

E-Shop kitchen

Project concept

As part of the project, a conceptual design was developed, subsequentl database architecture created and finally data import performed with the establishment of relationships between individual entities.

Data set

Data was conceived and created using a generator artificial intelligence.

The data was then imported using Python.

Project goal

The main goal of the project was to provide a comprehensive analysis of customer segments and sales trends.

How do sales dynamics change over time?

Which customer segment attributed to the internet top rated store?

What is the structure of the e-shop's customers and how are they geographically? Do its shopping customers decompose?

Provide detailed analysis of individual categories and and products.

Determine the year in which the most significant decline occurred in the growth of sales figures.

Data transformation and aggregation

To quantify the number of items within individual categories a of the total volume of product sales, the method was applied data aggregation across all relevant categories and products.

General logic

The calculation of year-on-year growth was carried out according to the standard a formula that involves comparing two consecutive values by passing flights and determining the percentage change.

The calculation was performed according to the standard YOY formula.

Periodicity

Annual

Answers to research questions

• Research question number 1

Year **2024** proved to be the least successful, with an overall by the number of sales only **5**.

• Research question number 2

The store received the most five-star ratings from **feminine** clientele, while the male clientele **it isn't far behind them** with a tight number of ratings.

• Research question number 3

The gender distribution of customers is **equally**, whereas customers from the largest geographic representation **South Moravian region**.

- **Research question number 4**

To get more accurate results, it is necessary to do more thorough exploring category and product analysis. (see Visual)

- **Research question number 5**

The most significant decrease in sales was recorded in **2023**, while even a year **2019** showed a significant decrease.

It is likely that there are specific factors that they had effect on reducing shopping activity.

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