



TUNIS BUSINESS SCHOOL  
UNIVERSITY OF TUNIS

# <CODE>

## Hardware Retail Store Analysis

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- Total sales by product:

```
CREATE VIEW total_sales_by_product AS
SELECT
p.PRODUCT_NAME,
ROUND(SUM(pr.LIST_PRICE * s.QUANTITY), 2) AS
TotalSales
FROM
    product p
JOIN
    pricing pr ON p.PRODUCT_ID = pr.PRODUCT_ID
JOIN
    storage s ON p.PRODUCT_ID = s.PRODUCT_ID
GROUP BY
p.PRODUCT_NAME;
```

- Total cost by product:

```
CREATE VIEW total_cost_by_product AS
SELECT
p.PRODUCT_NAME,
ROUND(SUM(pr.STANDARD_COST * s.QUANTITY), 2) AS
TotalCost
FROM
    product p
JOIN
    pricing pr ON p.PRODUCT_ID = pr.PRODUCT_ID
JOIN
    storage s ON p.PRODUCT_ID = s.PRODUCT_ID
GROUP BY
p.PRODUCT_NAME;
```



- Products by category :

```
CREATE VIEW productbycategory AS
SELECT
c.CATEGORY_NAME,
COUNT(p.PRODUCT_ID) AS ProductCount,
CASE
    WHEN c.CATEGORY_NAME = 'CPU' THEN
'https://static.vecteezy.com/system/resources/previews/013/09
1/374/original/processor-3d-illustration-icon-png.png'
    WHEN c.CATEGORY_NAME = 'Video Card' THEN
'https://cdn3d.iconscout.com/3d/premium/thumb/gpu-8996921-
7401878.png?f=webp'
    WHEN c.CATEGORY_NAME = 'Mother Board' THEN
'https://static.vecteezy.com/system/resources/previews/013/24
9/732/original/motherboard-3d-illustration-icon-png.png'
    WHEN c.CATEGORY_NAME = 'Storage' THEN
'https://cdn3d.iconscout.com/3d/premium/thumb/hardisk-
6629769-5526155.png?f=webp'
    ELSE NULL -- You can set a default value or use NULL
for other categories
END AS Image
FROM
    category c
JOIN
    product p ON c.PRODUCT_ID = p.PRODUCT_ID
GROUP BY
c.CATEGORY_NAME;
```



- Geographic distribution of products :

```
CREATE VIEW geographic_distribution AS
SELECT
l.COUNTRY_NAME,
COUNT(p.PRODUCT_ID) AS ProductCount
FROM
    location l
JOIN
    product p ON l.PRODUCT_ID = p.PRODUCT_ID
GROUP BY
l.COUNTRY_NAME;
```

- Average Standard Cost By Category :

```
CREATE VIEW average_standard_cost_by_category AS
SELECT
c.CATEGORY_NAME,
ROUND(AVG(pr.STANDARD_COST), 2) AS AverageStandardCost
FROM
    category c
JOIN
    pricing pr ON c.PRODUCT_ID = pr.PRODUCT_ID
GROUP BY
c.CATEGORY_NAME;
```



- Profit by product :

```
CREATE VIEW profit AS
SELECT
p.PRODUCT_NAME,
ROUND((SUM(pr.LIST_PRICE * s.QUANTITY) - SUM(pr.STANDARD_COST
* s.QUANTITY)), 2) AS Profit
FROM
    product p
JOIN
    pricing pr ON p.PRODUCT_ID = pr.PRODUCT_ID
JOIN
    storage s ON p.PRODUCT_ID = s.PRODUCT_ID
GROUP BY
p.PRODUCT_NAME;
```

- Product Profit Metrics :

```
CREATE VIEW product_profit_metrics AS
SELECT
t.TotalSales,
    c.TotalCost,
    pr.Profit,
    CASE
        WHEN t.TotalSales = 0 THEN NULL
        ELSE ROUND((pr.Profit / t.TotalSales) * 100, 2)
    END AS ProfitMargin,
t.PRODUCT_NAME
FROM
total_sales_by_product t
JOIN
total_cost_by_product c ON t.PRODUCT_NAME = c.PRODUCT_NAME
```



JOIN

```
    profit pr ON t.PRODUCT_NAME = pr.PRODUCT_NAME  
ORDER BY  
t.PRODUCT_NAME;
```