


NL2SQL RESULTS

Simple Query

Question 1:Get the inflation percentage for Footwear in Gujarat in February 2025

Expected outcome:



Query:

```
1 SELECT inflation_percentage
2 FROM cpi_data
3 WHERE year = 2025
4 AND month = 'February'
5 AND state = 'Gujarat'
6 AND sub_group_name = 'Footwear';
```

Data Output:

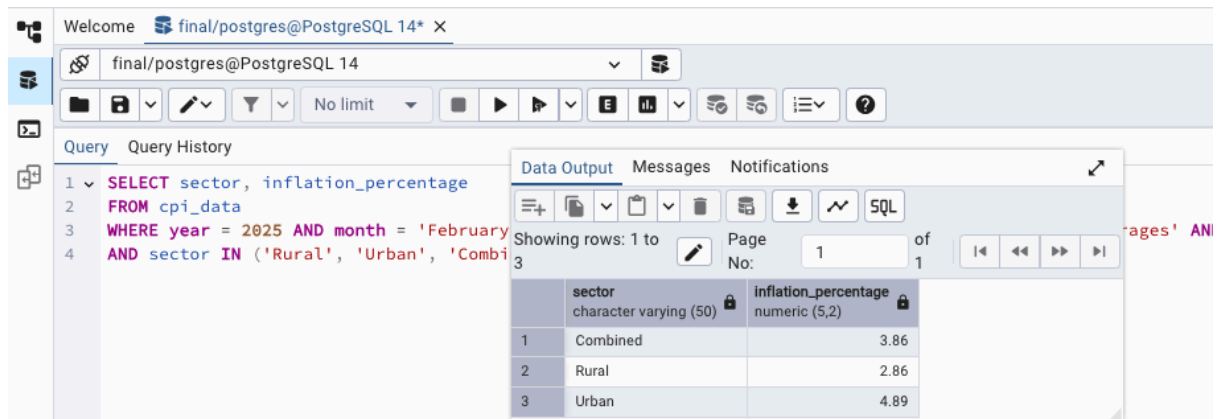
	inflation_percentage numeric (5,2)
1	2.99
2	2.46
3	3.51

Output:

```
{
  "query": "Get the inflation percentage for Footwear in Gujarat in February 2025",
  "result": {
    "result": "2.99, 2.46, and 3.51"
  }
}
```

Question2 : Retrieve CPI inflation for Cereals and Products in Maharashtra in January 2025

Expected Outcome:



Query:

```
1 SELECT sector, inflation_percentage
2 FROM cpi_data
3 WHERE year = 2025 AND month = 'February'
4 AND sector IN ('Rural', 'Urban', 'Combined');
```

Data Output:

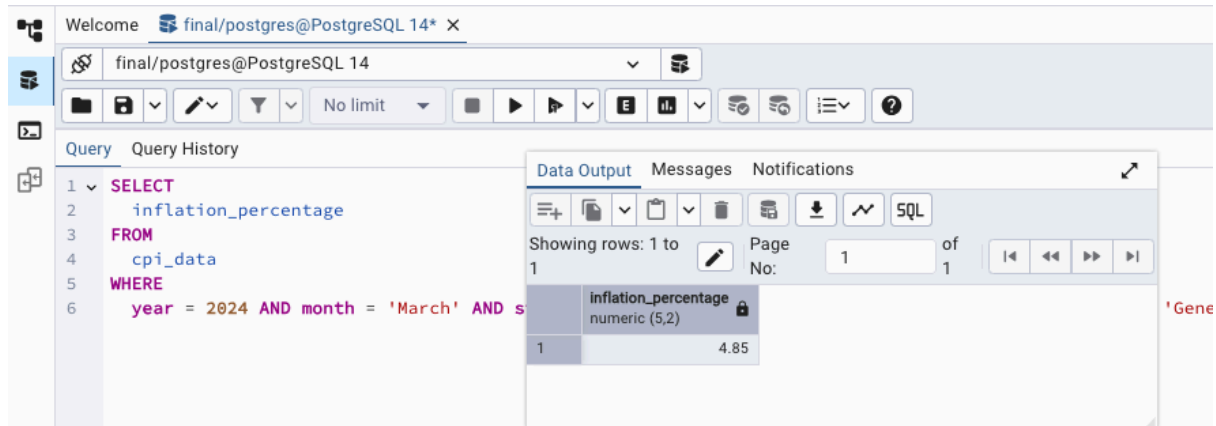
	sector character varying (50)	inflation_percentage numeric (5,2)
1	Combined	3.86
2	Rural	2.86
3	Urban	4.89

Output :

```
{
  "query": "Retrieve CPI inflation for Cereals and Products in Maharashtra in feb 2025 along with rural ,urban, combined",
  "result": {
    "result": "The CPI inflation for Cereals and Products in Maharashtra in February 2025 is 3.86% for the combined sector, 2.86% for the rural sector, and 4.89% for the urban sector."
  }
}
```

Question3: Get the inflation rate for the General category in All India for March 2024

Expected Outcome:



Query

```
1 SELECT
2   inflation_percentage
3 FROM
4   cpi_data
5 WHERE
6   year = 2024 AND month = 'March' AND s
```

Data Output

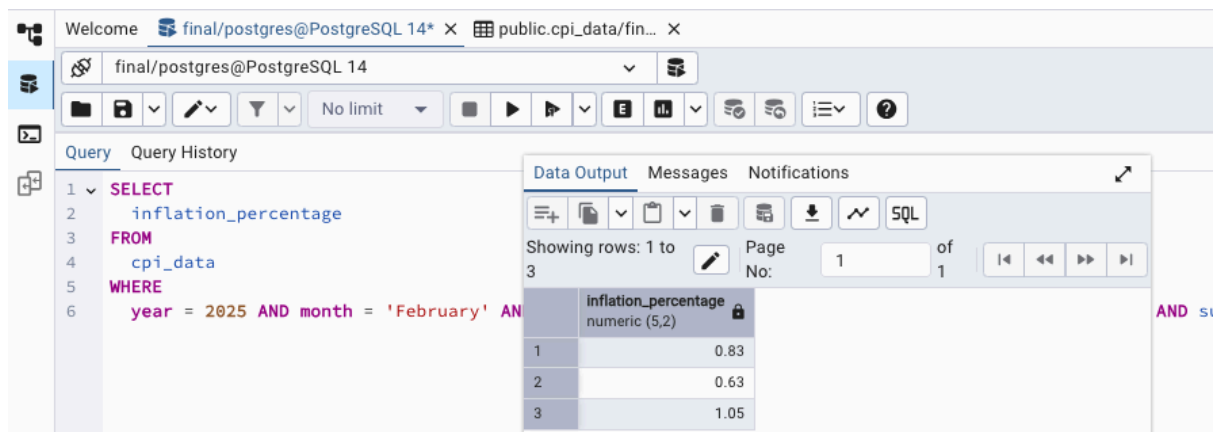
	inflation_percentage numeric (5,2)
1	4.85

Result:

```
{
  "query": "Get the inflation rate for the General category in All India for March 2024",
  "result": {
    "result": "The inflation rate for the General category in All India for March 2024 is 4.85."
  }
}
```

Question4: Check the inflation rate for Meat and Fish in Karnataka in February 2025

Expected Outcome:



Query

```
1 SELECT
2   inflation_percentage
3 FROM
4   cpi_data
5 WHERE
6   year = 2025 AND month = 'February' AND s
```

Data Output

	inflation_percentage numeric (5,2)
1	0.83
2	0.63
3	1.05

Result:

```
{
  "query": "Check the inflation rate for Meat and Fish in Karnataka in February 2025",
  "result": {
    "result": "The inflation rate for Meat and Fish in Karnataka in February 2025 was 0.83%, 0.63%, and 1.05%."
  }
}
```

Moderate Query

Question1 :What is the average inflation rate in Andhra Pradesh over the last 6 months?"

Expected Results:

Query: `SELECT AVG(inflation_percentage) FROM (SELECT inflation_percentage FROM cpi_data WHERE month = 'January' THEN 1 WHEN month = 'February' THEN 2 WHEN month = 'March' THEN 3 WHEN month = 'April' THEN 4 WHEN month = 'May' THEN 5 WHEN month = 'June' THEN 6) AS last_6_months;`

Data Output:

	avg
	numeric
1	4.778333333333333

Output:

```
{
  "query": "What is the average inflation rate in Andhra Pradesh over the last 6 months?",
  "result": {
    "result": "The average inflation rate in Andhra Pradesh over the last 6 months is 4.78."
  }
}
```

Question2 : How has footwear inflation varied between rural and urban areas in the last three months?

Expected Results:

Query: `SELECT year, month, sector, inflation_percentage FROM cpi_data WHERE group_name = 'Clothing and Footwear' ORDER BY month DESC LIMIT 10;`

Data Output:

	year	month	sector	inflation_percentage
	integer	character varying (20)	character varying (50)	numeric (5,2)
1	2025	January	Urban	1.87
2	2025	January	Rural	1.27
3	2025	January	Combined	1.51
4	2025	January	Urban	3.17
5	2025	January	Rural	0.78
6	2025	January	Combined	1.60
7	2025	January	Urban	1.28
8	2025	January	Rural	1.55
9	2025	January	Combined	1.45
10	2025	January	Urban	2.99

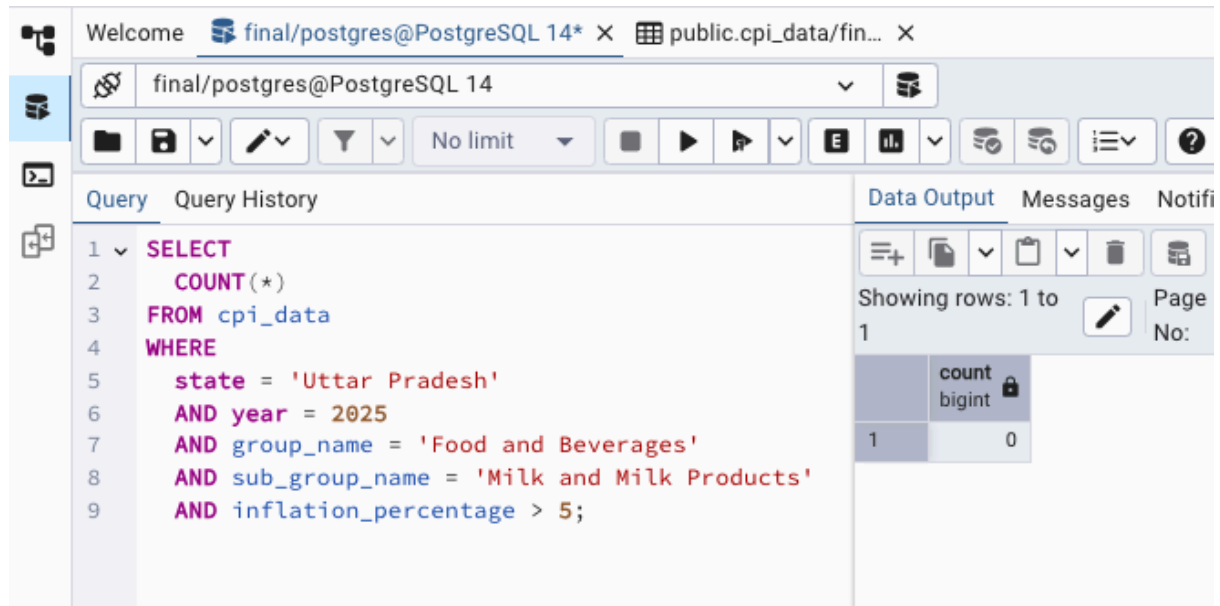
Outcome:

```
{
  "query": "How has footwear inflation varied between rural and urban areas in the last three months?",
  "result": {
    "result": "The footwear inflation percentages for January 2025 are as follows:\n- Urban: 1.87%, 3.17%, 1.28%, 2.99%\n- Rural: 1.27%, 0.78%, 1.55%\n- Combined: 1.51%, 1.60%, 1.45%\nI can only provide the data for January 2025 as that is the latest available data in the database."
  }
}
```

}

Question3 : Give the total count of records where the inflation rate for 'Milk and Milk Products' under 'Food and Beverages' in Uttar Pradesh was above 5% in 2025.

Expected Outcome:



The screenshot shows a PostgreSQL query editor with the following query:

```
1 SELECT
2     COUNT(*)
3 FROM cpi_data
4 WHERE
5     state = 'Uttar Pradesh'
6     AND year = 2025
7     AND group_name = 'Food and Beverages'
8     AND sub_group_name = 'Milk and Milk Products'
9     AND inflation_percentage > 5;
```

The Data Output tab shows the result:

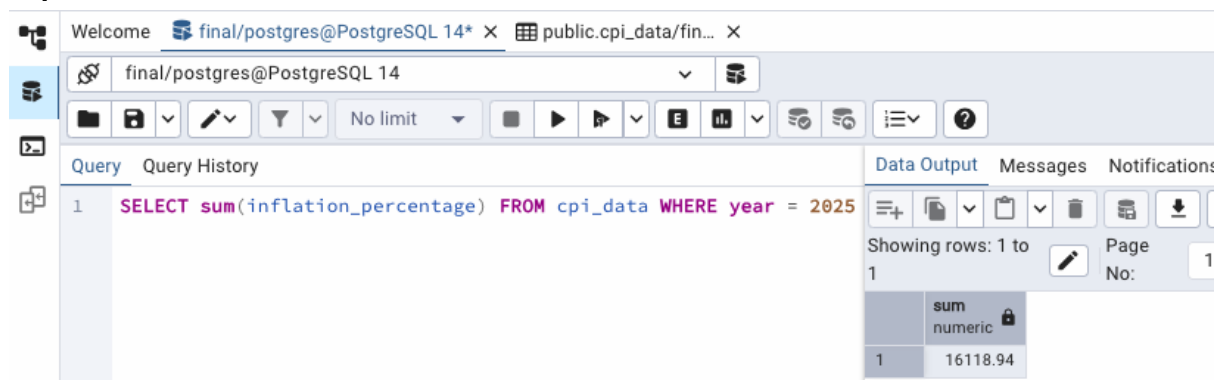
	count bigint
1	0

Result:

```
{
  "query": "Give the total count of records where the inflation rate for 'Milk and Milk Products' under 'Food and Beverages' in Uttar Pradesh was above 5% in 2025.",
  "result": {
    "result": "0"
  }
}
```

Question4 : Give the total inflation sum for last year.

Expected Outcome:



The screenshot shows a PostgreSQL query editor with the following query:

```
1 SELECT sum(inflation_percentage) FROM cpi_data WHERE year = 2025
```

The Data Output tab shows the result:

	sum numeric
1	16118.94

Results:

```
{
  "query": "Give the total inflation sum for last year",
  "result": {
    "result": "16118.94"
  }
}
```

}

Question5: What is the average inflation rate for food items?

Expected Outcome:

The screenshot shows a PostgreSQL query editor with the following query:

```
1 SELECT AVG(inflation_percentage) FROM cpi_data WHERE group_name = 'Food and Beverages'
```

The query results are displayed in a table with the following data:

avg	numeric
1	4.6652081762299765

Result:

{

"query": "What is the average inflation rate for food items?",

"result": {

"result": "4.67"

}

}

Complex Query

Question 1. Tell me which sub-categories had the highest inflation in the last six months, grouped by state.

Expected Outcome:

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Results:

{

"query": "Tell me which sub-categories had the highest inflation in the last six months, grouped by state.",

"result": {

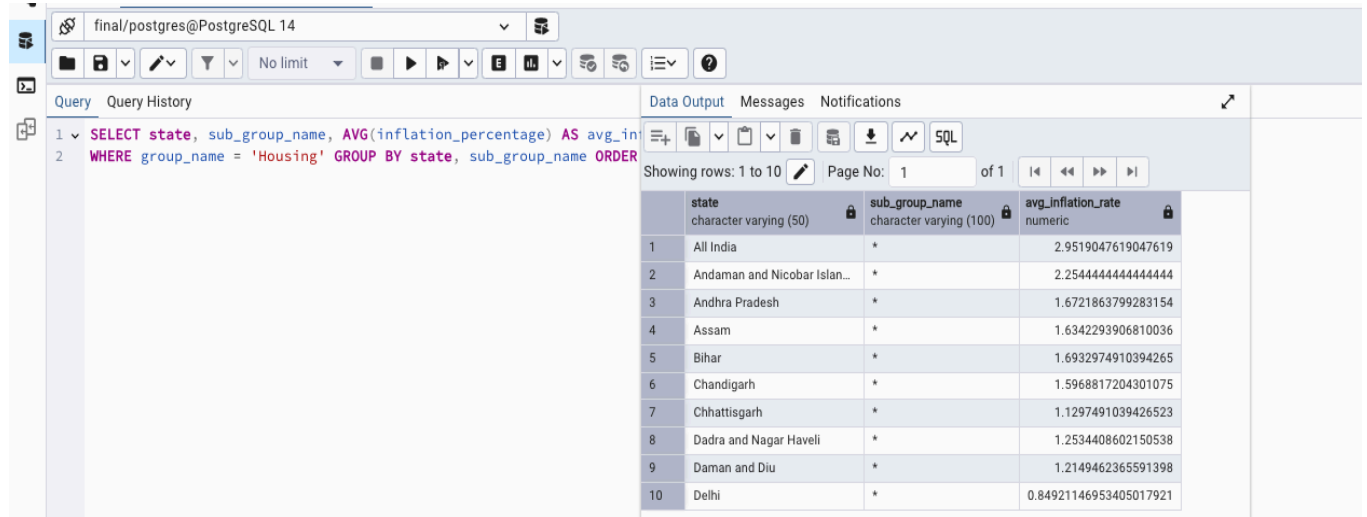
"result": "The sub-categories with the highest average inflation in the last six months, grouped by state are: Rajasthan (Vegetables, 48.76%), Maharashtra (Vegetables, 42.95%), Uttar Pradesh (Vegetables, 40.72%), Madhya Pradesh (Vegetables, 40.04%), Jharkhand

(Vegetables, 39.82%), Gujarat (Vegetables, 39.67%), Bihar (Vegetables, 39.03%), Andhra Pradesh (Vegetables, 36.14%), All India (Vegetables, 36.03%), and Punjab (Vegetables, 35.13%)."

```
}
}
```

Question2:Can you compare the average inflation rate for different sub-groups within the Housing category across states?

Expected Outcome:



The screenshot shows a PostgreSQL query editor with the following SQL query:

```
1 SELECT state, sub_group_name, AVG(inflation_percentage) AS avg_inflation_rate
2 WHERE group_name = 'Housing' GROUP BY state, sub_group_name ORDER BY avg_inflation_rate
```

The results are displayed in a table with the following columns: state, sub_group_name, and avg_inflation_rate. The table shows 10 rows of data, sorted by the average inflation rate in descending order.

state	sub_group_name	avg_inflation_rate
All India	*	2.9519047619047619
Andaman and Nicobar Islands	*	2.2544444444444444
Andhra Pradesh	*	1.6721863799283154
Assam	*	1.6342293906810036
Bihar	*	1.6932974910394265
Chandigarh	*	1.5968817204301075
Chhattisgarh	*	1.1297491039426523
Dadra and Nagar Haveli	*	1.2534408602150538
Daman and Diu	*	1.2149462365591398
Delhi	*	0.84921146953405017921

Result:

```
{
  "query": "Can you compare the average inflation rate for different sub-groups within the Housing category across states?",
  "result": {
    "result": "The average inflation rates for different sub-groups within the Housing category across states are as follows: All India - * : 2.95, Andaman and Nicobar Islands - * : 2.25, Andhra Pradesh - * : 1.67, Assam - * : 1.63, Bihar - * : 1.69, Chandigarh - * : 1.59, Chhattisgarh - * : 1.12, Dadra and Nagar Haveli - * : 1.25, Daman and Diu - * : 1.21, Delhi - * : 0.84. (Limited to 10 results)"
  }
}
```