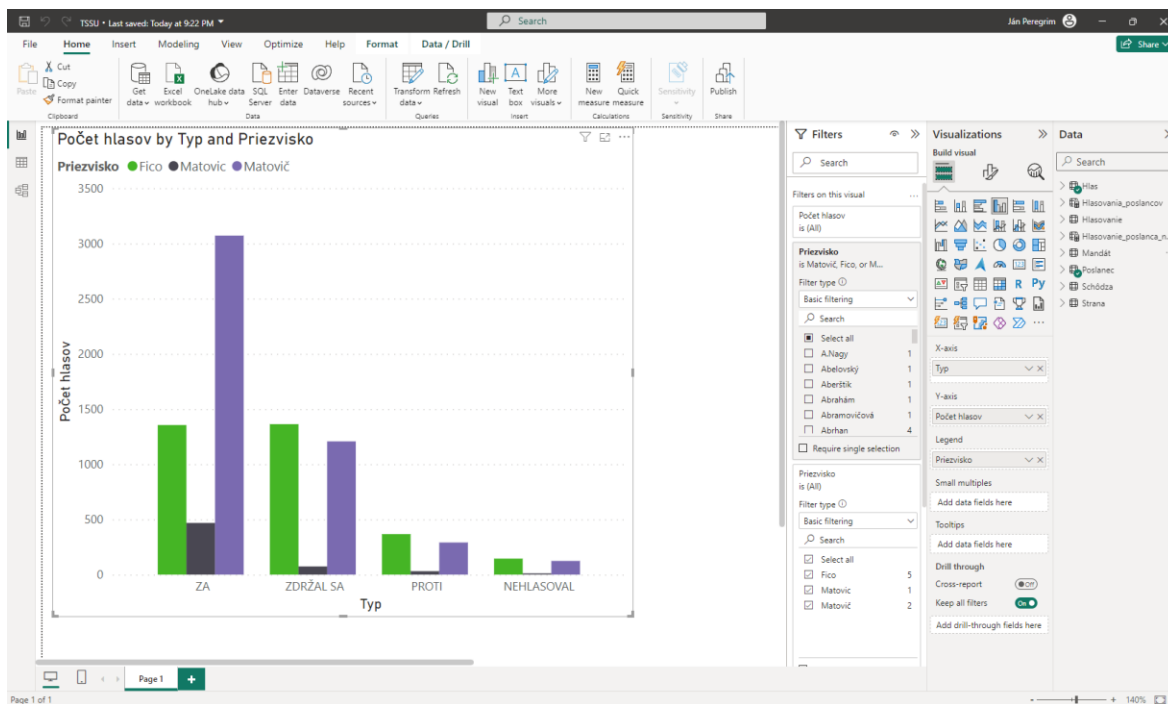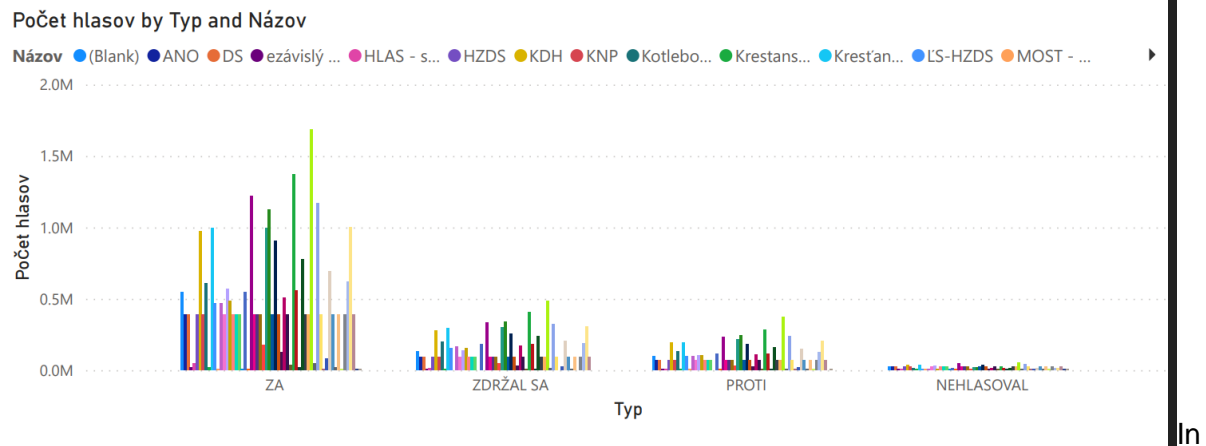# Example outputs from DataWarehouse

To visualize the data and facilitate data manipulation, we chose the Microsoft Power BI application.
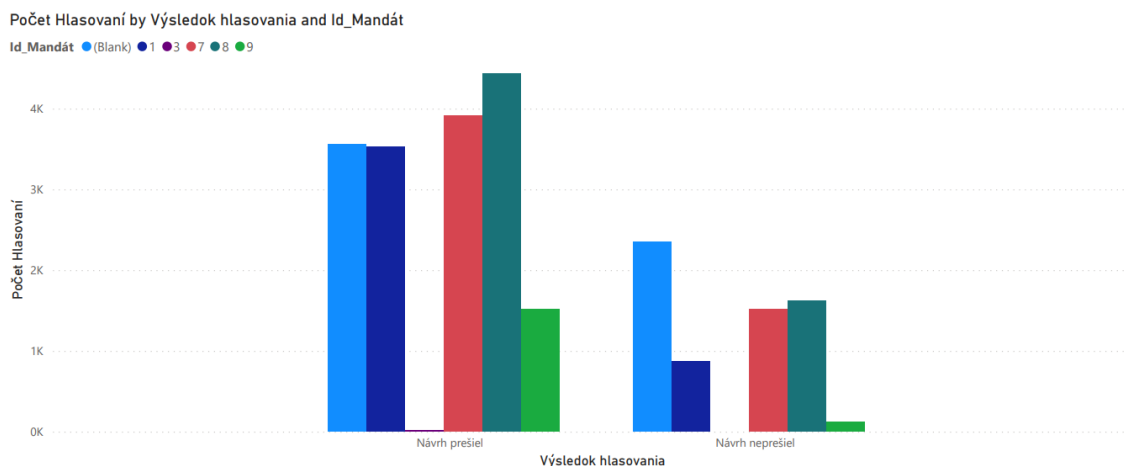
Microsoft Power BI is a cloud technology from Microsoft that allows for easy analysis and visualization of data. The service includes a set of tools that enable users to independently analyze data and create reports, statistics, or summaries.

In this application, we uploaded all our data as well as data from other groups, created a star schema, and established connections between tables. After all these steps, we could start visualizing the data, some examples of which are shown in the following graphs.

Počet hlasov by Typ and Názov

Názov ● (Blank) ● ANO ● DS ● ezávislý ... ● HLAS - s... ● HZDS ● KDH ● KNP ● Kotlebo... ● Krestans... ● Kresťan... ● ĽS-HZDS ● MOST - ... ▶

[Bar chart: Y-axis "Počet hlasov" ranging 0.0M to 2.0M; X-axis "Typ" with categories ZA, ZDRŽAL SA, PROTI, NEHLASOVAL]

In the previous graph, we can see a display of how legislators from different parliamentary clubs voted. Specifically, on the X-axis, we see the votes of legislators whether they voted for the proposal, against it, abstained, or did not vote. On the Y-axis, we see the number of votes in which they voted this way. The scale on the Y-axis is in millions. In the next graph, we can see how many of the proposals were approved or not approved. On the X-axis, we can see whether the proposal passed or not, and on the Y-axis, the number of these proposals.

Počet Hlasovaní by Výsledok hlasovania and Id_Mandát

Id_Mandát ● (Blank) ● 1 ● 3 ● 7 ● 8 ● 9

[Bar chart: Y-axis "Počet Hlasovaní" ranging 0K to 4K; X-axis "Výsledok hlasovania" with categories Návrh prešiel, Návrh neprešiel]

To display such graphs in this application, we had to use the following commands or functions:
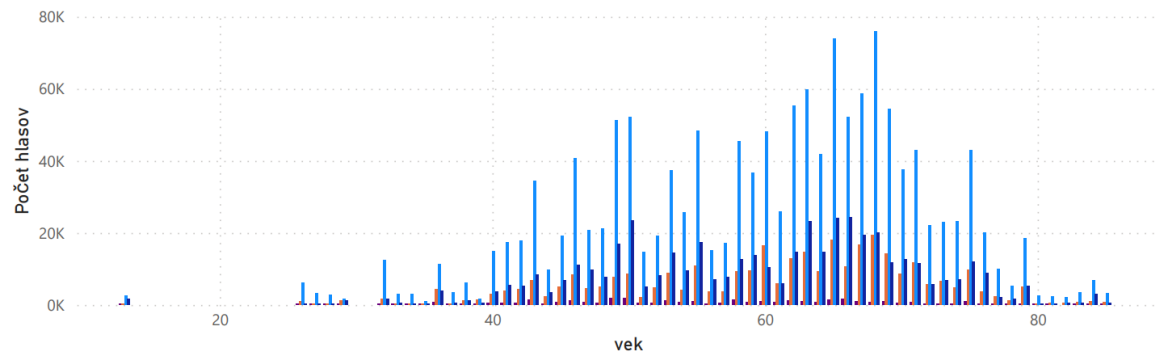
```
Počet hlasov = COUNTROWS(
    FILTER(
        Hlas,
        Hlas[Typ] = "ZA"
        Hlas[Typ] = "ZDRŽAL SA"
        Hlas[Typ] = "NEPRITOMNÝ"
        Hlas[Typ] = "PROTI"
        Hlas[Typ] = "NEHLASOVAL"
    )
)
```

```
Počet Hlasovaní =
COUNTROWS(
    FILTER(
        Hlasovania_poslancov,
        Hlasovania_poslancov[Výsledok hlasovania] = "Návrh prešiel" ||
        Hlasovania_poslancov[Výsledok hlasovania] = "Návrh neprešiel"
    )
)
```

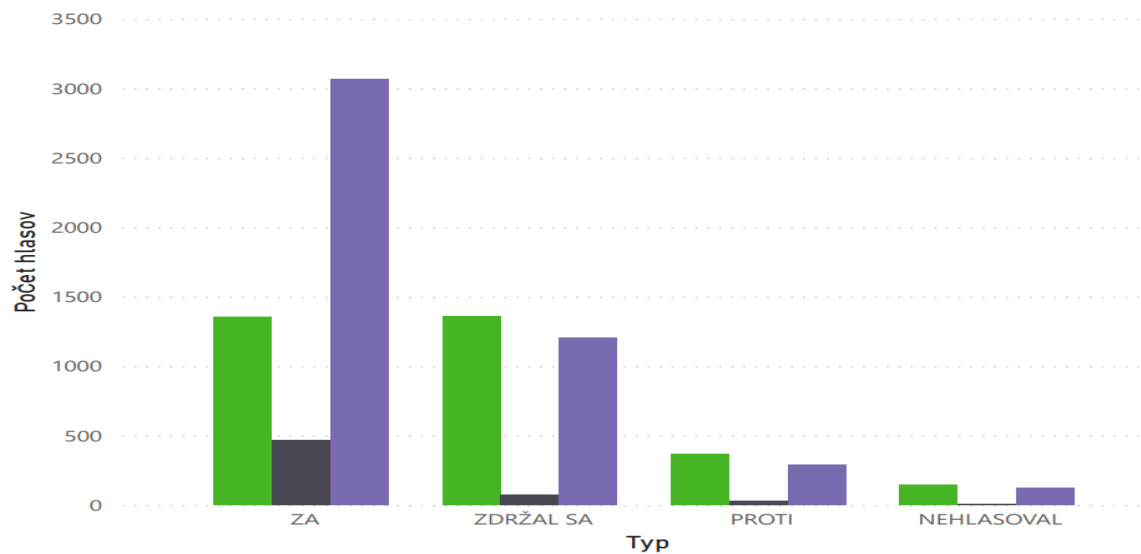Among the interesting graphs that we managed to create are the following two:

Počet hlasov and Measure Vek by vek and Typ

Typ ● NEHLASOVAL ● PROTI ● ZA ● ZDRŽAL SA

Počet hlasov by Typ and Priezvisko

Priezvisko ● Fico ● Matovic ● Matovič

In the first graph, we displayed how legislators most frequently voted based on their age. We can notice that the 68-year-old legislators voted the most for proposals and were also most frequently against some proposals. The 49-year-old legislators most frequently did not vote, and on average, legislators who were 50 years old abstained the most times during votes.

```
Measure Vek = COUNTROWS(
        FILTER(
        Poslanec
    )
)
```

The second graph shows the votes of NRSR legislators, from which we selected legislators Robert Fico and Igor Matovič for demonstration. Although there are 3 columns on this graph, it only concerns two individuals as Matovič was stored in the database under both his last name and under Matovic. It is clear from this graph that Matovič voted significantly more often for proposed laws than Robert Fico, who preferred to abstain from voting more frequently. This way, we can display any legislator and compare them with another legislator.