

## NL2SQL RESULTS

Query Type	Question	Expected Outcome	Results
simple	Get the inflation percentage for Footwear in Gujarat in February 2025	2.99, 2.46, 3.51	"2.99, 2.46, and 3.51"
simple	Retrieve CPI inflation for Cereals and Products in Maharashtra in January 2025	Combined 3.86 Rural 2.86 Urban 4.89	"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."
simple	Get the inflation rate for the General category in All India for March 2024	4.85	The inflation rate for the General category in All India for March 2024 is 4.85.
simple	Check the inflation rate for Meat and Fish in Karnataka in February 2025	0.83 0.63 1.05	The inflation rate for Meat and Fish in Karnataka in February 2025 was 0.83%, 0.63%, and 1.05%.
moderate	What is the average inflation rate in Andhra Pradesh over the last 6 months?	7.778333333333	The average inflation rate in Andhra Pradesh over the last 6 months is 4.78.
moderate	How has footwear inflation varied between rural and urban areas in the last three months?	2025 , january , urban ,1.87 2025 , january , urban ,3.17, 2025 , january , urban ,1.28 2025 , january , urban , 2.99 2025 , january , rural,1.27 2025 , january , rural,0.78 2025 , january , rural,1.55 2025 , january , combined,1.51 2025 , january , combined,1.60 2025 , january , combined,1.45	"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."
moderate	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.	0	0

<b>moderate</b>	Give the total inflation sum for last year.?	16118.94	"16118.94"
<b>moderate</b>	What is the average inflation rate for food items?	4.66520817	"4.67"
<b>complex</b>	Tell me which sub-categories had the highest inflation in the last six months, grouped by state.?	Rajasthan,Vegetables,48.7666666667 Maharashtra,Vegetables,42.9500000000 Uttar Pradesh ,Vegetables,40.7233333333 Madhya Pradesh,Vegetables,40.0433333333 Jharkhand,Vegetables,39.8233333333 Gujarat,Vegetables,39.6700000000 Bihar,Vegetables,39.0333333333 Andhra Pradesh,Vegetables,36.1366666666 All India ,Vegetables,36.0333333333 Punjab,Vegetables,35.1333333333	"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%)."
<b>complex</b>	Can you compare the average inflation rate for different sub-groups within the Housing category across states?"	All India ,2.951904761 Andaman and Nicobar Islands , 2.2544444444 Andhra Pradesh , 1.67218637 Assam , 1.633422939 Bihar ,1.693297491 Chandigarh , 1.596881720 Chhattisgarh , 1.12974910 Dadra and Nagar Haveli , 1.25344086 Daman and Diu , 1.21494623 Delhi , 0.8492114695	"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)"

# Simple Query

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

**Expected outcome:**

The screenshot shows a PostgreSQL query editor with the following 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';
```

The Data Output tab shows the following results:

	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:**

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

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

The Data Output tab shows the following results:

	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:**

The screenshot shows the PostgreSQL 14 interface. The query editor on the left contains the following SQL query:

```

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

```

The 'Data Output' tab on the right shows the result of the query. It displays a table with one row and one column.

	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:**

The screenshot shows the PostgreSQL 14 interface. The query editor on the left contains the following SQL query:

```

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

```

The 'Data Output' tab on the right shows the result of the query. It displays a table with three rows and one column.

	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 integer	month character varying (20)	sector character varying (50)	inflation_percentage 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

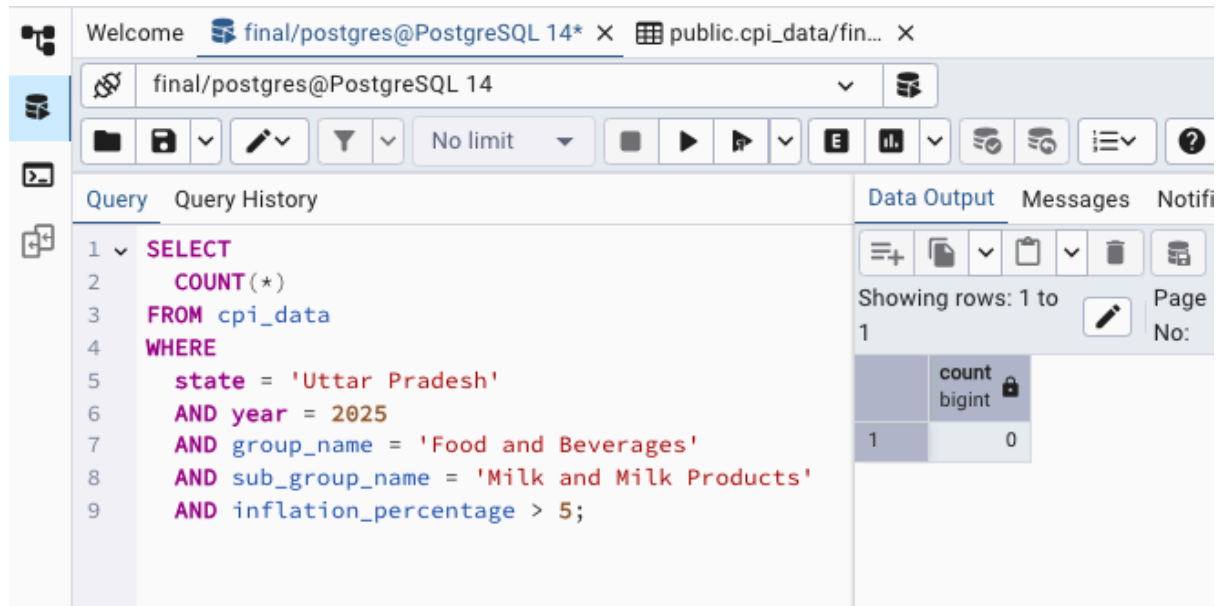
**Outcome:**

```
{
  "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:

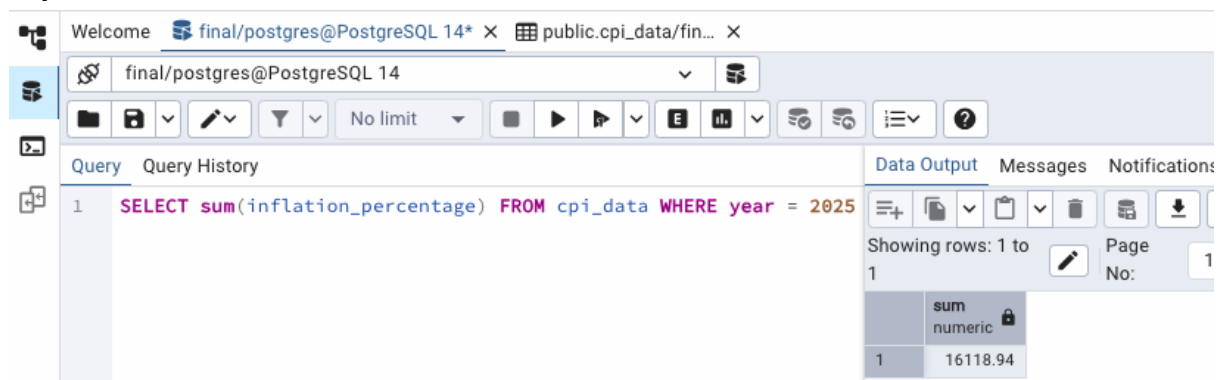
	count bigint
1	0

**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": {

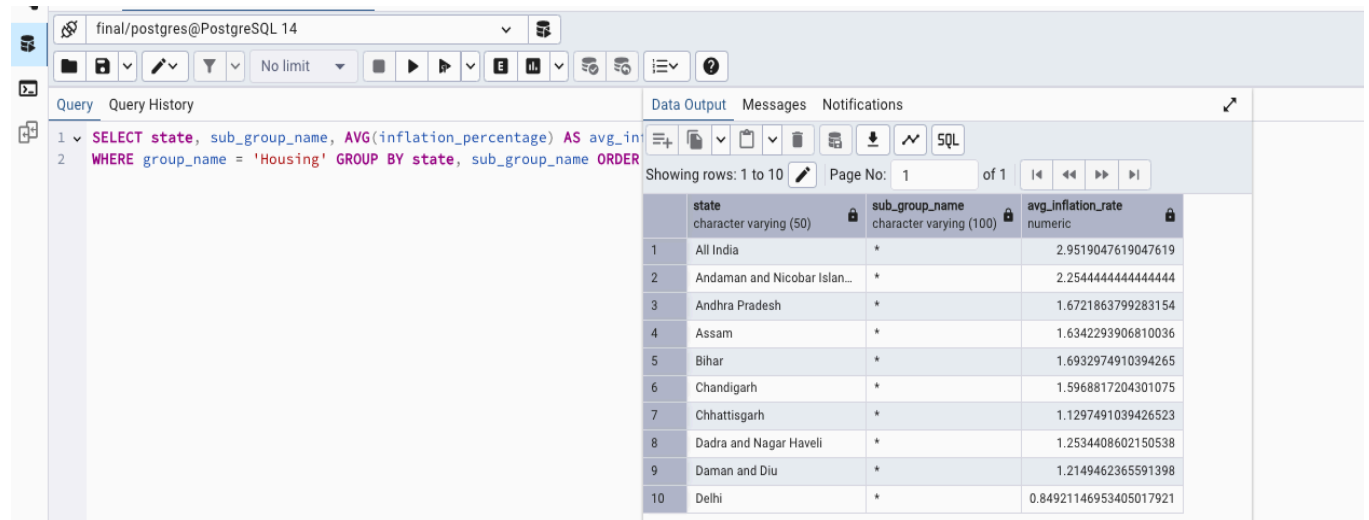
"result": "The sub-categories with the highest average inflation in the last six months, grouped by state are: Rajasthan (Vegetables, 48.76%), Maharashtra (Vegetables, 42.95%), Uttar Pradesh (Vegetables, 40.72%), Madhya Pradesh (Vegetables, 40.04%), Jharkhand

(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)"
  }
}
```