**1. "Write a query to identify the top 2 customers (by total spending) in each country. Display their name, country, and total spending."**

**with** RankfunctionCustomers **as**(

**SELECT** *c*.CustomerName **AS** *Customers\_Name* ,

*c*.Country **AS** *country*,

**SUM**(*od*.Quantity \**od*.Price) **AS** *total\_spending*,

**RANK**() **OVER**(**PARTITION** **BY** *c*.Country **ORDER** **BY** **SUM**(*od*.Quantity \* *od*.Price) **DESC**) **AS** *rank\_of\_customers*

**FROM** Customers *c*

**JOIN** Orders *o*

**ON** *o*.CustomerID = *c*.CustomerID

**JOIN** OrderDetails *od*

**ON** *od*.OrderID = *o*.OrderID

**GROUP** **BY**

*c*.CustomerName, *c*.Country)

**SELECT**

Customers\_Name,

country,

total\_spending

**from**

RankfunctionCustomers

**where** rank\_of\_customers <= 2;

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2. Using the same tables (Customers, Orders, OrderDetails, Products), write a query to calculate the average order value (AOV) for each customer. The AOV is the total sales for a customer divided by the number of their orders.

**SELECT**

*c*.CustomerName,

**SUM**(*od*.Quantity\**od*.Price) **AS** *Total\_Sales*,

**Count**(Distinct *od*.OrderID) **AS** *No\_of\_Orders*,

**SUM**(*od*.Quantity\* *od*.Price)/ **Count**(*od*.OrderID) **AS** *AOV*

**FROM**

Customers *c*

**JOIN**

Orders *o* **ON** *c*.CustomerID =*o*.CustomerID

**JOIN**

OrderDetails *od* **ON** *o*.OrderID = *od*.OrderID

**Group** **by**

*c*.CustomerName, *c*.CustomerID ;

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3. "Write a query to identify the top 3 products (by total sales) in each product category, and display their total sales and the number of times they were ordered."

**WITH** *Rank\_of\_Category* **AS**(

**SELECT**

*p*.ProductName,

**SUM**(*od*.Quantity\**od*.Price) **AS** *Total\_Sales*,

*p*.Category,

**RANK**() **OVER**(**Partition** **BY** *p*.Category **ORDER** **BY** **SUM**(*od*.Quantity\**od*.Price) **Desc**) **AS** *rank\_orders*,

**Count**(*o*.OrderID) **AS** *Number\_of\_Orders*

**FROM**

Customers *c*

**JOIN**

Orders *o* **ON** *o*.CustomerID = *c*.CustomerID

**JOIN**

OrderDetails *od* **ON** *od*.OrderID = *o*.OrderID

**JOIN**

Products *p* **ON** *p*.ProductID = *od*.ProductID

**GROUP** **BY**

*p*.Category,*p*.ProductName

)

**Select**

ProductName,

Category,

*Total\_Sales*,

*Number\_of\_Orders*

**FROM**

*Rank\_of\_Category*

**WHERE** *rank\_orders* <=3

**ORDER** BY Category, ProductName ;

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