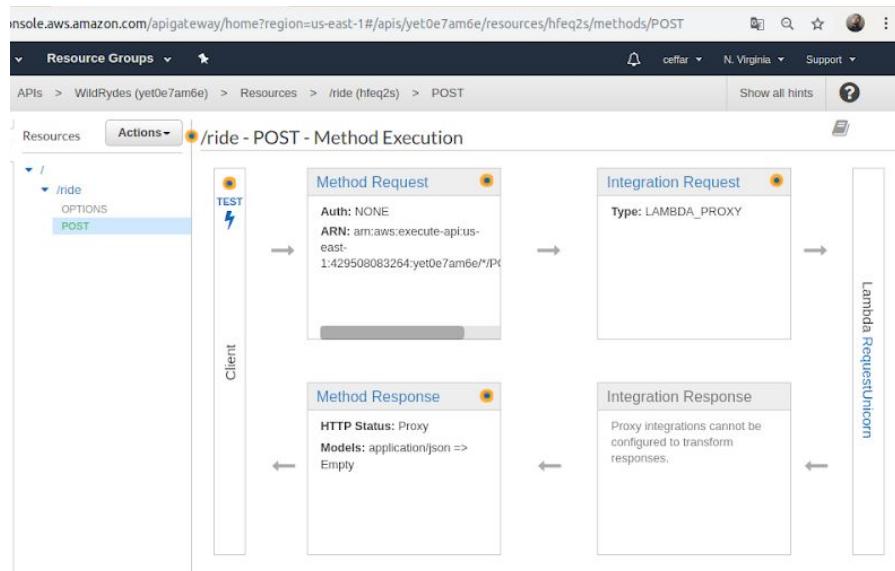
**Test**

**Response**

Response Code: 200  
Latency 75  
Claims

```
{
  "aud": "1fpfe4bqg1knb9760isbdohivj",
  "auth_time": "1551197147",
  "cognito:username": "loco@loco.com",
  "email": "loco@loco.com",
  "email_verified": "false",
  "event_id": "60adcb1b-39e0-11e9-aba2-f50a6e0a60c4",
  "exp": "Tue Feb 26 18:31:42 UTC 2019",
  "iat": "Tue Feb 26 17:31:42 UTC 2019",
  "iss": "https://cognito-idp.us-east-1.amazonaws.com/us-east-1-5SUQh4qjw",
  "sub": "191d0db4-ad8f-4329-9413-ae97fc4f41cf",
  "token_use": "id"
}
```

## Crear un nuevo recurso y método.



## Implementar su API

The screenshot shows the AWS API Gateway Stage Editor interface for the `prod` stage. The URL is `https://console.aws.amazon.com/apigateway/home?region=us-east-1#/apis/yet0e7am6e/stages/prod`.

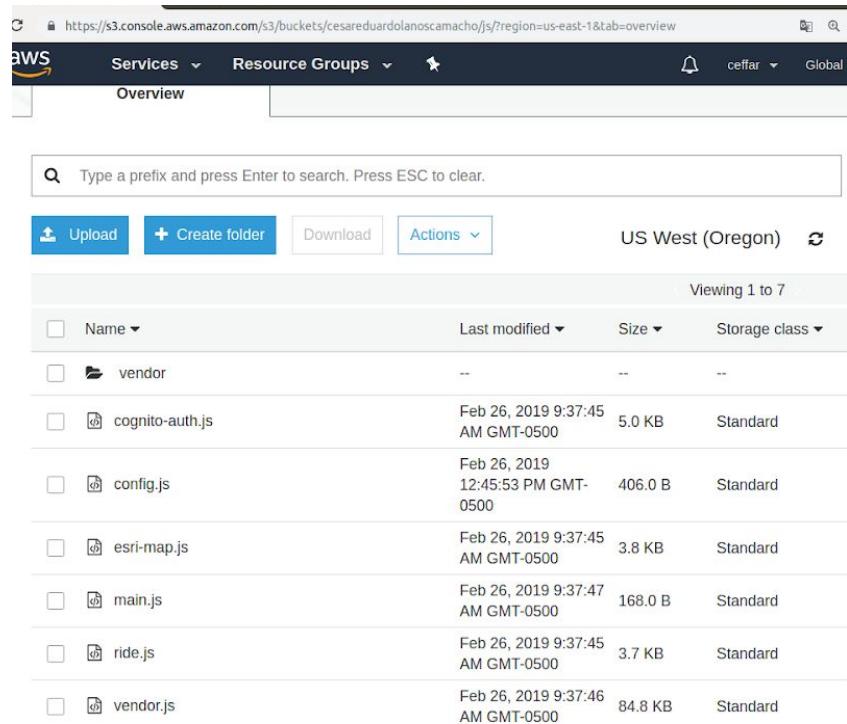
**prod Stage Editor**

**Invoke URL:** `https://yet0e7am6e.execute-api.us-east-1.amazonaws.com/prod`

**Settings** | **Logs/Tracing** | **Stage Variables** | **SDK Generation** | **Export** | **Deployment History**

**Documentation History** | **Canary**

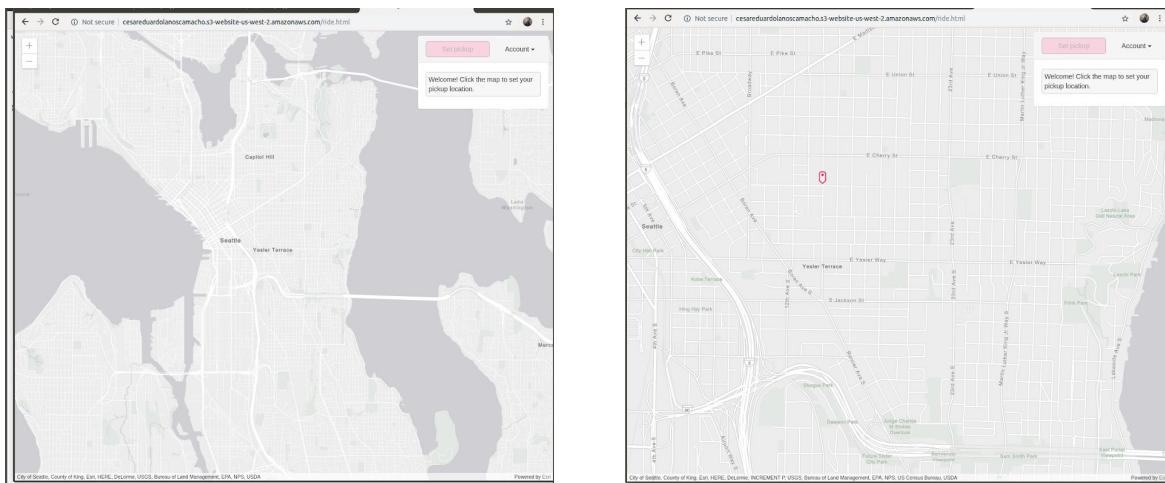
## Actualizar la configuración del sitio web



The screenshot shows the AWS S3 console interface. At the top, there's a search bar with placeholder text "Type a prefix and press Enter to search. Press ESC to clear." Below it are buttons for "Upload", "+ Create folder", "Download", and "Actions". The region is set to "US West (Oregon)". A table lists seven files:

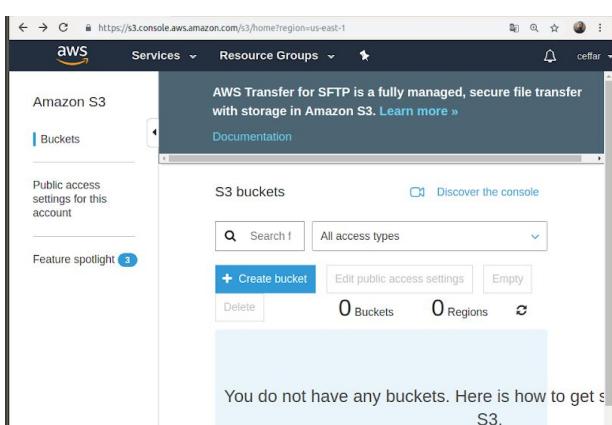
Name	Last modified	Size	Storage class
vendor	--	--	--
cognito-auth.js	Feb 26, 2019 9:37:45 AM GMT-0500	5.0 KB	Standard
config.js	Feb 26, 2019 12:45:53 PM GMT-0500	406.0 B	Standard
esri-map.js	Feb 26, 2019 9:37:45 AM GMT-0500	3.8 KB	Standard
main.js	Feb 26, 2019 9:37:47 AM GMT-0500	168.0 B	Standard
ride.js	Feb 26, 2019 9:37:45 AM GMT-0500	3.7 KB	Standard
vendor.js	Feb 26, 2019 9:37:46 AM GMT-0500	84.8 KB	Standard

## Valida tu implementación



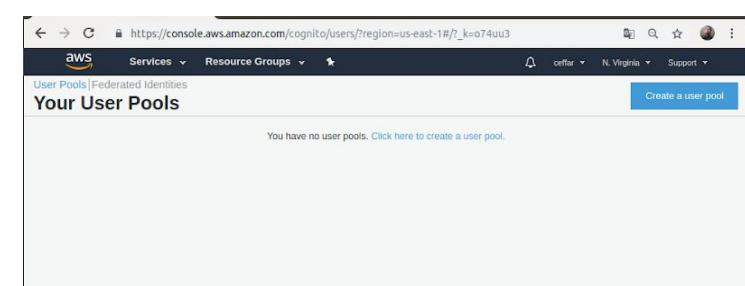
## Limpieza de recursos

### Elimina tu cubo de Amazon S3



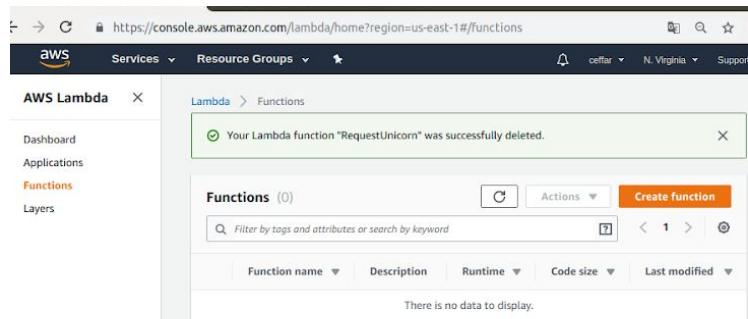
The screenshot shows the AWS S3 console. On the left, there's a sidebar with "Amazon S3" and "Buckets". The main area displays a message: "AWS Transfer for SFTP is a fully managed, secure file transfer with storage in Amazon S3. Learn more »" and "Documentation". Below this, there's a section for "S3 buckets" with a search bar and dropdown menu. A button "+ Create bucket" is available. At the bottom, it says "You do not have any buckets. Here is how to get started with S3."

### Elimine su grupo de usuarios de Amazon Cognito



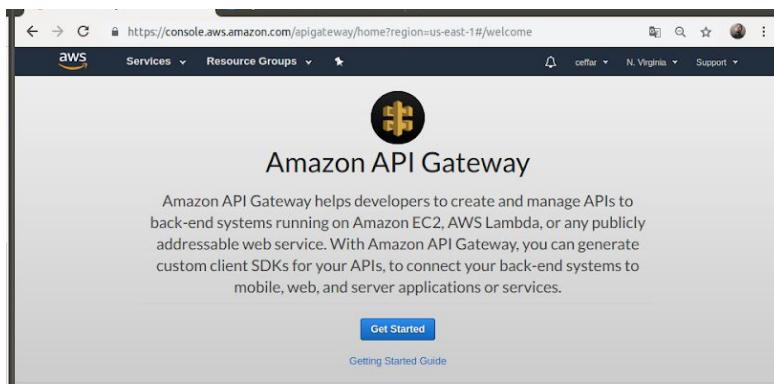
The screenshot shows the AWS Cognito "User Pools" console. It features a header with "Services", "Resource Groups", and "Global". Below the header, it says "Your User Pools". A message at the top right says "You have no user pools. Click here to create a user pool." There is a "Create a user pool" button in the top right corner.

## Elimine su servidor sin servidor



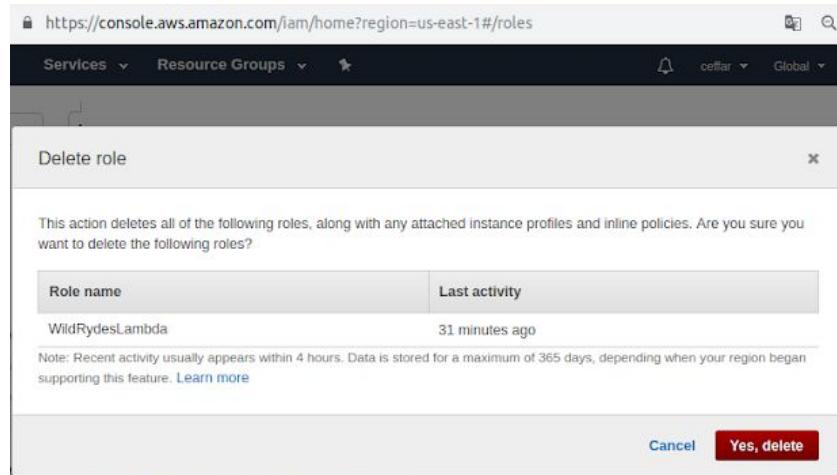
The screenshot shows the AWS Lambda console at the URL <https://console.aws.amazon.com/lambda/home?region=us-east-1#/functions>. The left sidebar is collapsed. The main area shows a success message: "Your Lambda function "RequestUnicorn" was successfully deleted." Below this, there is a table header for "Functions (0)" with columns: Function name, Description, Runtime, Code size, and Last modified. A note at the bottom says "There is no data to display."

## Eliminar tu API REST



The screenshot shows the Amazon API Gateway console at the URL <https://console.aws.amazon.com/apigateway/home?region=us-east-1#/welcome>. It features the API Gateway logo and a brief introduction: "Amazon API Gateway helps developers to create and manage APIs to back-end systems running on Amazon EC2, AWS Lambda, or any publicly addressable web service. With Amazon API Gateway, you can generate custom client SDKs for your APIs, to connect your back-end systems to mobile, web, and server applications or services." Below this is a "Get Started" button and a "Getting Started Guide".

## Borre su registro de CloudWatch



The screenshot shows the AWS IAM console at the URL <https://console.aws.amazon.com/iam/home?region=us-east-1#/roles>. A modal dialog titled "Delete role" is displayed, asking if the user wants to delete the role "WildRydesLambda". The dialog includes a table showing the role's last activity (31 minutes ago) and a note about recent activity and data storage. At the bottom are "Cancel" and "Yes, delete" buttons.