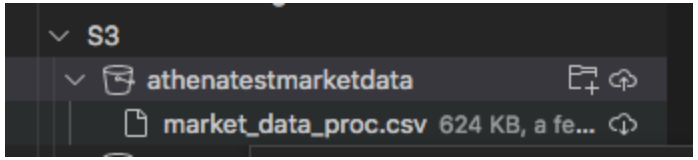
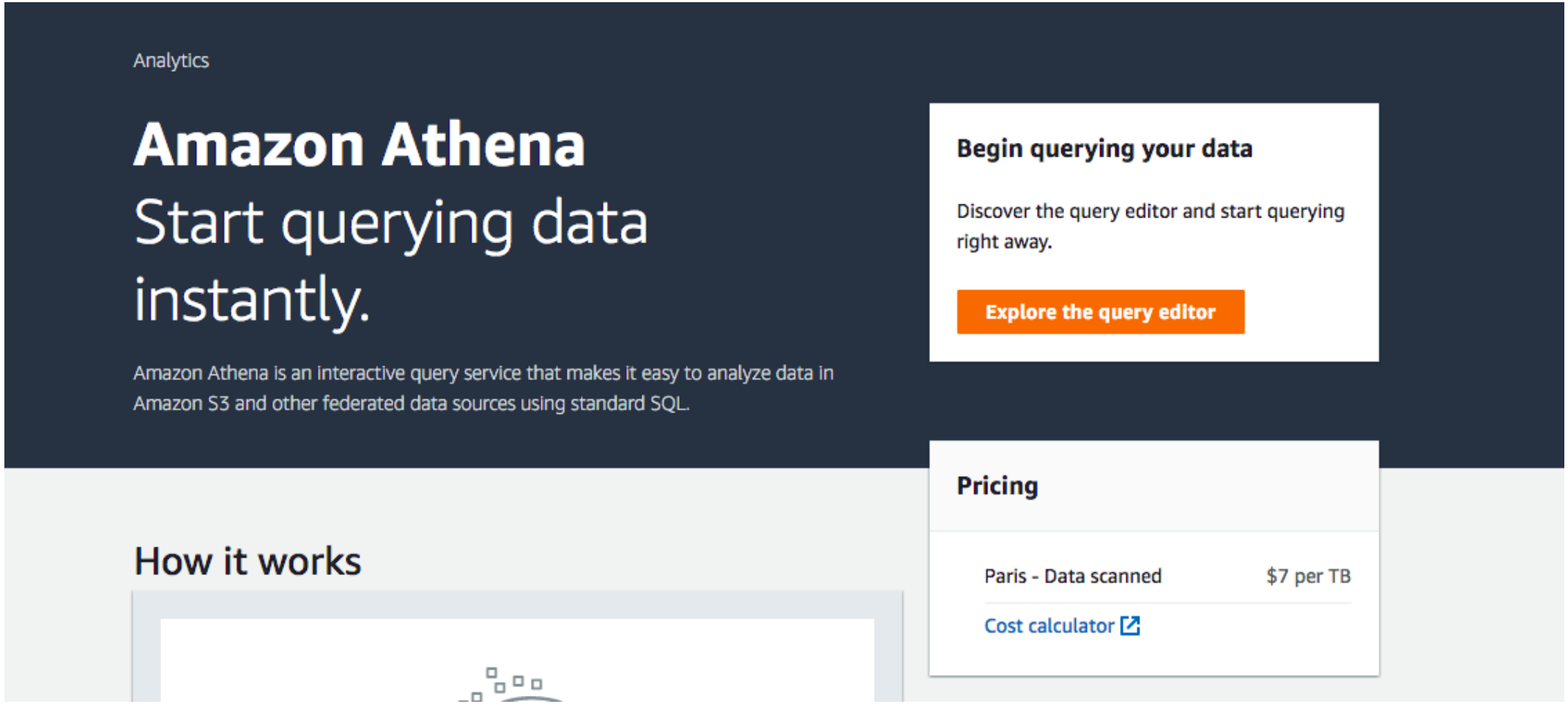
Amazon Athena

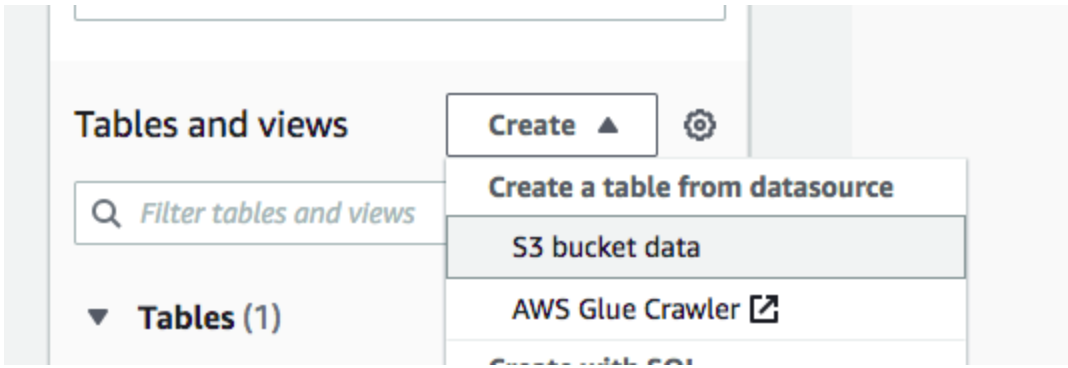
- Amazon Athena es un servicio de consultas interactivo que facilita el análisis de datos en Amazon S3 con SQL estándar.
- Athena no tiene servidor, de manera que no es necesario administrar infraestructura y solo paga por las consultas que ejecuta.

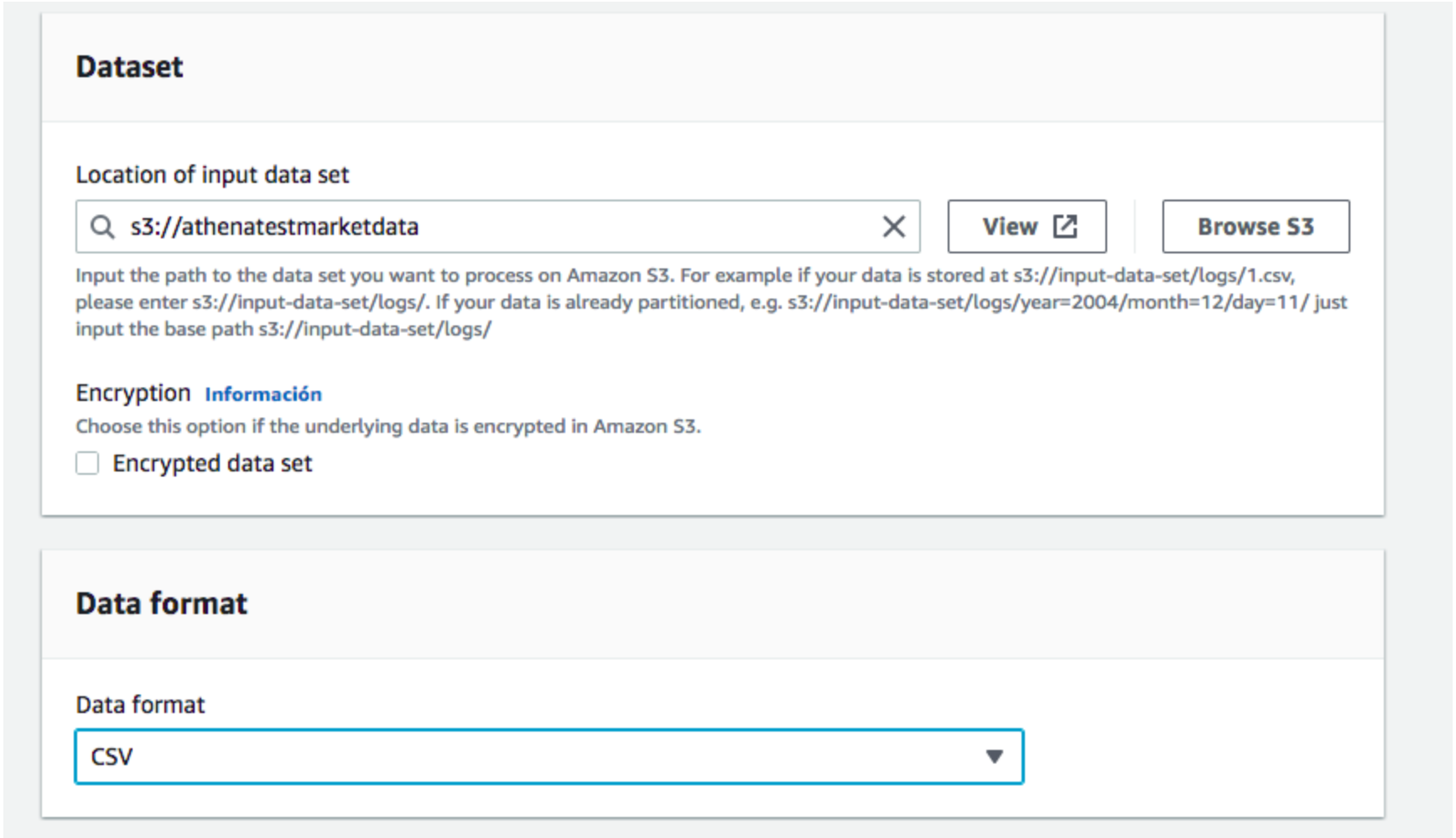
- Añadimos ficheros csv con el mismo formato a un bucket.



- Creamos una tabla en aws athenea:




Tables and views
Create
Create a table from datasource
Filter tables and views
S3 bucket data
Tables (1)
AWS Glue Crawler

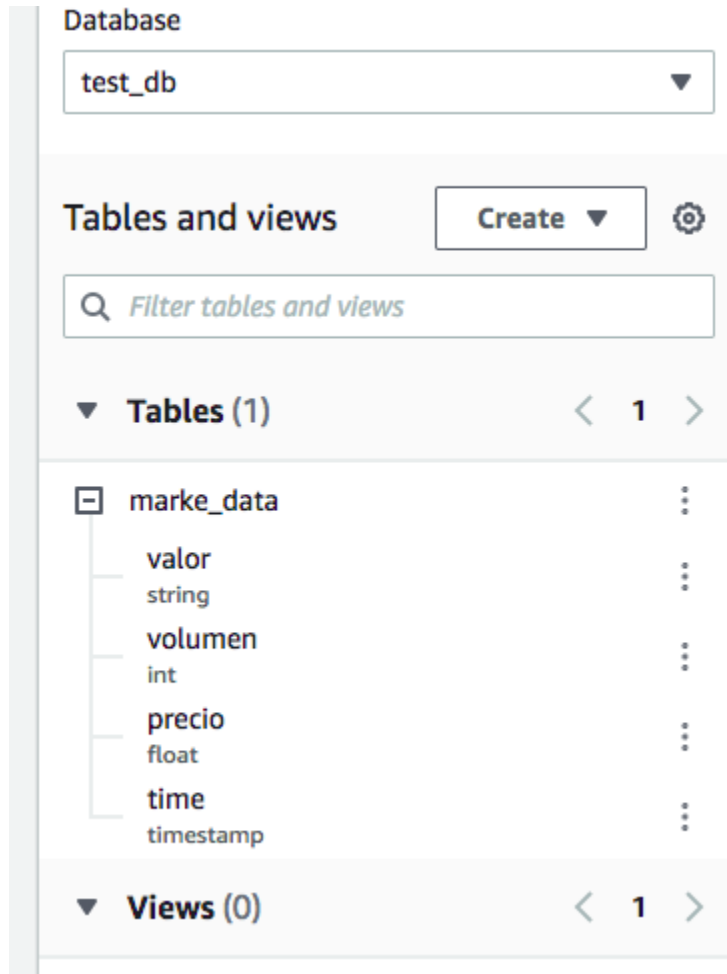

Dataset
Location of input data set
s3://athenatestmarketdata
View
Browse S3
Input the path to the data set you want to process on Amazon S3. For example if your data is stored at s3://input-data-set/logs/1.csv, please enter s3://input-data-set/logs/. If your data is already partitioned, e.g. s3://input-data-set/logs/year=2004/month=12/day=11/ just input the base path s3://input-data-set/logs/
Encryption Información
Choose this option if the underlying data is encrypted in Amazon S3.
Encrypted data set
Data format
Data format
CSV

Column details

Column name must be single words that start with a letter or a digit. Certain advanced column types (namely, structs) are not exposed in this interface.

Column name	Column type	
VALOR	string	Remove
VOLUMEN	int	Remove
PRECIO	float	Remove
TIME	timestamp	Remove

Add a column | Bulk add columns


Database
test_db
Tables and views
Create
Filter tables and views
Tables (1)
1
marke_data
valor
string
volumen
int
precio
float
time
timestamp
Views (0)
1

SAN	1	5.41	2018-03-19 09:00:18.002
SAN	44	5.41	2018-03-19 09:00:18.002
SAN	20	5.41	2018-03-19 09:00:18.002
SAN	45	5.41	2018-03-19 09:00:18.002
SAN	40	5.41	2018-03-19 09:00:18.002
SAN	10	5.41	2018-03-19 09:00:18.002
SAN	367	5.41	2018-03-19 09:00:18.002
SAN	396	5.41	2018-03-19 09:00:18.002
SAN	223	5.41	2018-03-19 09:00:18.002

- Podemos hacer consultas desde python con pyathena.
- Se instala con:

```
pip install pyathena
```

- Necesitamos un nuevo bucket de staging.
- Podemos hacer una consulta con:

```
from pyathena import connect
import pandas as pd

conn = connect(s3_staging_dir='s3://atheneastaging', region_name='eu-west-3')
df = pd.read_sql('SELECT * FROM "test_db"."marke_data" limit 100', conn)
print(df)
```

DEMO