QUESTION 3

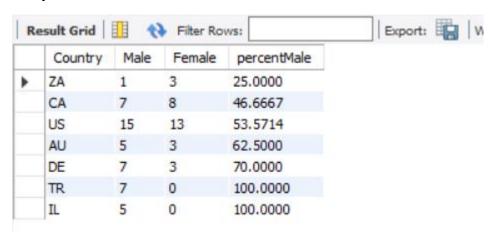## Query :

(a) **Goal:** Summarizing Data in Groups
Table: customer
Query: Write a query that displays the following statistics for each country:
- Total number of customers
- Total number of male customers
- Total number of female customers
- Percent of all customers that are male (Percent Male).

Display the result by value of Percent Male so that the country with the lowest value is listed first, with the remaining countries following in ascending order.

Output:

Country	Male	Female	percentMale
ZA	1	3	25.0000
CA	7	8	46.6667
US	15	13	53.5714
AU	5	3	62.5000
DE	7	3	70.0000
TR	7	0	100.0000
IL	5	0	100.0000

Query :

(b) **Goal:** Summarizing Data in Groups

Table: product_dim, order_fact
Query: Create a result by combining two tables.
- Include columns Product_ID, Product_Name from product_dim table.
- Include a column with the label Total Sold. Use a summary function to create this column, which displays the quantity sold for each product.
- Specifies the tables product_dim, with the alias p and order_fact with the alias o.
- Join the tables by matching the values of the appropriate columns in each table.
- Groups the results by Product_ID from product_dim table and Product_Name.
- Orders the rows so that products with the highest number sold appear at the top of the report and then by Product_Name.

Note: DO NOT use nested queries

Output:

product_id	product_name	totalsold
2.30101E+11	Backpack Flag, 6,5x9 Cm.	153
2.30101E+11	Basic 10, Left , Yellow/Black	153
2.30101E+11	Collapsible Water Can	153
2.30101E+11	Comfort Shelter	153
2.30101E+11	Cup Picnic Mug 25 Cl.	153
2.30101E+11	Dome Tent Monodome Alu	153
2.30101E+11	Expedition 10,Small,Left,Blue Ribbon	153
2.30101E+11	Expedition 10,Small,Right,Blue Ribbon	153
2.30101E+11	Expedition 20,Large,Right,Forestgreen	153

Query :

(c) **Goal:** Create a result with a self-join.
Table: employee_addresses, staff
Query: Display result of all trainees and workers at company. For each trainee or temporary worker, the report should include the employee ID, name and job title, and manager ID and name. The report should be ordered by Employee_ID.

employee_ID	employee_Name	Job_Title	Manager_ID	Manager_Name
120181	Cantatore, Lorian	Temp. Sales Rep.	120103	Dawes, Wilson
120182	Barreto, Geok-Seng	Temp. Sales Rep.	120103	Dawes, Wilson
120183	Blanton, Brig	Temp. Sales Rep.	120103	Dawes, Wilson
120184	Moore, Ari	Temp. Sales Rep.	120103	Dawes, Wilson
120185	Bahlman, Sharon	Temp. Sales Rep.	120103	Dawes, Wilson
120186	Quinby, Merryn	Temp. Sales Rep.	120103	Dawes, Wilson
120187	Catenacci, Reyne	Temp. Sales Rep.	120103	Dawes, Wilson
120189	Lachlan, Mihailo	Temp. Sales Rep.	120103	Dawes, Wilson
120190	Czernezkyi, Ivor	Trainee	120103	Dawes, Wilson

Result 2

Query :

(d) **Goal:** LEAD and LAG functions
Table: employee_payroll
Query: 1) Calculate the difference between the salary of the current row and the previous row. 2) Calculate the difference between the salary of current row and the following row.

Output:

Employee_ID	Salary	Salary_prev	Salary_Next	Lag_Difference	LEAD_Difference
120101	163040	0	108255	163040	54785
120102	108255	163040	87975	-54785	20280
120103	87975	108255	46230	-20280	41745
120104	46230	87975	27110	-41745	19120
120105	27110	46230	26960	-19120	150
120106	26960	27110	30475	-150	-3515
120107	30475	26960	27660	3515	2815
120108	27660	30475	26495	-2815	1165
120109	26495	27660	28615	-1165	-2120