**Test evidences**

**Project:** Phsp-Dlg-Python-Test

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# About

This document describes the procedure used to test the project and evidences its results.

# Procedure

## 1 - Deploying the code to AWS

### Input

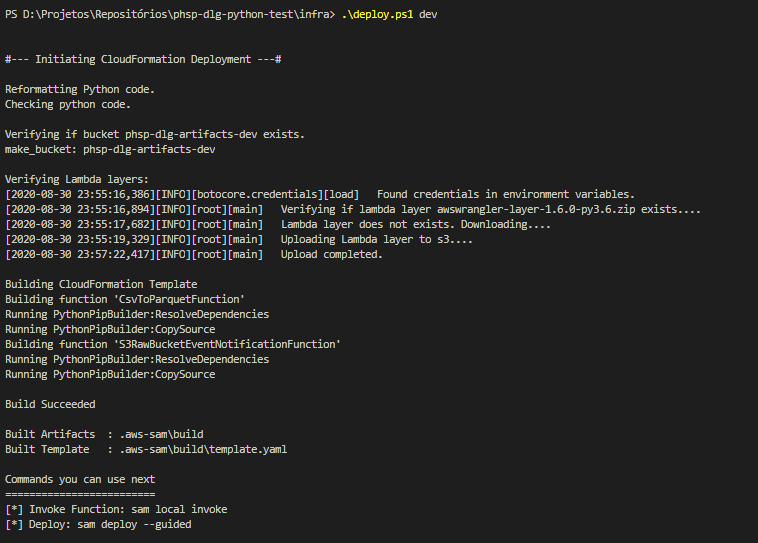
The code was deployed to AWS by running:

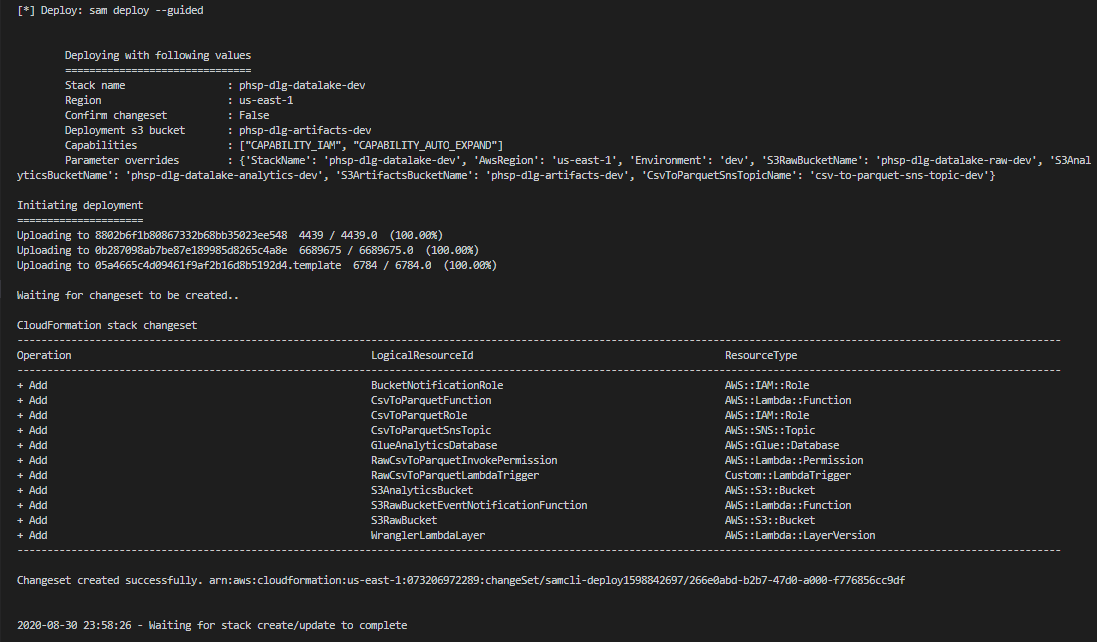
* **.\infra\deploy.ps1 dev**

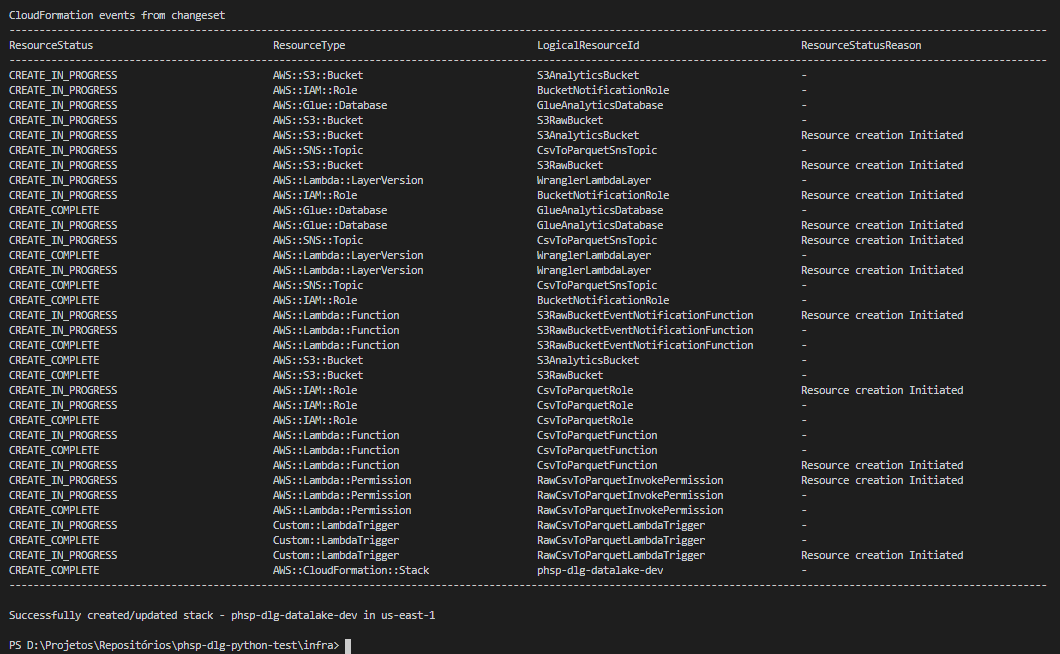
### Expected

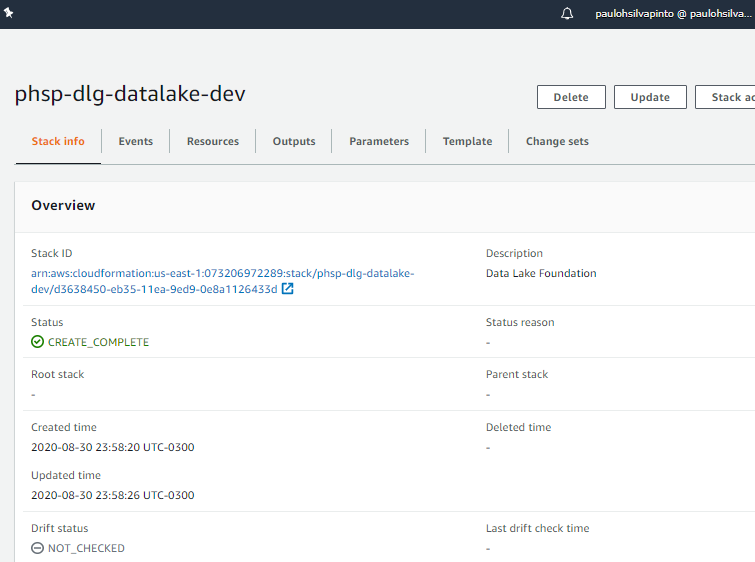
AWS resources created successfully.

### Output



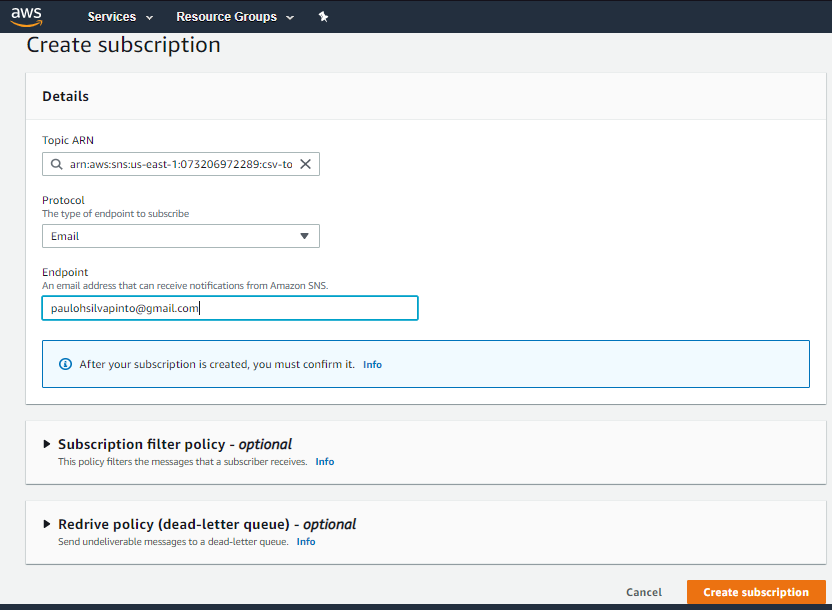






## 2 – Subscribing to the SNS topic

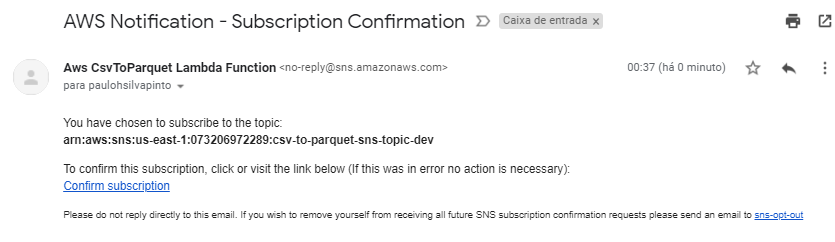
### Input

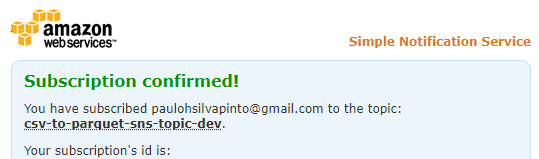


### Expected

Receiving the subscription confirmation e-mail.

### Output





## 3 – Uploading csv files

### Input

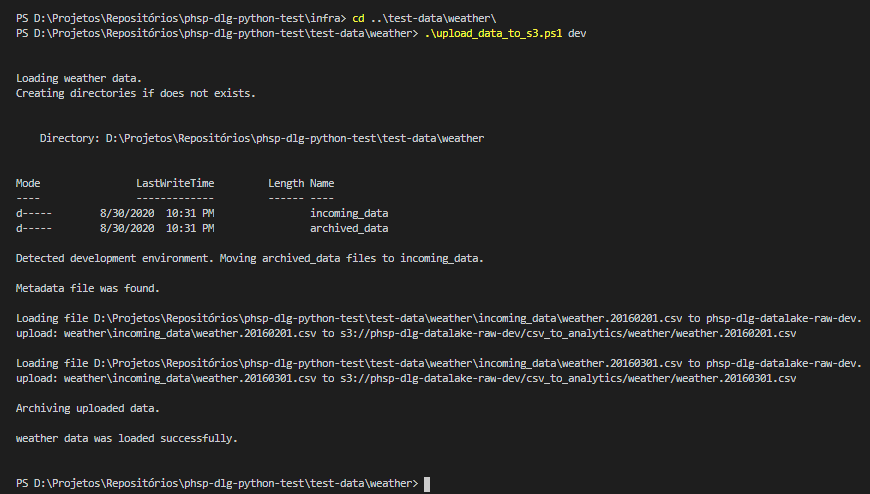
The following commands were executed:

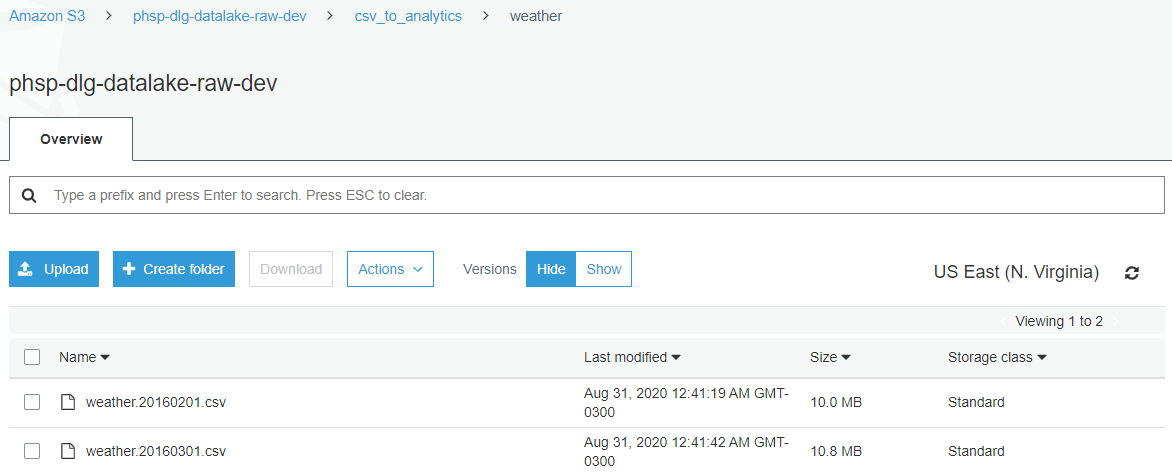
* **cd ..\test-data\weather\**
* **.\upload\_data\_to\_s3.ps1 dev**

### Expected

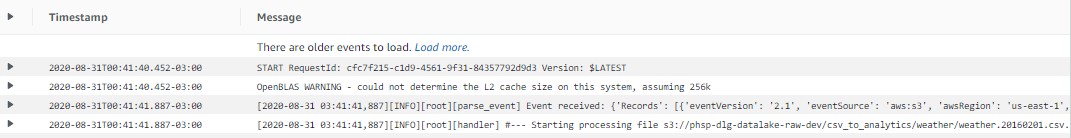
* Files successfully uploaded to S3 raw bucket;
* Lambda Function triggered automatically by a S3 Event Notification.

### Output



Files successfully uploaded to S3 raw bucket:

Lambda Function triggered automatically by a S3 Event Notification:





## 4 – Lambda Execution

### Input

The input was a S3 Event Notification sent automatically to the Lambda Function.

### Expected

* Lambda Function finishes execution without errors;
* Files successfully saved to S3 analytics bucket, as parquet, compressed and partitioned by observation\_date;
* Table created on AWS Glue Data Catalog with expected data types;
* SNS notification sent to E-mail.

### Output

Lambda Function finishes execution without errors:



Files successfully saved to S3 analytics bucket, as parquet, compressed and partitioned by observation\_date:

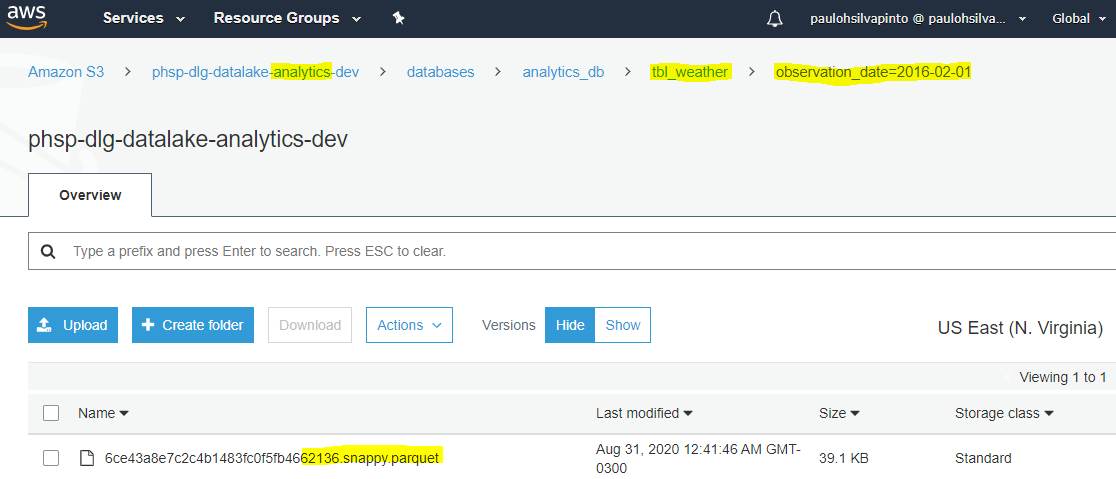
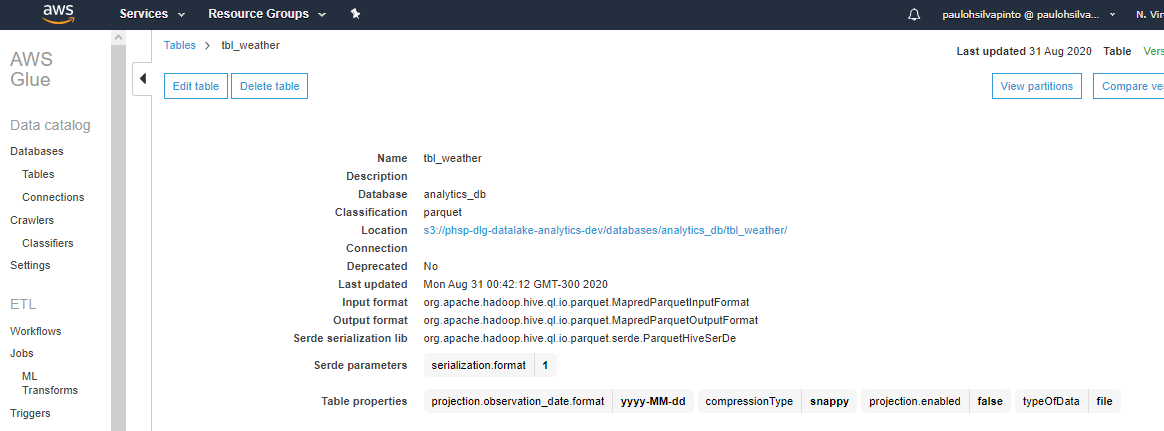
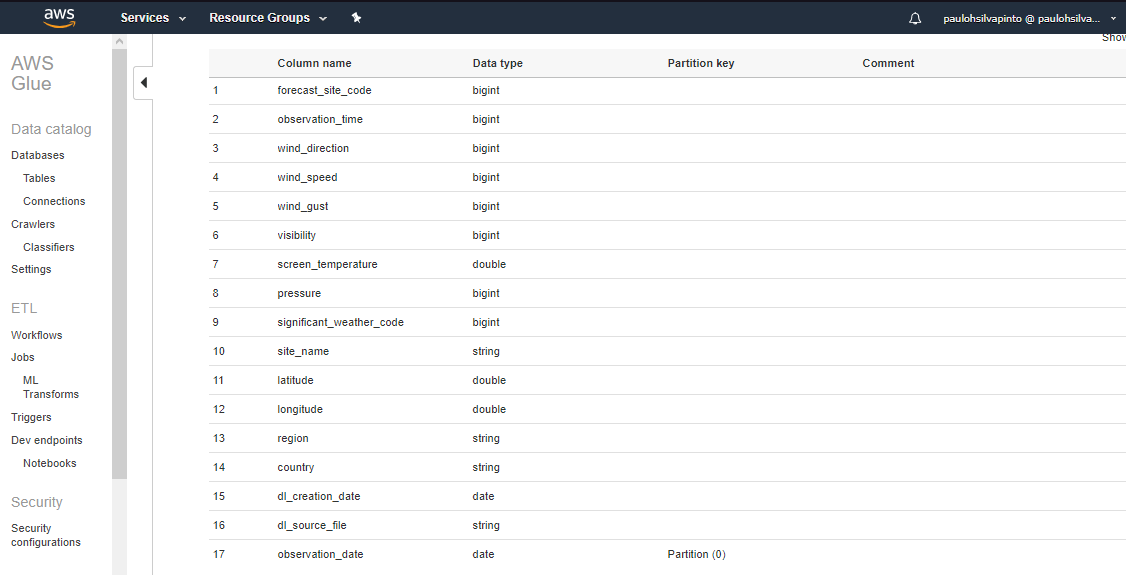
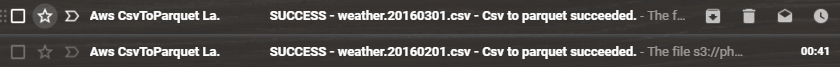


Table created on AWS Glue Data Catalog with expected data types:





SNS notification sent to E-mail:





## 5 – Data Validation

### Input

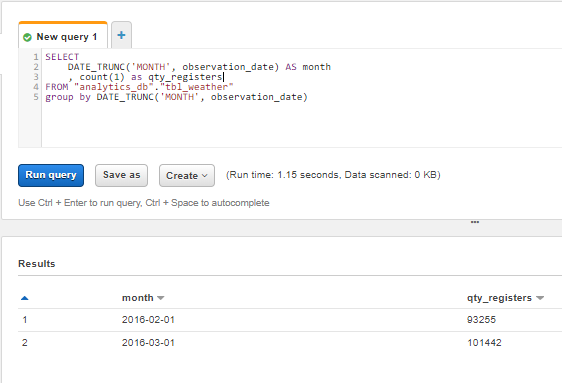
Queries executed via Athena.

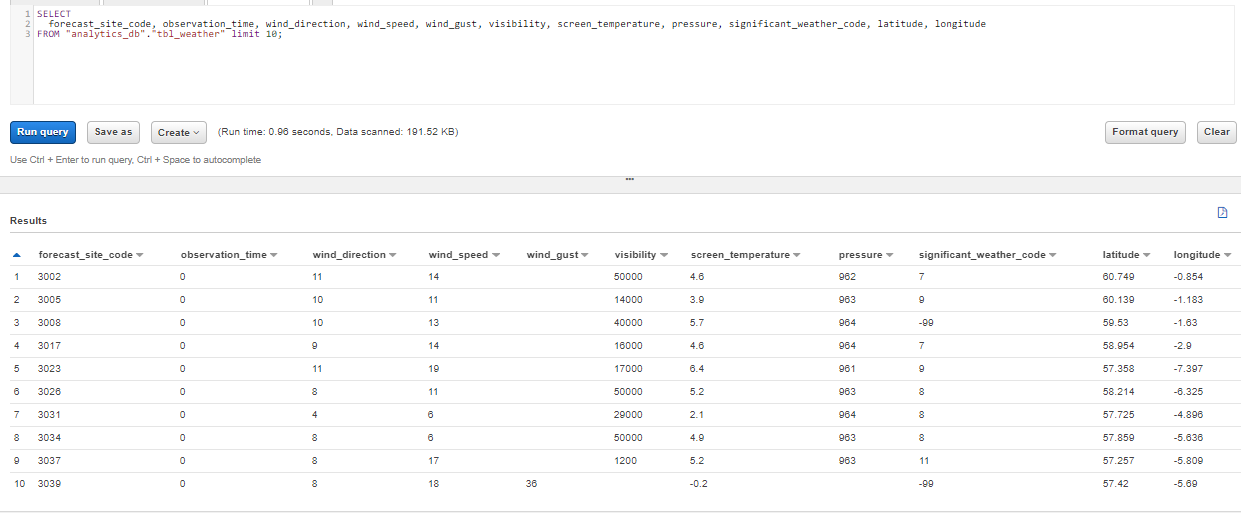
### Expected

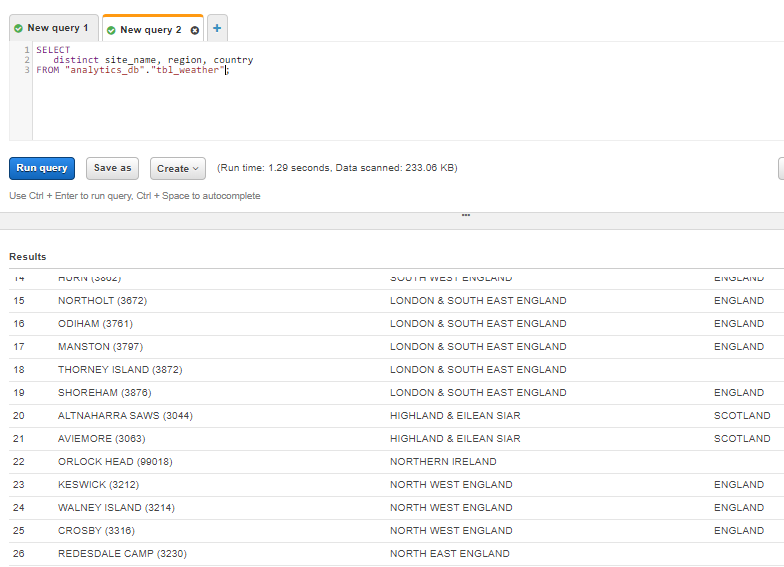
* 93,255 rows in 2016-02 and 101,442 rows in 2016-03;
* Strings in uppercase;
* Well formatted numbers;
* Well formatted dates.

### Output

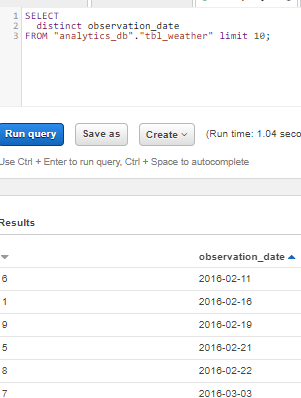
93,255 rows in 2016-02 and 101,442 rows in 2016-03:



Well formatted numbers: 

Strings in uppercase:

Well formatted dates:

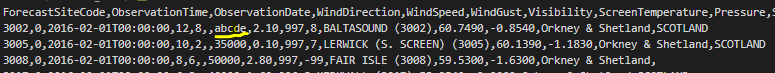


## 6 – Forcing an error

### Input

CSV file uploaded with invalid value for the data type specified.

Specified Integer and received String.

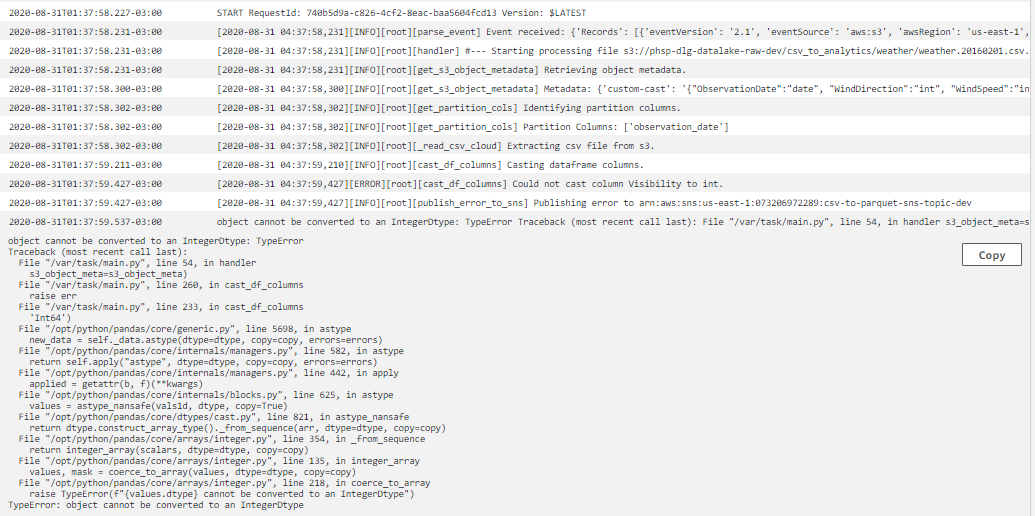


### Expected

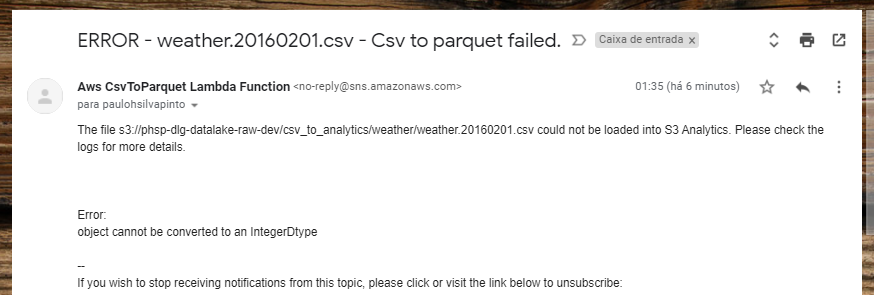
* Lambda failure;
* SNS notification sent to E-mail.

### Output

Lambda failure:



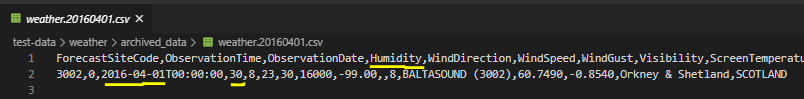
SNS notification sent to E-mail:



## 7 – Schema evolution

### Input

Additional CSV file containing a new column uploaded to S3.



### Expected

* Table schema updated and new column available to be queried.

### Output

