SPRINT #6
POWER BI: VISUALIZATION AND REPORTS

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SUMMARY

In this advanced Power BI module, I'll take my skills to the next level by delving into the use of Data Analysis Expressions (DAX) and mastering the variety of visualizations available to create engaging and interactive reports. Throughout this sprint, I'll gain advanced skills in designing reports that facilitate informed decision-making, understanding the critical importance of effective data presentation in Power BI.

RESULT

In this folder on the GitHub repository, you will find:

/db_data: csv-files with data and equivalent database dump
S6_01.pbix: dashboard in pbix
S6_01.pdf: dashboard in pdf
Sprint_6.pdf: interpretation of exercises and DAX formulas and descriptions with screenshots of all visuals and their results with comments

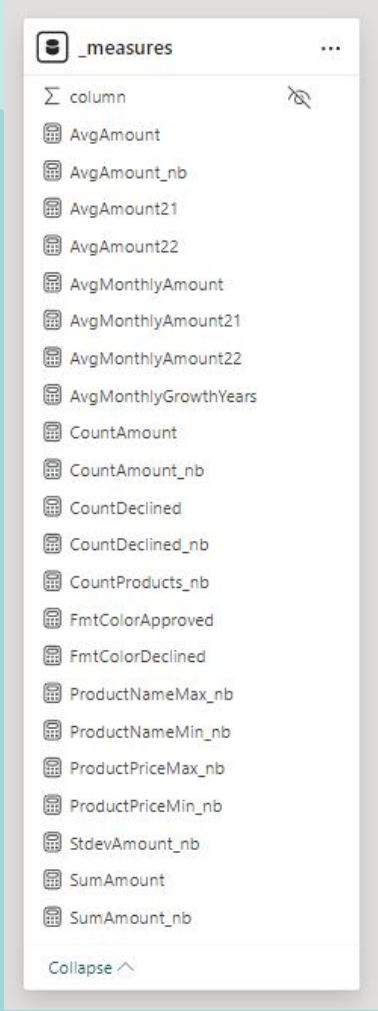
https://github.com/leocareer/DA_specialization/tree/main/Sprint_06

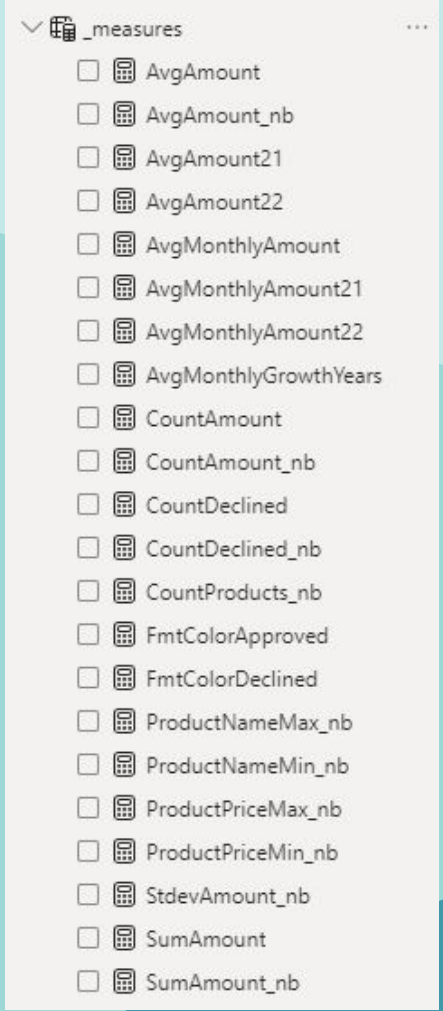
I analyzed all the tasks and modeled a report for them. There is a menu for navigating through pages, each level of exercises corresponds to one page. The first page of 'Countries' is designed as a dashboard, the second of 'Companies' and third of 'Clients' pages have deeper filters. In this sprint, I paid a lot of attention to the interface, using my experience in UX/UI and the data story I want to tell based on the exercises.

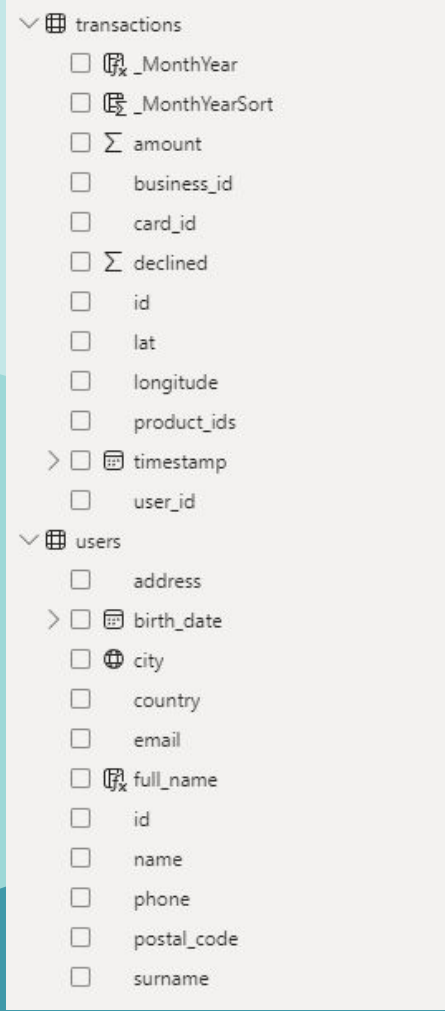
I organized the measures optimally, not to use unnecessary ones and to have a system for names. All the measures I created are in a separate table called '_measures' and also the 'users' table and the 'transactions' table contain several calculated columns:

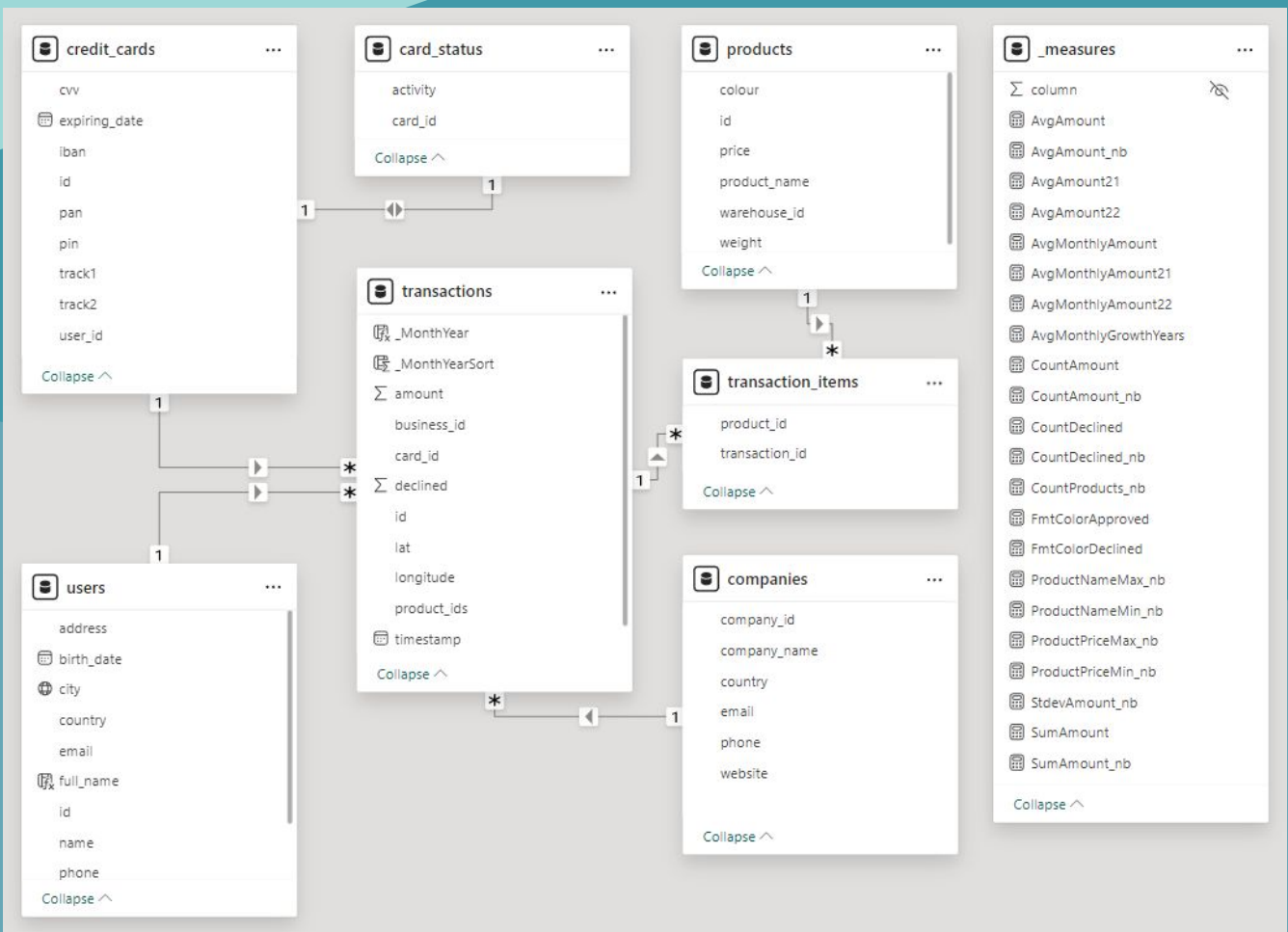
SPRINT #6

22/11/2024

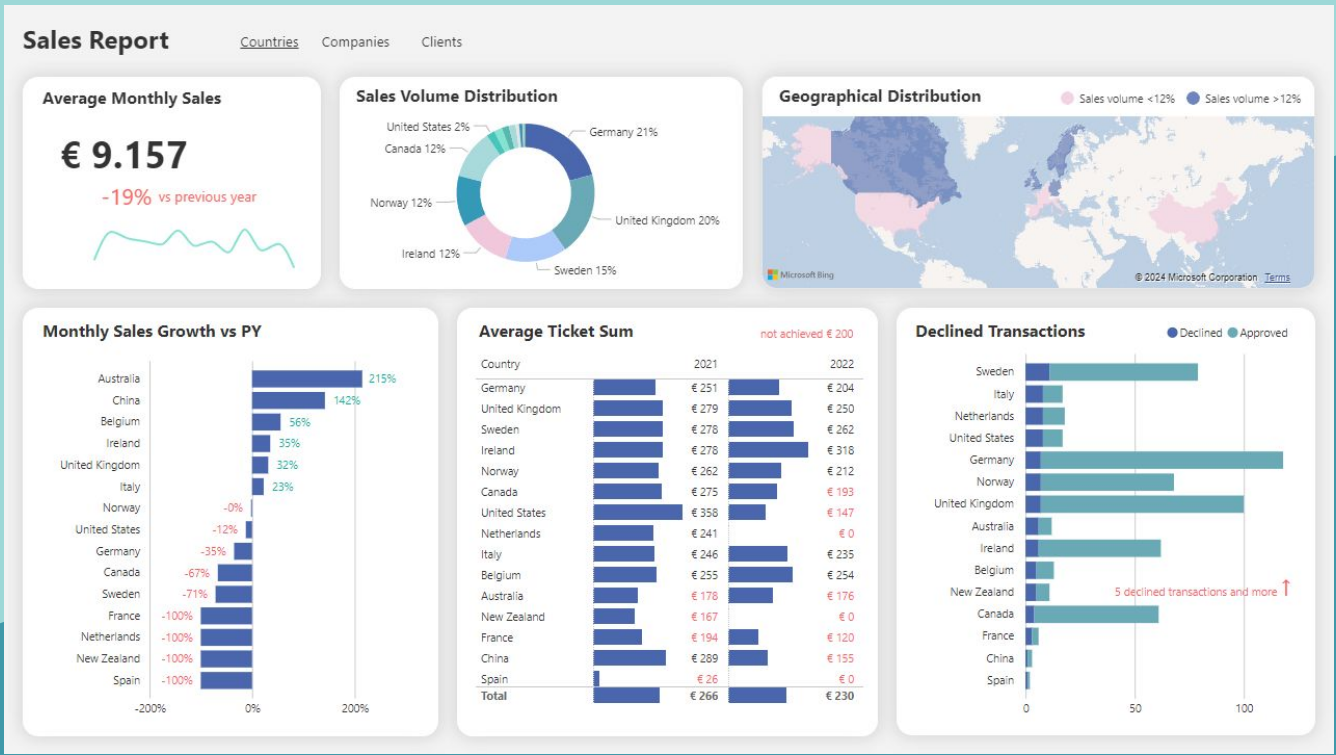






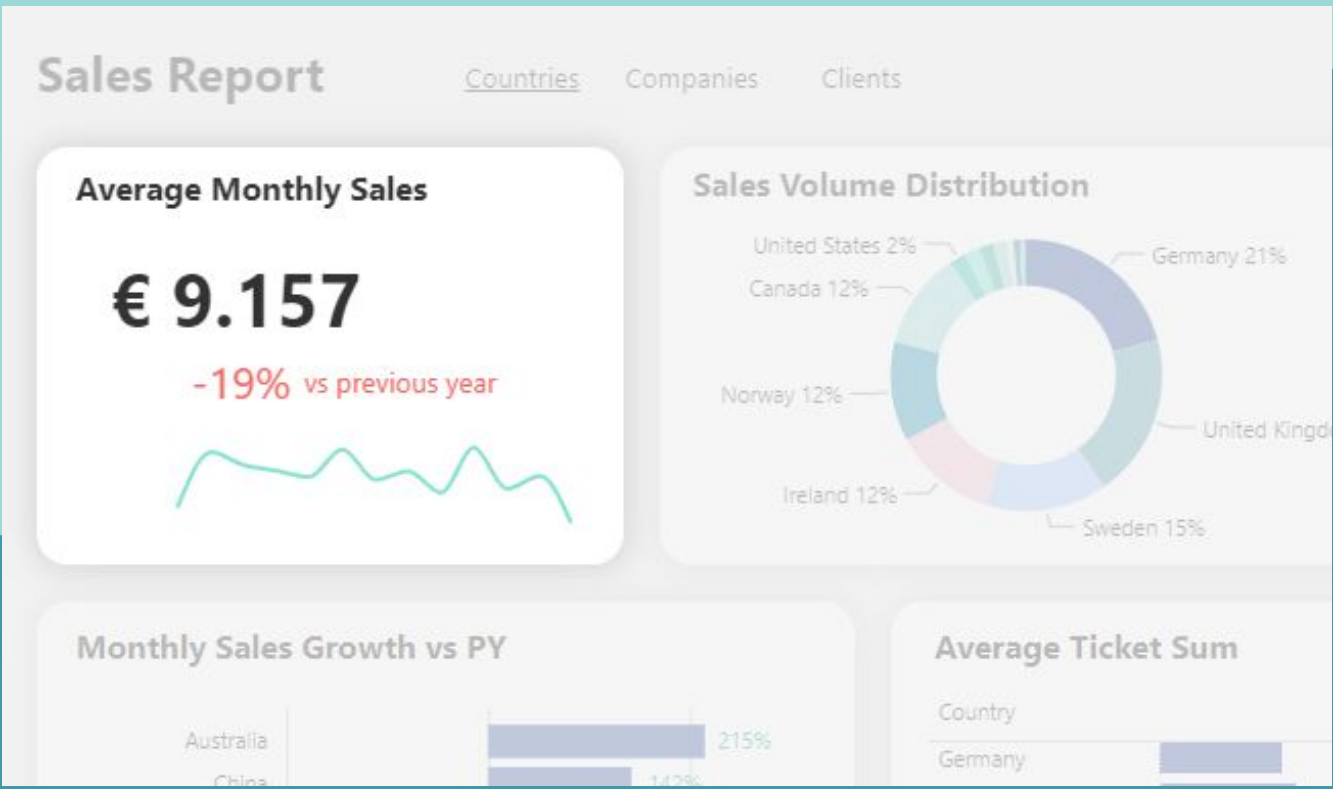


The first level and the first page of the report. The page ‘Countries’ is designed as a visual representation of the main information that is quick and easy to understand, there are no general filters, and country filtering is available which clearly highlights the necessary data. I have arranged the visuals on the page according to the storytelling and the user's eye movement, which is not the order of the exercises, so to keep the story I will break the order of the exercises in the presentation, but in the end they will all be described. I also have one widget that was not requested in the exercises, it is the first one, I will start with it.



I started by analyzing what story I can tell, what key questions I can answer with the dashboard. In addition to the main slice by country, several tasks ask for a comparison by year. So I built my story starting with a demonstration of the current state of sales compared to the previous year, then an analysis of the problem in one of the way - analysis by country, then an analysis of the possibilities for its solution and proposed further actions. Answering the question of how to show the change in sales compared to the previous year, I decided to use the Average Monthly Sales metric. In the future, the data may be kept up-to-date, it will be updated once a month and will be suitable for monthly reporting.

The user's first glance falls on the black header and the sum of the current average monthly sales. Then the user sees the insight highlighted in negative red color - by what percentage have sales changed compared to the previous year. He sees a problem here in the '-19%' drop. Next is a micro chart of sales for the entire period, there are no axes and values here, since I do not want to focus attention here, I want only quickly visually navigate the user by showing the peaks and the drop at the end point. But when further working with the page, if necessary, the user can look at the tooltip with the value here. This widget does not depend on others, is not filtered and does not change, it is designed to ask the question 'How have sales changed compared to last year?' and draw attention with an interesting visual to the problem 'Sales fell by 19%'.



The widget shows the sum of average monthly sales at the current moment in time (this is the average between the total sales for each completed month this year), below it in negative red color the difference in percentage compared to last year '-19%' is shown, below it is a chart of the change in the sum of total sales for all years and months, which shows peaks in the past and a decline at the end to the current moment in time.

For the card with the sum of Average monthly sales, I created the 'AvgMonthlyAmount22' measure, which calculates the average of all approved transactions in 2022 and excluding the current month of March since it has not yet ended and there is no total amount. I have the same measure for 2021, it also does not take into account one month with incomplete sales, and a measure for 'AvgMonthlyGrowthYears' to calculate the percentage of the difference. For the micrographic, the sum of all approved transactions is calculated in 'SumAmount' for approved transactions only.

```
AvgMonthlyAmount21 = DIVIDE(
    CALCULATE(
        SUM(transactions[amount]),
        transactions[declined] = 0,
        YEAR(transactions[timestamp]) = 2021,
        MONTH(transactions[timestamp]) <> 3
    ),
    9
)
```

```
AvgMonthlyAmount22 = DIVIDE(
    CALCULATE(
        SUM(transactions[amount]),
        transactions[declined] = 0,
        YEAR(transactions[timestamp]) = 2022,
        MONTH(transactions[timestamp]) <> 3
    ),
    2
)
```

```
AvgMonthlyGrowthYears = DIVIDE(
    [AvgMonthlyAmount22] - [AvgMonthlyAmount21],
    [AvgMonthlyAmount21],
    0
)
```

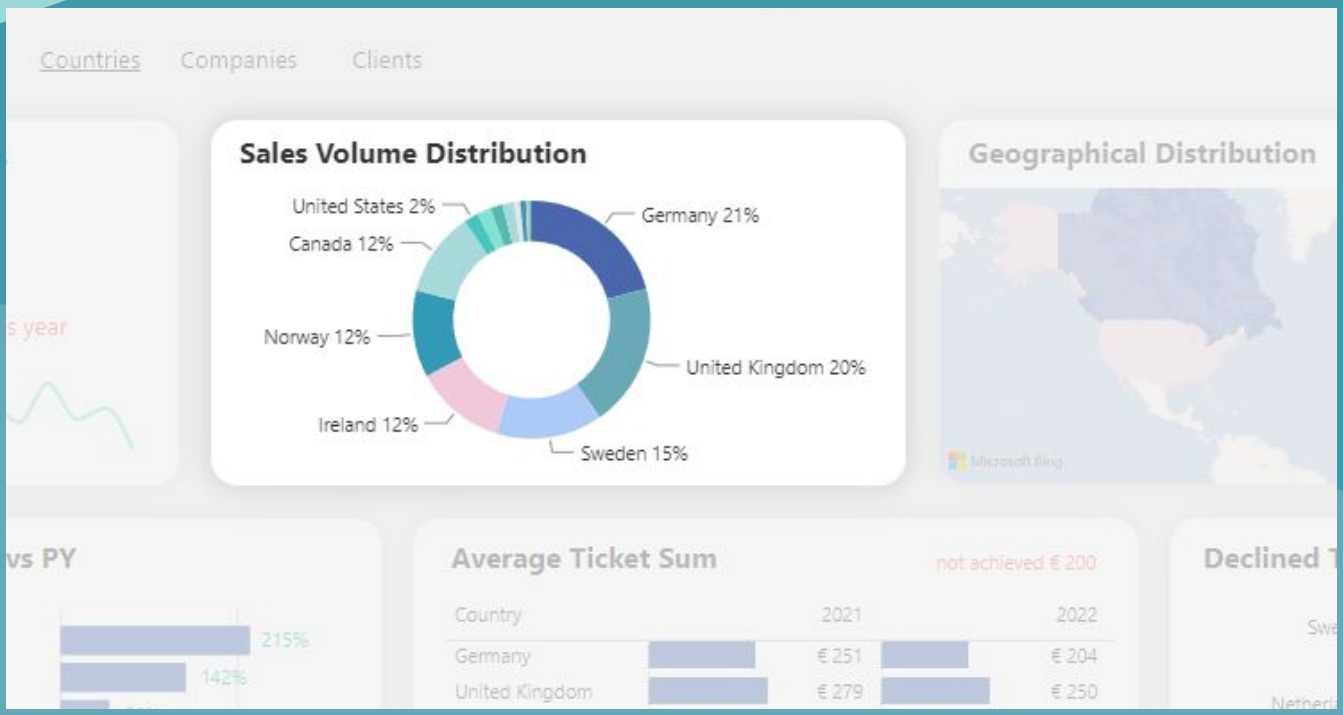
```
SumAmount = CALCULATE(
    SUM(transactions[amount]),
    transactions[declined] = 0
)
```

Now we move on to analyzing the problem. Let's see how sales were distributed across the companies' countries, what the dynamics were in different countries, whether there were significant increases or decreases somewhere.

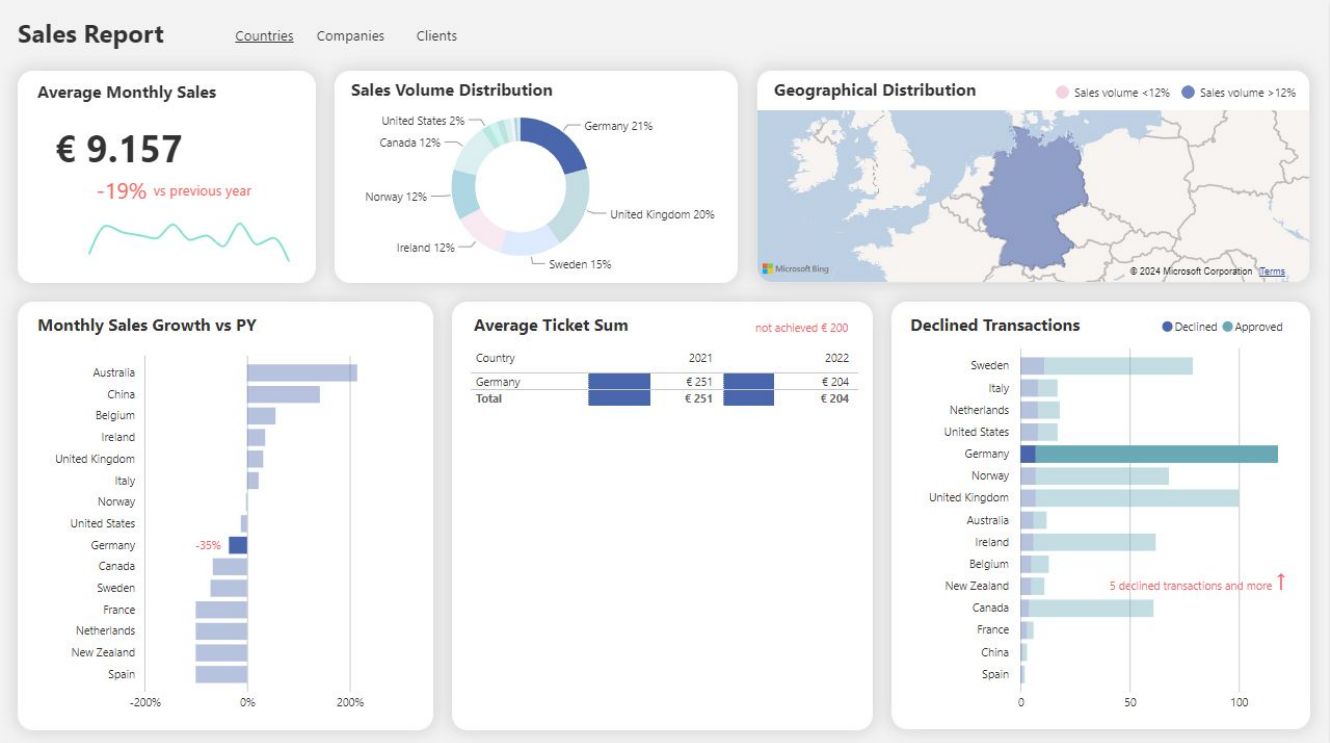
LEVEL 1 EXERCISE 2

The company is interested in obtaining an overview of the transactions carried out by each country. Your task is to create a visualization that identifies the percentage of sales by country.

I chose the donut visual because we have 6 leading countries and 9 countries with minor sales, and the donut visualizes the distribution between the leaders well. If the distribution was more uniform, I would prefer a different type of visual, since with a large number of pieces the donut visualizes not very clearly, but with 6 leaders it looks good. The colors are neutral so as not to highlight anything and emphasize that this is a distribution. For countries with a small volume, I display the signature only for the first country: The United States 2%. I think this is the best choice between overloading the chart and the ability to get the necessary information, because of the large number of signatures, I can lose the user's attention. In this implementation, the size of the cells and The United States with 2% make it clear that the next countries have even smaller sales volumes, also the user will be able to see the names in the tooltip, and all countries are fully and clearly displayed in the following visuals.



The widget shows a graph where the entire donut represents the sum of all sales for the entire existing period, and each cell in the donut represents each country's percentage share of those sales. The diagram is clickable and highlights data by country if necessary. In the tooltip, you can specify the total sales by country.



This widget makes the first analysis to study the problem and allows the user to draw conclusions that we have two categories of countries - leaders, which we need to analyze especially carefully further, since they bring the company the main income, and a number of countries with a small contribution, for which we need to develop a development strategy.

Here only one measure is used for the sum of all sales and only approved transactions:

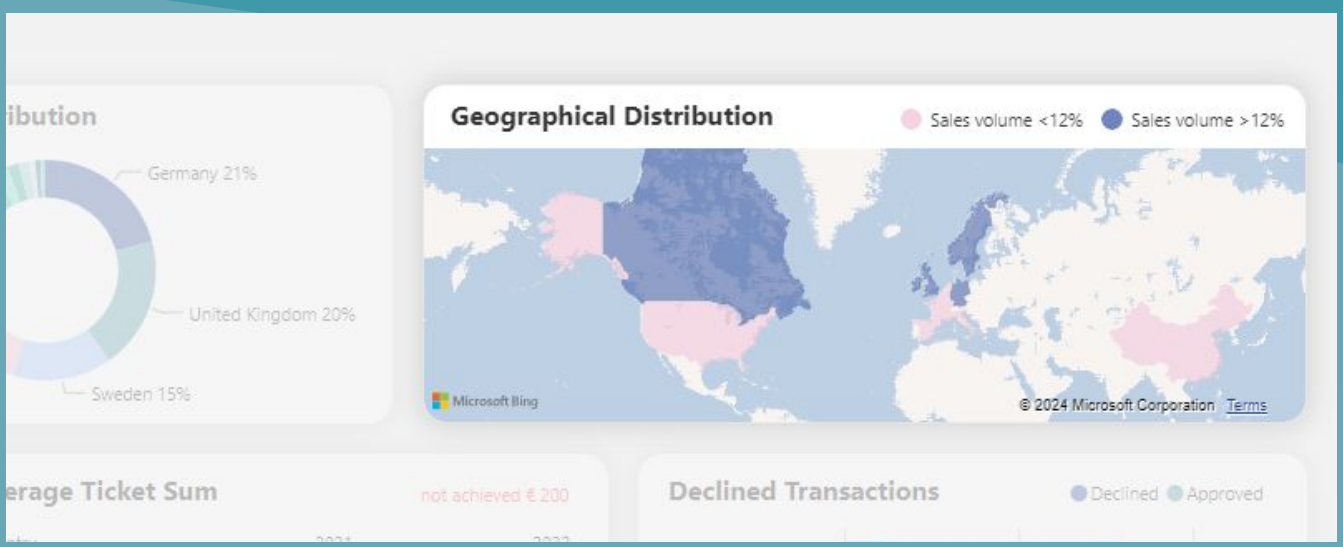
```
SumAmount = CALCULATE(
    SUM(transactions[amount]),
    transactions[declined] = 0
)
```

Let's continue the analysis by checking the geography, see how the leaders and losers are distributed on the map and whether there are any dependencies by region.

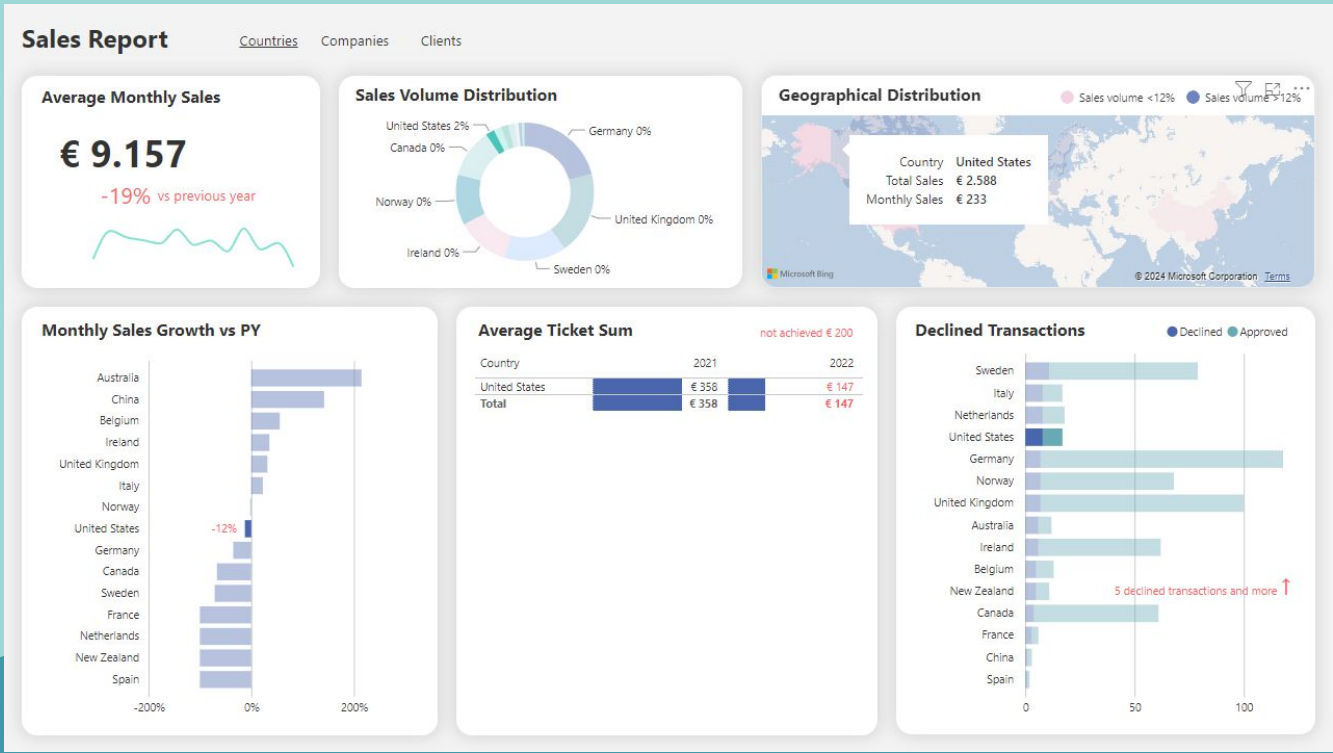
LEVEL 1 EXERCISE 5

The company seeks to understand the geographic distribution of sales to identify specific patterns and opportunities in each region. Select the best view to display this information.

Here I have selected the Map visual and highlighted the countries in two segments from the previous visual to continue the story. The legend is not clickable since we only have two country segments and they are clearly visible on the map and the interaction with the legend is redundant, in addition, the visual settings of the map are limited and for a unified style I collected the legend and title from the text boxes, this is important for focusing on insights, I would not like to distract the user's attention on elements that stand out from the unified style.



The widget shows the countries participating in sales and their total sales amount for the entire existing period. The map highlights the leading countries with sales volume > 12% in purple and the losers with sales volume < 12% in pink, the colors are neutral, as are the indicators. The countries on the map are clickable and clearly highlight information on the country throughout the dashboard. In the tooltip, you can see total sales by country and current monthly sales, which can be compared with monthly sales for all countries from the first widget.



The widget continues the analysis of the problem, developing the insight of the previous widget about two segments of countries, allows the user to see whether the countries of one segment are located nearby, to ask the question why in this part of Europe we receive a large income, and in another several times less, whether there are reasons for this or we need to investigate this.

I used two measures you already know for the tooltip: 'AvgMonthlyAmount' - average monthly sales for the entire period and 'SumAmount' - the sum of all sales. The countries on the map are colored manually.

```
AvgMonthlyAmount = DIVIDE(
    CALCULATE(
        SUM(transactions[amount]),
        transactions[declined] = 0,
        MONTH(transactions[timestamp]) <> 3
    ),
    11
)
```

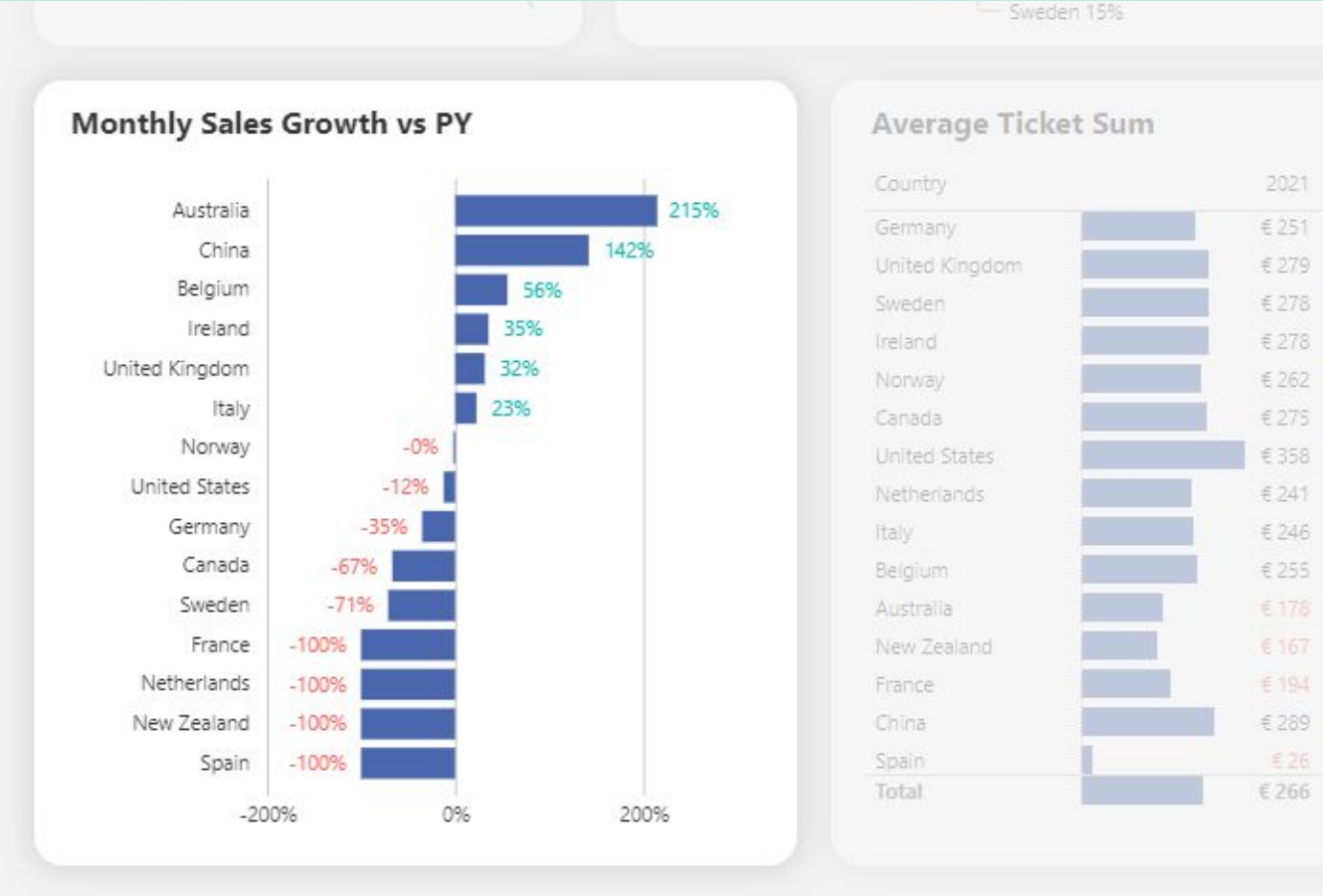
```
SumAmount = CALCULATE(
    SUM(transactions[amount]),
    transactions[declined] = 0
)
```

Moving to the culmination of our story and see how sales have changed compared to last year by country. I am sure that the user has kept the expectation of this information after the first widget.

LEVEL 1 EXERCISE 3

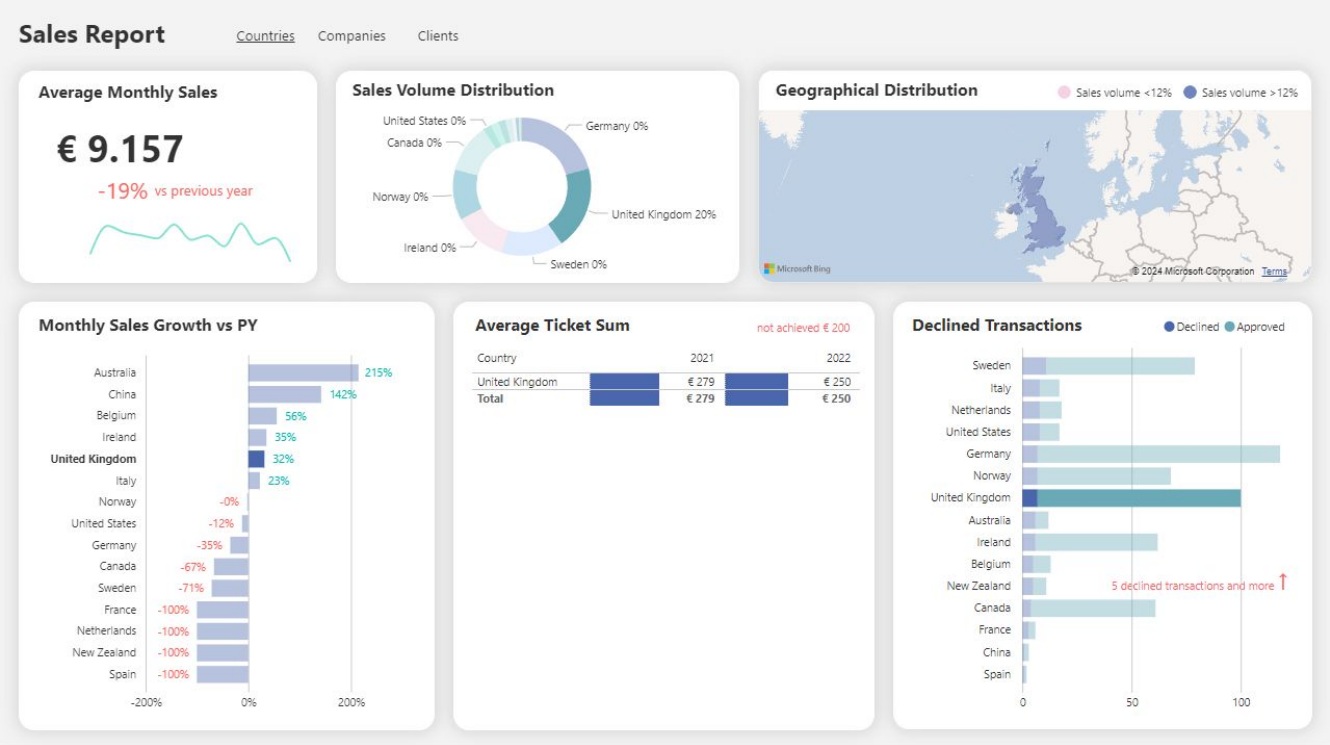
Design a visual indicator in Power BI to analyze the difference in sales between the years 2022 and 2021 in each country. The company is interested in understanding how sales have varied in different countries during this period and wishes to identify any significant decreases or increases in sales.

I chose to build this visual on the Average Monthly Sales measure. Firstly, this measure tracks changes over time well, and secondly, I continue the story I chose to tell around this measure. After presenting the graph, I will explain some points about the data that need to be considered when using this measure.



The widget shows a chart with the percentage change in the difference in average monthly sales at the current time compared to the previous year for each country. The Y-axis shows the names of countries in order of increasing percentage growth. The X-axis shows the percentage growth relative to zero, which is in the middle of the axis, so on the left we see negative growth (a decrease in average monthly sales), and on the right, positive. Next to each bar there is a caption of the percentage growth, positive growth is highlighted in positive green, negative growth is highlighted in negative red. The bars are clickable and highlight country information throughout the dashboard.

The widget allows you to analyze growing and losing countries, in combination with insights from previous widgets such as segments by sales volume and region, the wizard details the growth and decrease of each segment, which will allow the user to detail the strategy.



There are three measures here that you are already familiar with - 'AvgMonthlyGrowthYears' for determining change in sales and two related measures:

```
AvgMonthlyAmount21 = DIVIDE(
    CALCULATE(
        SUM(transactions[amount]),
        transactions[declined] = 0,
        YEAR(transactions[timestamp]) = 2021,
        MONTH(transactions[timestamp]) <> 3
    ),
    9
)
```

```
AvgMonthlyAmount22 = DIVIDE(
    CALCULATE(
        SUM(transactions[amount]),
        transactions[declined] = 0,
        YEAR(transactions[timestamp]) = 2022,
        MONTH(transactions[timestamp]) <> 3
    ),
    2
)
```

```
AvgMonthlyGrowthYears = DIVIDE(
    [AvgMonthlyAmount22] - [AvgMonthlyAmount21],
    [AvgMonthlyAmount21],
    0
)
```

Now I will show in more detail what happens when calculating Average Monthly Sales using Australia as an example. Australia is the country with the largest growth of 215% according to the graph, but if Australia has small sales in general, this will not be a significant increase. The tables below show full sales for each month in Australia for 2021 and 2022, I only take into account months with complete data, so 2021 starts in April and for 2022 it is January and February, then the average was obtained from this: 535 / 9 = 59.39 for 2021 and 374 / 2 = 186.94 for 2022, we get that 186.94 is 215% greater than 59.39. As a result, we have a nice big sales growth of 215%, but in fact, the stakeholder needs to understand where this figure comes from and that in fact Australia did not bring us much money.

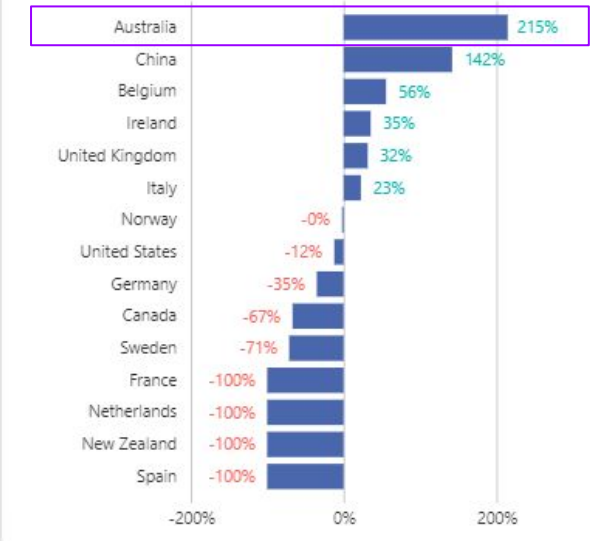
Country	Year	Month	Sales
Australia	2021	April	€ 0
Australia	2021	May	€ 0
Australia	2021	June	€ 412
Australia	2021	July	€ 59
Australia	2021	August	€ 0
Australia	2021	September	€ 0
Australia	2021	October	€ 0
Australia	2021	November	€ 0
Australia	2021	December	€ 63
Total			**€ 535**

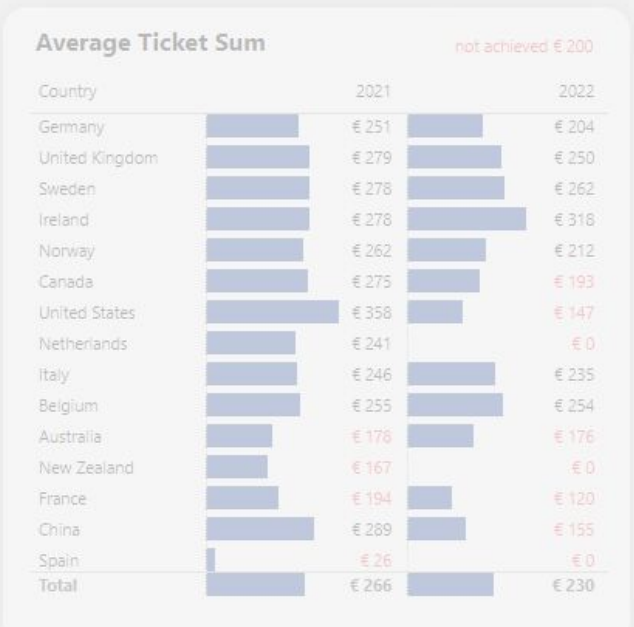
Country	Year	Month	Sales
Australia	2022	January	€ 0
Australia	2022	February	€ 374
Total			**€ 374**

Country	Year	AvgMonthlyAmount21
Australia	2021	€ 59,39
Total		**€ 59,39**

Country	Year	AvgMonthlyAmount22
Australia	2022	€ 186,94
Total		**€ 186,94**

Country	AvgMonthlyGrowthYears
Australia	215%
Total	**215%**





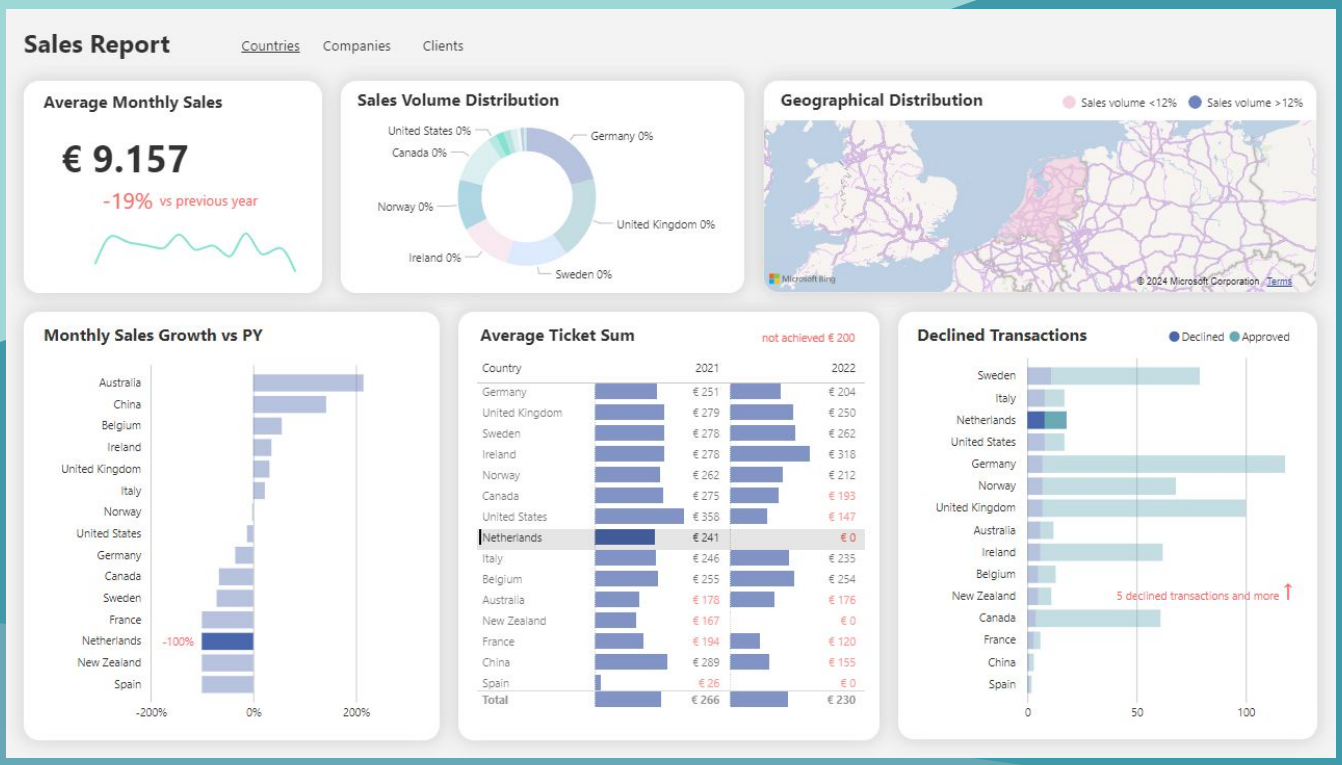
Now let's move on to finding the reasons and formulating possible further actions.

LEVEL 1 EXERCISE 1

The company needs to evaluate sales performance internationally. As part of this process, you are asked to choose a chart that details average sales broken down by country and year in a single visual presentation. It is necessary to point out the averages that are less than 200 euros per year.

To effectively present this data, I took into account the following facts: it is necessary to see values for all countries and years, goal achievement, be able to visually compare data for two years, and also hold the user's attention with such a large volume of parameters. I chose the table visual with column formatting, which allowed me to effectively place visual and text data on the wizard. First, the user's gaze falls on the red negative values and the legend "not achieved € 200", then on the neutral blue bars: peaks among countries and the difference between years, then on the total value at the end. Countries are sorted by sales volume (this column is hidden and is used only for sorting) for a clearer comparison with previous wizards, the user can also sort by average check.

The widget shows table with bar charts, in the first column the names of countries in order of decreasing sales from top to bottom (thus the countries are arranged in the same order as in a donut, which makes it pleasant to compare them), in the second column the bars on the X axis are equal to the average check for each country for 2021, a specific value is signed on the right. On the right is the same for 2022. At the bottom in Total is the average value for the year for all countries. The values that have not reached the target of 200 euros are highlighted in red negative color. Sorting by country name and average check amount is available. Countries are clickable and highlight information on the entire page.



This wizard analyzes problem areas by check amount, the identification of which will allow you to implement an appropriate marketing strategy.

Here I created two measures - the average ticket for each year, they take into account that we only need approved transactions and display zero values for correct highlighting of goal fulfillment. And also for sorting in an invisible column I use the sales amount.

```
AvgAmount21 = COALESCE(
    CALCULATE(
        AVERAGE(transactions[amount]),
        transactions[declined] = 0,
        YEAR(transactions[timestamp]) = 2021
    ),
    0
)
```

```
AvgAmount22 = COALESCE(
    CALCULATE(
        AVERAGE(transactions[amount]),
        transactions[declined] = 0,
        YEAR(transactions[timestamp]) = 2022
    ),
    0
)
```

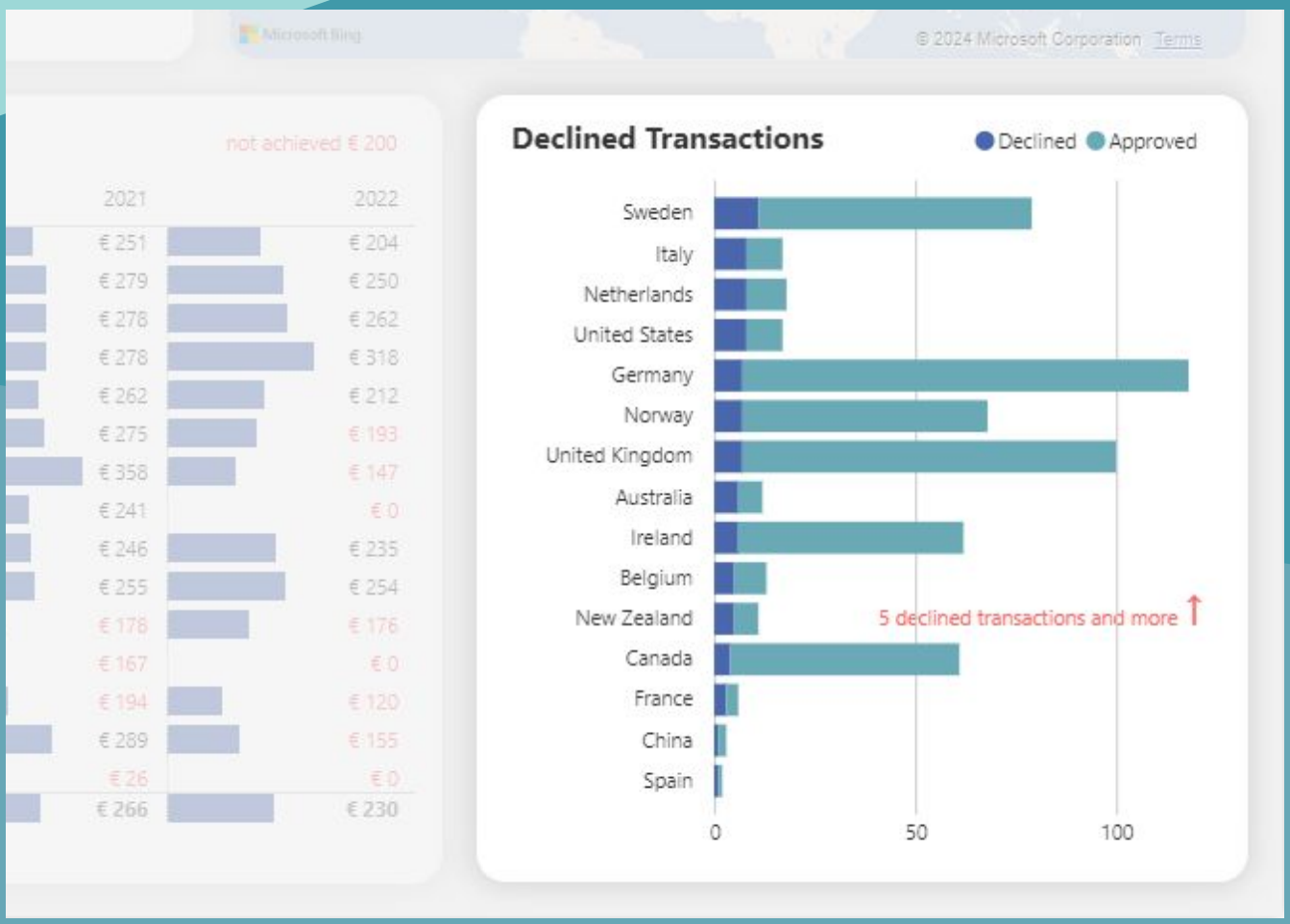
```
SumAmount = CALCULATE(
    SUM(transactions[amount]),
    transactions[declined] = 0
)
```

Now let's move on to the final indicator that can provide growth points - declined transactions.

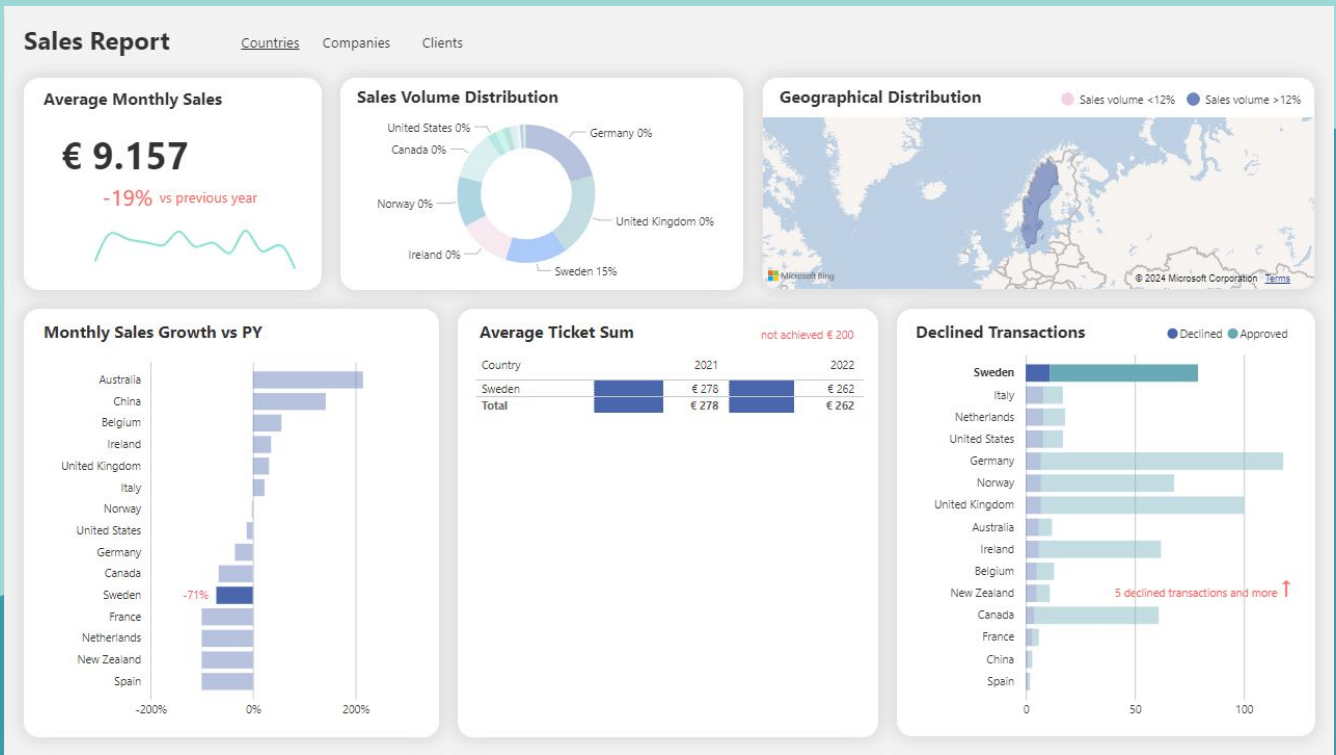
LEVEL 1 EXERCISE 4

Create a visualization in which the number of rejected transactions in each country can be counted to measure the effectiveness of the operations. Remember that the company expects to have less than 5 declined transactions per country.

In this widget I want to focus the user's attention on two things: countries where the limit of rejected transactions is exceeded; countries where the volume of rejected transactions is high compared to all. I intentionally removed the numerical values from the chart (I can turn them on at the stakeholder's request) so that at first glance the only thing that catches the eye is the red signature about negative transactions and the outliers in the bars. I thought that in this situation it is more important for me to focus the user on the outliers, and not on specific numbers, because although most countries did not meet the limit, the distribution of rejected transactions is even and there are no insights there.



The widget shows a bar graph comparing the number of declined and approved transactions. The Y-axis shows the names of countries, and the X-axis shows the number of transactions. The bar for each country has a blue color for declined transactions and a green color for approved ones. The entire graph is sorted by blue declined transactions. Opposite New Zealand there is a red negative caption '5 declined transactions and more' and an upward arrow, which tells us that all countries above New Zealand did not meet the limit of 5 declined transactions. When hovering over a bar, the tooltip shows the number of declined and approved transactions. It is possible to highlight information about a country on the entire page by clicking on the bar.



The wizard allows to quickly highlight countries with a large number of declined and approved transactions and compare them with market leaders and previous insights to understand where to plan appropriate activities.

Here I created two measures for counting declined and approved transactions:

```
CountAmount = CALCULATE(
    COUNT(transactions[id]),
    transactions[declined] = 0
)
```

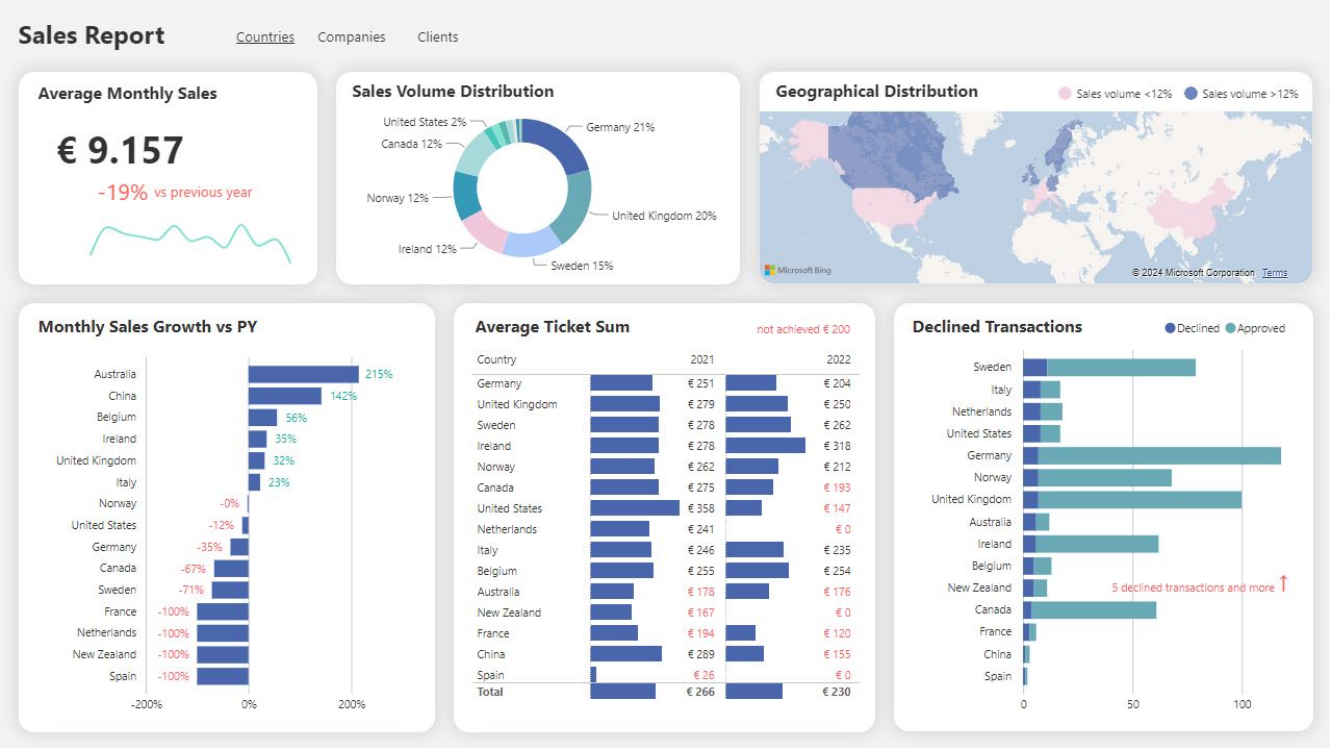
```
CountDeclined = CALCULATE(
    COUNT(transactions[id]),
    transactions[declined] = 1
)
```

I have finished describing the visuals of the first page of the report, now I will present the task in which there will be an opportunity to tell the story and present more analytical descriptions, insights and recommendations.

LEVEL 1 EXERCISE 6

Your boss has asked you to prepare a presentation for your team detailing the information on all the graphs viewed so far. To comply with this request, you must provide an interpretation of the views obtained. The presentation can be made with general information or by selecting a particular element, such as, for example, the results of Spain.

I assume I will give a presentation with an open report on the monitor and present it by voice, so here I will provide screenshots of the report for the presentation and the prepared interpretation text. Then, at the request of the management, I could prepare a detailed report in pdf focusing on the goals and audience. Here in the text I will highlight in bold the widget on which I am currently focusing the attention of the stakeholders.



Monthly meeting with stakeholders, I'm talking

Hello, welcome, it's March, which means the monthly meeting is due. Let's see how sales are doing and what insights I have prepared for you.

Let's start with the big picture: according to the results of february, **Average Monthly Sales** are €9157, which is 19% lower then in the previous year. This is very significant decrease, what could have caused this? Perhaps we have different dynamics in the countries? And in some regions we see a significant increase in volumes, while in others we see a decrease? For the beginning, let's look at how our total sales volume is distributed between countries

Looking at the **Sales Volume Distribution**, we clearly see two segments of countries - 6 leaders with a volume of more than 12% and countries with a volume of less than 2%. Is our huge sales decline due to someone of the leaders screwing up? Or are we losing volume of small developing clients?

It is noteworthy that all the leaders are in the European part. On the **Geographical Distribution** map, we see a lake of leading countries in the north and a lake of small players in the south. Is there a connection between these areas? Are they affected by the policies of regional offices? Do we have unified logistics for in these areas?

Ireland and United Kingdom, two bordering leaders and only they of the leaders whose **Monthly Sales Growth vs PY** has grown, and by a whole third. The other leaders show a decline, especially Canada and Sweden at around 70%. Of the small players, Australia, China and Belgium are pleasing with growth of 50-200%. Are there any connections between the segments that have formed?

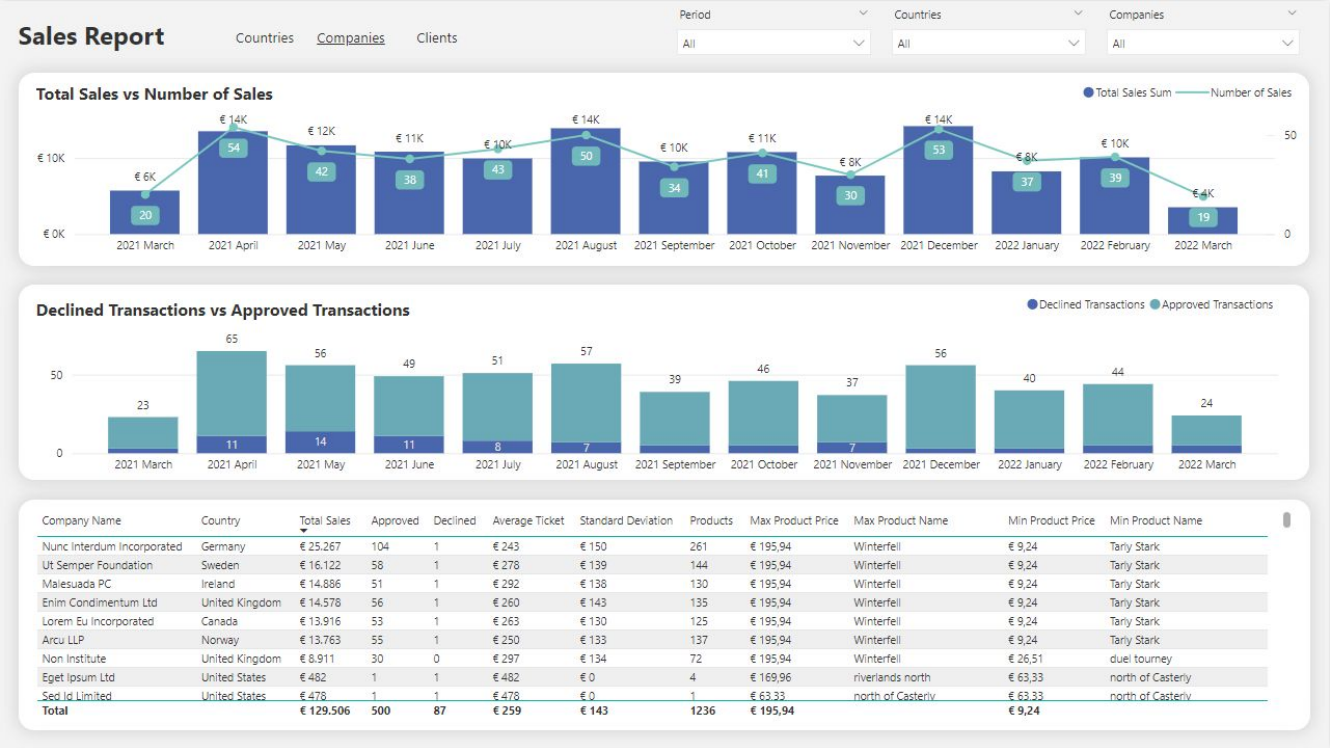
First of all, let's turn to the KPI from our current strategy on the **Average Ticket Sum**. All European leaders are going smoothly and fulfilling the set goal this year as in the previous one. Canada is supporting its decline with a decline in the average check by a third. We are losing the United States and China with a decline of half, and have already lost the Netherlands, Spain and New Zealand - not a single sale this year.

Most countries do not meet the target of minimizing **Declined Transactions**. Although the situation of the leaders is stable and with their volume of approved transactions the percentage of rejected ones is not critical. New Zealand, Belgium, Australia, the United States, the Netherlands and Italy do not meet the plan and have about 50% of declined transactions.

We are moving towards the end of the meeting, I will summarize by presenting recommendations:

- Continue analytical research into the decrease in average monthly sales by other segments (companies, clients, marketing events);
- Consider segmentation by sales volume: we need different strategies for market leaders and small companies;
- Clarify regional connections in Europe between segment participants and take this into account;
- Consider investing in intensive market development on other continents without relying on income from one European one;
- Explore the positive experience of Ireland and the UK for scaling;
- Explore market in Australia, China, and Belgium by other indicators to understand whether it is worth investing in development or focusing on the clients who increased the ticket sum;
- Take Canada seriously, the market is collapsing by several indicators, we need a recovery strategy;
- Develop a plan to restore the market in the Netherlands, Spain, and New Zealand;
- Comprehensively study the reasons for rejected transactions in all regions, as we need to raise the indicators in all countries.

We are done with the first level of exercises and the first ‘Countries’ page of the report. Let's move on to the second level and the ‘Companies’ page.



Company Name	Country	Total Sales	Approved	Declined	Average Ticket	Standard Deviation	Products	Max Product Price	Max Product Name	Min Product Price	Min Product Name
Nunc Interdum Incorporated	Germany	€ 25.267	104	1	€ 243	€ 150	261	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Ut Semper Foundation	Sweden	€ 16.122	58	1	€ 278	€ 139	144	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Malesuada PC	Ireland	€ 14.886	51	1	€ 292	€ 138	130	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Enim Condimentum Ltd	United Kingdom	€ 14.578	56	1	€ 260	€ 143	135	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Lorem Eu Incorporated	Canada	€ 13.916	53	1	€ 263	€ 130	125	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Arcu LLP	Norway	€ 13.763	55	1	€ 250	€ 133	137	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Non Institute	United Kingdom	€ 8.911	30	0	€ 297	€ 134	72	€ 195,94	Winterfell	€ 26,51	duel tourney
Eget Ipsum Ltd	United States	€ 482	1	1	€ 482	€ 0	4	€ 169,96	riverlands north	€ 63,33	north of Casterly
Sed Id Limited	United States	€ 478	1	1	€ 478	€ 0	1	€ 63,33	north of Casterly	€ 63,33	north of Casterly
Total		**€ 129.506**	**500**	**87**	**€ 259**	**€ 143**	**1236**	**€ 195,94**		**€ 9,24**	

This page is intended as a report that we can keep up to date with time-sensitive data and refer to at any time in the future, as the reports contain key data and slices by company. Here I will show all the exercises in order and explain the visuals along the way.

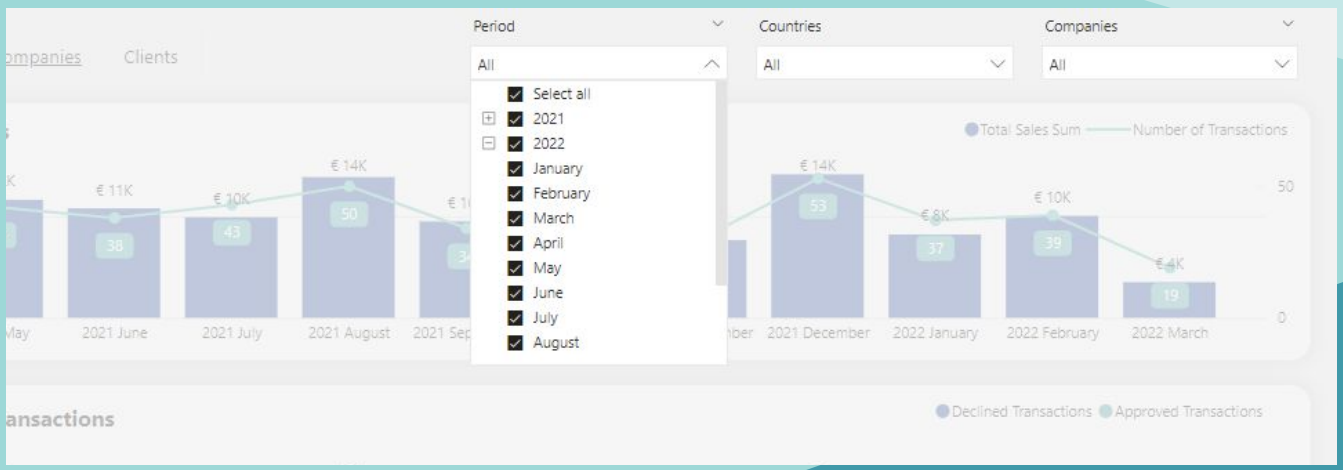
LEVEL 2 EXERCISE 1

Your task is to implement an interactive filter that allows you to select the sales for each year.

LEVEL 2 EXERCISE 2

Management is interested in further analyzing sales for the month. Therefore, you are asked to make the necessary adjustments to display the information in this way.

I analyzed the exercises, took into account other pages and sections, and experience working with this database, and decided in addition to the requested time to work with sections by countries and companies. I placed them on the page at the top right. The order of the comboboxes from the largest amount of data to the smallest, and also the first period as the most priority.

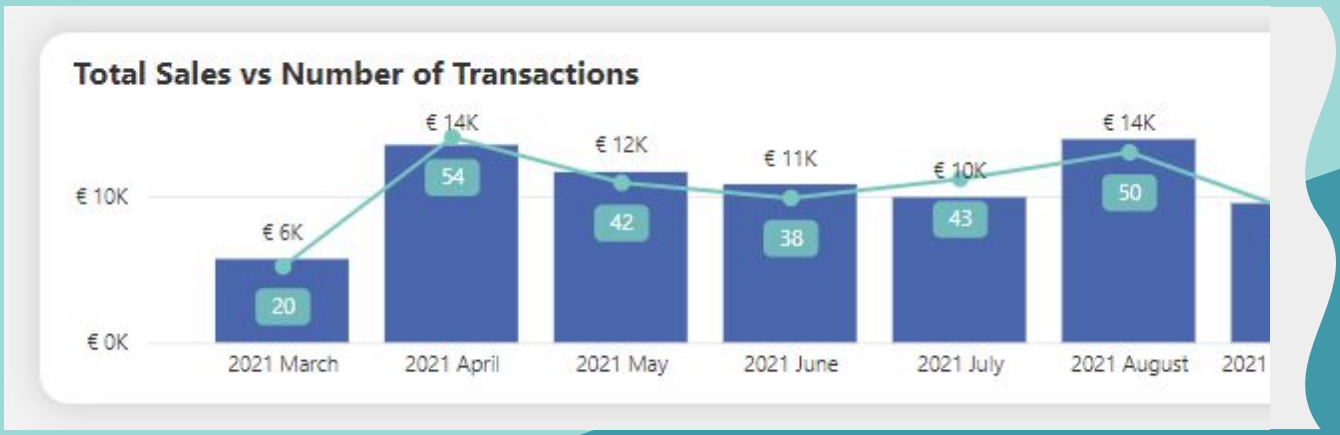


LEVEL 2 EXERCISE 3

View the total sales and the number of transactions completed. You can create two separate views if needed.

For this widget I chose the Line and stacked column chart visual because it is good for comparing the incomparable, something in different units of measurement with two Y axes. The chart only shows monthly values, and there are no total values for the year, but this is present in the other visual and is available to the user too.

The widget contains a graph that compares the sales amount and the number of sales by month for the period, country, and company selected in the filters above. The sales amount corresponds to the blue bars and the Y-axis on the left, specific values for each month rounded to thousands are signed above each bar, the exact value rounded to the whole number is in the tooltip. The number of sales corresponds to the green line and the X-axis on the right, specific values are signed in the labels under the markers for each month. The markers and bars are clickable and highlight data for the selected months on the entire page.



Aggregate measures are used here, taking into account only approved transactions:

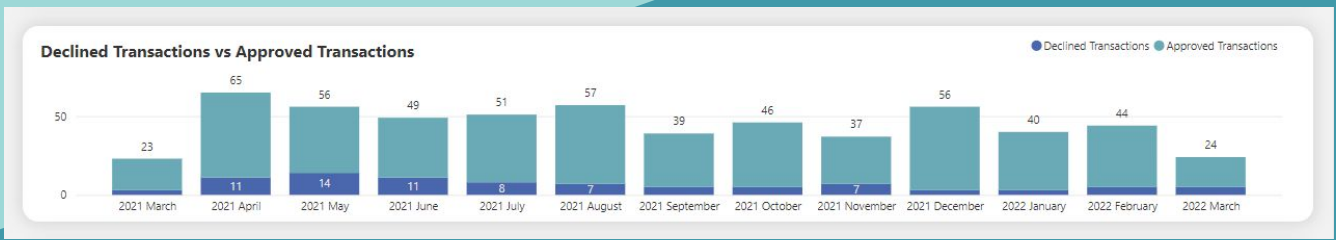
```
CountAmount = CALCULATE(
    COUNT(transactions[id]),
    transactions[declined] = 0
)
```

```
SumAmount = CALCULATE(
    SUM(transactions[amount]),
    transactions[declined] = 0
)
```

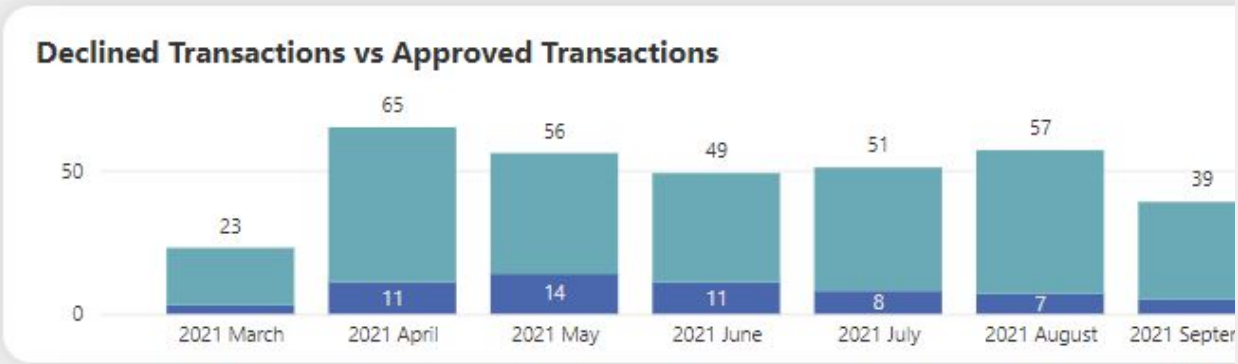
LEVEL 2 EXERCISE 4

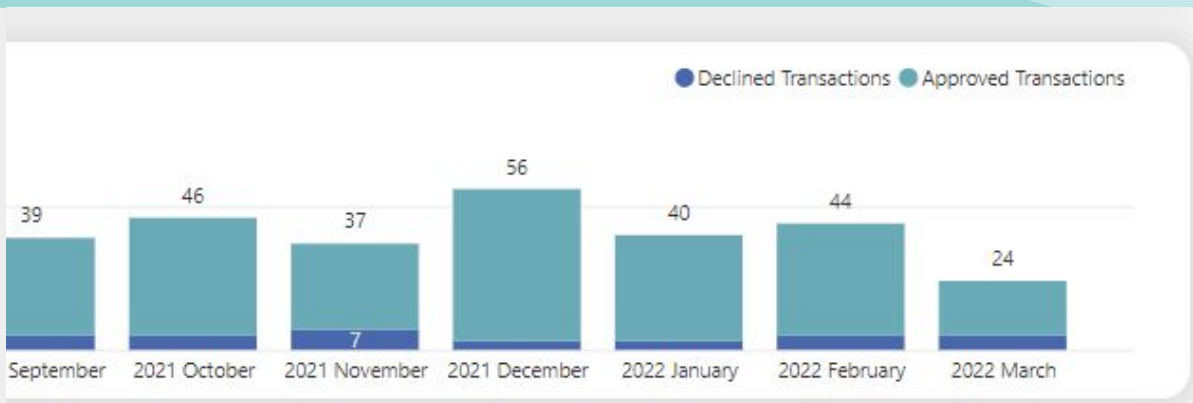
Create a visualization that allows you to effectively and clearly observe the quantity of sales made and the quantity of rejected transactions.

Here I chose the Stacked column chart visual because it shows the third dimension for distributed values well. Also with this visual I like how this chart interacts with the previous one, I will show after presenting this one. I have intentionally not shown labels for approved transactions, I will also explain this later.



The widget shows the chart that shows the number of approved and rejected transactions for each month for the period, countries, and companies selected in the filters at the top. Time flows along the X axis, and the number of transactions is located along the Y axis. Rejected transactions are colored blue, the value is signed in the columns and in the tooltip. Green corresponds to approved transactions, the value is drawn in the tooltip (the same values are also available on the previous chart in the markers shown in the same color). The total number of transactions is signed above the columns. The bars are clickable and highlight data for the selected months on the entire page.



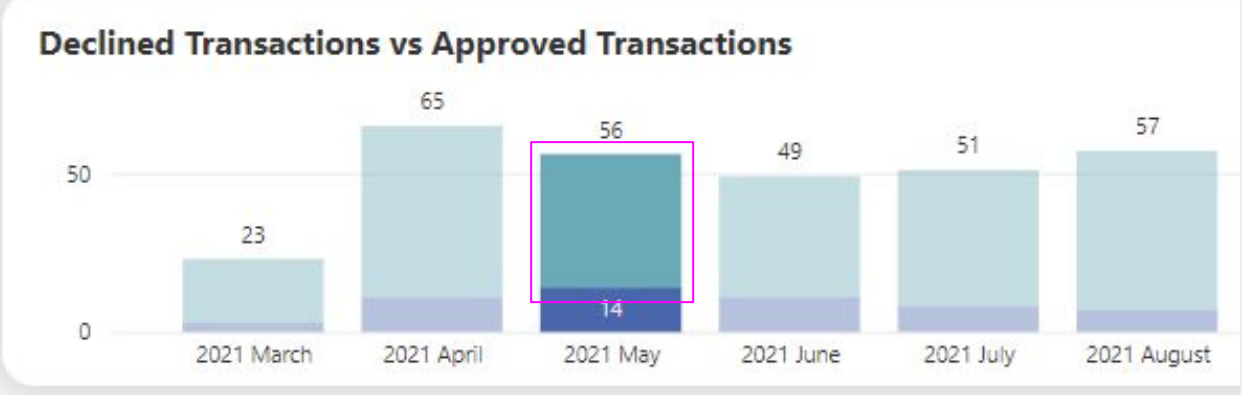


Here two measures are used to count the number of approved and rejected transactions:

```
CountAmount = CALCULATE(
    COUNT(transactions[amount]),
    transactions[declined] = 0
)
```

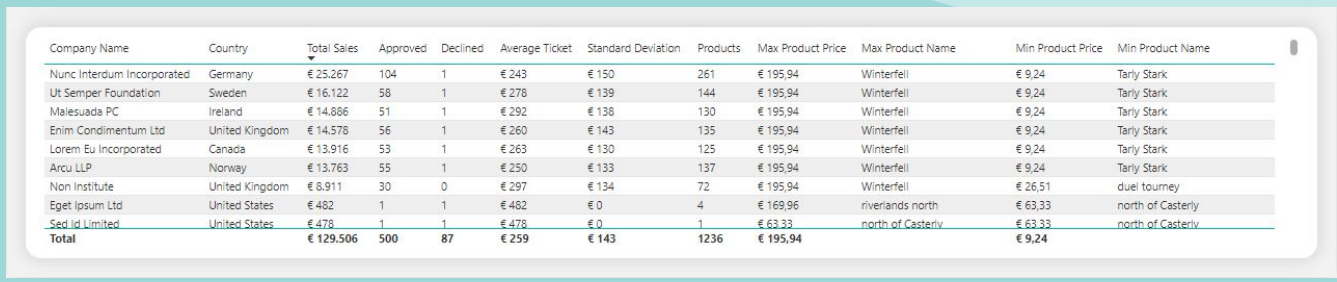
```
CountDeclined = CALCULATE(
    COUNT(transactions[id]),
    transactions[declined] = 1
)
```

In the two widgets presented, time is on the X axis, which allows for good interaction with them, since the columns of each month are always one under the other (see the first screenshot). I did this because key characteristics are presented here, and one of them is repeated on different charts of the page (see the second screenshot), this was requested in the tasks. I had to choose between "doing it according to the rules" by displaying all possible values and removing unnecessary repeating information. I decided not to display unnecessary labels on the bottom chart by default and to include them on request if necessary, depending on the situation.



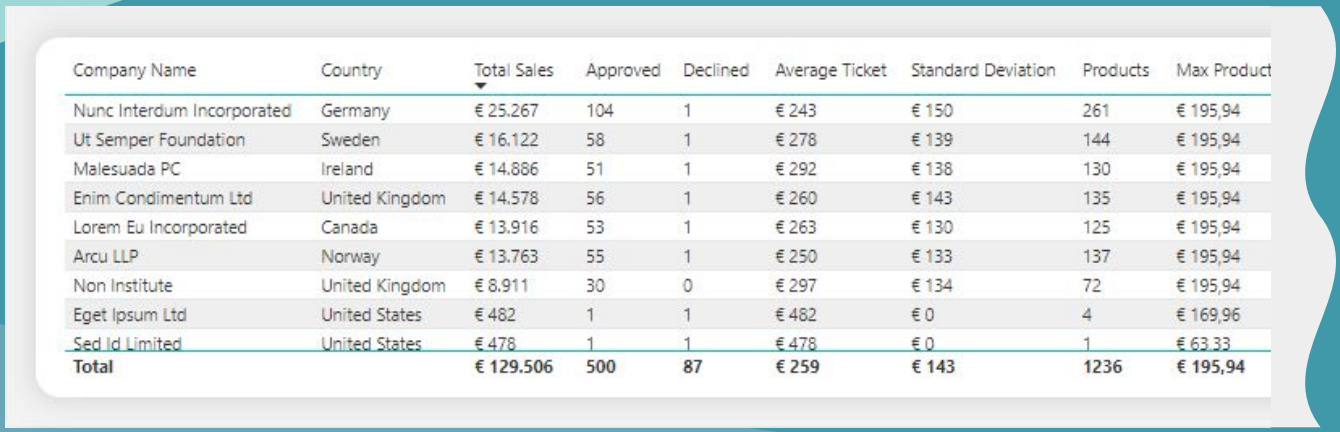
LEVEL 2 EXERCISE 4

Select a view that reflects the descriptive statistics of the companies that made transactions. Remember to show the total for each statistic.

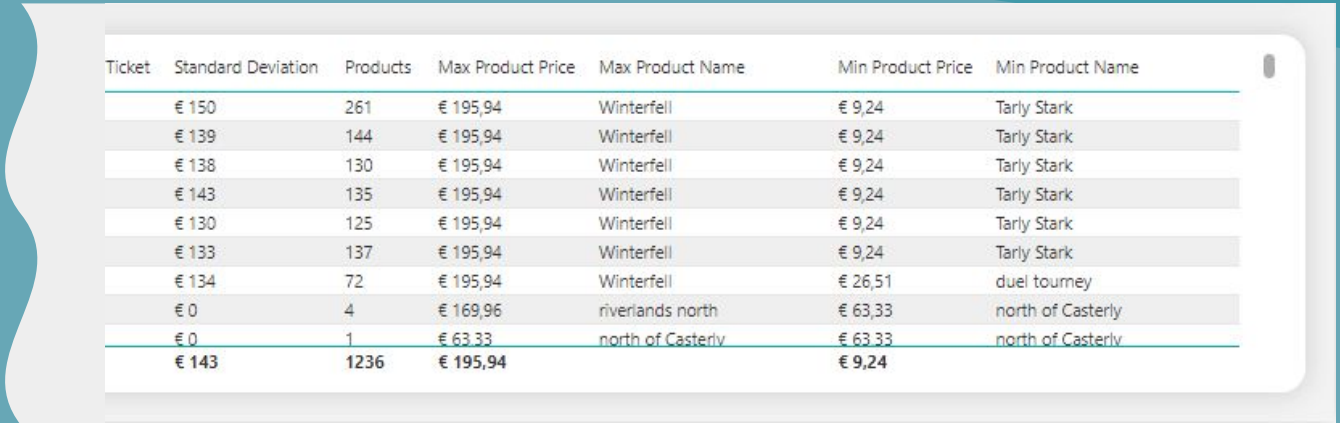


Company Name	Country	Total Sales	Approved	Declined	Average Ticket	Standard Deviation	Products	Max Product Price	Max Product Name	Min Product Price	Min Product Name
Nunc Interdum Incorporated	Germany	€ 25.267	104	1	€ 243	€ 150	261	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Ut Semper Foundation	Sweden	€ 16.122	58	1	€ 278	€ 139	144	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Malesuada PC	Ireland	€ 14.886	51	1	€ 292	€ 138	130	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Enim Condimentum Ltd	United Kingdom	€ 14.578	56	1	€ 260	€ 143	135	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Lorem Eu Incorporated	Canada	€ 13.916	53	1	€ 263	€ 130	125	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Arcu LLP	Norway	€ 13.763	55	1	€ 250	€ 133	137	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Non Institute	United Kingdom	€ 8.911	30	0	€ 297	€ 134	72	€ 195,94	Winterfell	€ 26,51	duel tourney
Eget Ipsum Ltd	United States	€ 482	1	1	€ 482	€ 0	4	€ 169,96	riverlands north	€ 63,33	north of Casterly
Sed Id Limited	United States	€ 478	1	1	€ 478	€ 0	1	€ 63,33	north of Casterly	€ 63,33	north of Casterly
Total		**€ 129.506**	**500**	**87**	**€ 259**	**€ 143**	**1236**	**€ 195,94**		**€ 9,24**	

I have put the statistics in the table with the totals: total sales sum, number of approved transaction, number of declined transaction, average ticket sum and standard deviation, number of sold product, maximum and minimum product price in sales and product name. I have taken four measures from the third level task, I will show all the measures used here, but I will explain the measures from the third level in the third level.

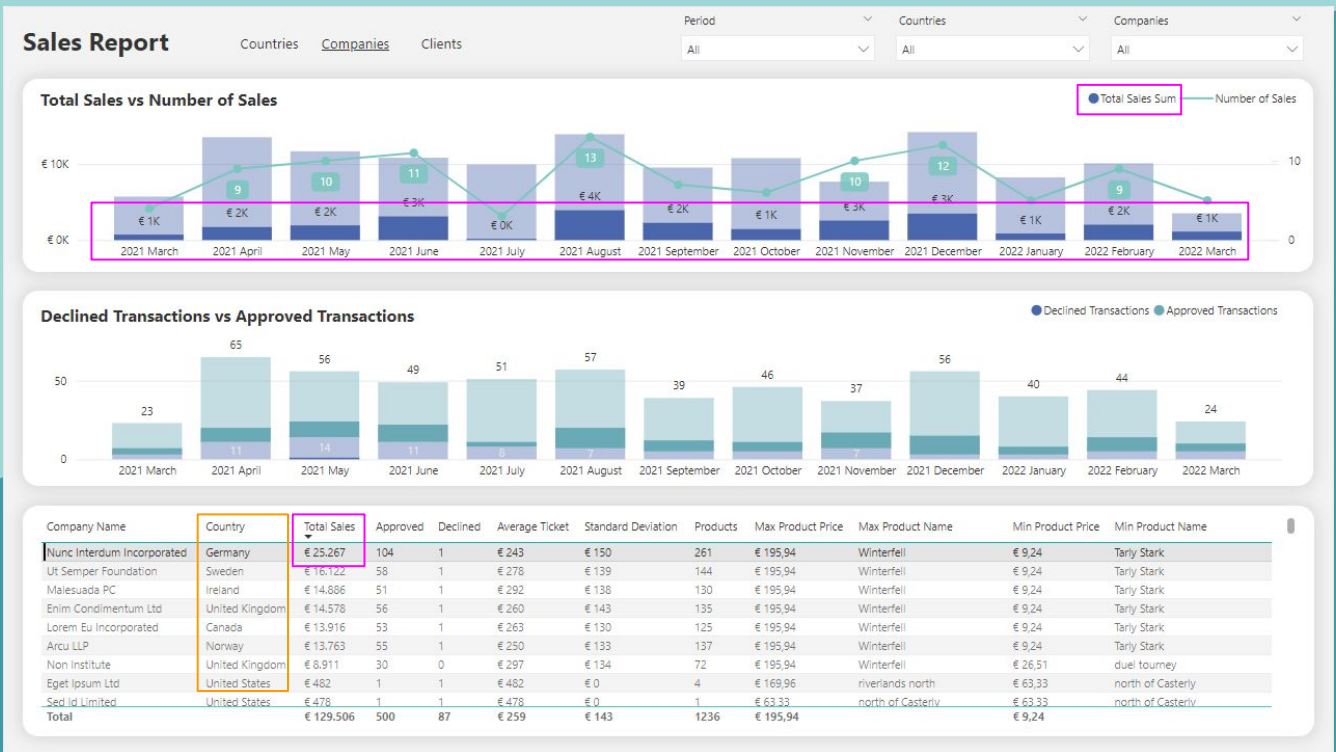


Company Name	Country	Total Sales	Approved	Declined	Average Ticket	Standard Deviation	Products	Max Product
Nunc Interdum Incorporated	Germany	€ 25.267	104	1	€ 243	€ 150	261	€ 195,94
Ut Semper Foundation	Sweden	€ 16.122	58	1	€ 278	€ 139	144	€ 195,94
Malesuada PC	Ireland	€ 14.886	51	1	€ 292	€ 138	130	€ 195,94
Enim Condimentum Ltd	United Kingdom	€ 14.578	56	1	€ 260	€ 143	135	€ 195,94
Lorem Eu Incorporated	Canada	€ 13.916	53	1	€ 263	€ 130	125	€ 195,94
Arcu LLP	Norway	€ 13.763	55	1	€ 250	€ 133	137	€ 195,94
Non Institute	United Kingdom	€ 8.911	30	0	€ 297	€ 134	72	€ 195,94
Eget Ipsum Ltd	United States	€ 482	1	1	€ 482	€ 0	4	€ 169,96
Sed Id Limited	United States	€ 478	1	1	€ 478	€ 0	1	€ 63,33
Total		**€ 129.506**	**500**	**87**	**€ 259**	**€ 143**	**1236**	**€ 195,94**



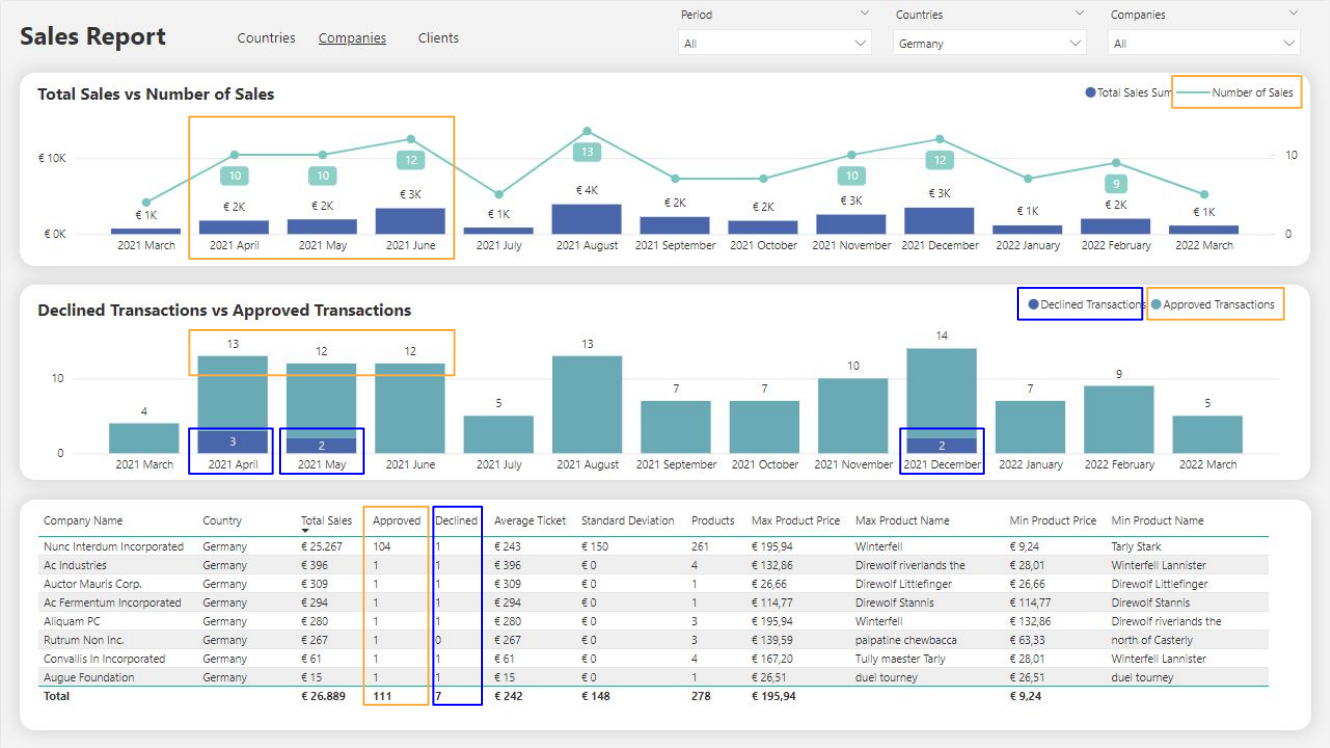
Ticket	Standard Deviation	Products	Max Product Price	Max Product Name	Min Product Price	Min Product Name
	€ 150	261	€ 195,94	Winterfell	€ 9,24	Tarly Stark
	€ 139	144	€ 195,94	Winterfell	€ 9,24	Tarly Stark
	€ 138	130	€ 195,94	Winterfell	€ 9,24	Tarly Stark
	€ 143	135	€ 195,94	Winterfell	€ 9,24	Tarly Stark
	€ 130	125	€ 195,94	Winterfell	€ 9,24	Tarly Stark
	€ 133	137	€ 195,94	Winterfell	€ 9,24	Tarly Stark
	€ 134	72	€ 195,94	Winterfell	€ 26,51	duel tourney
	€ 0	4	€ 169,96	riverlands north	€ 63,33	north of Casterly
	€ 0	1	€ 63,33	north of Casterly	€ 63,33	north of Casterly
	€ 143	**1236**	**€ 195,94**		**€ 9,24**	

The widget shows a table with data for the period, countries, and companies selected in the upper filters. The first column is the Company Name, so each line of data is calculated for this company. The same companies are filtered in the upper filter 'Companies'. The second column is the company's country, the same countries can be filtered in the upper filter 'Countries'. The third column is the Total Sales Sum for the company for the selected period, at the bottom there is a total value for all companies, it will be useful for working with the first widget on the page. The fourth and fifth columns are the Number of Approved and Declined Transactions. The sixth and seventh are the Average Check Sum and Standard Deviation for it. In the eighth column the Number of Products sold by the company. Next Maximum and Minimum Product Price in Sales and Product Name. Clicking on a row highlights the company's data across the entire page.



Company Name	Country	Total Sales	Approved	Declined	Average Ticket	Standard Deviation	Products	Max Product Price	Max Product Name	Min Product Price	Min Product Name
Nunc Interdum Incorporated	Germany	€ 25,267	104	1	€ 243	€ 150	261	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Ut Semper Foundation	Sweden	€ 16,722	58	1	€ 278	€ 139	144	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Malesuada PC	Ireland	€ 14,886	51	1	€ 292	€ 138	130	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Enim Condimentum Ltd	United Kingdom	€ 14,578	56	1	€ 260	€ 143	135	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Lorem Eu Incorporated	Canada	€ 13,916	53	1	€ 263	€ 130	125	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Arcu LLP	Norway	€ 13,763	55	1	€ 250	€ 133	137	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Non Institute	United Kingdom	€ 8,911	30	0	€ 297	€ 134	72	€ 195,94	Winterfell	€ 26,51	duel tourney
Eget Ipsum Ltd	United States	€ 482	1	1	€ 482	€ 0	4	€ 169,96	riverlands north	€ 63,33	north of Casterly
Sed Id Limited	United States	€ 478	1	1	€ 478	€ 0	1	€ 63,33	north of Casterly	€ 63,33	north of Casterly
Total		**€ 129.506**	**500**	**87**	**€ 259**	**€ 143**	**1236**	**€ 195,94**		**€ 9,24**	

In this screenshot, the user clicked on the 'Nunc Interdum Incorporated' company in the default state of the report and the charts were filtered for this company. Here we can see how the total sales from the third column were distributed over time for this company. In June 2021, the highest value, which happened after a sharp decline in June, and after June, the situation never stabilized. From the table, we see the country of the company Germany and it may be useful for the user to study sales in the entire country, so he selects Germany in the filter above



Company Name	Country	Total Sales	Approved	Declined	Average Ticket	Standard Deviation	Products	Max Product Price	Max Product Name	Min Product Price	Min Product Name
Nunc Interdum Incorporated	Germany	€ 25.267	104	1	€ 243	€ 150	261	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Ac Industries	Germany	€ 396	1	1	€ 396	€ 0	4	€ 132,86	Direwolf riverlands the	€ 28,01	Winterfell Lannister
Auctor Mauris Corp.	Germany	€ 309	1	1	€ 309	€ 0	1	€ 26,66	Direwolf Littlefinger	€ 26,66	Direwolf Littlefinger
Ac Fermentum Incorporated	Germany	€ 294	1	1	€ 294	€ 0	1	€ 114,77	Direwolf Stannis	€ 114,77	Direwolf Stannis
Aliquam PC	Germany	€ 280	1	1	€ 280	€ 0	3	€ 195,94	Winterfell	€ 132,86	Direwolf riverlands the
Rutrum Non Inc.	Germany	€ 267	1	0	€ 267	€ 0	3	€ 139,59	palpatine chewbacca	€ 63,33	north of Casterly
Convallis In Incorporated	Germany	€ 61	1	1	€ 61	€ 0	4	€ 167,20	Tully maester Tarly	€ 28,01	Winterfell Lannister
Augue Foundation	Germany	€ 15	1	1	€ 15	€ 0	1	€ 26,51	duel tourney	€ 26,51	duel tourney
Total		**€ 26.889**	**111**	**7**	**€ 242**	**€ 148**	**278**	**€ 195,94**		**€ 9,24**	

The lower chart shows the distribution of declined transactions by month, and also compares them conveniently with the sales trend. For example, in the upper chart we see an increase in sales from April to June 2021, but if we look at the lower chart, we see that there were declined transactions in April and May, and the total number of transactions compared to real sales, on the contrary, decreased, and now it looks more like lost money in April and May than growth in June.

For this task I have 6 aggregate measures with simple functions, but I added COALESCE to them so that the table shows the value instead of blanks. And also 4 measures from the next level, I will explain the code there.

```
SumAmount_nb = COALESCE(
    CALCULATE(
        SUM(transactions[amount]),
        transactions[declined] = 0
    ),
    0
)
```

```
CountAmount_nb = COALESCE(
    CALCULATE(
        COUNT(transactions[id]),
        transactions[declined] = 0
    ),
    0
)
```

```
CountDeclined_nb = COALESCE(
    CALCULATE(
        COUNT(transactions[id]),
        transactions[declined] = 1
    ),
    0
)
```

```
AvgAmount_nb = COALESCE(
    CALCULATE(
        AVERAGE(transactions[amount]),
        transactions[declined] = 0
    ),
    0
)
```

```
StdevAmount_nb = COALESCE(
    CALCULATE(
        STDEV.P(transactions[amount]),
        transactions[declined] = 0
    ),
    0
)
```

```
CountProducts_nb = COALESCE(
    CALCULATE(
        COUNT(transaction_items[product_id]),
        transactions[declined] = 0
    ),
    0
)
```

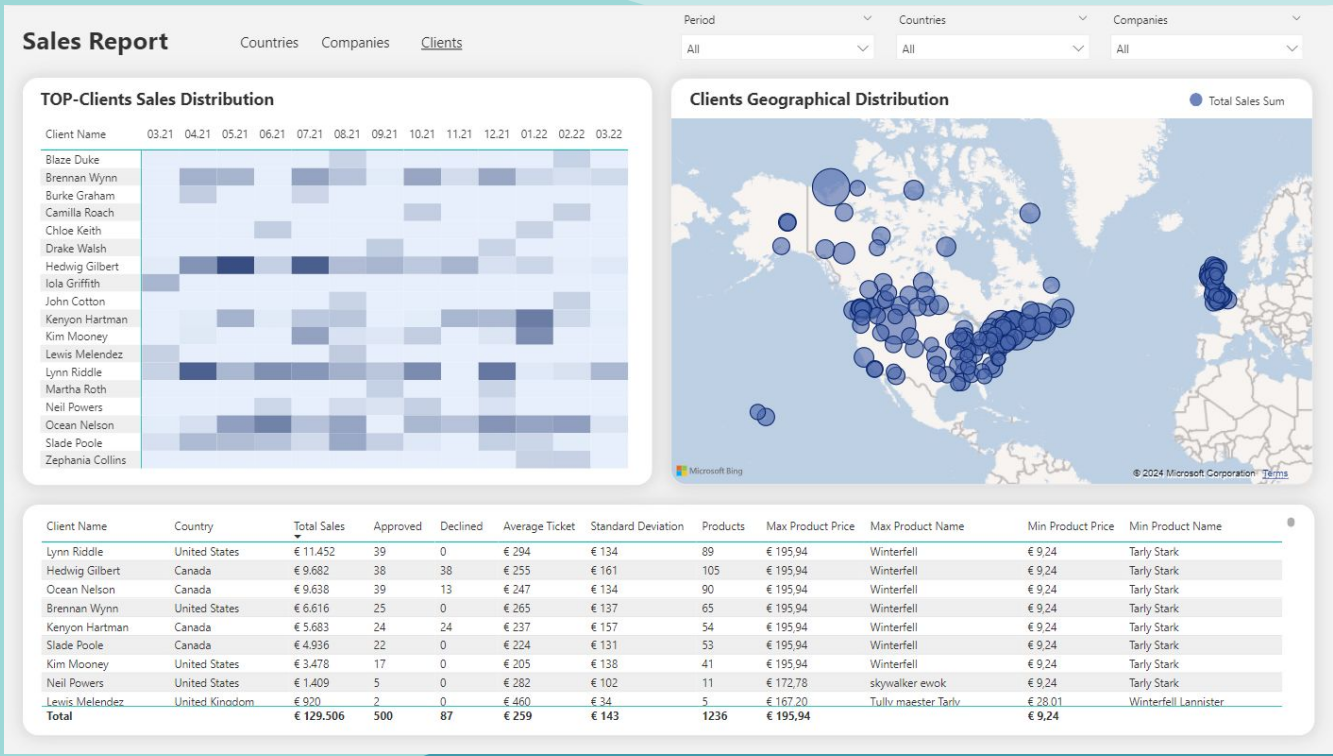
```
ProductPriceMax_nb = COALESCE(
    CALCULATE(
        MAXX(
            SUMMARIZE(
                    transaction_items,
                    transactions[user_id],
                    products[id],
                    "MaxPrice", MAX(products[price])
            ),
            [MaxPrice]
        ),
        ALLSELECTED(transactions[timestamp]),
        transactions[declined] = 0
    ),
    0
)
```

```
ProductNameMax_nb = COALESCE(
    CALCULATE(
        MAXX(
            TOPN(
                1,
                SUMMARIZE(
                    transaction_items,
                    products[id],
                    products[product_name],
                    "MaxPrice", MAX(products[price])
                ),
                [MaxPrice], DESC
            ),
            products[product_name]
        ),
        ALLSELECTED(transactions[timestamp]),
        transactions[declined] = 0
    ),
    "no sales"
)
```

```
ProductPriceMin_nb = COALESCE(
    CALCULATE(
        MINX(
            SUMMARIZE(
                    transaction_items,
                    transactions[user_id],
                    products[id],
                    "MinPrice", MIN(products[price])
            ),
            [MinPrice]
        ),
        ALLSELECTED(transactions[timestamp]),
        transactions[declined] = 0
    ),
    0
)
```

```
ProductNameMin_nb =
COALESCE(
    CALCULATE(
        MINX(
            TOPN(
                1,
                SUMMARIZE(
                    transaction_items,
                    products[id],
                    products[product_name],
                    "MinPrice", MIN(products[price])
                ),
                [MinPrice], ASC
            ),
            products[product_name]
        ),
        ALLSELECTED(transactions[timestamp]),
        transactions[declined] = 0
    ),
    "no sales"
)
```

We are done with the second level of exercises and the second 'Companies' page of the report. Let's move on to the third level and the 'Clients' page.



Client Name	Country	Total Sales	Approved	Declined	Average Ticket	Standard Deviation	Products	Max Product Price	Max Product Name	Min Product Price	Min Product Name
Lynn Riddle	United States	€ 11.452	39	0	€ 294	€ 134	89	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Hedwig Gilbert	Canada	€ 9.682	38	38	€ 255	€ 161	105	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Ocean Nelson	Canada	€ 9.638	39	13	€ 247	€ 134	90	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Brennan Wynn	United States	€ 6.616	25	0	€ 265	€ 137	65	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Kenyon Hartman	Canada	€ 5.683	24	24	€ 237	€ 157	54	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Slade Poole	Canada	€ 4.936	22	0	€ 224	€ 131	53	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Kim Mooney	United States	€ 3.478	17	0	€ 205	€ 138	41	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Neil Powers	United States	€ 1.409	5	0	€ 282	€ 102	11	€ 172,78	skywalker ewok	€ 9,24	Tarly Stark
Lewis Melendez	United Kingdom	€ 920	2	0	€ 460	€ 34	5	€ 167,20	Tully maester Tarly	€ 28,01	Winterfell Lannister
Total		**€ 129.506**	**500**	**87**	**€ 259**	**€ 143**	**1236**	**€ 195,94**		**€ 9,24**	

LEVEL 3 EXERCISE 1

In your company, they want to deepen the analysis of the characteristics of the users who participate in the transactions, as well as the products sold. You've been asked to create relevant views to strategically improve ad campaigns and increase sales. After creating the charts, you must present the user information with ID 96 with a brief description of the data through a slide show. Make sure to optimize the readability and understanding of the visualizations through appropriate adjustments. The views you must include are:

- Personal information of users;
- Amount of transactions made and rejected. The company expects each user to have at least 10 transactions per year, and to have less than 2 declined transactions per year;
- Identification of the cheapest and most expensive product purchased by each user, together with its price;
- Geographic distribution of users;
- Average purchases made;
- The user must have the option to select if they wish to view the information of one year only.

Here I have a widget that was not requested, this visual is the first and I will start with it. I wanted to make some interesting visual to hold the user's attention after the tables and columns in the previous level and to continue the trend of this report with segmentation into leaders and losers. The result was a heat map by top clients and months with the distribution of sales among clients with the highest sales.

The widget contains a chart that shows the distribution of sales among the most purchasing clients and by month. The first column contains the names of clients, located from the most purchasing at the top with a decrease in the total sales sum down. The column headers contain the months for the entire available period. The color of the cells in the chart corresponds to the sales amount, the darker the color, the greater the sales amount for the client and month of this cell. The tooltip displays the sales sum value. The chart is clickable and highlights data on the entire page for the client for specific months or the entire period.

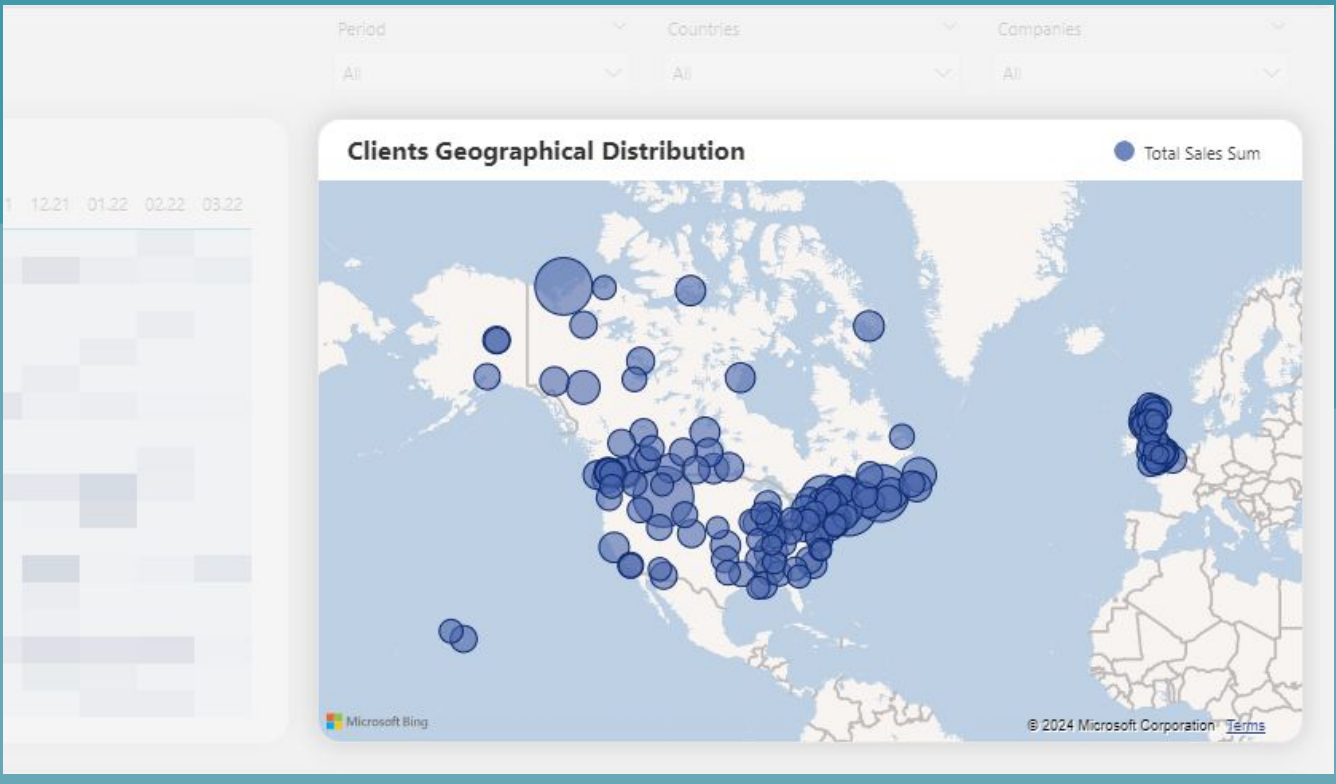
I used the sales total measure with the addition of COALESCE to get zeros instead of blanks and color them in too. It also uses two calculated columns in the 'transaction' table to display the period in 'mm.yy' format and sort it:

```
SumAmount_nb = COALESCE(
    CALCULATE(
        SUM(transactions[amount]),
        transactions[declined] = 0
    ),
    0
)
```

```
_MonthYear = FORMAT(transactions[timestamp], "MM.YY")
```

```
_MonthYearSort = YEAR(transactions[timestamp])*100 + MONTH(transactions[timestamp])
```

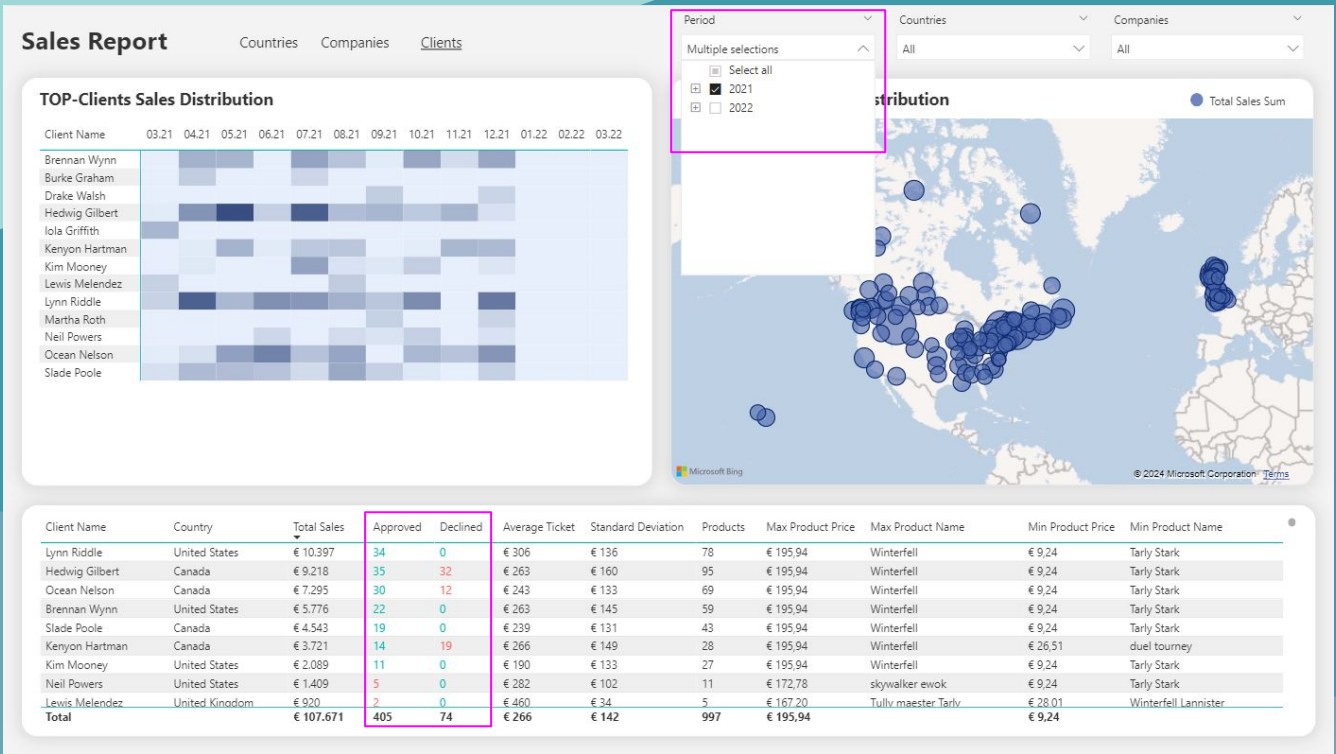
The following widget contains a map that shows the geographic distribution of customers by sales amount for the selected period, country and company in the top filters. The bubble size corresponds to the size of the sales amount for all customers from this city. The tooltip displays the Total Sales Sum. The bubbles are clickable and highlight customers from the bubble city on the entire page. The legend is not clickable because we do not have a slice by color.



I used the sales total measure for approved transactions here:

```
SumAmount = CALCULATE(
    SUM(transactions[amount]),
    transactions[declined] = 0
)
```

The following widget shows a table with total sales sum, number of approved and declined transaction, average ticket sum and standard deviation, number of sold product, maximum and minimum product price in sales and product name. We have transaction KPI for the whole year, so I highlight them if the entire 2021 or 2022 year is selected, and the Declined and Approved columns remain black if months or year plus months are selected. This is probably not a intuitive implementation, I could discuss this with the report customer and improve this functionality.



Client Name	Country	Total Sales	Approved	Declined	Average Ticket	Standard Deviation	Products	Max Product Price	Max Product Name	Min Product Price	Min Product Name
Lynn Riddle	United States	€ 10.397	34	0	€ 306	€ 136	78	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Hedwig Gilbert	Canada	€ 9.218	35	32	€ 263	€ 160	95	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Ocean Nelson	Canada	€ 7.295	30	12	€ 243	€ 133	69	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Brennan Wynn	United States	€ 5.776	22	0	€ 263	€ 145	59	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Slade Poole	Canada	€ 4.543	19	0	€ 239	€ 131	43	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Kenyon Hartman	Canada	€ 3.721	14	19	€ 266	€ 149	28	€ 195,94	Winterfell	€ 26,51	duel tourney
Kim Mooney	United States	€ 2.089	11	0	€ 190	€ 133	27	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Neil Powers	United States	€ 1.409	5	0	€ 282	€ 102	11	€ 172,78	skywalker ewok	€ 9,24	Tarly Stark
Lewis Melendez	United Kingdom	€ 920	2	0	€ 460	€ 34	5	€ 167,20	Tully maester Tarly	€ 28,01	Winterfell Lannister
Total		**€ 107.671**	**405**	**74**	**€ 266**	**€ 142**	**997**	**€ 195,94**		**€ 9,24**	

The widget shows a table with data for the period, countries, and companies selected in the upper filters. The first column is the Client Name, so each line of data is calculated for this client. The second column is the client's country. The third column is the Total Sales Sum of the client for the selected period, at the bottom there is a total value for all clients, it will be useful for working with the other widgets on the page. The fourth and fifth columns are the Number of Approved and Declined Transactions. We expect each user to have at least 10 transactions per year and less than 2 declined transactions per year, this is highlighted in positive green and negative red when 2021 or 2022 is selected in the Period filter above. The sixth and seventh are the Average Check Sum and Standard Deviation for it. In the eighth column the Number of Products purchased by the client. Next Maximum and Minimum Product Price in Sales and Product Name. Clicking on a row highlights the client's data across the entire page.

Client Name	Country	Total Sales	Approved	Declined	Average Ticket	Standard Deviation	Products
Lynn Riddle	United States	€ 10.397	34	0	€ 306	€ 136	78
Hedwig Gilbert	Canada	€ 9.218	35	32	€ 263	€ 160	95
Ocean Nelson	Canada	€ 7.295	30	12	€ 243	€ 133	69
Brennan Wynn	United States	€ 5.776	22	0	€ 263	€ 145	59
Slade Poole	Canada	€ 4.543	19	0	€ 239	€ 131	43
Kenyon Hartman	Canada	€ 3.721	14	19	€ 266	€ 149	28
Kim Mooney	United States	€ 2.089	11	0	€ 190	€ 133	27
Neil Powers	United States	€ 1.409	5	0	€ 282	€ 102	11
Lewis Melendez	United Kingdom	€ 920	2	0	€ 460	€ 34	5
Total		**€ 107.671**	**405**	**74**	**€ 266**	**€ 142**	**997**

Standard Deviation	Products	Max Product Price	Max Product Name	Min Product Price	Min Product Name
€ 136	78	€ 195,94	Winterfell	€ 9,24	Tarly Stark
€ 160	95	€ 195,94	Winterfell	€ 9,24	Tarly Stark
€ 133	69	€ 195,94	Winterfell	€ 9,24	Tarly Stark
€ 145	59	€ 195,94	Winterfell	€ 9,24	Tarly Stark
€ 131	43	€ 195,94	Winterfell	€ 9,24	Tarly Stark
€ 149	28	€ 195,94	Winterfell	€ 26,51	duel tourney
€ 133	27	€ 195,94	Winterfell	€ 9,24	Tarly Stark
€ 102	11	€ 172,78	skywalker ewok	€ 9,24	Tarly Stark
€ 34	5	€ 167,20	Tully maester Tarly	€ 28,01	Winterfell Lannister
€ 142	**997**	**€ 195,94**		**€ 9,24**	

For this task I have 6 aggregate measures with simple functions, but I added COALESCE to them so that the table shows the value instead of blanks:

```
SumAmount_nb = COALESCE(
    CALCULATE(
        SUM(transactions[amount]),
        transactions[declined] = 0
    ),
    0
)
```

```
CountAmount_nb = COALESCE(
    CALCULATE(
        COUNT(transactions[id]),
        transactions[declined] = 0
    ),
    0
)
```

```
CountDeclined_nb = COALESCE(
    CALCULATE(
        COUNT(transactions[id]),
        transactions[declined] = 1
    ),
    0
)
```

```
AvgAmount_nb = COALESCE(
    CALCULATE(
        AVERAGE(transactions[amount]),
        transactions[declined] = 0
    ),
    0
)
```

```
StdevAmount_nb = COALESCE(
    CALCULATE(
        STDEV.P(transactions[amount]),
        transactions[declined] = 0
    ),
    0
)
```

```
CountProducts_nb = COALESCE(
    CALCULATE(
        COUNT(transaction_items[product_id]),
        transactions[declined] = 0
    ),
    0
)
```

To highlight the values for the transaction goals, I created two measures. They take into account the filtering by year and do not take into account by month, then depending on the condition, red or green color is used:

```
SumAmount_nb = COALESCE(
    CALCULATE(
        SUM(transactions[amount]),
        transactions[declined] = 0
    ),
    0
)
```

```
FmtColorApproved = IF(
    HASONEVALUE(transactions[timestamp].[Year]) && NOT(ISFILTERED(transactions[timestamp].[Month])),
    IF(
        [CountAmount] < 10,
        "#FD625E",
        "#01B8AA"
    ),
    BLANK()
)
```

```
FmtColorDeclined = IF(
    HASONEVALUE(transactions[timestamp].[Year]) && NOT(ISFILTERED(transactions[timestamp].[Month])),
    IF(
        [CountDeclined] > 1,
        "#FD625E",
        "#01B8AA"
    ),
    BLANK()
)
```

Maximum price of purchased product: SUMMARIZE takes a table of products, groups by user and by product, creates an intermediate table with user_id, product_id and a new column "MaxPrice" which is calculated as MAX(products[price]), then MAXX looks for the maximum value in the [MaxPrice] column. We stuff all this into CALCULATE, taking into account the time filter and transaction approval. And add COALESCE to get rid of the blanks:

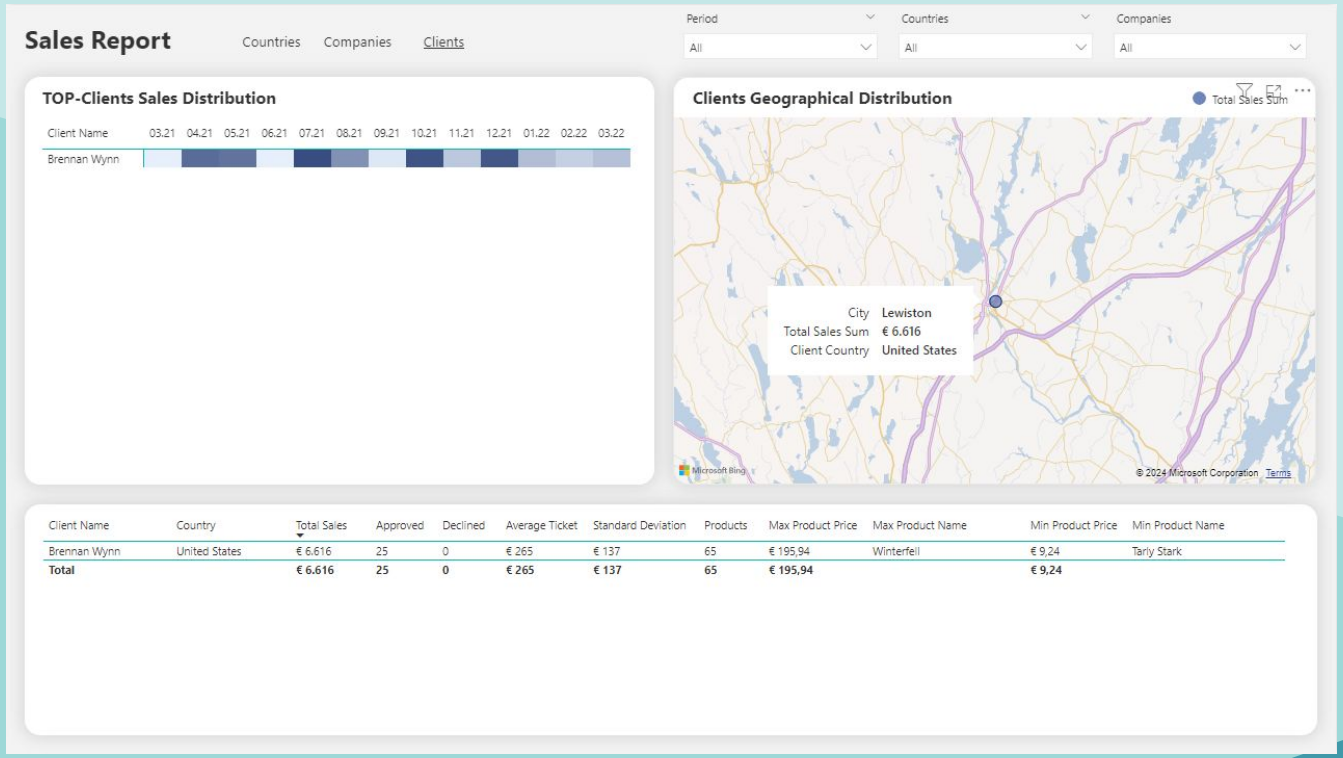
```
ProductPriceMax_nb = COALESCE(
    CALCULATE(
        MAXX(
            SUMMARIZE(
                    transaction_items,
                    transactions[user_id],
                    products[id],
                    "MaxPrice", MAX(products[price])
            ),
            [MaxPrice]
        ),
        ALLSELECTED(transactions[timestamp]),
        transactions[declined] = 0
    ),
    0
)
```

The product name with the maximum product is considered in a similar way, but here you need to take the string value using TOPN, which sorts and extracts the first value. In COALESCE, instead of zeros, we write "no sales", since this is more logical for a string column:

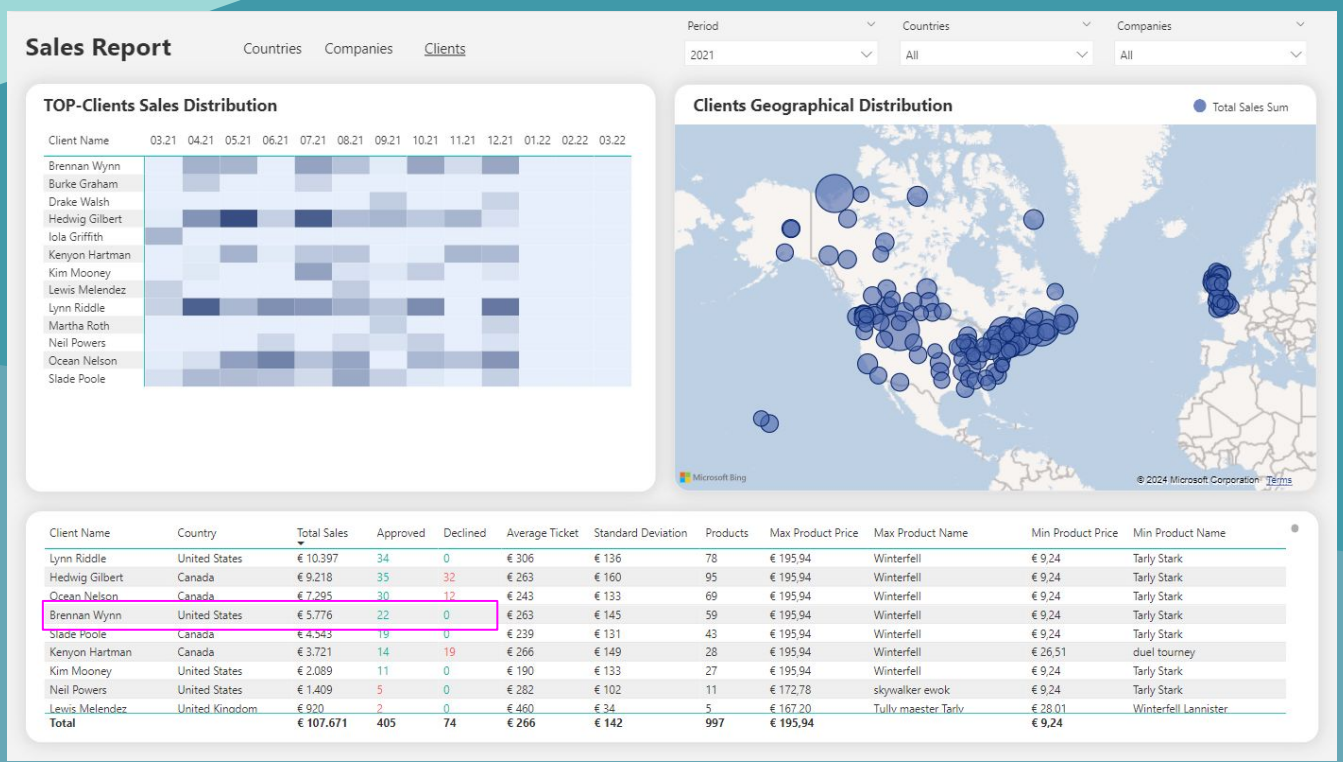
```
ProductNameMax_nb = COALESCE(
    CALCULATE(
        MAXX(
            TOPN(
                1,
                SUMMARIZE(
                    transaction_items,
                    products[id],
                    products[product_name],
                    "MaxPrice", MAX(products[price])
                ),
                [MaxPrice], DESC
            ),
            products[product_name]
        ),
        ALLSELECTED(transactions[timestamp]),
        transactions[declined] = 0
    ),
    "no sales"
)
```

Now I will present the user information with ID 96. I filtered it in Filters, it is client Brennan Wynn.

Client Brennan Wynn from Lewiston, the United States. Total purchases for the entire period are 6616 euros, has 25 transactions, of which 0 were declined. Average ticket is 265 euros with a standard deviation of 137 euros, a large spread is also present in the sales dynamics, which is visible on the heat map, and in the preferred price - from the cheapest Tarly Stark for 9.24 euros to the most expensive Winterfell for 195.94 euros:



In 2021, he made a principal amount of purchases in 5776 euros and met the KPI with 22 transactions and 0 declined transactions, in 2022, he made only 3 transactions totaling 839 euros, but he also had no rejected transactions.



SPRINT #6

22/11/2024

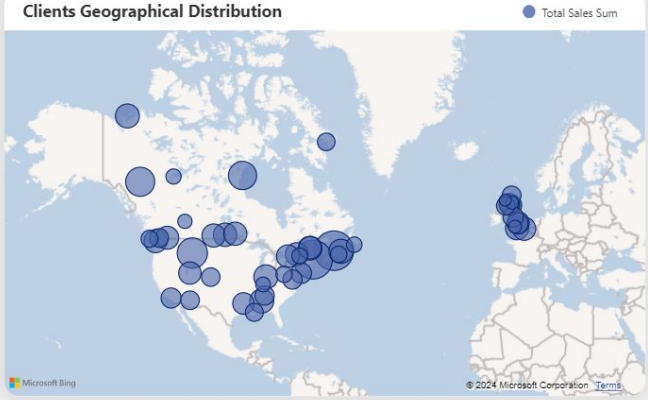
Sales Report

Countries Companies Clients

Period: 2022 | Countries: All | Companies: All

TOP-Clients Sales Distribution

Clients Geographical Distribution



Client Name	Country	Total Sales	Approved	Declined	Average Ticket	Standard Deviation	Products	Max Product Price	Max Product Name	Min Product Price	Min Product Name
Ocean Nelson	Canada	€ 2.344	9	1	€ 260	€ 138	21	€ 171,22	skywalker ewok	€ 9,24	Tarly Stark
Kenyon Hartman	Canada	€ 1.962	10	5	€ 196	€ 158	26	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Kim Mooney	United States	€ 1.389	6	0	€ 232	€ 142	14	€ 195,94	Winterfell	€ 49,70	Karstark Dorne
Lynn Riddle	United States	€ 1.055	5	0	€ 211	€ 82	11	€ 195,94	Winterfell	€ 9,24	Tarly Stark
Brennan Wynn	United States	€ 839	3	0	€ 280	€ 51	6	€ 172,78	skywalker ewok	€ 26,51	duel tourney
Zephania Collins	Canada	€ 836	2	0	€ 418	€ 3	5	€ 141,01	Lannister Barratheon Direwolf	€ 59,80	duel
Andrew Strong	Canada	€ 487	1	0	€ 487	€ 0	1	€ 195,94	Winterfell	€ 195,94	Winterfell
Astra Baldwin	United States	€ 472	1	0	€ 472	€ 0	3	€ 132,86	Direwolf riverlands the	€ 65,25	jinn Winterfell
Clark Hewitt	United States	€ 472	1	0	€ 472	€ 0	2	€ 172,78	skywalker ewok	€ 91,89	skywalker ewok sith
Total		**€ 21.835**	**95**	**13**	**€ 230**	**€ 142**	**239**	**€ 195,94**		**€ 9,24**	