

visualizing housing market trends: an analysis of sale prices and features using tableau

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Learning Objectives:

The primary learning objective in a visual housing market context is to understand how visual features extracted from images (both of the house itself and its surroundings) can be used to predict or influence house prices. This involves learning to analyze images, extract relevant visual features, and integrate them into a machine learning model for price prediction or other related tasks.



Information visualization

Tableau can be effectively used to visualize housing market trends by analyzing sale prices and property features, providing valuable insights for buyers, sellers, and investors

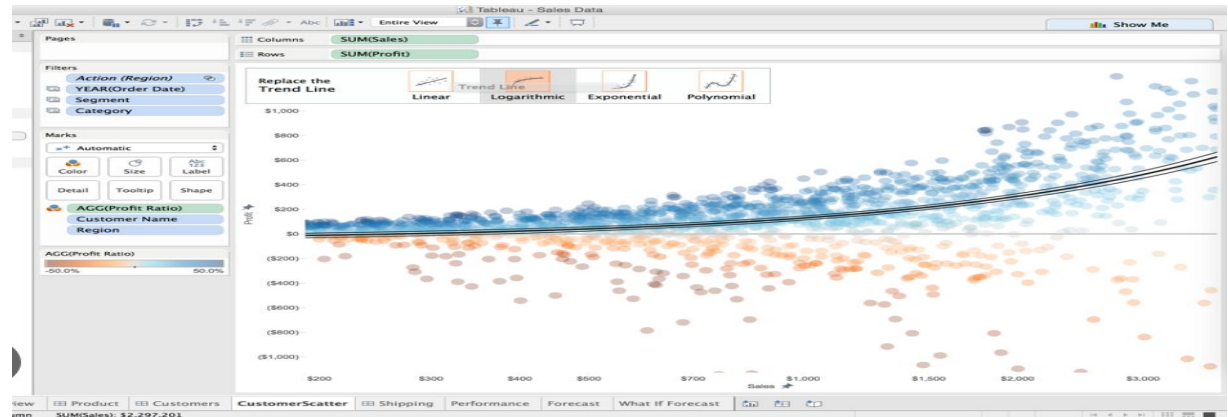


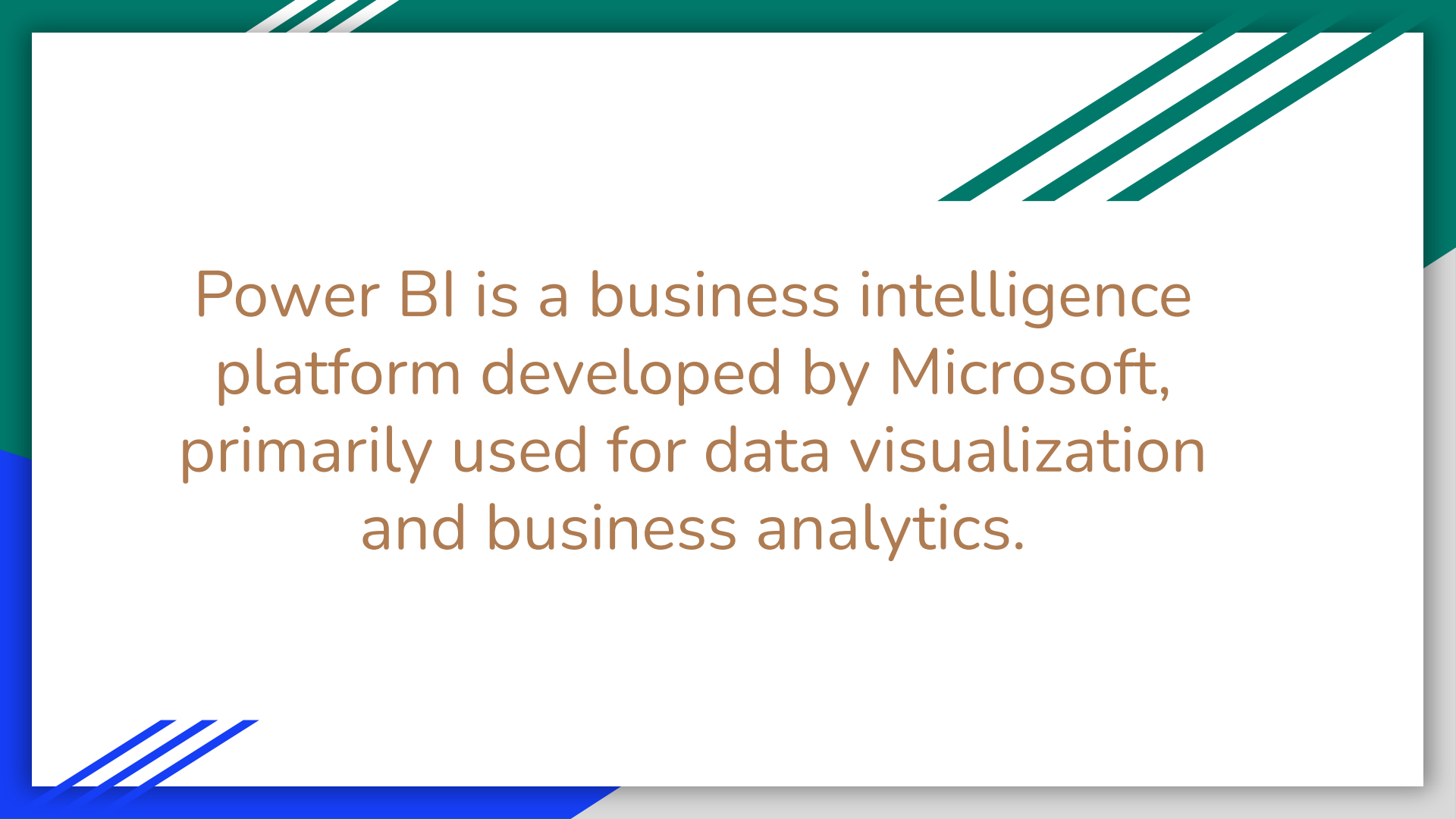
TOOLS AND TECHNIQUES

1. Tableau
2. Power BI
3. Google Data Studio
4. Python libraries
5. Other Notable Tools

A widely used platform known for its user-friendly interface and powerful visualization capabilities. Tableau allows users to connect to various data sources, create interactive dashboards, and share insights.

powerful data visualization software used to create interactive dashboards and visualizations from various data sources.





Power BI is a business intelligence platform developed by Microsoft, primarily used for data visualization and business analytics.

SR 520 Bridge Traffic [Share Dashboard](#)

Ask a question about the data on this dashboard

Average Speed



Count of M, Average of Speed



Count of M



Total Toll Amount

146.06K

Number of Cars

40.36K

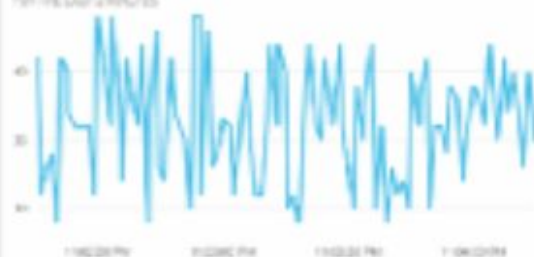
Number of cars by type



Number of Cars with Good to Go



Average Speed



Cars by Color



Current Speed

40.00

Current Speed

34.86

Cars Eastbound

20.8K

Cars Westbound

19.56K

Toll Eastbound

75.36K

Toll Westbound

70.7K

Visualization Techniques in Tableau

Tableau offers powerful visualization techniques that enhance data interpretation and presentation. This slide will showcase methods used to visualize housing market trends, including graphs, heat maps, and dashboards. These techniques aid audiences in understanding complex data, making informed decisions based on visual insights.



Comparative Analysis of Properties

This slide presents a comparative analysis of properties within the same region, emphasizing variations in pricing based on features and market demand. By examining similar listings, stakeholders can identify pricing strategies and understand consumer preference trends. This data-driven approach aids in formulating effective sales strategies.

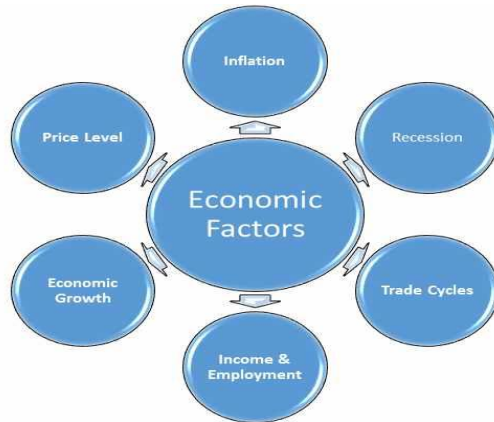


Key Features Influencing Prices



Certain property features such as location, square footage, and amenities greatly impact home sale prices. Analyzing which features are most valued by buyers can help in pricing properties competitively. This analysis will focus on how specific characteristics influence buyer decisions, contributing to higher sale prices in the market.

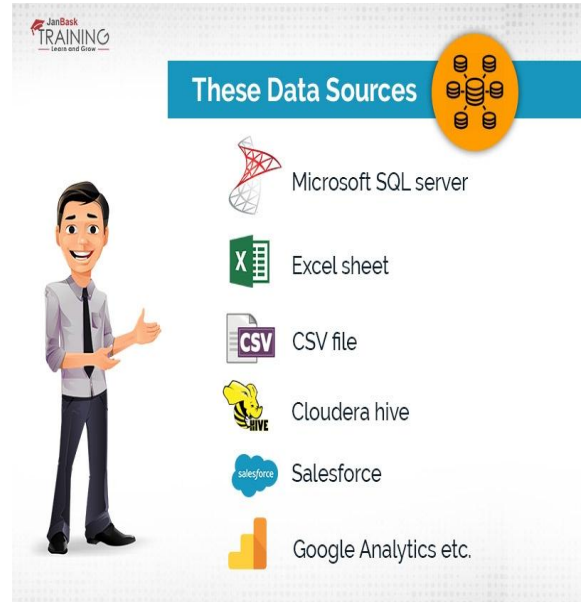
Impact of Economic Factors



Economic factors play a significant role in shaping the housing market. Fluctuations in interest rates, employment rates, and inflation directly influence buyer behavior and pricing trends. This slide will explore how these economic parameters affect market dynamics, providing insights into future trends and potential market corrections.

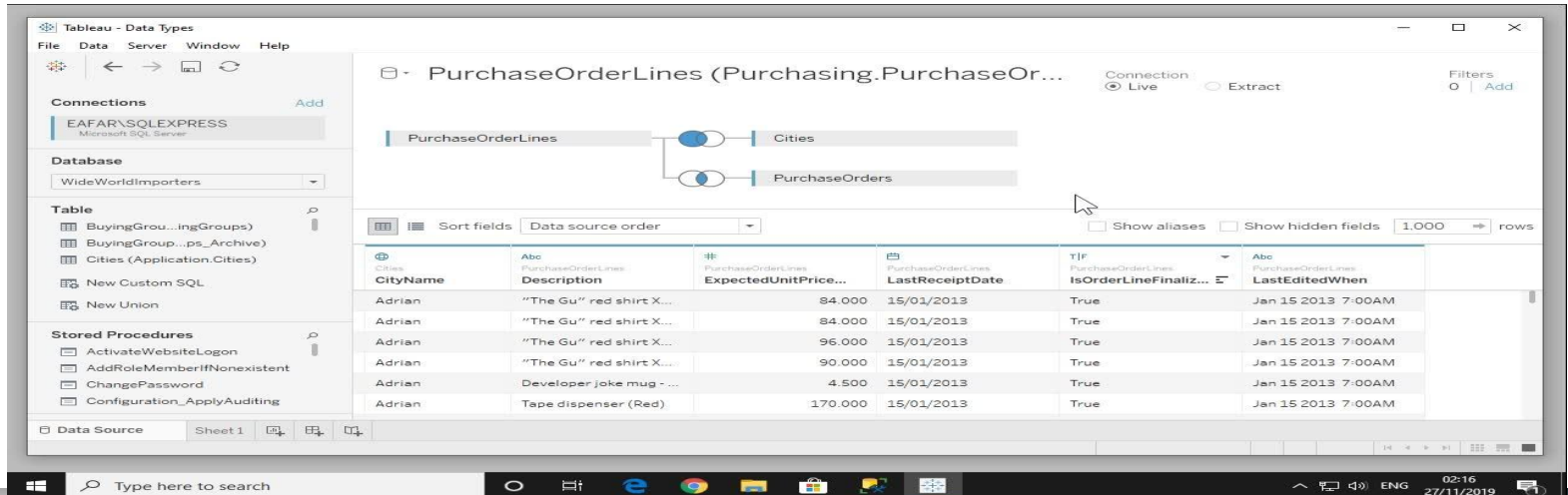
Step 1: Connect to Data source

To connect to a data source in Tableau, you begin by selecting a connection type (e.g., file, server, database) from the "Connect" pane in Tableau Desktop. Depending on the data source, you may need to provide credentials or other connection information. After connecting, you can select the specific data you want to use for analysis.



Step 2: Data Cleaning and Management

Data cleaning and management in Tableau involves preparing your data for analysis by handling inconsistencies, errors, and irrelevant information. This process ensures data accuracy and usability, leading to more reliable visualizations and insights.



The screenshot shows the Tableau Data Types window. The left pane displays the 'Connections' section with 'EAFAR\SQLEXPRESS Microsoft SQL Server' selected. Below it, the 'Database' section shows 'WideWorldImporters'. The 'Table' section lists several tables, including 'BuyingGroup...', 'BuyingGroup...ps_Archive', 'Cities (Application.Cities)', 'New Custom SQL', and 'New Union'. The 'Stored Procedures' section lists 'ActivateWebsiteLogon', 'AddRoleMemberIfNonexistent', 'ChangePassword', and 'Configuration_ApplyAuditing'. The right pane shows the 'PurchaseOrderLines (Purchasing.PurchaseOr...' table selected. The 'Connection' section shows 'Live' selected. The 'Filters' section shows '0 | Add'. The 'Table' section shows 'PurchaseOrderLines' selected. The 'Table' section shows a list of columns: 'CityName', 'Description', 'ExpectedUnitPrice...', 'LastReceiptDate', 'IsOrderLineFinaliz...', and 'LastEditedWhen'. The 'Table' section shows a table with 6 columns and 6 rows of data.

CityName	Description	ExpectedUnitPrice...	LastReceiptDate	IsOrderLineFinaliz...	LastEditedWhen
Adrian	"The Gu" red shirt X...	84.000	15/01/2013	True	Jan 15 2013 7:00AM
Adrian	"The Gu" red shirt X...	84.000	15/01/2013	True	Jan 15 2013 7:00AM
Adrian	"The Gu" red shirt X...	96.000	15/01/2013	True	Jan 15 2013 7:00AM
Adrian	"The Gu" red shirt X...	90.000	15/01/2013	True	Jan 15 2013 7:00AM
Adrian	Developer joke mug - ...	4.500	15/01/2013	True	Jan 15 2013 7:00AM
Adrian	Tape dispenser (Red)	170.000	15/01/2013	True	Jan 15 2013 7:00AM

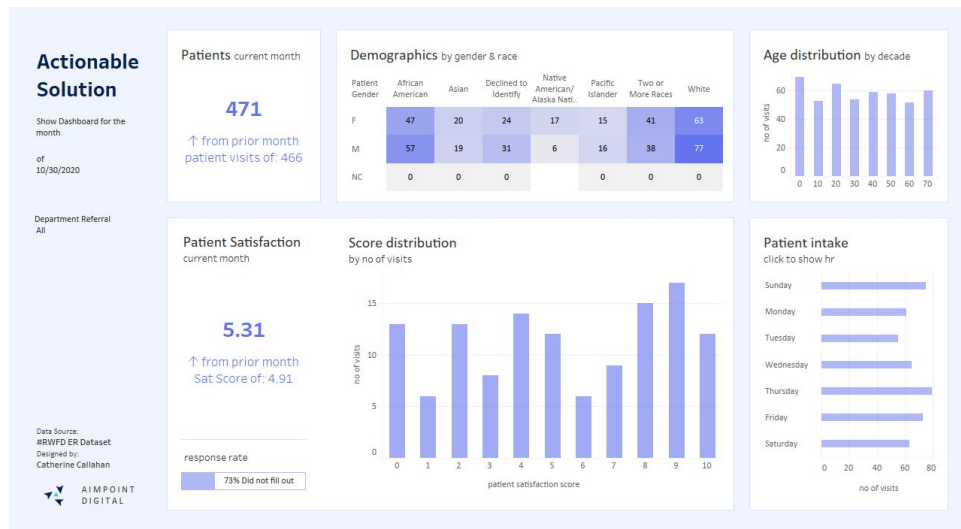
Step 3: Create your first viz



To create your first visualization (viz) in a Tableau dashboard, you'll first need to connect to your data, then create individual visualizations (sheets), and finally combine them into a dashboard. You can use Tableau Public for free and publish your work there.

analyze data and gain more insights

leverage features
like data exploration,
filtering,
aggregation, and
interaction to
uncover trends and
patterns



conclusion

provides a
powerful means
to understand
property price
dynamics and
influencing factors

creating interactive dashboards that allow users to explore relationships between price, location, size, and other characteristics, revealing patterns and insights.

A soft, pink watercolor splash or blotch, irregular in shape, serving as a background for the 'Thank You' text.

*Thank
You*