
A. Customer Nodes Exploration

1. How many unique nodes are there on the Data Bank system?

Query SQL ●

```
1 select count(distinct node_id) as unique_nodes
2 from data_bank.customer_nodes
```

Schema SQL

```
1 CREATE SCHEMA data_bank;
2 SET search_path = data_bank;
3
4 CREATE TABLE regions (
5   region_id INTEGER,
6   region_name VARCHAR(9)
7 );
8
9 INSERT INTO regions
10 (region_id, region_name)
11 VALUES
12 ('1', 'Australia'),
13 ('2', 'America'),
14 ('3', 'Africa'),
15 ('4', 'Asia');
```

Text to DDL

Query SQL ●

```
1 select count(distinct node_id) as unique_nodes
2 from data_bank.customer_nodes
```

Results

Query #1 Execution time: 1.95ms

unique_nodes
5

This query counts the number of distinct nodes (node_id) in the **customer_nodes** table, providing the total number of unique nodes within the Data Bank system i.e 5.

2. What is the number of nodes per region?

Query SQL ●

```
1 select r.region_name,r.region_id, count( cn.node_id) as no_of_nodes
2 from data_bank.regions r
3 left join data_bank.customer_nodes cn
4 on cn.region_id = r.region_id
5 group by 1,2
6 order by 3 desc
```