Query 1: Calculate the FreightCost of different product subclasses

- This query calculates the total FreightCost for different product subclasses, providing insights into the overall shipping costs associated with each product category.
- result

	totalFreightCostOfACT	totalFreightCostOfANTM	totalFreightCostOfARV	totalFreightCostOfHRDT	totalFreightCostOfMRDT
1	"128456.336"^^xsd:float	"151221.14"^^xsd:float	"5.1067444E7"^^xsd:float	"1.759824E7"^^xsd:float	"8977.12"^^xsd:float

- Analysis:

  The highest total FreightCost is associated with the "ARV" subclass, indicating that the shipping cost for ARV products is the highest among the subclasses.

  The lowest total FreightCost is associated with the "MRDT" subclass.

Query 2: List product attributes with the highest and lowest values

- This query retrieves product attributes with the highest and lowest values, including LineItemInsurance, LineItemValue, Weight, UnitPrice, and LineItemQuantity. It gives an overview of the extreme values within the dataset.

	highetLineItemInsurance	highetLineItemValue	highetWeight	highetUnitPrice	highetLineItemQuantity	lowestLineItemInsurance	lowestLineItemValue	lowestWeight	lowestUnitPrice	lowestLineItemQuantity
1	"156.8"^^xsd:decimal	"80000.0"^^xsd:decimal	"1708.00"^^xsd:decimal	"1.5"^^xsd:decimal	"25000"^^xsd:decimal	"0.94"^^xsd:decimal	"800"^^xsd:decimal	"34"^^xsd:decimal	"0.03"^^xsd:decimal	"32"^^xsd:decimal

- Analysis:

  According to the result, the highest and lowest gaps between each item are huge. For example, the highest and lowest LineItemInsurance has a gap of 156.8/0.9＝166.808510638 times. For others, the gap is still pretty huge. It could be due to the difference between different quantities and value.

Query 3: Calculate the average FreightCost of different product subclasses

- This query computes the average FreightCost for different product subclasses, allowing for a comparison of shipping costs across various categories.

	averageFreightCostOfACT	averageFreightCostOfANTM	averageFreightCostOfARV	averageFreightCostOfHRDT	averageFreightCostOfMRDT
1	"8563.756"^^xsd:float	"7201.007"^^xsd:float	"10652.366"^^xsd:float	"12817.363"^^xsd:float	"1122.14"^^xsd:float

- Analysis:

  The highest average FreightCost is observed for the "ARV" subclass, indicating that, on average, shipping costs for ARV products are higher than other subclasses.

  The lowest average FreightCost is observed for the "MRDT" subclass.

  This is the same as the sum. Based on the data, we can see that the ARV is the most expensive one and the MRDT is the cheapest one to ship.

Query 4: Find projects with products where the shipping cost is more than 75% of the total value

- This query identifies projects with products where shipping costs constitute more than 75% of the total value. It helps highlight instances where shipping costs significantly impact the overall project expenses.

	project	product	shippingCost	totalValue
1	supplyChain:project4	supplyChain:ACT1	"12830.91"^^xsd:decimal	"9750"^^xsd:decimal
2	supplyChain:project2	supplyChain:ACT2	"1755.87"^^xsd:decimal	"1547.68"^^xsd:decimal
3	supplyChain:project9	supplyChain:ARV4	"6811.39"^^xsd:decimal	"2446.08"^^xsd:decimal
4	supplyChain:project1	supplyChain:HRDT1	"780.34"^^xsd:decimal	"551"^^xsd:decimal
5	supplyChain:project1	supplyChain:product1	"780.34"^^xsd:float	"551.0"^^xsd:float
6	supplyChain:project1048	supplyChain:product1048	"893.22"^^xsd:float	"472.88"^^xsd:float
7	supplyChain:project10544	supplyChain:product10544	"4535.0"^^xsd:float	"2640.0"^^xsd:float
8	supplyChain:project10546	supplyChain:product10546	"3736.0"^^xsd:float	"4256.0"^^xsd:float
9	supplyChain:project10570	supplyChain:product10570	"1283.24"^^xsd:float	"537.0"^^xsd:float
10	supplyChain:project10576	supplyChain:product10576	"9789.07"^^xsd:float	"160.0"^^xsd:float
11	supplyChain:project10589	supplyChain:product10589	"9869.55"^^xsd:float	"7114.9"^^xsd:float
12	supplyChain:project10593	supplyChain:product10593	"14656.0"^^xsd:float	"2729.92"^^xsd:float
13	supplyChain:project10597	supplyChain:product10597	"2099.0"^^xsd:float	"1074.0"^^xsd:float
14	supplyChain:project10613	supplyChain:product10613	"88801.0"^^xsd:float	"29777.5"^^xsd:float

Query 5: Count the number of distinct manufacturers for each country

- This query provides a count of distinct manufacturers for each country, offering insights into the distribution of manufacturing across different regions.

	country	manufacturerCount
1	supplyChain:Haiti	"39"^^xsd:integer
2	supplyChain:C%C3%B4te%20d%27Ivoire	"38"^^xsd:integer
3	supplyChain:Nigeria	"35"^^xsd:integer
4	supplyChain:Rwanda	"33"^^xsd:integer
5	supplyChain:Zambia	"32"^^xsd:integer
6	supplyChain:Mozambique	"31"^^xsd:integer
7	supplyChain:South%20Africa	"30"^^xsd:integer
8	supplyChain:Uganda	"30"^^xsd:integer
9	supplyChain:Zimbabwe	"27"^^xsd:integer
10	supplyChain:Tanzania	"25"^^xsd:integer
11	supplyChain:Ethiopia	"19"^^xsd:integer
12	supplyChain:Vietnam	"18"^^xsd:integer
13	supplyChain:Guyana	"18"^^xsd:integer
14	supplyChain:Congo%2C%20DRC	"18"^^xsd:integer
15	supplyChain:Cameroon	"17"^^xsd:integer

Query 6: Retrieve projects with product dosage and dosage form

- This query retrieves projects with product dosage and dosage form information, facilitating an understanding of projects involving specific dosage characteristics.

	project	product	dosageForm	dosage
1	supplyChain:project1	supplyChain:HRDT1	"Test kit"	"N/A"
2	supplyChain:project1	supplyChain:product1	"Test kit"	"N/A"
3	supplyChain:project10	supplyChain:HRDT2	"Test kit"	"N/A"
4	supplyChain:project11	supplyChain:HRDT2	"Test kit"	"N/A"
5	supplyChain:project12	supplyChain:MRDT1	"Test kit"	"N/A"
6	supplyChain:project13	supplyChain:MRDT2	"Test kit"	"N/A"
7	supplyChain:project2	supplyChain:ACT2	"Tablet - FDC + blister"	"20/120mg"
8	supplyChain:project3	supplyChain:ANTM2	"Tablet - FDC"	"500/25mg"
9	supplyChain:project3	supplyChain:product3	"Oral suspension"	"10mg/ml"
10	supplyChain:project4	supplyChain:ACT1	"Tablet - FDC + co-blister"	"50+153mg"
11	supplyChain:project4	supplyChain:product4	"Test kit"	"N/A"
12	supplyChain:project5	supplyChain:ANTM1	"Injection"	"600mg/2ml"
13	supplyChain:project6	supplyChain:ARV1	"Tablet"	"150mg"
14	supplyChain:project7	supplyChain:ARV2	"Capsule"	"30mg"
15	supplyChain:project8	supplyChain:ARV3	"Capsule"	"30mg"

Query 7: Calculate product SubClassification average weight and display them in a descending order.

- This query calculates the average weight for each product SubClassification, providing insights into the typical weight associated with different product categories.

	category	averageWeight
1	"Adult"	"4343.052"^^xsd:float
2	"HIV test"	"2171.166"^^xsd:float
3	"Pediatric"	"1879.0338"^^xsd:float
4	"ACT"	"941.8"^^xsd:float
5	"Malaria"	"741.1724"^^xsd:float
6	"HIV test - Ancillary"	"267.38333"^^xsd:float

Query 8: List product SubClassification's highest LineItemValue

- This query lists the highest LineItemValue for each product SubClassification, helping identify the most valuable products within each category.

	category	highestValue
1	"Adult"	"5951990.4"^^xsd:float
2	"HIV test"	"1600000.0"^^xsd:float
3	"Pediatric"	"1219730.72"^^xsd:float
4	"ACT"	"132000.0"^^xsd:float
5	"Malaria"	"100540.0"^^xsd:float
6	"HIV test - Ancillary"	"80000.0"^^xsd:float

Query 9: List projects with FreightCost from highest to lowest

- This query lists projects along with their FreightCost in descending order, offering a ranked view of projects based on shipping expenses.

	project	product	FreightCost
1	supplyChain:project37835	supplyChain:product37835	"289653.2"^^xsd:float
2	supplyChain:project42000	supplyChain:product42000	"241407.27"^^xsd:float
3	supplyChain:project85005	supplyChain:product85005	"194623.44"^^xsd:float
4	supplyChain:project40665	supplyChain:product40665	"161962.32"^^xsd:float
5	supplyChain:project82554	supplyChain:product82554	"161712.87"^^xsd:float
6	supplyChain:project61546	supplyChain:product61546	"152368.7"^^xsd:float
7	supplyChain:project37324	supplyChain:product37324	"146850.66"^^xsd:float
8	supplyChain:project49585	supplyChain:product49585	"146734.85"^^xsd:float
9	supplyChain:project76374	supplyChain:product76374	"139951.34"^^xsd:float
10	supplyChain:project82914	supplyChain:product82914	"132890.27"^^xsd:float
11	supplyChain:project82526	supplyChain:product82526	"131278.81"^^xsd:float
12	supplyChain:project82785	supplyChain:product82785	"129843.24"^^xsd:float
13	supplyChain:project21230	supplyChain:product21230	"127285.48"^^xsd:float
14	supplyChain:project83416	supplyChain:product83416	"124350.84"^^xsd:float

Query 10: Calculate the average unit price of all products

- This query computes the average unit price for all products, giving an overview of the typical pricing structure within the dataset.

	averageUnitPrice
1	"0.6115295"^^xsd:float