Introduction

Greetings Adventurers,

The Lizards of the Mountain, a company dedicated to the analysis of Dungeons & Dragons games, have sent forth a call for the bravest and most skilled adventurers to join them on a quest.

They have acquired a wealth of data from countless D&D games and now seek to build a grand data environment using the powerful Medallion architecture. This data environment, known as the Lakehouse, will provide deep insights into the ways of the game and help further advance the art of dungeon mastering.

But the task is no easy feat. The Lizards of the Mountain require the lakehouse to be built within a single day, and they need a team of adventurers to make it happen.

Are you up for the challenge? Can you handle the pressure of building a lakehouse in a day, with the eyes of the D&D community upon you? If so, the Lizards of the Mountain welcome you to join them on this grand adventure.

Gather your tools, hone your skills, and prepare for the journey ahead. The future of the D&D community rests on your shoulders.

Fare thee well, and may your journey be filled with success and riches beyond measure.

Bronze Layer Requirements

Adventurers,

The Lizards of the Mountain, a company dedicated to the analysis of Dungeons & Dragons games, have tasked you with building the Bronze Layer of their grand data environment, the Lakehouse. This layer will form the foundation upon which all future analysis and insights will be built, and it is of utmost importance that it be constructed with the utmost care and attention to detail.

To that end, the Lizards of the Mountain have set forth the following requirements for the construction of the Bronze Layer:

1. Loading of JSON files: The Bronze Layer must have the ability to load JSON files from a storage account into a delta table, with the process being incremental in nature.
2. Auditing Columns: For the purposes of tracking and accountability, two columns must be added to the delta table. The first column must record the username of the adventurer who loaded the data, while the second must record the date and time when the data was loaded.

This layer must be robust and reliable, providing a solid foundation for the Lakehouse to grow and thrive. Adventurers, you have been chosen for this task due to your experience and skill, and the Lizards of the Mountain have faith in your ability to complete this task with success.

So gather your tools and begin the journey. The Lakehouse awaits, and the future of the D&D community rests on your shoulders.

Fare thee well, and may your journey be filled with success and riches beyond measure.

Silver Layer Requirements

Adventurers,

The time has come to take the next step in the construction of the Lakehouse, the grand data environment of the Lizards of the Mountain. The Bronze Layer, crafted with care and precision by your hands, now serves as the foundation for the creation of the Silver Layer.

The Lizards of the Mountain have set forth the following requirements for the construction of the Silver Layer:

1. Merging of Data: The Silver Layer must have the ability to merge data from the Bronze Layer's delta tables into its own delta tables.
2. Data Quality Check: The Silver Layer must have mechanisms in place to check for the validity of rolls in the data. Any data that does not meet the standards set forth by the Lizards of the Mountain must be removed.
3. Removal of Audit Columns and System Timestamps: The Silver Layer must remove any unnecessary audit columns and system timestamps from the data.
4. Correct Data Types: The Silver Layer must ensure that all data types are loaded correctly, and any discrepancies must be addressed and resolved.

The Silver Layer represents the next stage in the evolution of the Lakehouse, and it is of utmost importance that it be constructed with the same care and precision as the Bronze Layer.

Adventurers, you have been chosen for this task due to your experience and skill, and the Lizards of the Mountain have faith in your ability to complete this task with success.

So gather your tools and begin the journey. The Lakehouse awaits, and the future of the D&D community rests on your shoulders.

Fare thee well, and may your journey be filled with success and riches beyond measure.

Gold Layer Requirements

Adventurers,

The time has come to reach for the stars and build the Golden Layer of the Lakehouse, the grand data environment of the Lizards of the Mountain. The Silver Layer, crafted with care and precision by your hands, now serves as the foundation for the creation of the Golden Layer.

The Lizards of the Mountain have set forth the following requirements for the construction of the Golden Layer:

1. Dimensional Model: The Golden Layer must leverage delta tables to build out a dimensional model for the D&D games data.
2. Fact Rolls Table: A FactRolls table must be created, referencing the other dimension tables through the use of surrogate keys. This table must record all rolls performed by each character in the game.
3. Dimension Tables: The following dimension tables must be created, each with references to one another:
   1. DimUsers - containing the first and last name, as well as the location, of each user.
   2. DimDice - containing the type of dice and the number of eyes for each type of dice.
   3. DimCharacters - containing the race and class of each character.
   4. DimGame - containing the GameID for each game.
   5. DimDate - generated for the time frame of the games data.
4. Serving Layer: A serving layer must be built for the Golden Layer, leveraging an on-demand system that can serve queries instantly.

The Golden Layer represents the pinnacle of the Lakehouse, and it is of utmost importance that it be constructed with the same care and precision as the previous layers.

Adventurers, you have been chosen for this task due to your experience and skill, and the Lizards of the Mountain have faith in your ability to complete this task with success.

So gather your tools and begin the journey. The Lakehouse awaits, and the future of the D&D community rests on your shoulders.

Fare thee well, and may your journey be filled with success and riches beyond measure.

Reporting Layer Requirements

Brave Adventurers,

The Lizards of the Mountain have heard the call for a report, one that will showcase the results of all the games played using the Golden Layer of the Lakehouse. A report that will highlight the champions who consistently roll the max numbers, the characters who have captured the hearts and minds of the players, and a map that displays all the games being played.

To bring this vision to life, the following requirements have been set forth:

1. PowerBI Connection: The report must be connected to the Golden Layer of the Lakehouse using the tool that was appointed to you.
2. Max Number Rollers: The report must showcase the users who consistently roll max numbers (crits) on their dice rolls.
3. Popular Characters: The report must display the characters who have become the most popular among the players.
4. Map of Games: The report must include a map that displays all the games being played.

The Lizards of the Mountain are confident that with your expertise and skill, this report will bring to light the successes and champions of the D&D community. Your mastery of PowerBI and the Golden Layer will be put to the test, and the future of the community rests in your hands.

So gather your tools and begin the journey, brave adventurer. May your report be a testament to the grandeur and excitement of the world of Dungeons & Dragons.

Fare thee well, and may the journey ahead be filled with success and riches beyond measure.