1. Calculate the aggregate forecast accuracy report for all the customers for a given fiscal year

**Input:**

fact\_act\_est table

with (date, fiscal\_year, product\_code, customer\_code, sold\_quantity, forecast\_quantity) as fields.

**Output:**

The generated report should have the following fields:

* 1. Customer code
  2. Customer name
  3. Market
  4. Total sold quantity
  5. Total forecast quantity
  6. Net error
  7. Absolute error
  8. Forecast Accuracy %

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With forecast\_err\_cte as

(Select s.customer\_code,

Sum(s.sold\_quantity) as total\_sold\_qty,

Sum(s.forecast\_quantity) as total\_forecast\_qty,

sum(forecast\_quantity – sold\_quantity) as net\_err,

sum(forecast\_quantity – sold\_quantity) \* 100 / sum(forecast\_quantity) as net\_err\_pct,

sum(abs(forecast\_quantity – sold\_quantity)) as abs\_err

sum(abs(forecast\_quantity – sold\_quantity)) \* 100 / sum(forecast\_quantity) as abs\_err\_pct

From fact\_act\_est s

Where s.fiscal\_year = 2021

Group by customer\_code)

Select e.\*,

c.customer,

c.market,

If (abs\_err\_pct >100, 0, 100-abs\_err\_pct) as forecast\_accuracy

from forecast\_err\_cte e

join dim\_customer

using customer\_code

order by forecast\_accuracy desc

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**Creating stored procedure for the report**

Create procedure ‘get\_forecast\_accuracy’( In\_fiscal\_year INT )

BEGIN

With forecast\_err\_cte as

(Select s.customer\_code,

Sum(s.sold\_quantity) as total\_sold\_qty,

Sum(s.forecast\_quantity) as total\_forecast\_qty,

sum(forecast\_quantity – sold\_quantity) as net\_err,

sum(forecast\_quantity – sold\_quantity) \* 100 / sum(forecast\_quantity) as net\_err\_pct,

sum(abs(forecast\_quantity – sold\_quantity)) as abs\_err

sum(abs(forecast\_quantity – sold\_quantity)) \* 100 / sum(forecast\_quantity) as abs\_err\_pct

From fact\_act\_est s

Where s.fiscal\_year = in\_fiscal\_year

Group by customer\_code)

Select e.\*,

c.customer,

c.market,

If (abs\_err\_pct >100, 0, 100-abs\_err\_pct) as forecast\_accuracy

from forecast\_err\_cte e

join dim\_customer

using customer\_code

order by forecast\_accuracy desc;

END

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Converting forecast\_err\_cte as temporary table and rewriting the query

Create temporary table forecast\_err\_table

Select s.customer\_code,

Sum(s.sold\_quantity) as total\_sold\_qty,

Sum(s.forecast\_quantity) as total\_forecast\_qty,

sum(forecast\_quantity – sold\_quantity) as net\_err,

sum(forecast\_quantity – sold\_quantity) \* 100 / sum(forecast\_quantity) as net\_err\_pct,

sum(abs(forecast\_quantity – sold\_quantity)) as abs\_err

sum(abs(forecast\_quantity – sold\_quantity)) \* 100 / sum(forecast\_quantity) as abs\_err\_pct

From fact\_act\_est s

Where s.fiscal\_year = 2021

Group by customer\_code)

Select e.\*,

c.customer,

c.market,

If (abs\_err\_pct >100, 0, 100-abs\_err\_pct) as forecast\_accuracy

from forecast\_err\_table e

join dim\_customer

using customer\_code

order by forecast\_accuracy desc;

**Note**: temporary table is valid for the current session only.