

**Experiment 1.5**

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**Subject Name:** ADBMS **Subject Code:** 23CSP-333

MEDIUM - LEVEL

1. **Problem Title:** Views: Performance Benchmarking : Normal View vs. Materialized View

1. **Procedure (Step-by-Step):**

1. Create a large dataset:

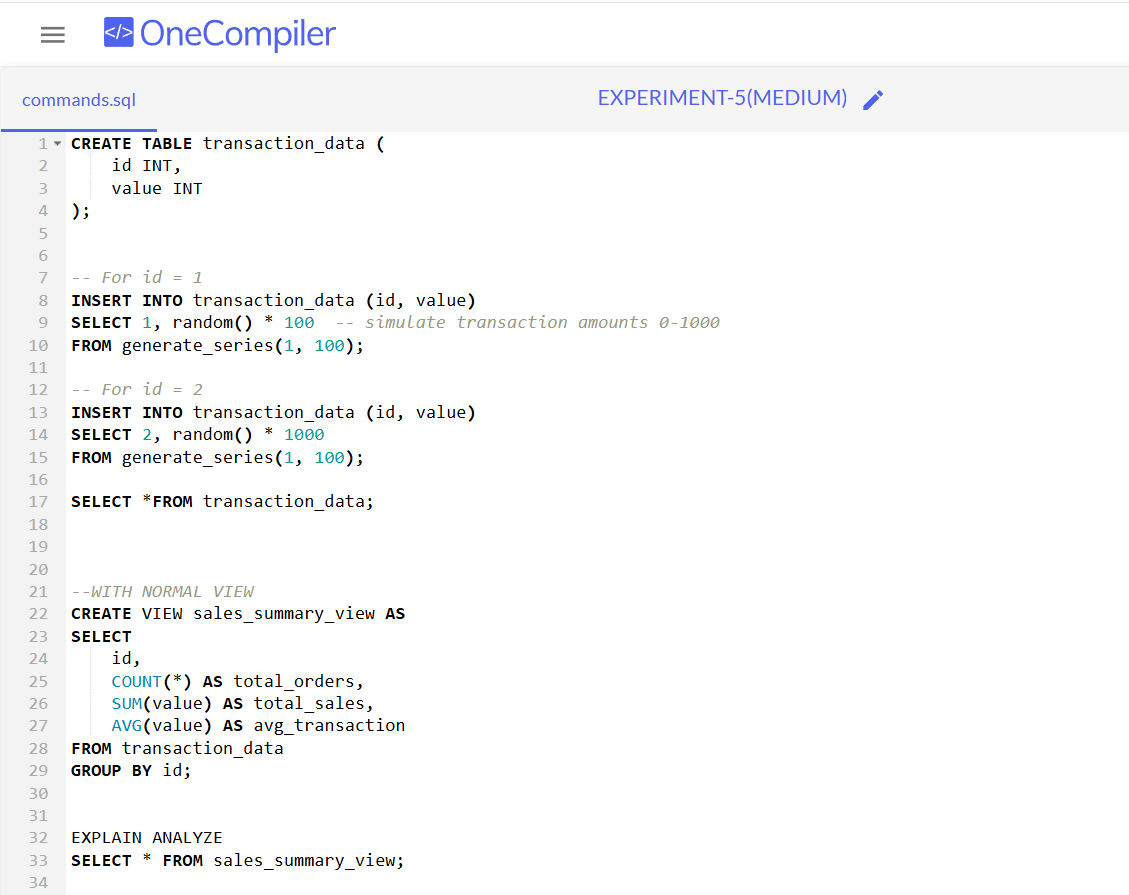
- Create a table names transaction\_data (id , value) with 1 million records.

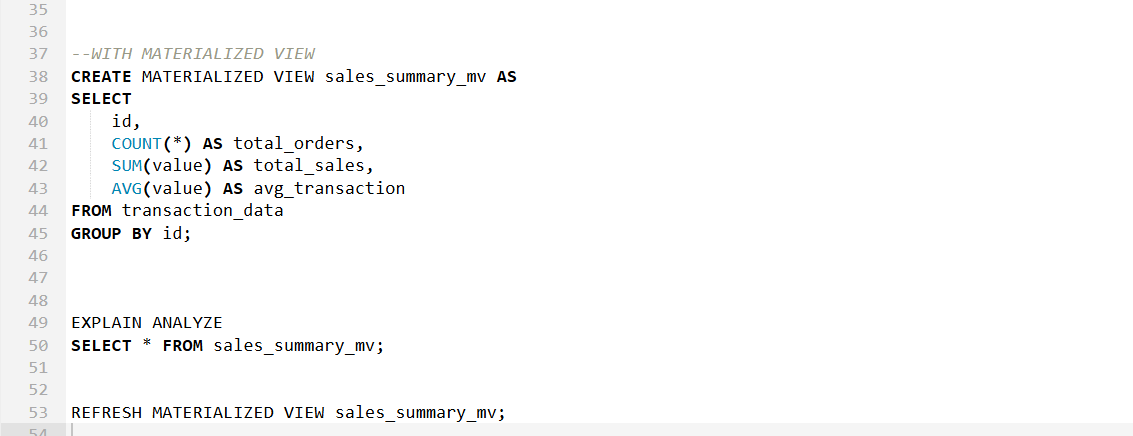
- take id 1 and 2, and for each id, generate 1 million records in value column

- Use Generate\_series () and random() to populate the data.

2. Create a normal view and materialized view to for sales\_summary, which includes total\_quantity\_sold, total\_sales, and total\_orders with aggregation.  
  
3. Compare the performance and execution time of both.

1. **SQL Commands:**





5. **Output:**

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer code

AI-generated content may be incorrect.

HARD - LEVEL

1. **Problem Title:** Views: Securing Data Access with Views and Role-Based Permissions

1. **Procedure (Step-by-Step):**

The company **TechMart Solutions** stores all sales transactions in a central database.  
A new reporting team has been formed to analyze sales but **they should not have direct access to the base tables** for security reasons.  
The database administrator has decided to:

1. Create **restricted views** to display only summarized, non-sensitive data.
2. Assign access to these views to specific users using **DCL commands** (GRANT, REVOKE).

1. **SQL Commands:**

A screenshot of a computer program

AI-generated content may be incorrect.

A screenshot of a computer screen

AI-generated content may be incorrect.

A computer screen shot of a code

AI-generated content may be incorrect.

1. **Output:**

A screenshot of a computer

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A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer screen

AI-generated content may be incorrect.