Task4

Develop the queries to retrieve information from the OLAP operations performed and to gain a

deeper understanding of the sales data through different dimensions, aggregations, and filters.

Project: OLAP Operations (using Redshift or PostgreSQL)

Objective: Perform OLAP operations (Drill Down, Rollup, Cube, Slice, and Dice) on the

"sales\_sample" table to analyze sales data. The project will include the following tasks:

1. Database Creation

Create a database to store the sales data (Redshift or PostgreSQL).

Create a table named "sales\_sample" with the specified columns:

Product\_Id (Integer)

Region (varchar(50))-like East ,West etc

Date (Date)

Sales\_Amount (int/numeric)

2. Data Creation

Insert 10 sample records into the "sales\_sample" table, representing sales data.

3. Perform OLAP operations

a) Drill Down-Analyze sales data at a more detailed level. Write a query to perform drill down

from region to product level to understand sales performance.

b) Rollup- To summarize sales data at different levels of granularity. Write a query to perform

roll up from product to region level to view total sales by region.

c) Cube - To analyze sales data from multiple dimensions simultaneously. Write a query to

Explore sales data from different perspectives, such as product, region, and date.d) Slice- To extract a subset of data based on specific criteria. Write a query to slice the data to

view sales for a particular region or date range.

e) Dice - To extract data based on multiple criteria. Write a query to view sales for specific

combinations of product, region, and date