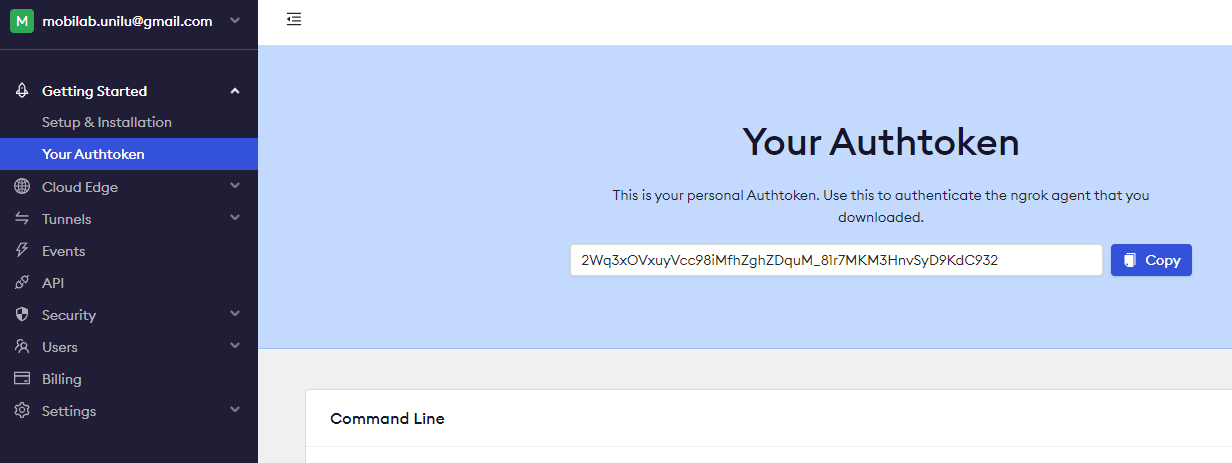
**Configuration of ngrok for exposing the Airflow Ui and Postgres database to the internet via Docker.**

1. **GENERAL STEPS**
2. Sign up for an account on <https://ngrok.com/>
3. Take a copy of your Authtoken:  
     
   
4. Save the token as an environment variable:

```

export NGROK\_AUTHTOKEN=2Wq3xOVxuyVcc98iMfhZghZDquM\_81r7MKM3HnvSyD9KdC932

```

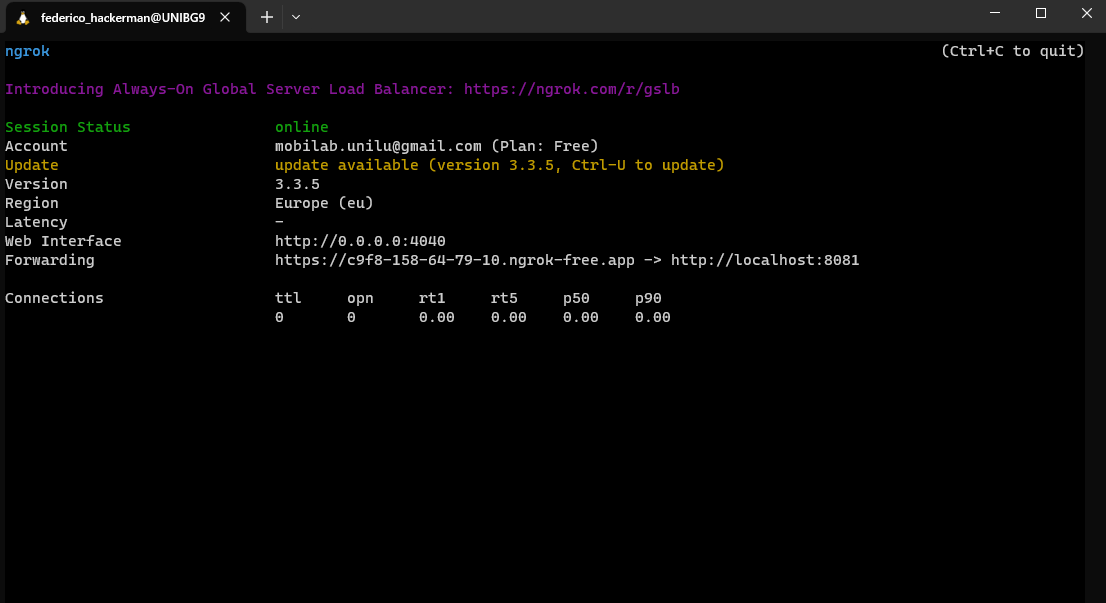
1. **AIRFLOW UI**

To expose the Airflow UI, run ngrok via Docker (remember that port 8081 was previously defined in the docker-compose.yaml file).

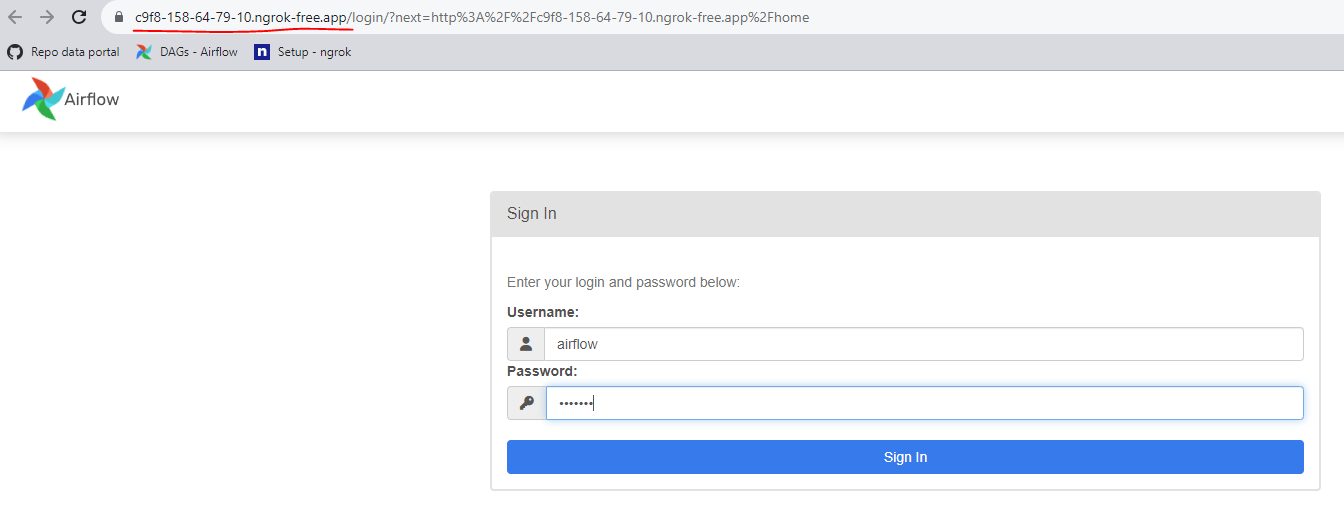
```

docker run --net=host -it -e NGROK\_AUTHTOKEN ngrok/ngrok:latest http 8081

```



You can share the following link here so that others can access the Airflow UI (<https://c9f8-158-64-79-10.ngrok-free.app> )



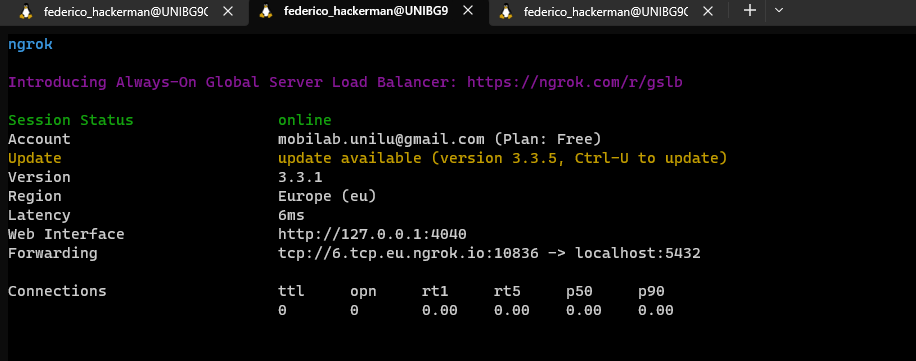
1. **POSTGRES DB**

To expose access to the Postgres database, run ngrok tcp (remember that 5432 is the port previously assigned to Postgres in the docker-composer.yaml file).

```

ngrok tcp 5432

```

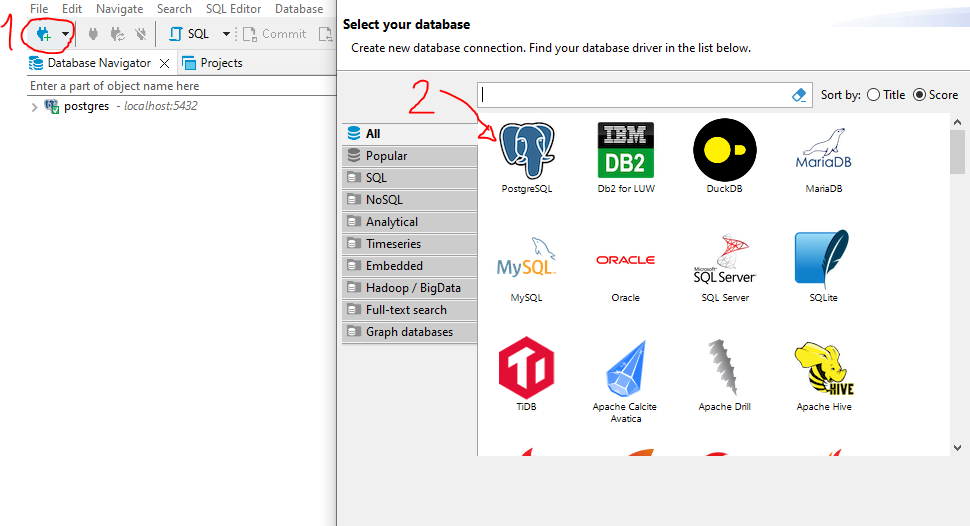


This information would then be required to connect remotely to the database:

* Host: 6.tcp.eu.ngrok.io
* Port: 10836
* Database: luxmobi
* Username (for admin): nipi
* Password (for admin): MobiLab1
* Username (for other users): regular\_user
* Password (for other users): Mobilab123

1. Go to DBeaver Community:

* Select "New Database Connection" (1), then PostgreSQL (2), and then Next.



* Fill in the blanks with the previous credentials on the next screen. Keep in mind that the administrator should select:
  + Username (for admin): nipi
  + Password (for admin): MobiLab1

Whereas the remaining users should select:

* + Username (for other users): regular\_user
  + Password (for admin): Mobilab123

A screenshot of a computer

Description automatically generated

Then, click on "Test Connection":

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Description automatically generated

Then simply click "OK" and then "Finish.". (If you get an error here, please try changing your wifi connection, as I have seen some issues with eduroam).

You will then have access to the database and all its tables:

A screenshot of a computer

Description automatically generated

After that, if you left-click in the "luxmobi" database (the one in dark grey), and then right-click > SQL Editor > Open SQL script, you can begin writing queries to explore the data (as shown below, and after writing the query, press CTRL + Enter to execute it):

```

**select** \*

**from** raw.bike b

**limit** 10;

```

And you will see:

A screenshot of a computer

Description automatically generated

You can also run more complex queries.

For example, if you want to see the average 'bike\_stands\_available' and 'bike\_available' per station ('name') and per 'day,' do the following:

```

**select**

**name**,

**date**,

**round**(**avg**(bike\_stands\_available), 2) **AS** avg\_bike\_stands\_available,

**round**(**avg**(bike\_available),2) **AS** avg\_bike\_available

**from**

raw.bike

**group** **by**

**name**, **date**

**order** **by**

**name**, **date**;

```

Obtaining this result:  
  
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1. **NOTES**

If you close the terminal or turn off the computer, the Postgres database exposition will end for the rest of the users. If this occurs, you must repeat the desired process (steps B or C) and notify the team of the new Host and Port.