**Amrit Pandey**

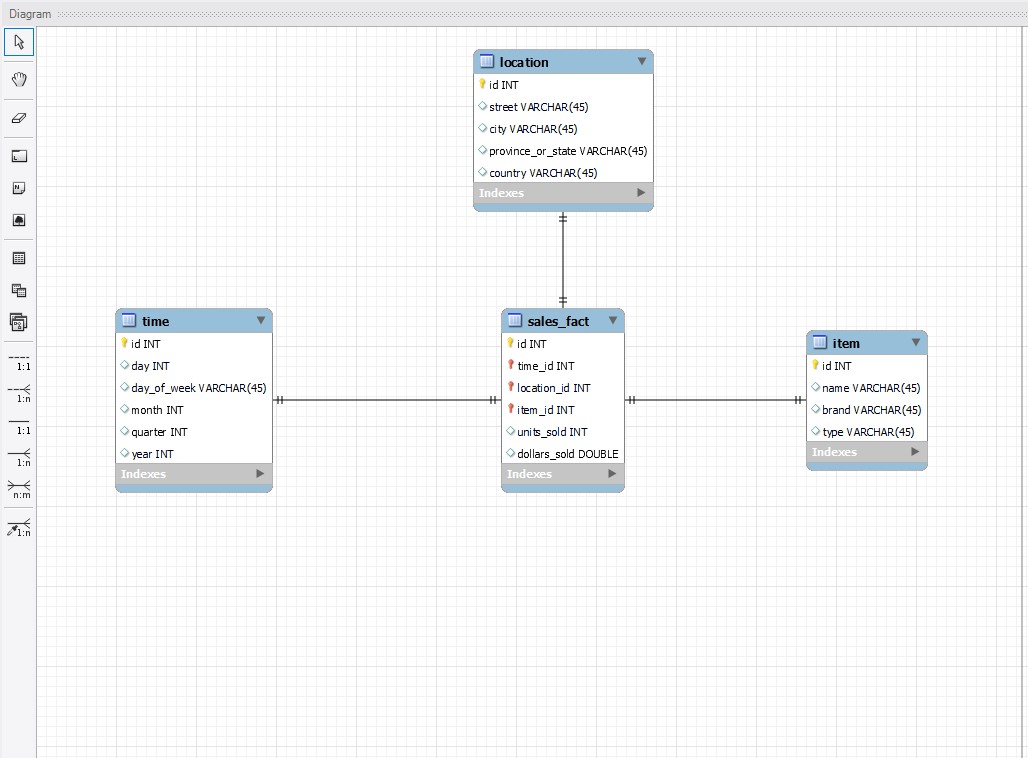
**207907**

**MCA, SEM II, YEAR II**

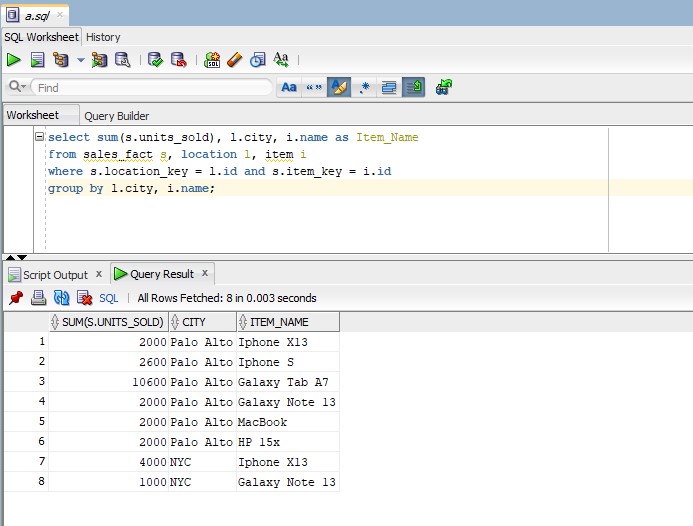
**Knowledge Engineering Lab**

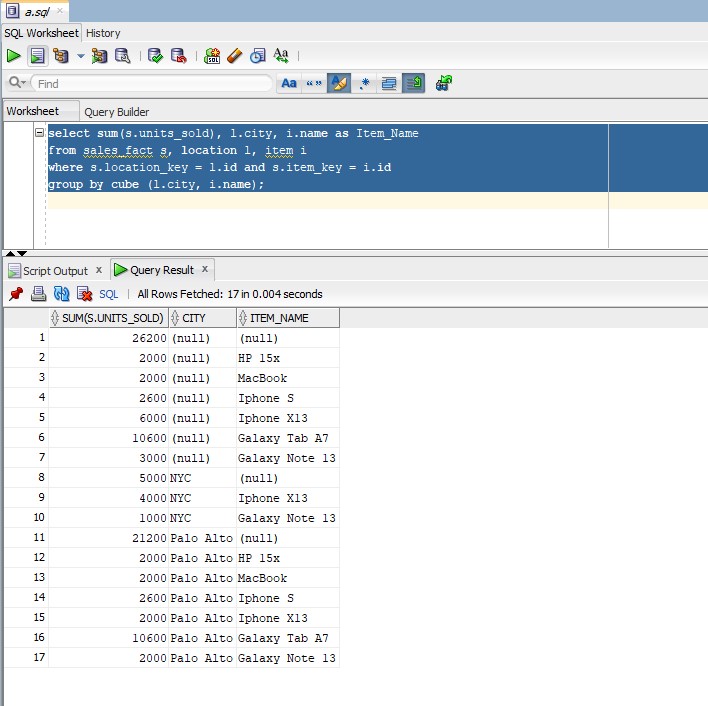
**Solution 1**

**Star Schema for the Data Warehouse:**

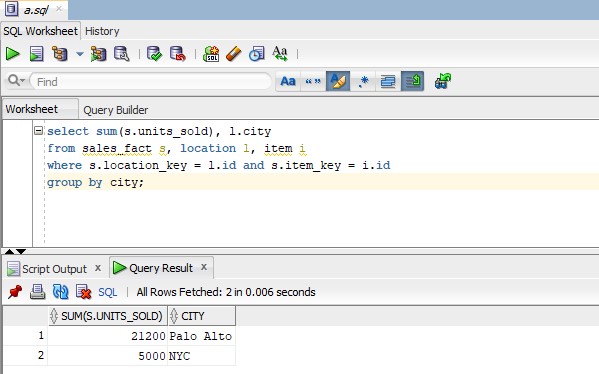
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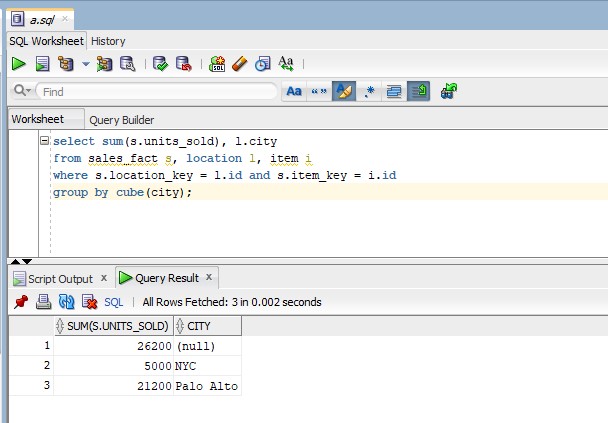
1. **“Compute the sum of sales, grouping by city and item.**

****

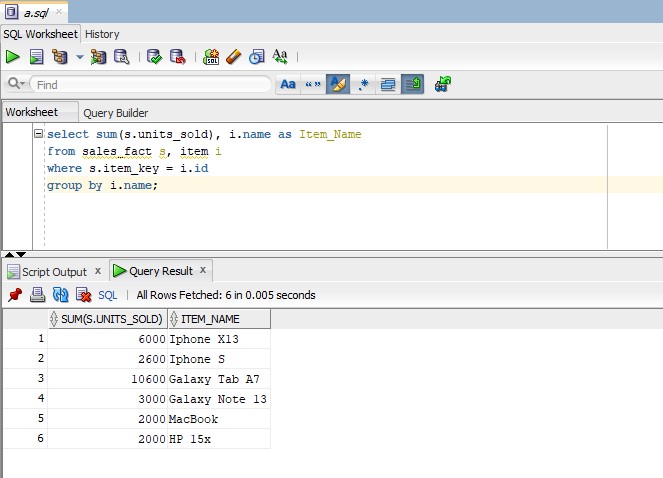
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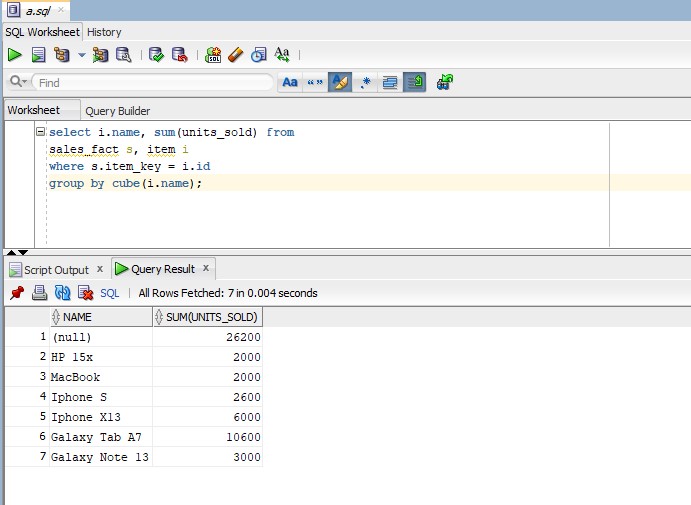
1. **“Compute the sum of sales, grouping by city.**

****

****

1. **“Compute the sum of sales, grouping by item.**

****

****

1. **What is the maximum number of cells in base cuboid?**

**Ans:** Maximum number of cells in base cuboid =

Values of Date \* Values of Game \* Values of Spectator \* Values of Location

= (30 \* 12 \* 10) \* (1) \* (3) \* (2) [assuming on 10 years in date]

= 21,600

1. **What is the minimum number of cells in base cuboid?**

**Ans:** Minimum number of cells in base cuboid =

= Maximum(Values of Date, Values of Game, Values of Spectator, Values of Location)

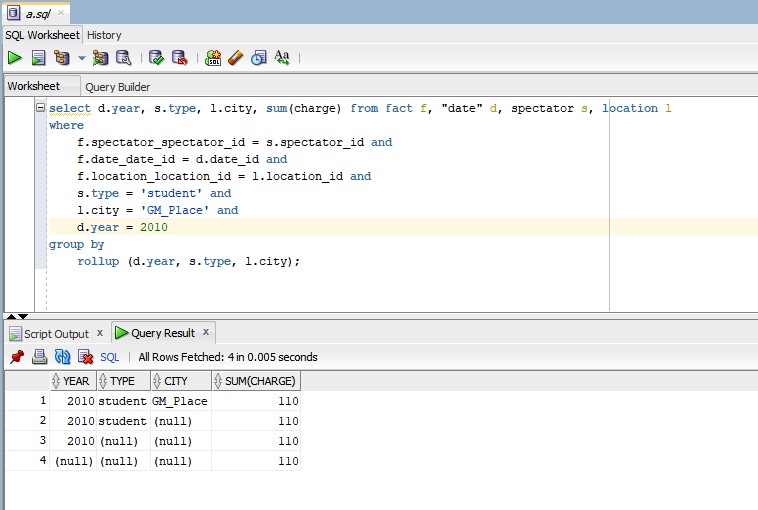
= Maximum((30 \* 12 \* 10), 1, 3, 2))

= 3600

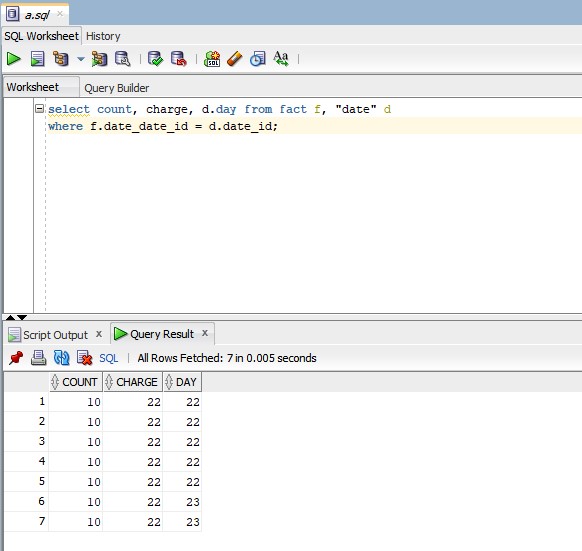
i.e. atleast 3600 tuples are needed to store all distinct values of date.

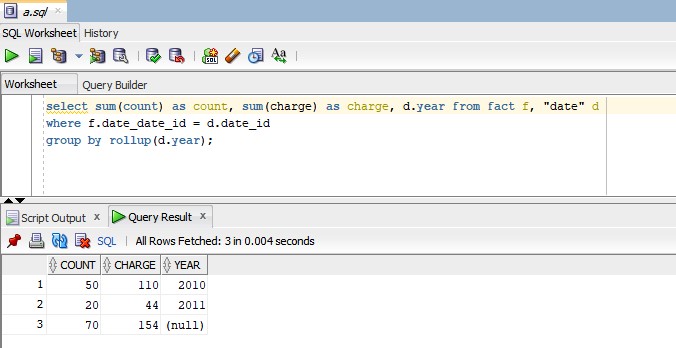
**Solution 2**

1. **And implement that operation using OLAP query language.**

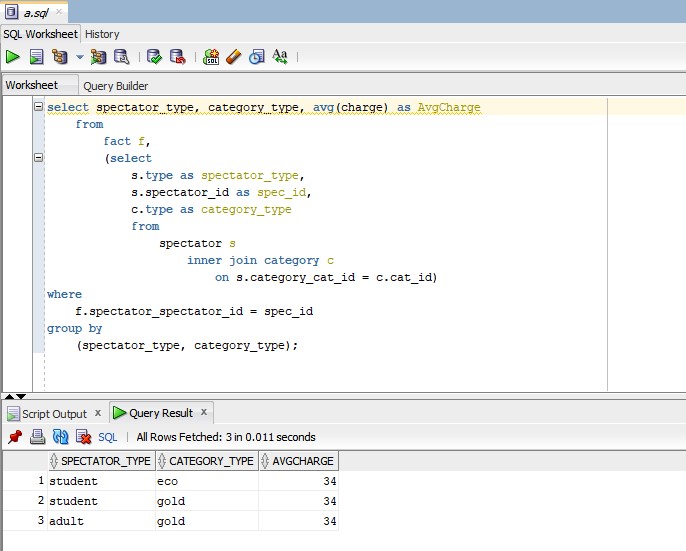
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1. **Perform rollup operation from date to year**

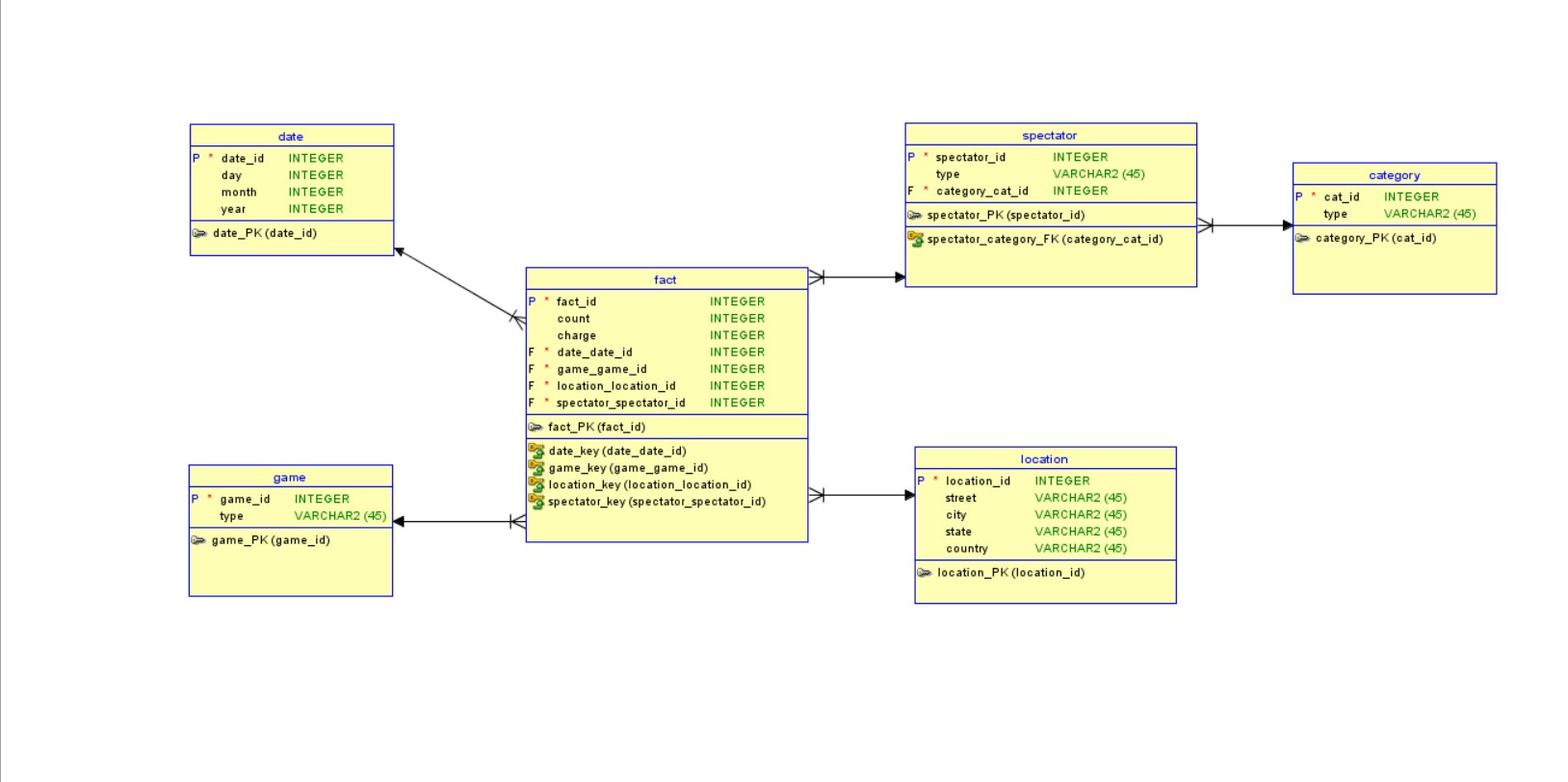
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**After rollup: **

1. **What is the average charge paid by students, adults and seniors in each category you need to compute average?**

****

1. **Draw the snowflake schema diagram for the data warehouse.**

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