Greetings adventurer,

You have been chosen to embark on a grand quest to build out a dimensional gold layer using Azure Synapse mapping dataflows. This is a great honor, and a task that will require all of your cunning and skill.

To begin, you must initialize the dimensional model in an Azure Spark notebook. This can be accomplished by using a Spark SQL create table as select statement. However, be warned, adding data with limit 0 or performing a truncate after initialization is strictly forbidden!

Useful links: <https://learn.microsoft.com/en-us/azure/databricks/sql/language-manual/sql-ref-syntax-ddl-create-table-using>

<https://learn.microsoft.com/en-us/azure/databricks/sql/language-manual/sql-ref-syntax-ddl-create-database>

Once the table has been initialized, you must build the dimension layer. This will require the use of many powerful tools, including:

* Select: This transformation allows you to select specific columns from your source data.
* Aggregate for distinct: This transformation allows you to aggregate data while also removing duplicates.
* Derived Column: This transformation allows you to create new columns based on existing columns in your data.
* Surrogate Keys: These are unique identifiers assigned to each record in your dimensional model.
* Joins: This transformation allows you to join tables based on common columns.
* Alter Row: This transformation allows you to modify individual rows in your data.
* Source for your lake database: This is where your raw data is stored.
* Sink for your delta table: This is where your dimensional model will be stored.

Using these powerful tools, you can transform your raw data into a dimensional model that is optimized for reporting and analysis.

Useful links: <https://learn.microsoft.com/en-us/azure/data-factory/data-flow-transformation-overview>

But your quest is not yet complete! You must also build out your fact table. To do this, you must use the lookup transformation to look up the keys you created for your dimensions. This will allow you to link your fact table to your dimensions and create a complete, cohesive data model.

Remember, adventurer, this quest is not for the faint of heart. You must be diligent, focused, and skilled in the ways of Azure Synapse mapping dataflows. But fear not, for I will be with you every step of the way.

Now go forth, adventurer, and may the gods of data be with you on your journey!