

## Zad.1

The screenshot displays the QGIS desktop environment. The top-left pane shows the 'Przeglądarka' (Browser) panel with a tree layer selected. The legend indicates three categories: Deciduous (green), Evergreen (pink), and Mixed Trees (blue). The main map area shows a spatial distribution of these tree types. The bottom-right pane is the 'Zarządzanie bazami danych' (Database Manager) window, which is open to the 'Zapytanie (gisdb)' (Query) tab. A SQL query is entered, and the results are displayed in a table below.

**Przeglądarka (Browser) Panel:**

- Ulubione
- Zakładki przestrzenne
- Katalog projektu
- Home
- /
- GeoPackage
- Spatialite
- PostgreSQL

**Warstwy (Layers) Panel:**

- trees
  - Deciduous
  - Evergreen
  - Mixed Trees

**Zarządzanie bazami danych (Database Manager) Window:**

Informacje | Tabela | Podgląd | Zapytanie (gisdb)

Zapisane zapytanie:  Name:  Zapisz Delete Wczytaj plik Zapisz jako plik

```
1 SELECT SUM(area_km2) AS powierzchnia_mieszanych
2 FROM trees
3 WHERE vegdesc = 'Mixed Trees';
4
```

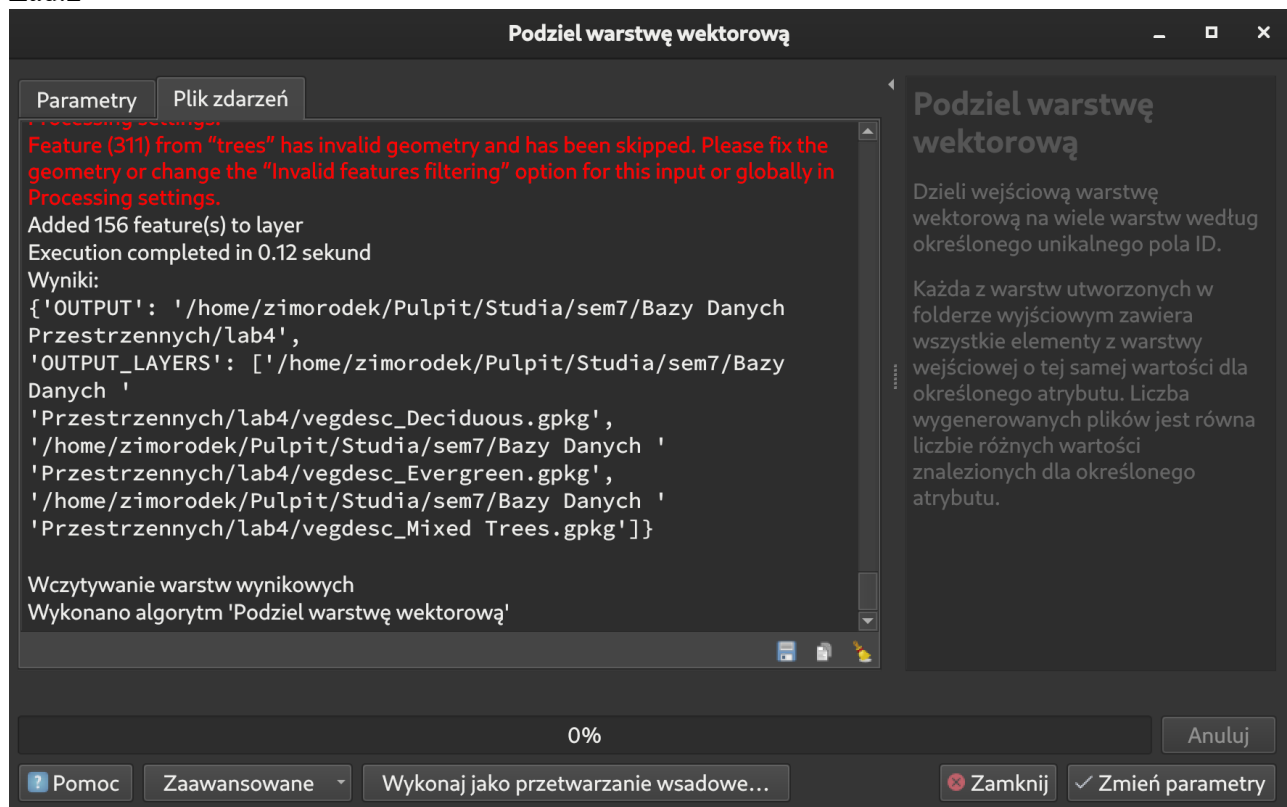
Uruchom 1 wierszy, 0.002 sekund Utwórz widok Wyczyść Historia zapytań

powierzchnia_mieszanych	
1	189273.327

☐ Wczytaj jako nową warstwę

Anuluj

## Zad.2



## Zad.3

**Przycięte — Łącznie obiektów: 22, odfiltrowanych: 22, wybranych: 0**

id = 123 Aktualizuj wszystko Aktualizuj zaznaczone

	id	cat	EXSDDESC	F_CODE	F_CODEDESC	FCODEDESC	a
1	1	1	Operational	AN010	Railroad	Single	34883
2	2	2	Operational	AN010	Railroad	Single	19611
3	3	3	Operational	AN010	Railroad	Single	14893
4	4	4	Operational	AN010	Railroad	Single	21399
5	5	5	Operational	AN010	Railroad	Single	1013
6	6	6	Operational	AN010	Railroad	Single	8794
7	7	7	Operational	AN010	Railroad	Single	5265
8	8	8	Operational	AN010	Railroad	Single	1858
9	9	29	Operational	AN010	Railroad	Single	1376
10	10	30	Operational	AN010	Railroad	Single	10038
11	11	31	Operational	AN010	Railroad	Single	5062
12	12	32	Operational	AN010	Railroad	Single	4134
13	13	33	Operational	AN010	Railroad	Single	1723
14	14	34	Operational	AN010	Railroad	Single	7188
15	15	53	Operational	AN010	Railroad	Single	10111

pokaż wszystkie obiekty

## Zad.4

Group Stats

Data Features Window Help

1	2
USE	
Military	593,25

Control panel

Layers: airports

Fields: ELEV, fk\_region, ID, NAME, USE, average, count, max, median, min

Filter: "USE" LIKE 'Military'

Columns: "USE" LIKE 'Military'

Rows: USE

Value: ELEV average

Use only selected features

Calculate

Calculate... 100% | generate view...100% | done.

Group Stats

Control panel

Layers: airports

Fields: ELEV, fk\_region, ID, NAME, USE, average, count, max, median, min

Filter: "USE" LIKE 'Military' AND ELEV > 1400

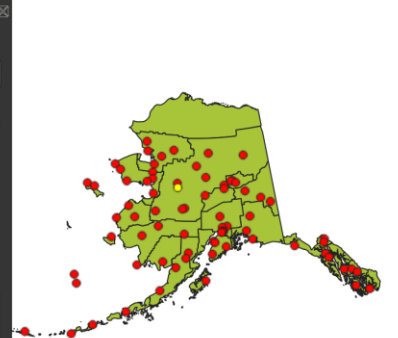
Columns: "USE" LIKE 'Military' AND ELEV > 1400

Rows: USE

Value: ELEV average

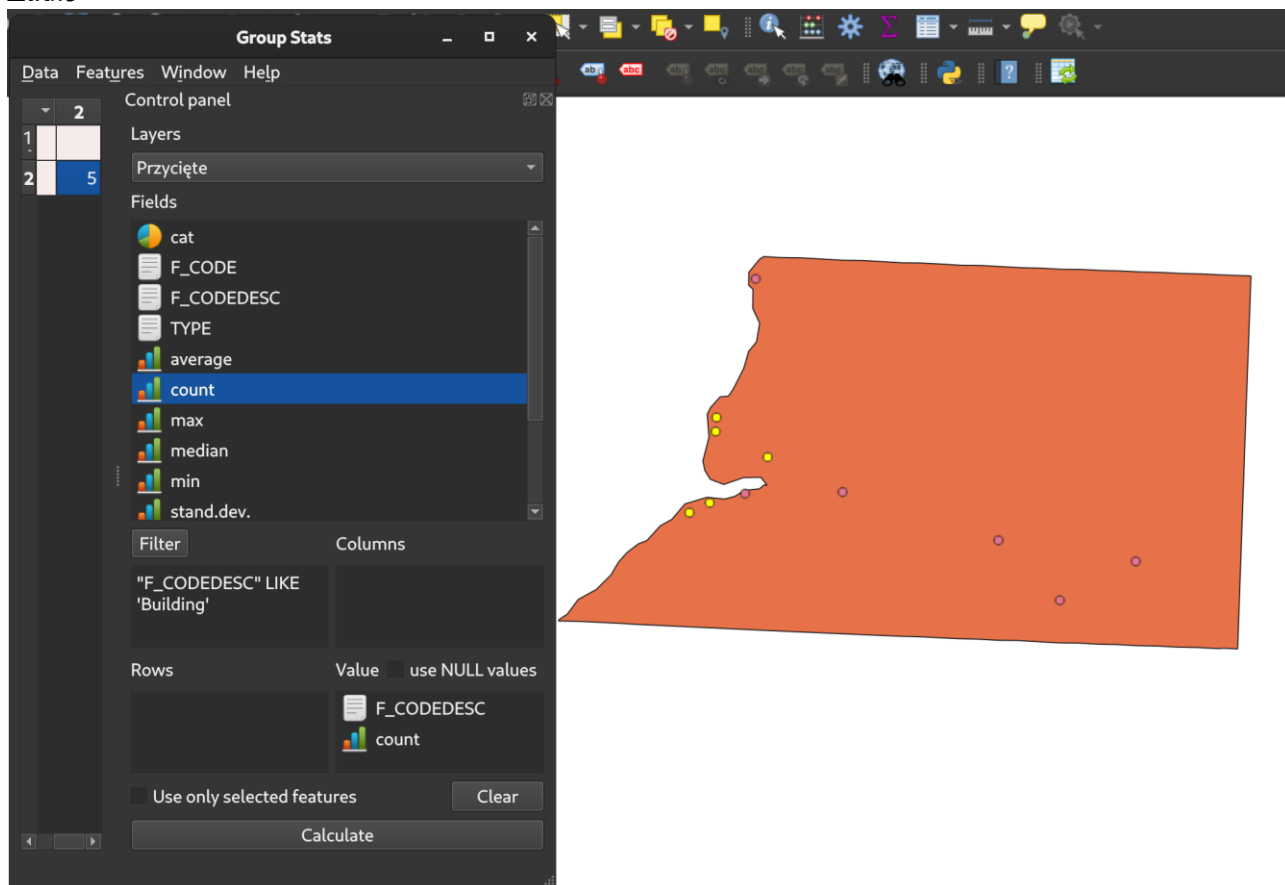
Use only selected features

Calculate

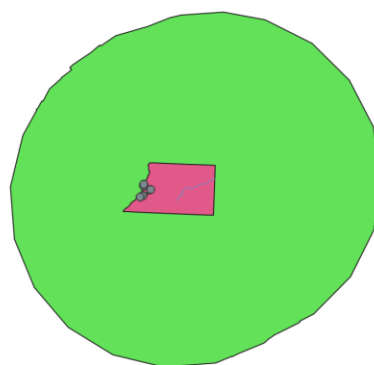
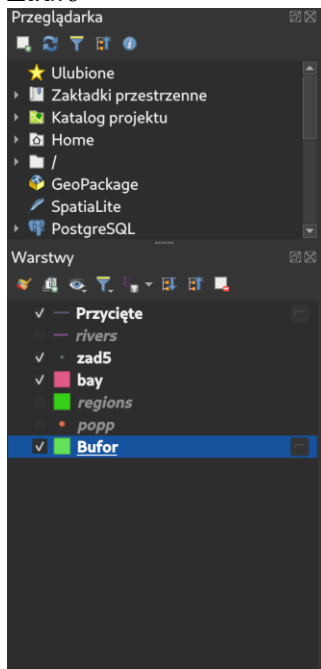


1 lotnisko → tryb edycji → usun zaznaczone

## Zad.5

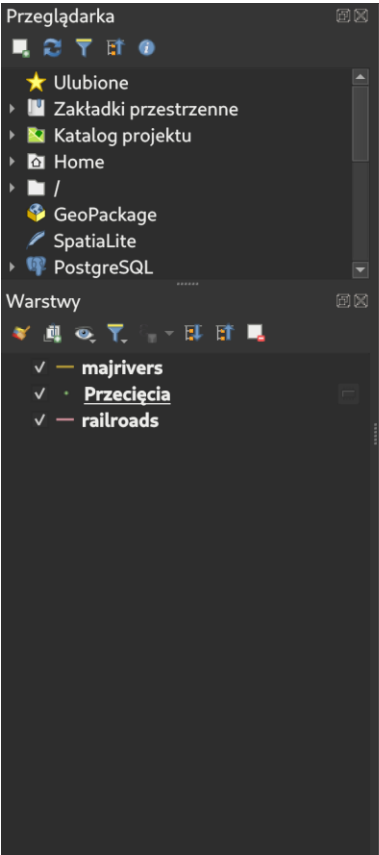


## Zad.6

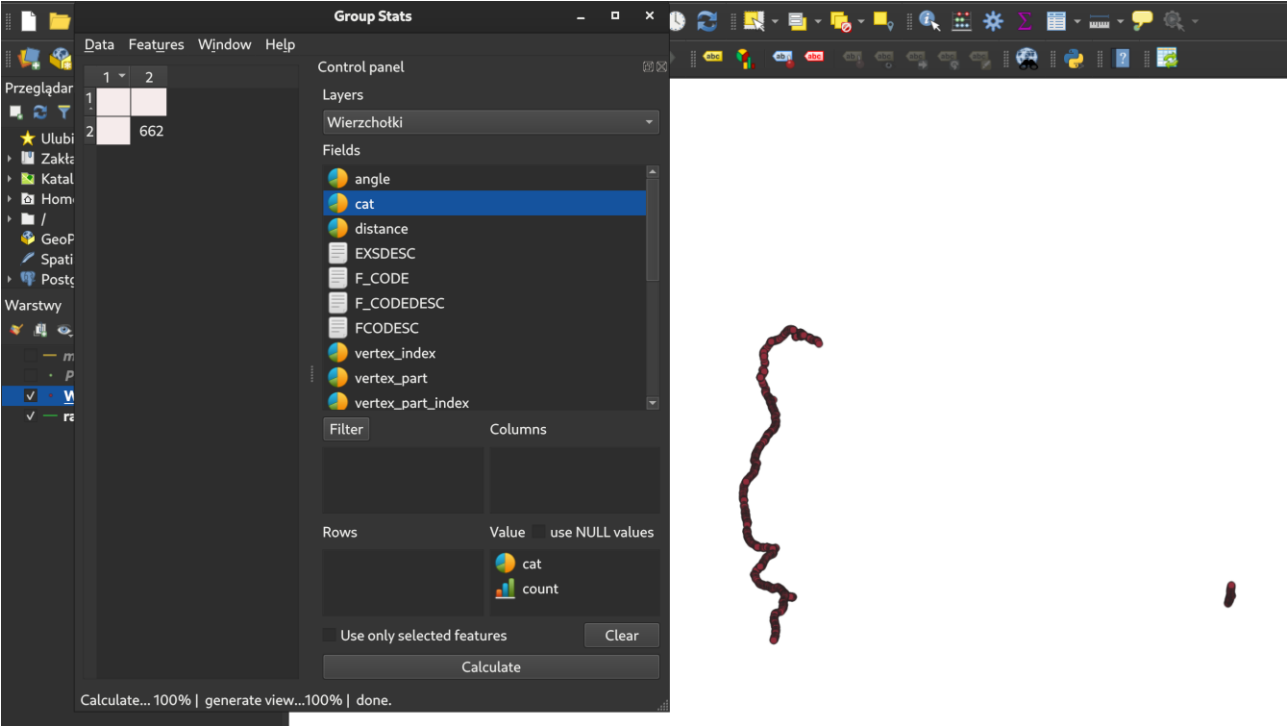


Zielony obszar – 100km od rzek. Punkty – budynki (5)

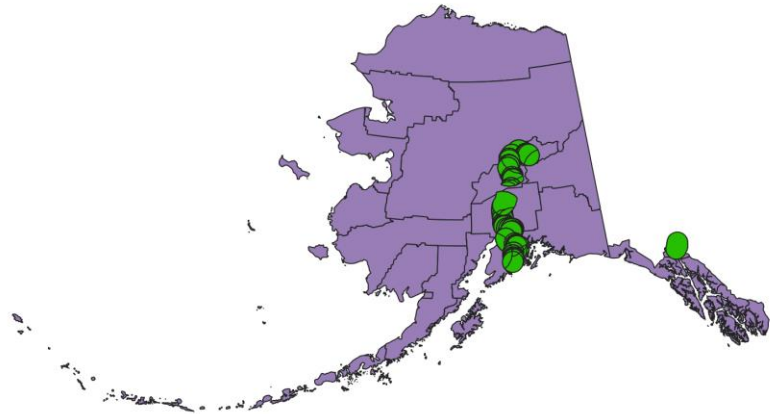
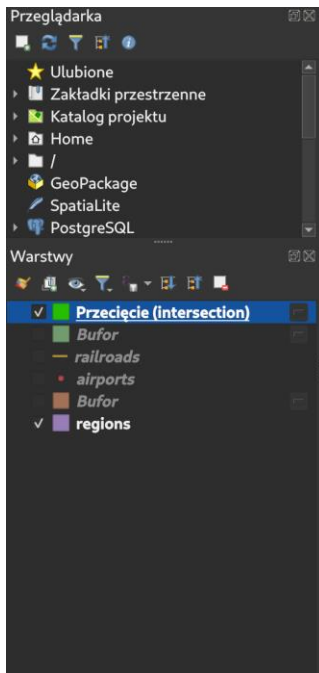
Zad.7



Zad.8

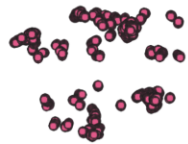
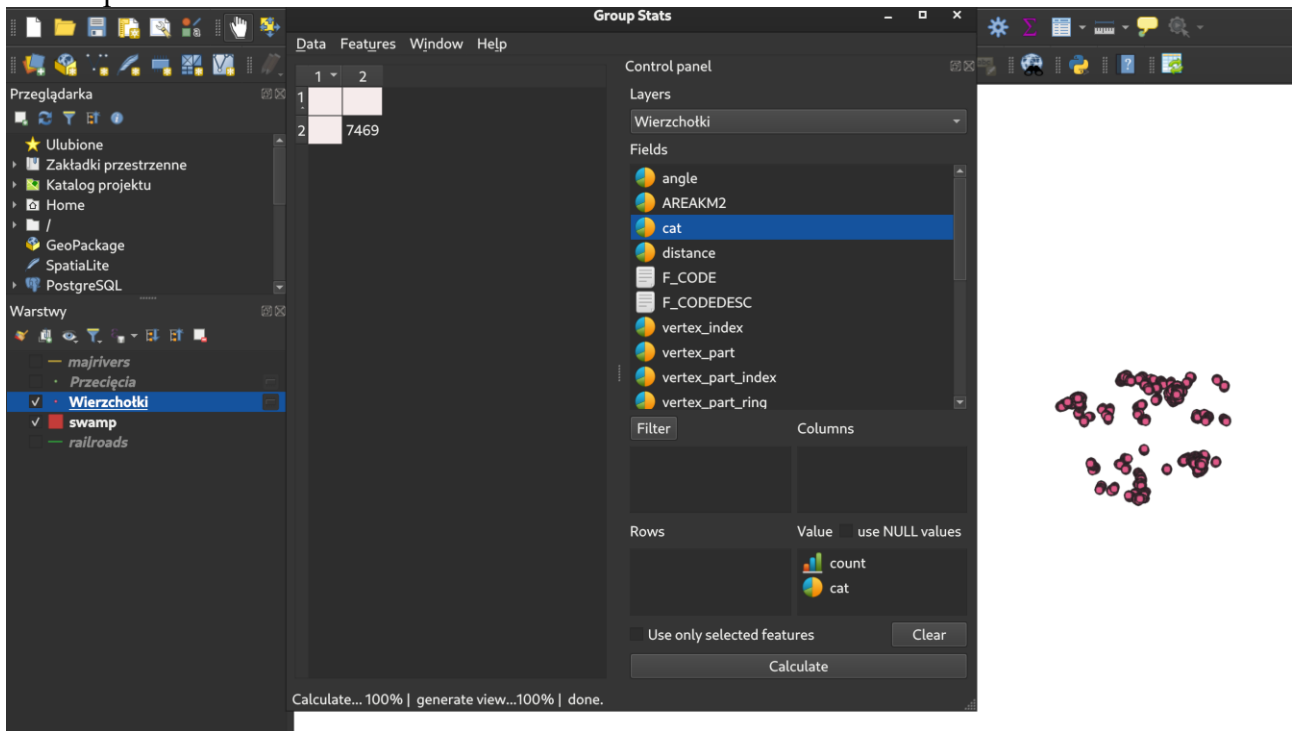


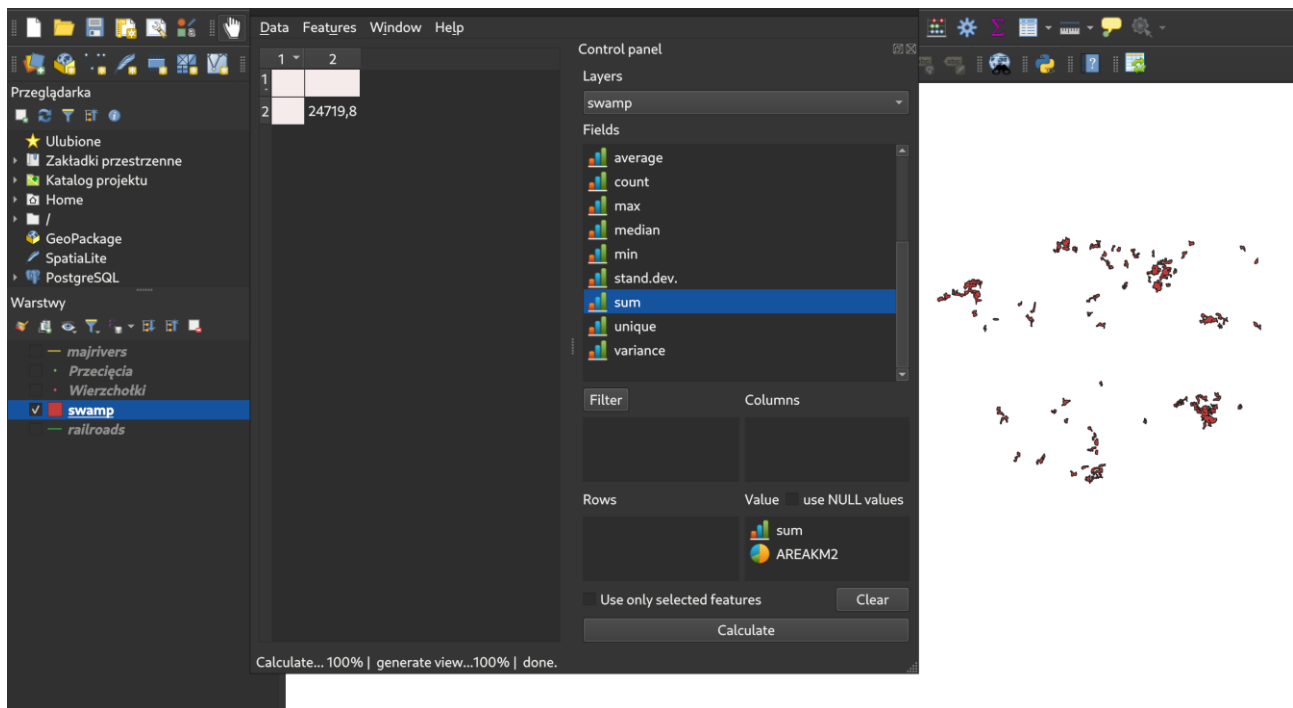
## Zad.9



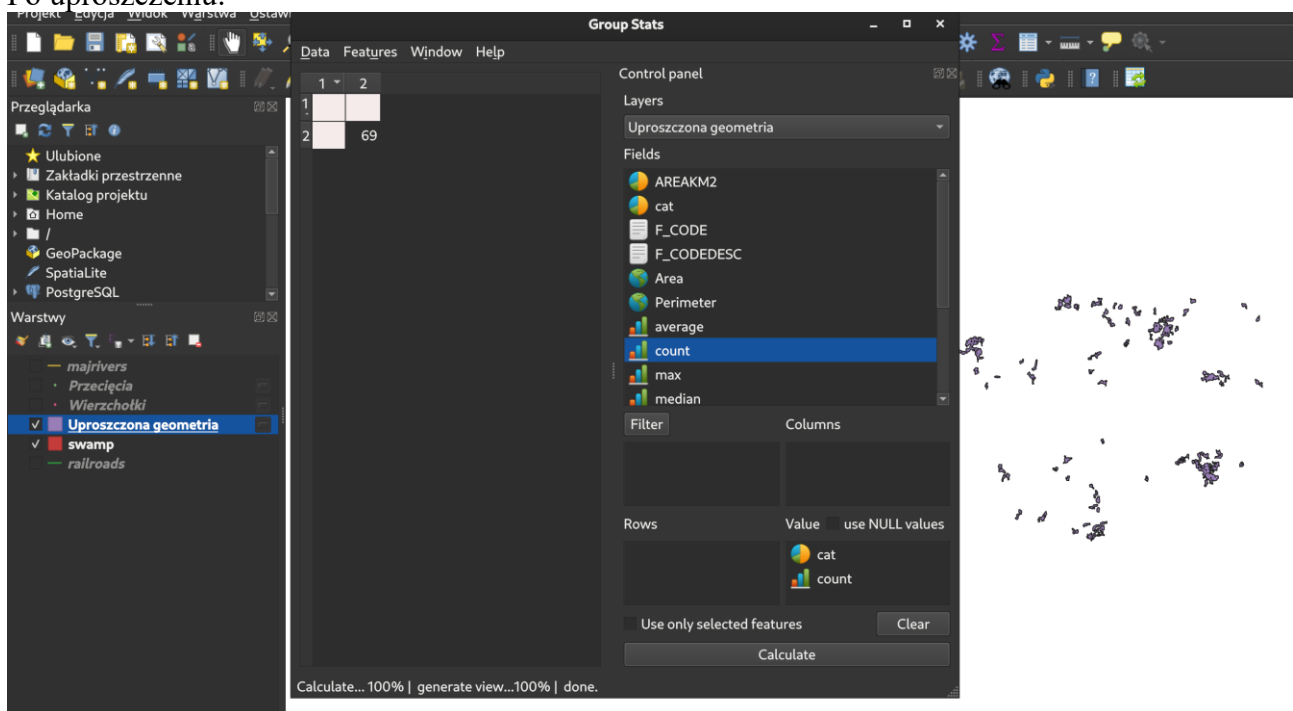
## Zad.10

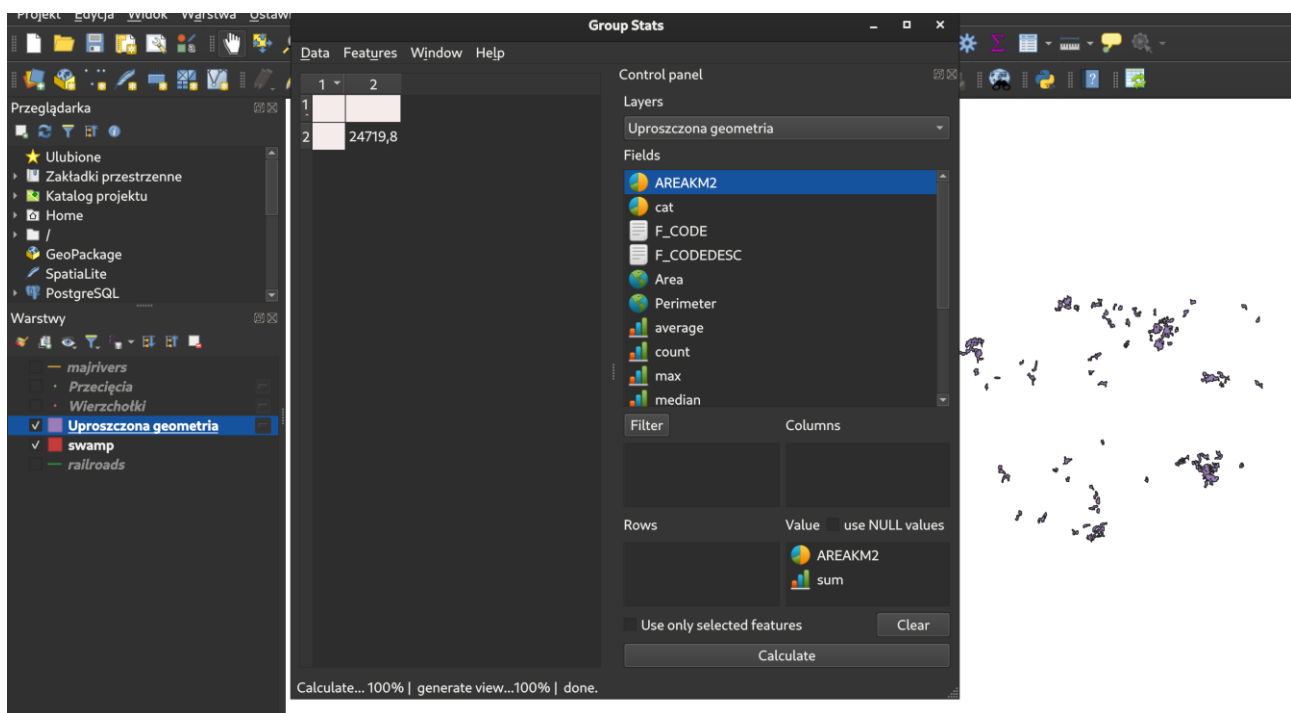
Przed uproszczeniem:





Po uproszczeniu:





Liczba wierzchołków znacznie zredukowana, pole powierzchni takie samo.