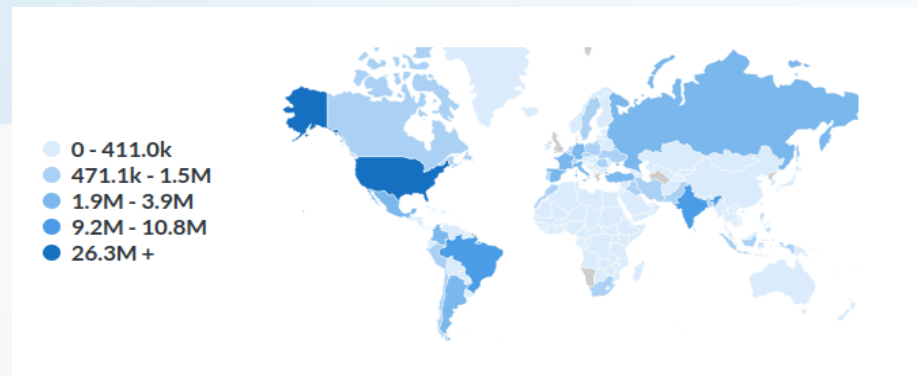


# PROJECT 5: Dashboard

## COVID\_19 Dashboard



# Main WorkFlow:

- **Get the Data:**

- <https://data.europa.eu/euodp/en/data/dataset/covid-19-coronavirus-data>
- based on weekly measurment.
- in csv File.

- **Data Modeling:**

- create a Database covid\_19db
- create a table : weekly\_case
- Modifying Table.
- Import COVID\_19 data into databse.

# COVID\_19DB



# DBeaver

DBeaver 7.3.4 - weekly\_cases

File Edit Navigate Search SQL Editor Database Window Help

Commit Rollback Auto postgres public@covid\_19db

Database Navigator Projects

Enter a part of table name here

postgres - localhost:5432

- COVID\_19
- Singer\_Songs
- covid\_19db
  - Schemas
    - information\_schema
    - pg\_catalog
    - public
      - Tables
        - weekly\_cases**
        - Views
        - Materialized Views
        - Indexes

Project - General

Name DataSource

- Bookmarks
- ER Diagrams
- Scripts

Properties Data ER Diagram

postgres covid\_19db Schemas public Tables weekly\_cases

Table Name: weekly\_cases Object ID: 49552

Tablespace: pg\_default Owner: mahmoud

Partition by: Extra Options:

Comment:

Columns	Column Name	#	Data type	Length	Precision	Scale	Identity	Collat
	dateRep	1	date		13			
	year_week	2	varchar	1,024	1,024			default
	cases_weekly	3	int4		10			
	deaths_weekly	4	int4		10			
	country	5	varchar	1,024	1,024			default
	geographicid	6	varchar	1,024	1,024			default
	countrycode	7	varchar	1,024	1,024			default
	population	8	int4		10			
	continent	9	varchar	1,024	1,024			default
	notification_r	10	float4		8	8		


10 items

Save Revert Refresh

# COVID\_19DB

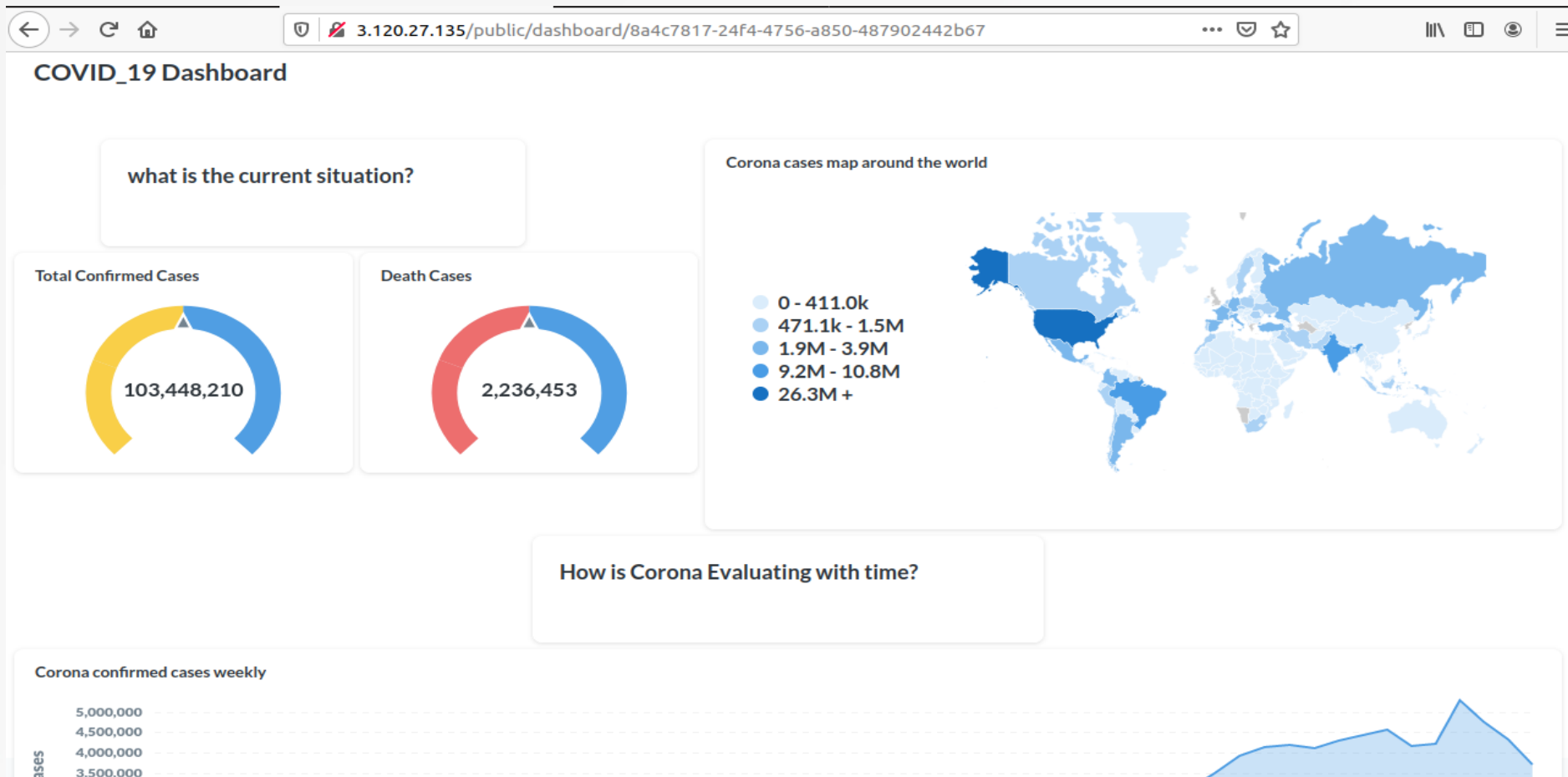
	🕒 dateRep 🔼🔼	ABC year_week 🔼🔼	123 cases_weekly 🔼🔼	123 deaths_weekly 🔼🔼	ABC country 🔼🔼	ABC geographicId 🔼🔼	ABC countrycode 🔼🔼	123 population 🔼🔼	ABC
1	2021-02-01	2021-04	267	16	Afghanistan	AF	AFG	38,041,757	A
2	2021-01-25	2021-03	713	43	Afghanistan	AF	AFG	38,041,757	A
3	2021-01-18	2021-02	557	45	Afghanistan	AF	AFG	38,041,757	A
4	2021-01-11	2021-01	675	71	Afghanistan	AF	AFG	38,041,757	A
5	2021-01-04	2020-53	902	60	Afghanistan	AF	AFG	38,041,757	A
6	2020-12-28	2020-52	1,994	88	Afghanistan	AF	AFG	38,041,757	A
7	2020-12-21	2020-51	740	111	Afghanistan	AF	AFG	38,041,757	A
8	2020-12-14	2020-50	1,757	71	Afghanistan	AF	AFG	38,041,757	A
9	2020-12-07	2020-49	1,672	137	Afghanistan	AF	AFG	38,041,757	A
10	2020-11-30	2020-48	1,073	68	Afghanistan	AF	AFG	38,041,757	A
11	2020-11-23	2020-47	1,368	69	Afghanistan	AF	AFG	38,041,757	A
12	2020-11-16	2020-46	1,164	61	Afghanistan	AF	AFG	38,041,757	A
13	2020-11-09	2020-45	606	24	Afghanistan	AF	AFG	38,041,757	A
14	2020-11-02	2020-44	800	27	Afghanistan	AF	AFG	38,041,757	A
15	2020-10-26	2020-43	633	22	Afghanistan	AF	AFG	38,041,757	A
16	2020-10-19	2020-42	401	15	Afghanistan	AF	AFG	38,041,757	A
17	2020-10-12	2020-41	458	15	Afghanistan	AF	AFG	38,041,757	A
18	2020-10-05	2020-40	114	9	Afghanistan	AF	AFG	38,041,757	A

# Main WorkFlow:

- Create RDS instances on AWS.
  - Deploy the local database to RDS.
  - Create Elastic Cloud instance IC2 on AWS.
  - Install METABASE server on EC2.
- 
- A decorative graphic on the right side of the slide, consisting of several overlapping, curved, wavy shapes in light blue, yellow, and dark blue, creating a modern, abstract design.

# Build a Dashboard:

- build a public Dashboard on METABASE server.
- deploy Dashboard.
- <http://3.120.27.135/public/dashboard/8a4c7817-24f4-4756-a850-487902442b67>





# Update Dashboard

- Update DB on RDS DB\_update.py

DB\_update.py

home > mahmoud > Downloads > DB\_update.py > DB\_update

```
11 def DB_update(csv_file):
12     #read data as csv into a pandas dataframe
13     df=pd.read_csv(csv_file)
14     #change names for easy interept
15     df.columns=['daterep','year_week','cases_weekly','deaths_weekly','country','geographicId','countrycode','population','co
16
17     df['daterep']=pd.to_datetime(df['daterep'],format='%d/%m/%Y')
18
19     #connection string details
20     HOST = 'postgresdbinstance.ctk9165nwoff.eu-central-1.rds.amazonaws.com'
21     PORT = '5432'
22     USERNAME = 'postgres'
23     PASSWORD = os.getenv('DB_password')
24     DB = 'covid_19db'
25     conn_string=f'postgres://{USERNAME}:{PASSWORD}@{HOST}:{PORT}/{DB}'
26     #create engine with the connection to the remore DB
27     engine=create_engine(conn_string)
28     #convert the dataframe to SQL table
29     df.to_sql('weekly_cases',con=engine,index=False,if_exists='replace',dtype={
30         'dateRep':DateTime() ,
31         'year_week':String(),
32         'cases_weekly':Integer(),
33         'deaths_weekly' :Integer(),
34         'country' :String() ,
35         'geographicId':String(),
36         'countryCode':String(),
37         'population': Integer(),
```

# Update Dashboard

```
(base) mahmoud@mahmoud-pc:~/Downloads$  
(base) mahmoud@mahmoud-pc:~/Downloads$  
(base) mahmoud@mahmoud-pc:~/Downloads$  
(base) mahmoud@mahmoud-pc:~/Downloads$ python DB_update.py 'covid_19_1_Feb.csv'  
Database updated  
(base) mahmoud@mahmoud-pc:~/Downloads$
```