Part One - SQL Test (Insurance Policy)

Overview

An insurance company is trying to save their data from CSV to SQL Database so the team can analyse the data more efficiently. Please help with the data importing and write SQL queries to answer the questions.

Data

sql_data folder has 3 csv files.

- **Policy_Detail**: It records the basic information about the insurance policies for commercial properties.

- **Policy_RiskRating**: It records the risk rating level for each policy

- **RiskRating**: It records the description for each risk rating. It also records proper adjustments for yearly premium based on its corresponding risk rating, where 0.8 is 20% off, 1.0 is no adjustment and 1.2 means 20% surcharge.

Test Reqirements

(1) Create the following tables in your database. It's recommended to use sql code to import (data types can be changed if encountering errors).

- Policy_Detail
    - PolicyID BIGINT
    - StartDate DATETIME
    - Location VARCHAR(50)
    - State VARCHAR(10)
    - Region VARCHAR(20)
    - InsuredValue MONEY
    - Construction VARCHAR(50)
    - BusinessType VARCHAR(50)
    - Earthquake INT
    - Flood INT

- Policy_RiskRating
    - PolicyID BIGINT
    - RiskRating VARCHAR(10)

- RiskRating
    - RiskRating VARCHAR(10)
    - Description VARCHAR(100)
    - PremiumAdjustment DECIMAL(5,4)

(2) Please write queries to answer the following questions

1. Select all the columns from Policy_Detail table with "Low" risk rating in the "East" region.

2. Write a query to give the month-on-month growth/decline (number of policies) percentage for each BusinessType. (make sure missing values are handled)

3. What type of construction is the least and most affected by natural disasters ? (use query to return the answer)

4. Which region is the second least affected by natural disasters ? (use window function to return the answer)

5. Each policy should have an estimated premium. Please create a new column 'YearlyPremium' that shows a **reasonable** yearly premium for each policy. You may consider but not limited to InsuredValue and PremiumAdjustment for the calculation.

Please submit a SQL file for your answer. Feel free to submit additional files if you think it's necessary.

Part Two - PowerBI Test

Perform your own analysis on the data from Part One and present the insights in PowerBI.

Please provide screenshots of the designed dashboards