Task 1: Sales Performance Analysis

Total sales for each product (Top-selling products)

Results | Messages

	ProductID	Product Name	TotalSales
1	29	Formolovir Amanferon	97,942,508
2	183	Presetron	96,379,755
3	106	Ionclotide	953,634,086
4	81	Sucprine Specbalamin	95,628,988
5	216	Belavarix Benzabicin	92,281,116
6	23	Saprodeine Zanprosyn	91,897,880
7	185	Raparidol	91,882,076
8	132	Primatate Univatol	91,226,736
9	41	Symbiroban	90,933,920
10	57	Palodizem	90,189,548
11	96	Clindaracil	89,777,312
12	126	Rebedase Aplencor	84,833,640
13	49	Sanctumine	83,429,570
14	82	Clinolan Pitoletra	81,000,140
15	234	Dexacilin Triline	79,629,636
16	102	Zarostral	79,022,604
17	157	Asparathasone Unipan	78,587,226
18	224	Xenaminphen	74,439,690
19	111	Thionide	71,081,972
20	75	Veratorol Ciclovatol	70,525,532
21	98	Magneprex	69,832,906
22	6	Pazofenac	66,561,942
23	66	Zithrotrol	65,870,148
24	215	Amlominphen Dexan...	65,624,930
25	110	Hepavice	63,325,360
26	196	Betanem	610,459,876
27	189	Cortirodine Alimcline	60,156,928
28	77	Ciclonazol	56,729,398
29	32	Comzyme	55,271,076
30	78	Symdocet	542,311,380
31	162	Feruprazole	54,837,750
32	210	Quixitriptan Alanesin	54,396,872
33	103	Antaparin Varizyme	528,791,166
34	39	Propratecan	510,891,656
35	180	Docstryl Rivacin	510,058,518
36	229	Clinicilin Pentozone	51,032,352

Monthly sales trends within a specific year (2019)

	MONTH	MonthlySales
1	April	1,048,106,624
2	August	2,590,096,604
3	December	885,849,850
4	February	1,479,574,070
5	January	496,928,842
6	July	960,129,726
7	June	961,882,567
8	March	1,330,239,648
9	May	889,473,423
10	November	1,280,302,280
11	October	788,971,932
12	September	1,015,279,828

Task 2: Sales by Location

Top cities by sales volume

	City	TotalSales
1	Rodgau	99,921,884
2	Lohne	99,823,782
3	Wiesbaden	99,680,874
4	Freital	99,654,122
5	Viersen	99,273,869
6	Kitzingen	99,065,532
7	Bramsche	99,012,084
8	Langenhagen	98,903,044
9	Osnabrück	98,807,398
10	Mannheim	98,701,322
11	Wittmund	98,593,620
12	Burgdorf	98,247,794
13	Jülich	97,968,148
14	Helmstedt	97,816,596
15	Haan	97,815,856
16	Heiligenhaus	97,544,214
17	Stendal	97,447,404
18	Schönebeck	97,429,854
19	Wiehl	96,961,996
20	Willich	96,783,978
21	Lörrach	96,739,376
22	Baden-Baden	96,622,202

Sales performance by country

	Country	TotalSales
1	Germany	51,588,348,131
2	Poland	3,146,829,427

Task 3: Customer Segmentation

Total sales by customer type

	Channel	TotalSales
1	Pharmacy	30,237,682,991
2	Hospital	24,497,494,567

Sales comparison across sectors

	Sub-channel	TotalSales
1	Institution	15,118,841,495
2	Retail	15,118,841,495
3	Government	12,248,747,284
4	Private	12,248,747,284

Task 4: Product Analysis

Top-selling products within each drug class

	Product Class	Product Name	TotalSales
1	Analgesics	Formolovir Amanferon	97,942,508
2	Analgesics	Ionclotide	953,634,086
3	Analgesics	Clindaracil	89,777,312
4	Analgesics	Dexacilin Triline	79,629,636
5	Analgesics	Thionide	71,081,972
6	Analgesics	Amlominphen Dexanovate	65,624,930
7	Analgesics	Betanem	610,459,876
8	Analgesics	Topifribrate	477,496,836
9	Analgesics	Flutacerol	457,547,710
10	Analgesics	Ketastadil	452,401,012
11	Analgesics	Afaxacin	44,372,760
12	Analgesics	Sumanazole	420,946,460
13	Analgesics	Symbitrim	375,898,944
14	Analgesics	Alimmethate Insudase	372,381,984
15	Analgesics	Kiovax Tercorolac	366,113,204
16	Analgesics	Neuropogen Empibax	359,395,410
17	Analgesics	Proprabax	35,922,304
18	Analgesics	Victomax	348,037,704
19	Analgesics	Alemtuvatol Megalinum	327,074,924
20	Analgesics	Lovephilus	323,966,808
21	Analgesics	Atomorelin	311,245,110
22	Analgesics	Zwance	309,446,920

Average price for each class of drugs

	Product Class	AveragePrice
1	Analgesics	432.605,04
2	Antibiotics	419.962,85
3	Antimalarial	337.306,11
4	Antipiretics	470.344,76
5	Antiseptics	413.738,71
6	Mood Stabilizers	400.737,37

Task 5: Sales Representative Performance

Top-performing sales representatives based on total sales

	SalesRepID	SalesRepName	TotalSales
1	6	Sheila Stones	5,241,460,762
2	4	Anne Wu	5,241,460,762
3	1	Mary Gerrard	5,241,460,762
4	2	Jessica Smith	5,241,460,762
5	11	Daniel Gates	3,933,000,291
6	7	Stella Given	3,933,000,291
7	13	Jimmy Grey	3,933,000,291
8	8	Morris Garcia	3,709,629,449
9	3	Steve Pepple	3,709,629,449
10	10	Abigail Thompson	3,709,629,449
11	9	Erica Jones	3,613,815,097
12	12	Alan Ray	3,613,815,097
13	5	Thompson Crawford	3,613,815,097

Sales performance across different sales teams

	SalesTeam	TotalSales
1	Delta	20,965,843,047
2	Charlie	11,799,000,873
3	Bravo	11,128,888,347
4	Alfa	10,841,445,290

Task 6: Time Series Analysis

Year-over-year growth in total sales

	YEAR	TotalSales
1	2017-01-01	12,904,941,358
2	2018-01-01	16,090,394,870
3	2019-01-01	13,726,835,395
4	2020-01-01	12,013,005,936

Months with consistently high sales volume

	MONTH	TotalSales
1	August	5,811,726,170
2	November	5,350,906,176
3	June	5,112,234,149
4	March	5,049,315,466
5	September	4,898,517,940
6	July	4,762,507,568
7	February	4,684,020,265
8	October	4,332,854,186
9	December	4,165,528,444
10	May	3,737,541,675
11	April	3,657,912,657
12	January	3,172,112,862