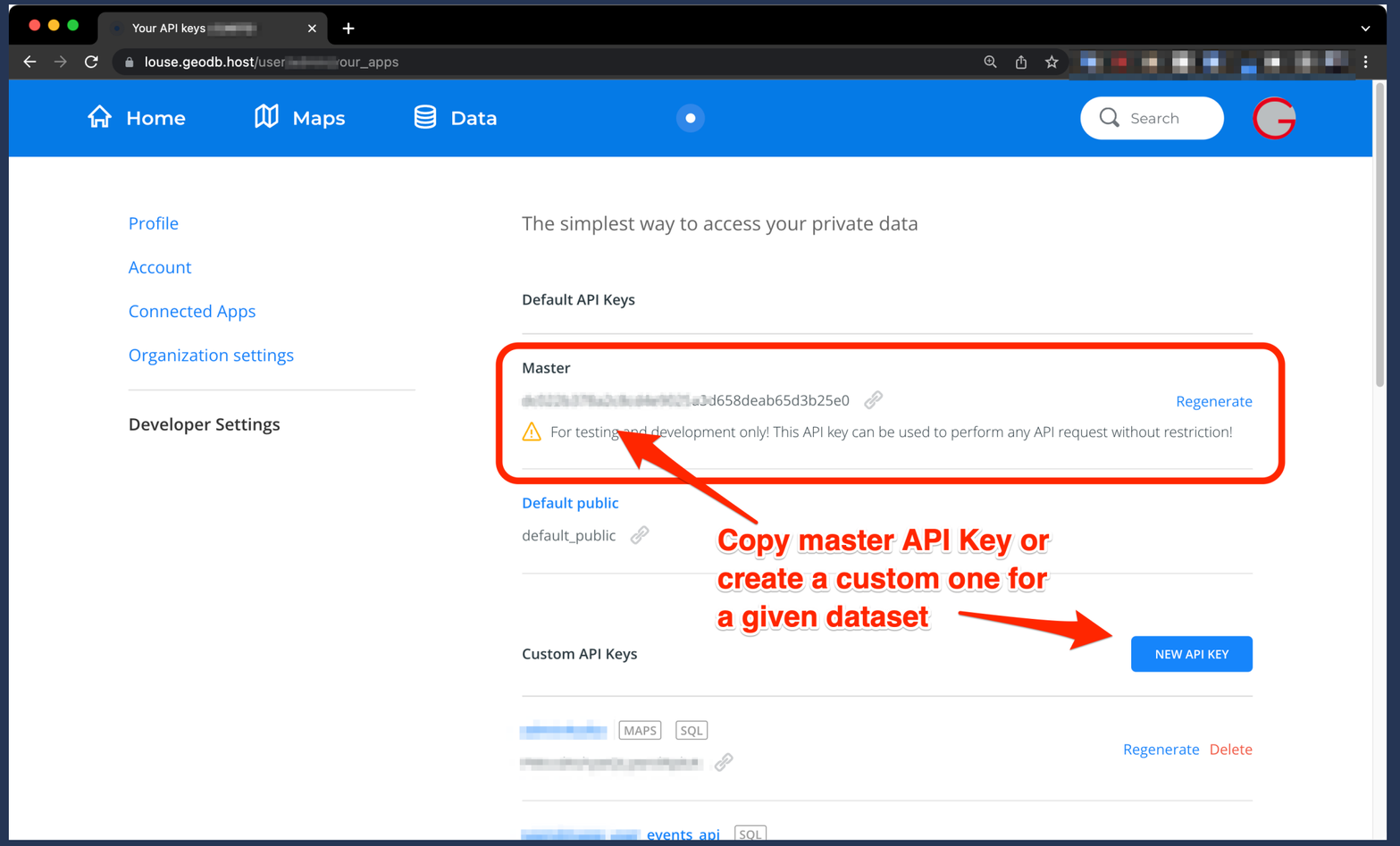

Using cartoframes
with GeoDB instances

Authentication

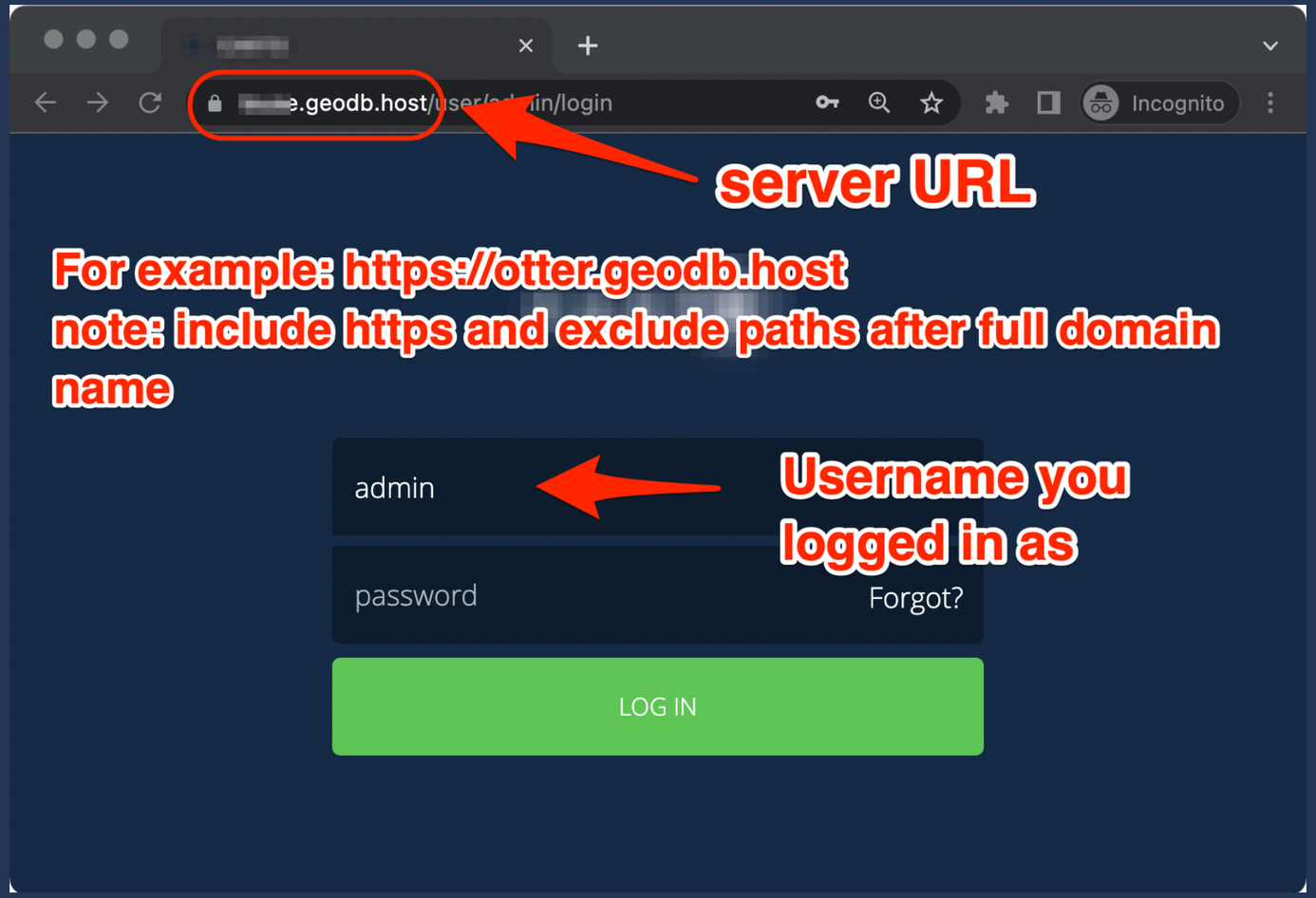
To use `cartoframes`, you need to authenticate with your GeoDB instance. For this you need the following information:

- Your master API key.
- Your username.
- Your GeoDB server instance's URL.

Find your API key



Find your username and server url



Create a `.env` file

Create a `.env` file in your project's root directory and add your API key, username and server url. For example:

```
cat << EOF > .env
GEODB_MASTER_API_KEY=YOUR_API_KEY
GEODB_USERNAME=YOUR_USERNAME
GEODB_SERVER_URI=YOUR_SERVER_URL
EOF
```

Set credentials in your code

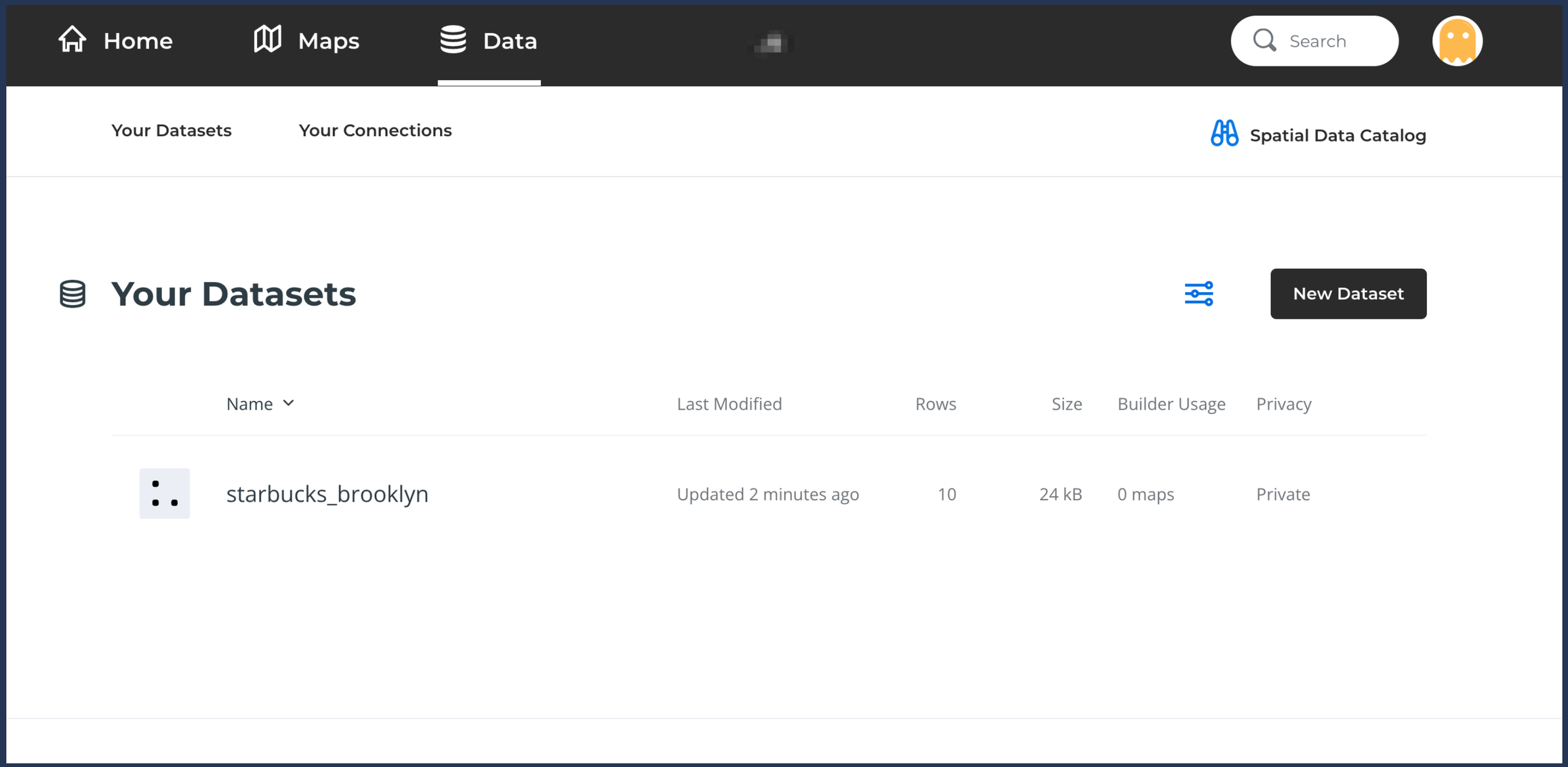
```
import os
from dotenv import load_dotenv
from cartoframes.auth import set_default_credentials
from cartoframes.auth import Credentials
load_dotenv()
GEODB_USERNAME=os.getenv('GEODB_USERNAME')
GEODB_MASTER_API_KEY=os.getenv('GEODB_MASTER_API_KEY')
GEODB_SERVER_URI=os.getenv('GEODB_SERVER_URI')
auth_credentials = Credentials(
    base_url=f"{GEODB_SERVER_URI}/user/{GEODB_USERNAME}",
    api_key=GEODB_MASTER_API_KEY
)
set_default_credentials(auth_credentials)
```

Creating a dataset

We will create a geopandas dataframe from a geojson dataset and then upload it to GeoDB:

```
from cartoframes import to_carto
from geopandas import read_file

gdf = read_file('https://bit.ly/3Dc84I7')
gdf = gdf.drop(['cartodb_id'], axis=1)
to_carto(gdf, 'starbucks_brooklyn')
# Success! Data uploaded to table "starbucks_brooklyn" correctly
# 'starbucks_brooklyn'
```


Home
Maps
Data
Search
Your Datasets
Your Connections
Spatial Data Catalog
Your Datasets
New Dataset
Name
Last Modified
Rows
Size
Builder Usage
Privacy
starbucks_brooklyn
Updated 2 minutes ago
10
24 kB
0 maps
Private

Append data to an existing dataset

```
from cartoframes import to_carto
from geopandas import read_file

gdf = read_file('https://bit.ly/3Dc84I7')
gdf = gdf.drop(['cartodb_id'], axis=1)
# note that we are using the `if_exists` parameter
to_carto(gdf, 'starbucks_brooklyn', if_exists='append')
# Success! Data uploaded to table "starbucks_brooklyn" correctly
# 'starbucks_brooklyn'
```

starbucks_brooklyn

PRIVATE ADD PEOPLE Updated 16 minutes ago

cartodb_id number	the_geom geometry	field_1 number	name string
12	-73.96122, 40.57796	1	607 Brighton Bea
13	-73.98976, 40.61912	2	65th St & 18th Av
14	-74.02744, 40.63152	3	Bay Ridge Pkwy &
15	-74.00098, 40.59321	4	Caesar's Bay Sho
16	-73.99261, 40.68849	5	Court St & Dean
17	-73.87015, 40.65315	6	Target Gateway T
18	-74.03313, 40.61927	7	3rd Ave & 92nd S
19	-73.98452, 40.6915	8	Lam Group @ Sh
20	-73.94841, 40.63207	9	33-42 Hillel Place

appended 10 records

Replace data in an existing dataset

```
from cartoframes import to_carto
from geopandas import read_file

gdf = read_file('https://bit.ly/3Dc84I7')
gdf = gdf.drop(['cartodb_id'], axis=1)
# note that we are using `if_exists='replace'`
to_carto(gdf, 'starbucks_brooklyn', if_exists='replace')
# Success! Data uploaded to table "starbucks_brooklyn" correctly
# 'starbucks_brooklyn'
```

Delete a dataset

```
from cartoframes import delete_table

delete_table('starbucks_brooklyn')
# Success! Table "starbucks_brooklyn" removed correctly
```