

DATA MINING

LAB 2

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Query for Creating and Inserting values into to table

-- Create the table

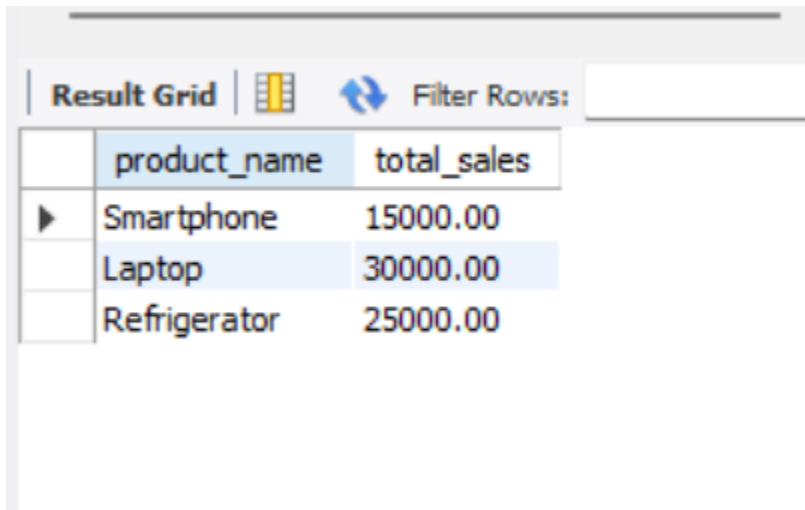
```
CREATE TABLE products_sales (  
    product_id INT PRIMARY KEY,  
    product_name VARCHAR(255),  
    sales_amount DECIMAL(10, 2),  
    region VARCHAR(100),  
    product_category VARCHAR(100),  
    store_id INT,  
    store_name VARCHAR(255)  
);
```

-- Insert sample values

```
INSERT INTO products_sales (product_id, product_name, sales_amount, region, product_category, store_id, store_name)  
VALUES  
(1, 'Smartphone', 15000.00, 'North', 'Electronics', 101, 'Tech Store'),  
(2, 'Laptop', 30000.00, 'South', 'Electronics', 102, 'Gadget Hub'),  
(3, 'Shoes', 5000.00, 'East', 'Fashion', 103, 'Style Mart'),  
(4, 'T-shirt', 2000.00, 'West', 'Fashion', 104, 'Apparel Corner'),  
(5, 'Refrigerator', 25000.00, 'North', 'Home Appliances', 105, 'Home Goods Store');
```

Iceberg Query

```
SELECT product_name, SUM(sales_amount) as total_sales  
FROM Products_sales  
GROUP BY product_name  
HAVING SUM(sales_amount) > 10000;
```



	product_name	total_sales
▶	Smartphone	15000.00
	Laptop	30000.00
	Refrigerator	25000.00

```

SELECT region, SUM(sales_amount) AS total_sales
FROM products_sales
WHERE product_category = 'Electronics'
GROUP BY region
HAVING SUM(sales_amount) > 5000;

```

Result Grid			Filter Rows:
	region	total_sales	
▶	North	15000.00	
	South	30000.00	

```

SELECT store_name, SUM(sales_amount) AS total_sales
FROM products_sales
GROUP BY store_name
HAVING SUM(sales_amount) > 20000;

```

Result Grid			Filter Rows:
	store_name	total_sales	
▶	Gadget Hub	30000.00	
	Home Goods Store	25000.00	

Skyline Query

```

SELECT prod_id, prod_name, price, sales_amount
FROM salesData
GROUP BY prod_id, prod_name, price
HAVING not exists(SELECT 1 FROM salesData AS S2 WHERE S2.price < salesData.price AND
S2.sales_amount > (SELECT SUM(sales_amount) FROM salesData AS S1 WHERE S1.prod_id =
salesData.prod_id))

```

Result Grid				
Filter Rows: <input type="text"/>				
Edit:				
	prod_id	prod_name	price	sales_amount
▶	2	Laptop	1200.00	30000.00
	3	Shoes	50.00	5000.00
	4	T-shirt	25.00	2000.00
	5	Refrigerator	500.00	25000.00
•	NULL	NULL	NULL	NULL

```

SELECT region, profit, cost
FROM region_finances AS R1
WHERE NOT EXISTS (
  SELECT 1
  FROM region_finances AS R2
  WHERE R2.region <> R1.region
  AND R2.profit > R1.profit
  AND R2.cost < R1.cost
);

```

Result Grid			
Filter Rows: <input type="text"/>			
	region	profit	cost
▶	South	60000.00	35000.00
	East	45000.00	25000.00
	West	55000.00	28000.00

```

-- Create the table for stores
CREATE TABLE store_performance (
  store_id INT PRIMARY KEY,
  store_name VARCHAR(255),
  customer_satisfaction DECIMAL(5, 2), -- Assuming it's on a scale of 0-100
  operational_cost DECIMAL(10, 2)
);


-- Insert sample values
INSERT INTO store_performance (store_id, store_name, customer_satisfaction, operational_cost)
VALUES
(1, 'Tech Store', 85.00, 12000.00),

```

```
(2, 'Gadget Hub', 90.00, 15000.00),
(3, 'Style Mart', 80.00, 10000.00),
(4, 'Apparel Corner', 75.00, 8000.00),
(5, 'Home Goods Store', 95.00, 20000.00);
```


```
SELECT store_id, store_name, customer_satisfaction, operational_cost
FROM store_performance
WHERE NOT EXISTS (
    SELECT 1
    FROM store_performance AS S2
    WHERE S2.customer_satisfaction > store_performance.customer_satisfaction
    AND S2.operational_cost < store_performance.operational_cost
)
ORDER BY customer_satisfaction DESC, operational_cost ASC;
```


Result Grid




Filter Rows:

Edit:







Export/Import

	store_id	store_name	customer_satisfaction	operational_cost
▶	5	Home Goods Store	95.00	20000.00
	2	Gadget Hub	90.00	15000.00
	1	Tech Store	85.00	12000.00
	3	Style Mart	80.00	10000.00
	4	Apparel Corner	75.00	8000.00
✱	NULL	NULL	NULL	NULL