Lesson 08: Real Estate Sales Analysis Dashboard

Overview

In this exercise, you will dive into the world of data visualization and storytelling using Tableau. You will be working with the real estate sales data analyzed previously, but this time, your focus will be on creating an interactive dashboard and telling a compelling story with the data to derive actionable insights for the real estate agency.

Instructions

- Review the learning materials in Lesson 08 to familiarize yourself with the concepts of aggregation, creating dashboards, and storytelling in Tableau
- Carefully read the situation, task, actions, and result sections to understand the assignment thoroughly
- Utilize the **property_transaction_dataset** provided in the Reference Materials section on the Learning Management System (LMS)
- Create and submit your assignment via the Learning Management System (LMS), ensuring your dashboard effectively communicates key insights and trends

Situation

You are a data analyst working for a real estate agency. Your manager now wants you to leverage Tableau to create an interactive dashboard that encapsulates essential information about housing market trends. The agency aims to use this dashboard for internal decision-making and client presentations.

Task

You are tasked to design a comprehensive dashboard using Tableau, focusing on aggregating sales data, creating visualizations, and crafting a compelling narrative that highlights significant trends and insights in the real estate market.

Action

1. **Data preparation and connection**

   - Open Tableau, choose the appropriate data source (Excel or CSV), and navigate to the location of your dataset and select it
   - Import the **property_transaction_dataset** into Tableau
   - Connect the dataset to Tableau and explore the dataset to identify any inconsistencies or missing values

2. **Aggregation and visualization**

   - Utilize Tableau's features to aggregate sales data based on various parameters, such as **City** and **Property type**
   - Create interactive visualizations, including **Bar Charts**, **Line Graphs**, and **Maps**, to represent sales trends effectively
   - Click on the dropdown of the **Marks Card** to change the visualization to **Line Chart** or **Map**
   - For the city, drag **City** to the **Columns** and **Sales Volume** to the **Rows**

3. **Dashboard layout design**

   - Click on **Dashboard** (next to the **Worksheet** tab), select **New Dashboard**, and drag all the worksheets onto the dashboard canvas
   - Organize the layout to ensure a logical flow of information and easy navigation for users

4. **Dashboard interactivity**

   - Implement interactive features such as filters to enhance user engagement
   - Click on **Analysis** on the top, select **Filters**, and then select **Property Type**

5. **Storytelling**

   - Click on the **Story** on the top, select **New Story**, and open a new story canvas

- Drag all the sheets and the dashboard onto the story canvas and add caption for each of them to craft a narrative that guides the viewer through the dashboard, highlighting key insights and trends
- Right-click and select annotations to provide context and enhance understanding

RESULT

Your submission should include screenshots of the fully developed Tableau dashboard showcasing key metrics and trends in the real estate market, accompanied by a narrative that explains the insights and findings derived from the dashboard, highlighting the most important trends. Upload the Word document to the Learning Management System (LMS).

Rubric

Your submission will be evaluated based on the following key criteria, each representing a crucial aspect of the project. These criteria are:

Criteria	Complete or Incomplete
Data preparation and connection: Check if the dataset is imported successfully and connected to Tableau	
Aggregation and visualization: Check if the Tableau's features are utilized to aggregate sales data and create interactive visualizations	
Dashboard layout design: Check if a comprehensive dashboard is designed and the layout is organized to ensure a logical flow of information	
Dashboard interactivity: Ensure that the interactive features are implemented such as filters, parameters, and tooltips to enhance user engagement and exploration	
Insight generation: Check if the visualizations are analyzed to derive key insights into housing market trends, pricing dynamics, and geographical variations	

Storytelling: Check if a narrative text is crafted that guides the viewer through the dashboard, highlighting key insights and trends	