

Data Analyst Portfolio Project

“Top Selling Products”

Bedirhan Albayrak

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1- Business Request and User Stories

The email below was sent by Erik, the Director of Product Strategy of our company, to understand the behaviors of products on selling. At the end of the data analysis work, this project report can guide them in inventory decisions, marketing pushes, and future product development.

I painted the main point of Erik's request yellow to figure out business requests and our goal of data analysis better before working on data.

Top Selling Product Report

Hello Bedirhan!

I trust this email finds you well.

Lately, I've been in numerous discussions about our product lineup. We've launched many new products over the past year, and while I hear the buzz around several of them, I'm eager to know which ones truly shine in sales.

It would be immensely helpful if you could provide insights into our products' performance. Are there specific ones that stand out and consistently dominate the sales charts? Understanding this could guide us in inventory decisions, marketing pushes, and even future product development.

For our next product strategy meeting, having a clear view of our product hierarchy in terms of sales would be instrumental. Your expertise in uncovering these gems from heaps of data is always something I look forward to.

I eagerly await your insights.

Best Regards,

Erik

Director of Product Strategy

I also created a user stories table to clarify how to focus on data analysis.

No #	Role	I want (request/demand)	So that I (user value)	Acceptance Criteria
1	Director of Product Strategy	I want an overview of sales for all products launched last year.	Can figure out their overall performance.	A Power BI dashboard that updates data once a week.
2	Director of Product Strategy	I want a list of products that consistently top the sales charts.	Can identify and celebrate our best-selling products.	A Power BI dashboard that updates data once a week.
3	Director of Product Strategy	I want a visual breakdown like a bar chart or pie chart.	Can follow up clearly to see the hierarchy of product sales.	A Power BI dashboard that updates data once a week.
4	Director of Product Strategy	I want to observe the sales trends of newly launched products over time.	Can figure out to determine if there's sustained interest or a decline.	A Power BI dashboard that updates data once a week.
5	Director of Product Strategy	I want to know if any marketing campaigns or promotions correlate with spikes in sales for our top products.	Can evaluate the effectiveness of our marketing pushes.	A Power BI dashboard that updates data once a week.

2- Data Cleaning and Transformation with Excel

The initial state of the Excel dataset is shown below. It contains 5000 rows and 7 columns.

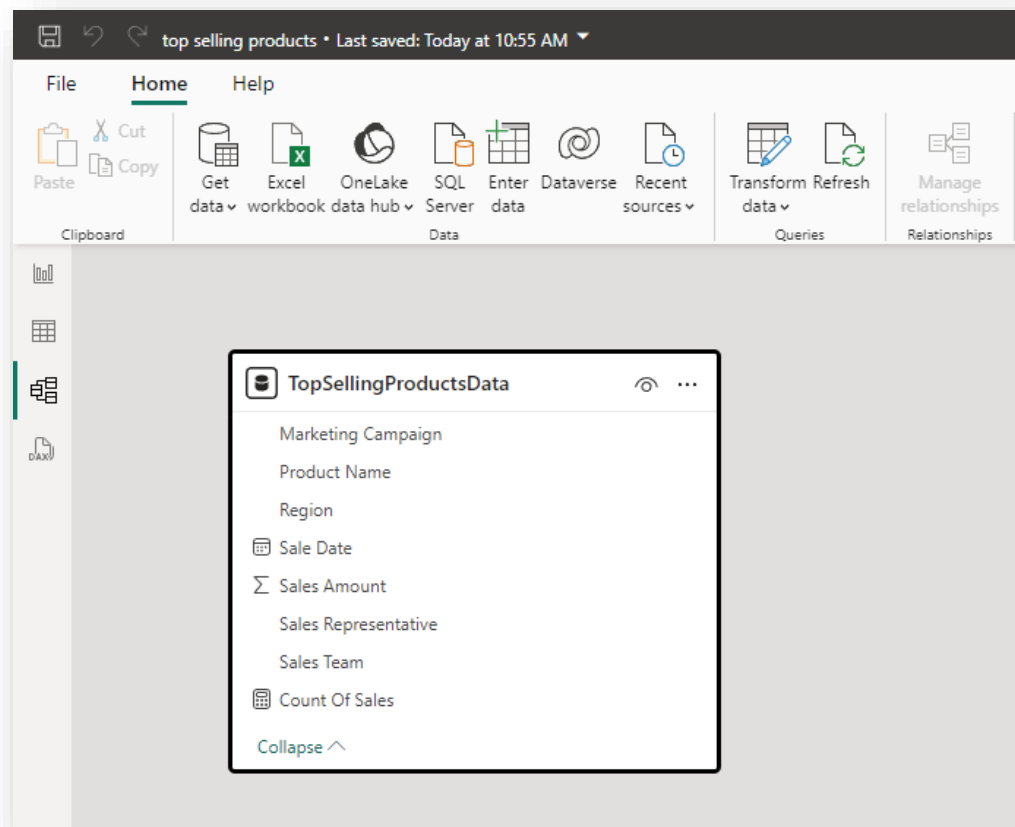
I checked all columns with futures of Excel if there were any missing data or not relevant data.

	A	B	C	D	E	F	G
1	Sale Date	Product Name	Sales Amount	Region	Sales Representative	Sales Team	Marketing Campaign
2	17.10.2022	Smartphone	5847,79	East	Jane Doe	Team Gamma	Holiday Deals 2022
3	20.09.2022	Laptop	3867,34	North	John Smith	Team Gamma	Black Friday 2023
4	30.01.2022	Desktop PC	2174,61	West	Jane Doe	Team Beta	Back-to-School 2022
5	12.11.2022	Laptop	7594,5	North	Sarah Brown	Team Gamma	Holiday Deals 2022
6	5.02.2023	Desktop PC	2922,44	West	Jane Doe	Team Beta	Back-to-School 2022
7	21.12.2022	Desktop PC	1325,09	East	Jane Doe	Team Beta	Summer Sale 2022
8	16.11.2022	Desktop PC	9648,56	West	John Smith	Team Delta	Back-to-School 2022
9	29.05.2023	Laptop	1662,74	South	Jane Doe	Team Delta	Back-to-School 2022
10	31.03.2023	Smartphone	9912,73	East	John Smith	Team Gamma	Back-to-School 2022
11	4.12.2022	Laptop	7063,47	West	John Smith	Team Beta	Spring Clearance 2023
12	10.02.2022	Smartwatch	8147,25	North	John Smith	Team Beta	Holiday Deals 2022
13	3.02.2022	Laptop	1853,09	North	Mike Johnson	Team Beta	Holiday Deals 2022
14	15.03.2022	Laptop	4586,49	West	John Smith	Team Alpha	Summer Sale 2022
15	15.05.2023	Laptop	463,11	North	Sarah Brown	Team Delta	Black Friday 2023
16	3.04.2023	Smartphone	5781,22	South	John Smith	Team Delta	Black Friday 2023
17	25.04.2022	Laptop	538,09	South	Jane Doe	Team Beta	Black Friday 2023
18	11.03.2022	Tablet	6231,33	North	Sarah Brown	Team Beta	Holiday Deals 2022
19	21.05.2022	Desktop PC	7153,79	West	Mike Johnson	Team Delta	Back-to-School 2022
20	28.07.2023	Tablet	4297,21	North	Mike Johnson	Team Alpha	Spring Clearance 2023
21	10.12.2022	Tablet	8201,04	West	Sarah Brown	Team Delta	Holiday Deals 2022
22	14.04.2022	Smartphone	958,19	South	John Smith	Team Beta	Holiday Deals 2022
23	4.08.2022	Laptop	9156,94	West	Sarah Brown	Team Beta	Spring Clearance 2023
24	3.06.2023	Smartphone	9485,78	South	John Smith	Team Beta	Holiday Deals 2022
25	11.03.2023	Desktop PC	9624,68	East	Mike Johnson	Team Gamma	Black Friday 2023

3- Data Model

I created a data model after cleaning and preparing the excel data table which was imported into Power BI shown below.

Because there are no complex and numerous datasets/tables, I created a simple data model shown below.



4- Top Selling Products Report Dashboard

In light of the data analyses given above, I created a simple but effective Power BI dashboard for the Top Selling Products Report.

