

# Práctica 2025-26: Cloud Computing (AWS): Dashboard serverless programático para CSV (Web + 3 Lambdas)

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## Capturas de pantalla del funcionamiento

python deploy\_script.py

```
(rl) alex@alex-laptop:~/Documents/master/cloudComputing/practica-aws$ python deploy_script.py
== INICIANDO NUEVO DESPLIEGUE (Sufijo: 20251207-624c8e16) ===
[S3] Bucket creado: inventory-uploads-20251207-624c8e16
[S3] Bucket creado: inventory-web-20251207-624c8e16
[DDB] Creando tabla: Inventory...

--- Desplegando Lambda A (Loader) ---
[Lambda] Función creada: LoadInventoryFunction

--- Desplegando Lambda B (API) ---
[Lambda] Función creada: GetInventoryApiFunction
[API GW] API creada: InventoryAPI (ID: 2w0jqtna2m)

--- Desplegando Lambda C (Notify) ---
[SNS] Topic: arn:aws:sns:us-east-1:058264077747:NoStock-20251207-624c8e16
[SNS] Suscripción enviada a alexdario.terreros@opendeusto.es
[Lambda] Función creada: NotifyLowStockFunction
[S3] Trigger configurado: inventory-uploads-20251207-624c8e16 -> LoadInventoryFunction
[Lambda] Stream conectado a NotifyLowStockFunction

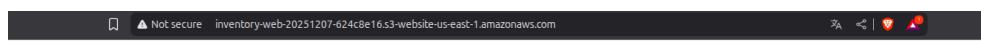
--- Desplegando Frontend ---

--- Ingestando Datos desde carpeta 'data' ---

[Data] Buscando archivos CSV en './data' para subir a inventory-uploads-20251207-624c8e16...
-> Subiendo: inventory-berlin.csv ...
-> Subiendo: inventory-karachi.csv ...
-> Subiendo: inventory-calcutta.csv ...
-> Subiendo: inventory-pusan.csv ...
-> Subiendo: inventory-springfield.csv ...
-> Subiendo: inventory-shanghai.csv ...
[Data] Subida completada. Las Lambdas deberían activarse en breve.

== DESPLIEGUE FINALIZADO ==
Bucket CSV      : s3://inventory-uploads-20251207-624c8e16
API Endpoint   : https://2w0jqtna2m.execute-api.us-east-1.amazonaws.com
Web Dashboard  : http://inventory-web-20251207-624c8e16.s3-website-us-east-1.amazonaws.com/
[11:51:11] alex@alex-laptop:~/Documents/master/cloudComputing/practica-aws$
```

## Funcionamiento web



The screenshot shows the AWS Lambda function dashboard for the 'Deploy Script' function. The top navigation bar includes links for 'Overview', 'Logs', 'Code', 'Triggers', 'Logs', 'Metrics', and 'Actions'. The main content area displays deployment logs for a successful deployment. The logs detail the creation of S3 buckets, DynamoDB tables, Lambda functions (Lambda A, Lambda B, Lambda C), and the configuration of triggers and streams. It also shows the ingestion of CSV files from the 'data' folder into the S3 bucket.

Tienda (Store)	Artículo (Item)	Cantidad (Count)
Berlin	Amazon Tap	15
Berlin	Echo (2nd Gen)	19
Berlin	Echo Dot	12
Berlin	Echo Look	10
Berlin	Echo Plus	0
Berlin	Echo Show	18
Calcutta	Amazon Tap	15
Calcutta	Echo (2nd Gen)	0
Calcutta	Echo Dot	7
Calcutta	Echo Look	3
Calcutta	Echo Plus	16
Calcutta	Echo Show	14
Karachi	Amazon Tap	6
Karachi	Echo (2nd Gen)	20
Karachi	Echo Dot	19
Karachi	Echo Look	25

## Respuesta de la API

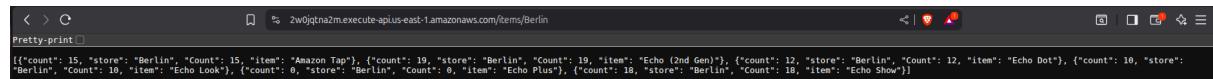
/items



```
Pretty-print □
curl -X GET "https://2w0jqtna2m.execute-api.us-east-1.amazonaws.com/items"
[{"count": 15, "item": "Amazon Tap", "store": "Calcutta", "Count": 15}, {"count": 0, "item": "Echo (2nd Gen)", "store": "Calcutta", "Count": 0}, {"count": 7, "item": "Echo Dot", "store": "Calcutta", "Count": 7}, {"count": 3, "item": "Echo Look", "store": "Calcutta", "Count": 3}, {"count": 16, "item": "Echo Plus", "store": "Calcutta", "Count": 16}, {"count": 14, "item": "Echo Show", "store": "Calcutta", "Count": 14}, {"count": 0, "item": "Amazon Tap", "store": "Shanghai", "Count": 0}, {"count": 13, "item": "Echo (2nd Gen)", "store": "Shanghai", "Count": 13}, {"count": 14, "item": "Echo Dot", "store": "Shanghai", "Count": 14}, {"count": 23, "item": "Echo Look", "store": "Shanghai", "Count": 23}, {"count": 19, "item": "Echo Show", "store": "Shanghai", "Count": 19}, {"count": 16, "item": "Amazon Tap", "store": "Karachi", "Count": 16}, {"count": 18, "item": "Echo (2nd Gen)", "store": "Karachi", "Count": 18}, {"count": 19, "item": "Echo Dot", "store": "Karachi", "Count": 19}, {"count": 25, "item": "Echo Look", "store": "Karachi", "Count": 25}, {"count": 0, "item": "Echo Plus", "store": "Karachi", "Count": 0}, {"count": 16, "item": "Echo Show", "store": "Karachi", "Count": 16}, {"count": 15, "item": "Amazon Tap", "store": "Berlin", "Count": 15}, {"count": 19, "item": "Echo (2nd Gen)", "store": "Berlin", "Count": 19}, {"count": 12, "item": "Echo Dot", "store": "Berlin", "Count": 12}, {"count": 0, "item": "Amazon Tap", "store": "Berlin", "Count": 0}, {"count": 19, "item": "Echo (2nd Gen)", "store": "Berlin", "Count": 19}, {"count": 13, "item": "Echo Dot", "store": "Berlin", "Count": 13}, {"count": 14, "item": "Echo Look", "store": "Berlin", "Count": 14}, {"count": 20, "item": "Echo Show", "store": "Berlin", "Count": 20}, {"count": 1, "item": "Amazon Tap", "store": "Springfield", "Count": 1}, {"count": 25, "item": "Echo (2nd Gen)", "store": "Springfield", "Count": 25}, {"count": 0, "item": "Echo Dot", "store": "Springfield", "Count": 0}, {"count": 19, "item": "Echo Plus", "store": "Springfield", "Count": 19}, {"count": 8, "item": "Echo Show", "store": "Springfield", "Count": 8}, {"count": 0, "item": "Echo Look", "store": "Springfield", "Count": 0}, {"count": 15, "item": "Echo Show", "store": "Springfield", "Count": 15}, {"count": 18, "item": "Echo Plus", "store": "Springfield", "Count": 18}, {"count": 0, "item": "Echo Dot", "store": "Springfield", "Count": 0}, {"count": 16, "item": "Echo Look", "store": "Springfield", "Count": 16}, {"count": 20, "item": "Echo Show", "store": "Springfield", "Count": 20}, {"count": 12, "item": "Echo Dot", "store": "Springfield", "Count": 12}, {"count": 5, "item": "Echo Look", "store": "Springfield", "Count": 5}, {"count": 8, "item": "Echo Plus", "store": "Springfield", "Count": 8}, {"count": 0, "item": "Echo Dot", "store": "Pusan", "Count": 0}, {"count": 20, "item": "Echo Show", "store": "Pusan", "Count": 20}, {"count": 15, "item": "Echo Look", "store": "Pusan", "Count": 15}, {"count": 16, "item": "Echo Plus", "store": "Pusan", "Count": 16}, {"count": 0, "item": "Echo Dot", "store": "Pusan", "Count": 0}, {"count": 0, "item": "Echo Show", "store": "Pusan", "Count": 0}]
```

```
[{"count": 15, "item": "Amazon Tap", "store": "Calcutta", "Count": 15}, {"count": 0, "item": "Echo (2nd Gen)", "store": "Calcutta", "Count": 0}, {"count": 7, "item": "Echo Dot", "store": "Calcutta", "Count": 7}, {"count": 3, "item": "Echo Look", "store": "Calcutta", "Count": 3}, {"count": 16, "item": "Echo Plus", "store": "Calcutta", "Count": 16}, {"count": 14, "item": "Echo Show", "store": "Calcutta", "Count": 14}, {"count": 0, "item": "Amazon Tap", "store": "Shanghai", "Count": 0}, {"count": 13, "item": "Echo (2nd Gen)", "store": "Shanghai", "Count": 13}, {"count": 14, "item": "Echo Dot", "store": "Shanghai", "Count": 14}, {"count": 23, "item": "Echo Look", "store": "Shanghai", "Count": 23}, {"count": 19, "item": "Echo Show", "store": "Shanghai", "Count": 19}, {"count": 16, "item": "Amazon Tap", "store": "Karachi", "Count": 16}, {"count": 18, "item": "Echo (2nd Gen)", "store": "Karachi", "Count": 18}, {"count": 19, "item": "Echo Dot", "store": "Karachi", "Count": 19}, {"count": 25, "item": "Echo Look", "store": "Karachi", "Count": 25}, {"count": 0, "item": "Echo Plus", "store": "Karachi", "Count": 0}, {"count": 16, "item": "Echo Show", "store": "Karachi", "Count": 16}, {"count": 15, "item": "Amazon Tap", "store": "Berlin", "Count": 15}, {"count": 19, "item": "Echo (2nd Gen)", "store": "Berlin", "Count": 19}, {"count": 12, "item": "Echo Dot", "store": "Berlin", "Count": 12}, {"count": 0, "item": "Amazon Tap", "store": "Berlin", "Count": 0}, {"count": 19, "item": "Echo (2nd Gen)", "store": "Berlin", "Count": 19}, {"count": 13, "item": "Echo Dot", "store": "Berlin", "Count": 13}, {"count": 14, "item": "Echo Look", "store": "Berlin", "Count": 14}, {"count": 20, "item": "Echo Show", "store": "Berlin", "Count": 20}, {"count": 1, "item": "Amazon Tap", "store": "Berlin", "Count": 1}, {"count": 25, "item": "Echo (2nd Gen)", "store": "Berlin", "Count": 25}, {"count": 0, "item": "Echo Dot", "store": "Berlin", "Count": 0}, {"count": 19, "item": "Echo Plus", "store": "Berlin", "Count": 19}, {"count": 8, "item": "Echo Show", "store": "Berlin", "Count": 8}, {"count": 0, "item": "Echo Look", "store": "Berlin", "Count": 0}, {"count": 15, "item": "Echo Show", "store": "Berlin", "Count": 15}, {"count": 18, "item": "Echo Plus", "store": "Berlin", "Count": 18}, {"count": 0, "item": "Echo Dot", "store": "Berlin", "Count": 0}, {"count": 16, "item": "Echo Look", "store": "Berlin", "Count": 16}, {"count": 20, "item": "Echo Show", "store": "Berlin", "Count": 20}, {"count": 12, "item": "Echo Dot", "store": "Berlin", "Count": 12}, {"count": 5, "item": "Echo Look", "store": "Berlin", "Count": 5}, {"count": 8, "item": "Echo Plus", "store": "Berlin", "Count": 8}, {"count": 0, "item": "Echo Dot", "store": "Pusan", "Count": 0}, {"count": 20, "item": "Echo Show", "store": "Pusan", "Count": 20}, {"count": 15, "item": "Echo Look", "store": "Pusan", "Count": 15}, {"count": 16, "item": "Echo Plus", "store": "Pusan", "Count": 16}, {"count": 0, "item": "Echo Show", "store": "Pusan", "Count": 0}]
```

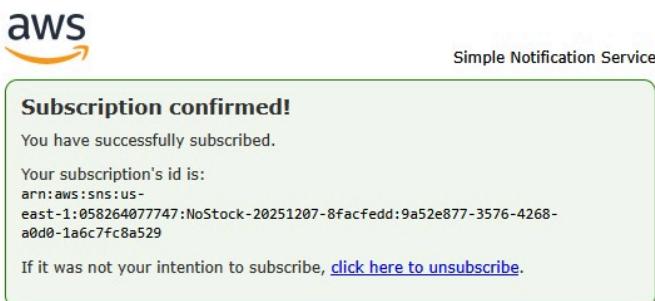
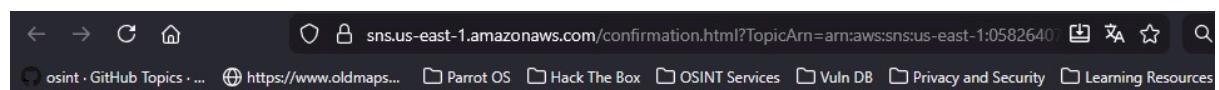
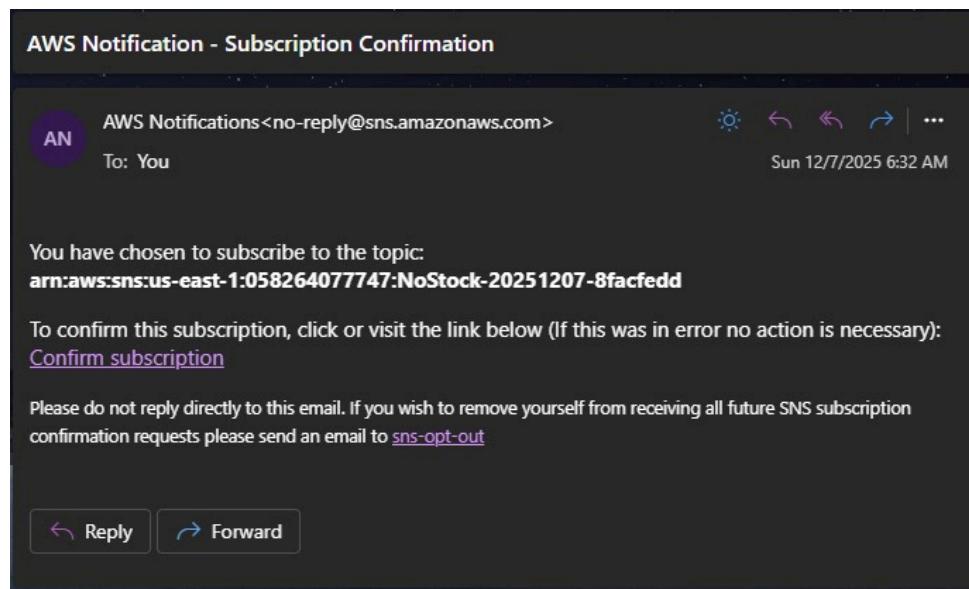
/items/Belin



```
2w0jqtna2m.execute-api.us-east-1.amazonaws.com/items/Belin
Pretty-print □
[{"count": 15, "store": "Berlin", "Count": 15, "item": "Amazon Tap"}, {"count": 19, "store": "Berlin", "Count": 19, "item": "Echo (2nd Gen)"}, {"count": 12, "store": "Berlin", "Count": 12, "item": "Echo Dot"}, {"count": 10, "store": "Berlin", "Count": 10, "item": "Echo Look"}, {"count": 0, "store": "Berlin", "Count": 0, "item": "Echo Plus"}, {"count": 18, "store": "Berlin", "Count": 18, "item": "Echo Show"}]
```

```
[{"count": 15, "store": "Berlin", "Count": 15, "item": "Amazon Tap"}, {"count": 19, "store": "Berlin", "Count": 19, "item": "Echo (2nd Gen)"}, {"count": 12, "store": "Berlin", "Count": 12, "item": "Echo Dot"}, {"count": 10, "store": "Berlin", "Count": 10, "item": "Echo Look"}, {"count": 0, "store": "Berlin", "Count": 0, "item": "Echo Plus"}, {"count": 18, "store": "Berlin", "Count": 18, "item": "Echo Show"}]
```

## Email de SNS



## Email de bajo stock

The screenshot shows an email from AWS Notifications with the subject "Stock Bajo: Amazon Tap en Calcutta". The email is addressed to "You" and was sent on Sunday, December 7, 2025, at 6:34 AM. The message content includes:

**ALERTA DE STOCK BAJO**

Tienda: Calcutta  
Producto: Amazon Tap  
Stock Actual: 3  
Umbral Mínimo: 5

Por favor, proceda a reabastecer.

If you wish to stop receiving notifications from this topic, please click or visit the link below to unsubscribe:  
[https://sns.us-east-1.amazonaws.com/unsubscribe.html?SubscriptionArn=arn:aws:sns:us-east-1:058264077747>NoStock-20251207-8facfedd:9a52e877-3576-4268-a0d-1a6c7fc8a529&Endpoint=ale\\_dario\\_04@hotmail.es](https://sns.us-east-1.amazonaws.com/unsubscribe.html?SubscriptionArn=arn:aws:sns:us-east-1:058264077747>NoStock-20251207-8facfedd:9a52e877-3576-4268-a0d-1a6c7fc8a529&Endpoint=ale_dario_04@hotmail.es)

Please do not reply directly to this email. If you have any questions or comments regarding this email, please contact us at <https://aws.amazon.com/support>

**Reply** | **Forward**

## Teardown

```
python teardown.py
```

```
(rl) alex@alex-laptop:~/Documents/master/cloudComputing/practica-aws$ python teardown.py
== INICIANDO TEARDOWN (Borrado de recursos) ==
[Config] Base de datos local eliminada.
[API GW] API eliminada (ID: 2w0jqtna2m)
[Lambda] Función eliminada: LoadInventoryFunction
[Lambda] Función eliminada: GetInventoryApiFunction
[Lambda] Trigger eliminado para NotifyLowStockFunction (UUID: d0d96d2d-e796-429a-94cb-8c0c7bb34d20)
[Lambda] Función eliminada: NotifyLowStockFunction
[DDB] Tabla eliminada: Inventory
[SNS] Topic eliminado: arn:aws:sns:us-east-1:058264077747>NoStock-20251207-624c8e16
[S3] Vaciando bucket: inventory-uploads-20251207-624c8e16...
[S3] Bucket eliminado: inventory-uploads-20251207-624c8e16
[S3] Vaciando bucket: inventory-web-20251207-624c8e16...
[S3] Bucket eliminado: inventory-web-20251207-624c8e16

== TEARDOWN COMPLETO ==
```

Repositorio en github con el código:

[https://github.com/militem/practica\\_aws.git](https://github.com/militem/practica_aws.git)