

Ćwiczenia:

1. Ile rekordów znajduje się w tabeli nyc_streets?
2. Ile ulic w Nowym Jorku ma nazwy zaczynające się na „B”, „Q” i „M”?
3. Jaka jest populacja miasta Nowy Jork?
4. Jaka jest populacja Bronxu, Manhattanu i Queens?
5. Ile dzielnic ("neighborhoods") znajduje się w każdej gminie (borough)?

Zadanie 1. Ile rekordów znajduje się w tabeli nyc_streets?

The image shows a screenshot of a QGIS application window on the left and a pgAdmin 4 window on the right. The QGIS window displays a map of New York City with various layers loaded, including 'nyc_streets'. The pgAdmin 4 window shows the 'lab11_nyc' database selected, and a query is executed: `select count(*) from nyc_streets`. The query result is displayed in the 'Data Output' tab, showing a single row with the count 19091. A red circle highlights the 'Data Output' tab and the result table.

count
19091

Zadanie 2. Ile ulic w Nowym Jorku ma nazwy zaczynające się na „B”, „Q” i „M”?

The screenshot shows a QGIS interface on the left with a map of New York City and a layer list on the right. The layer list includes 'nyc_subway_stations', 'nyc_streets', 'nyc_homicides', 'nyc_neighborhoods', and 'nyc_census_blocks'. On the right, the pgAdmin 4 interface is open, showing a query in the 'Query' tab. The query is:

```
1 select count(name) AS number_of_streets from nyc_streets
2 where name like 'B%'
3 or name like 'Q%'
4 or name like 'M%'
```

The 'Data Output' tab is selected, showing a table with one row and two columns:

	number_of_streets
1	2102

Zadanie 3. Jaka jest populacja miasta Nowy Jork?

The screenshot shows a QGIS interface on the left with a map of New York City and a layer list on the right. The layer list includes 'nyc_subway_stations', 'nyc_streets', 'nyc_homicides', 'nyc_neighborhoods', and 'nyc_census_blocks'. On the right, the pgAdmin 4 interface is open, showing a query in the 'Query' tab. The query is:

```
1 select sum(popn_total)
2 from nyc_census_blocks
```

The 'Data Output' tab is selected, showing a table with one row and two columns:

	sum
1	8175032

Zadanie 4 Jaka jest populacja Bronxu, Manhattanu i Queens?

The image displays three screenshots of a QGIS project and the pgAdmin 4 interface, illustrating the process of querying population data from the nyc_census_blocks table for different boroughs.

QGIS Interface: The map shows the outline of New York City with various layers loaded. The layers list includes:

- nyc_subway_stations
- nyc_streets
- nyc_homicides
- nyc_neighborhoods
- nyc_census_blocks

pgAdmin 4 Interface: The interface shows the database structure and the results of SQL queries.

Query 1 (Bronx):

```
select sum(popn_total) as Bronx from nyc_census_blocks
where boroname = 'The Bronx'
```

Data Output:

bronx
1385108

Query 2 (Manhattan):

```
select sum(popn_total) as Manhattan from nyc_census_block
where boroname = 'Manhattan'
```

Data Output:

manhattan
1585073

Query 3 (Queens):

```
select sum(popn_total) as Queens from nyc_census_blocks
where boroname = 'Queens'
```

Data Output:

queens
2230621

Zadanie 5. Ile dzielnic („neighborhoods”) znajduje się w każdej gminie (borough)?

The image shows a screenshot of a QGIS project and a pgAdmin 4 window. The QGIS window displays a map of New York City with various layers. The pgAdmin 4 window shows a SQL query executed against the 'nyc_neighborhoods' table, resulting in a table with 5 rows and 2 columns: 'liczba_dzielnic' (count of neighborhoods) and 'gmina' (borough name).

QGIS Project:

- Przeglądarka (Browser):
 - Ulubione (Favorites)
 - Zakładki przestrzenne (Spatial Bookmarks)
 - Home
 - C:\ (OS)
 - GeoPackage
 - SpatialLite
 - PostgreSQL
 - lab11_nyc
 - public
 - nyc_census_blocks
 - nyc_homicides
 - nyc_neighborhoods
 - nyc_streets
 - nyc_subway_stations
 - SAP HANA
 - MS SQL Server
 - Oracle

- Warstwy (Layers):
- nyc_subway_stations
- nyc_streets
- nyc_homicides
- nyc_neighborhoods
- nyc_census_blocks

pgAdmin 4 Query:

```
select count(name) as liczba_dzielnic,  
boroname as gmina from nyc_neighborhoods  
group by boroname
```

Query Results:

	liczba_dzielnic	gmina
1	30	Queens
2	23	Brooklyn
3	24	Staten Island
4	24	The Bronx
5	28	Manhattan