* Prepare a story with technical specifications for **one part of the data model** for a data engineer to include technical specifications and transformations. This story should give enough information for a Data Engineer to build table(s) and for a QA engineer to test it.
* Data Model - *The country that had minimum transactions and sales amount.*
* *Story - The Stakeholder/Business wants to understand and identify the country with lowest transaction and sales amount. We need to create a dataset and report which will help in understanding and tracking the underperforming countries*
* *Technical Spec for Data Engineer.*

*Datasources - Staging Layer*

1. *Pei\_data.order - order\_id, order\_date, id\_product, item, quantity, amount, customer\_id*
2. *Pei\_data.customer - customer\_id, first\_name , last\_name,age, country*

*Final Dataset: pei\_data\_revenue.country\_transactions\_sales*

*Sql for Pipeline Creation:*

*Create table pei\_data\_revenue.country\_transactions\_sales as*

with transaction\_detail as

(

Select

c.country,

count(distinct o.order\_id) as total\_transactions,

sum(amount) as total\_sales

From pei\_data.order o

Inner join pei\_data.customer c on o.customer\_id = c.customer\_id

group by 1

),

rn as

(

Select

country,

total\_transactions,

total\_sales,

dense\_rank() over(order by total\_transactions, total sales) as rnk

from transaction\_detail

)

Select country,

total\_transactions,

total\_sales

from

rn

where rnk=1

Final Reporting Query for the stakeholders:

Select \* from

 Pei\_data\_revenue.country\_transactions\_sales

Where ds = ‘2025-08-19’ --This should be changed every day to latest ds to get the latest report

Notes:

1. Incremental Load - Refresh Daily
2. Wall Checks -
3. Ensure customers and orders table are refreshed before the Pipleine ETL query.
4. Any order\_id without a matching customer\_id must be excluded and placed in the Parking Lot for further investigation.
5. Soft wall check - if country is null pass the data and provide an alert for further testing.

QA Testing Steps :-

1.Record count.

Check No. of records for the last 7 days. Count should be in increasing order and  if there is any huge spike please notify Data Analytics.

2. In the final report pick any one country and  match its total\_transactions and total\_sales and then pick the same sample country and count distinct order\_id and sum(sales) from the staging layer orders table. It should exactly match.

3. Ensure the country is not null. If we see null, assign unknown and notify the record in the respective slack channel .