

Hello!

My name is Shruti Garka

Here is my Data Analyst Portfolio

I hope you like it!!



# List Of Projects

1

## GameCo

Revolutionizing the Gaming Industry with Interactive Skill-Based Gaming Machines

2

## Influenza Season in USA

Analyzing Trends and Patterns to Enhance Public Health Preparedness and Response

3

## Rockbuster Stealth Analysis

Unveiling the Hidden Potential of Geological Data for Efficient Resource Exploration

4

## Instacart

Transforming the Grocery Shopping Experience with On-Demand Delivery Services

5

## Pig E Bank

Leveraging Data Analytics to Predict and Prevent Customer Churn in the Banking Industry

6

## Rental Data Analysis in Germany

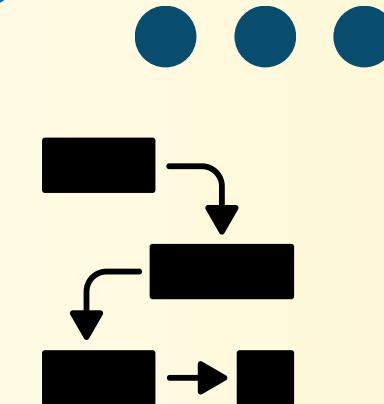
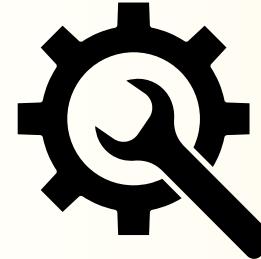
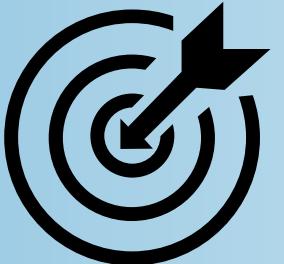
Analyzing Germany's housing rental data for valuable insights and informed decision-making.

# GameCo: Pioneering a New Era of Interactive Entertainment by merging skill-based gaming with captivating experiences





# Overview: Game Metrics & Trends: Unveiling the Gamer's World



Conduct a comprehensive descriptive analysis of the current video game landscape to provide valuable insights for gameco's marketing and sales teams

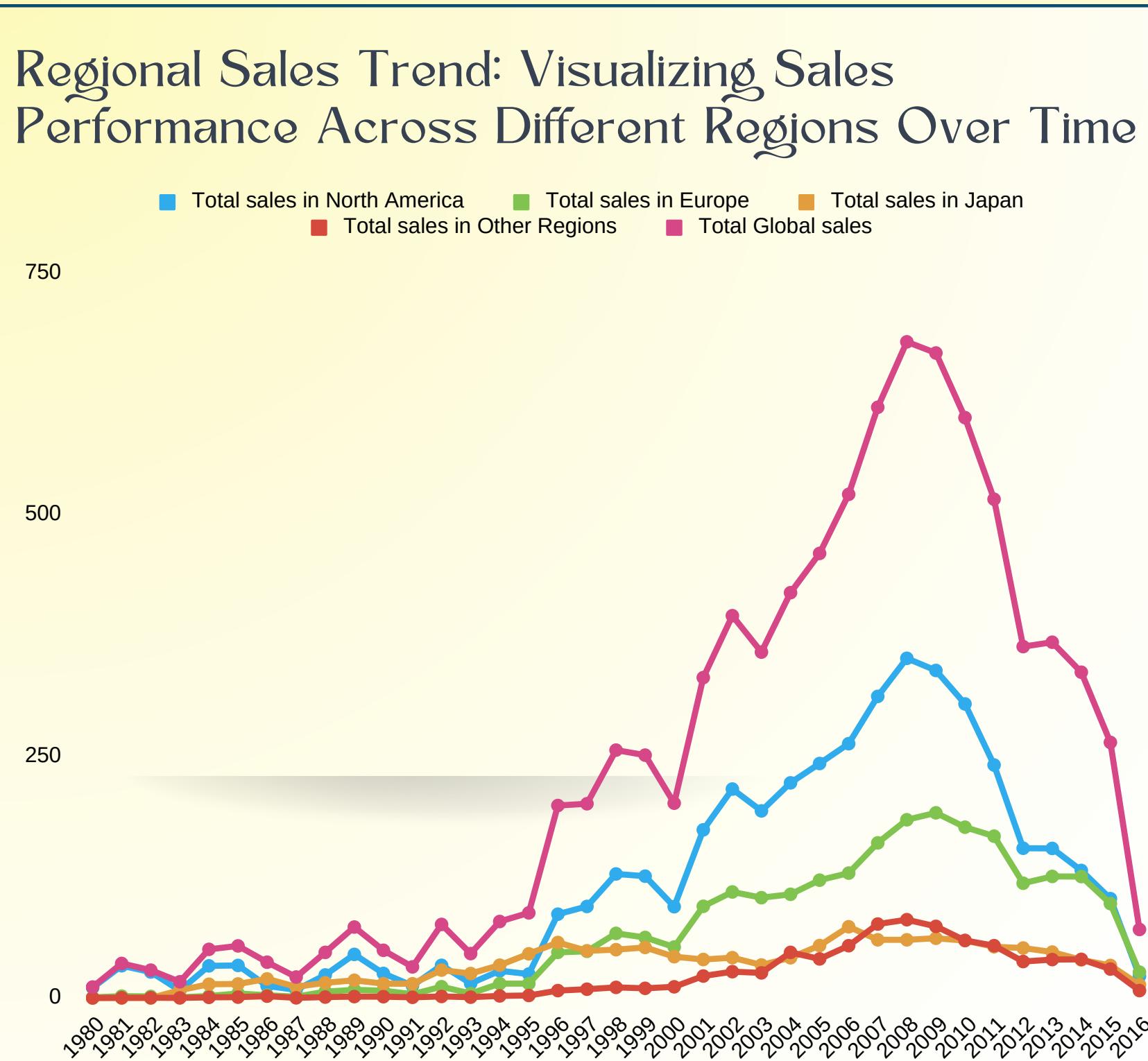
Video Games sales dataset



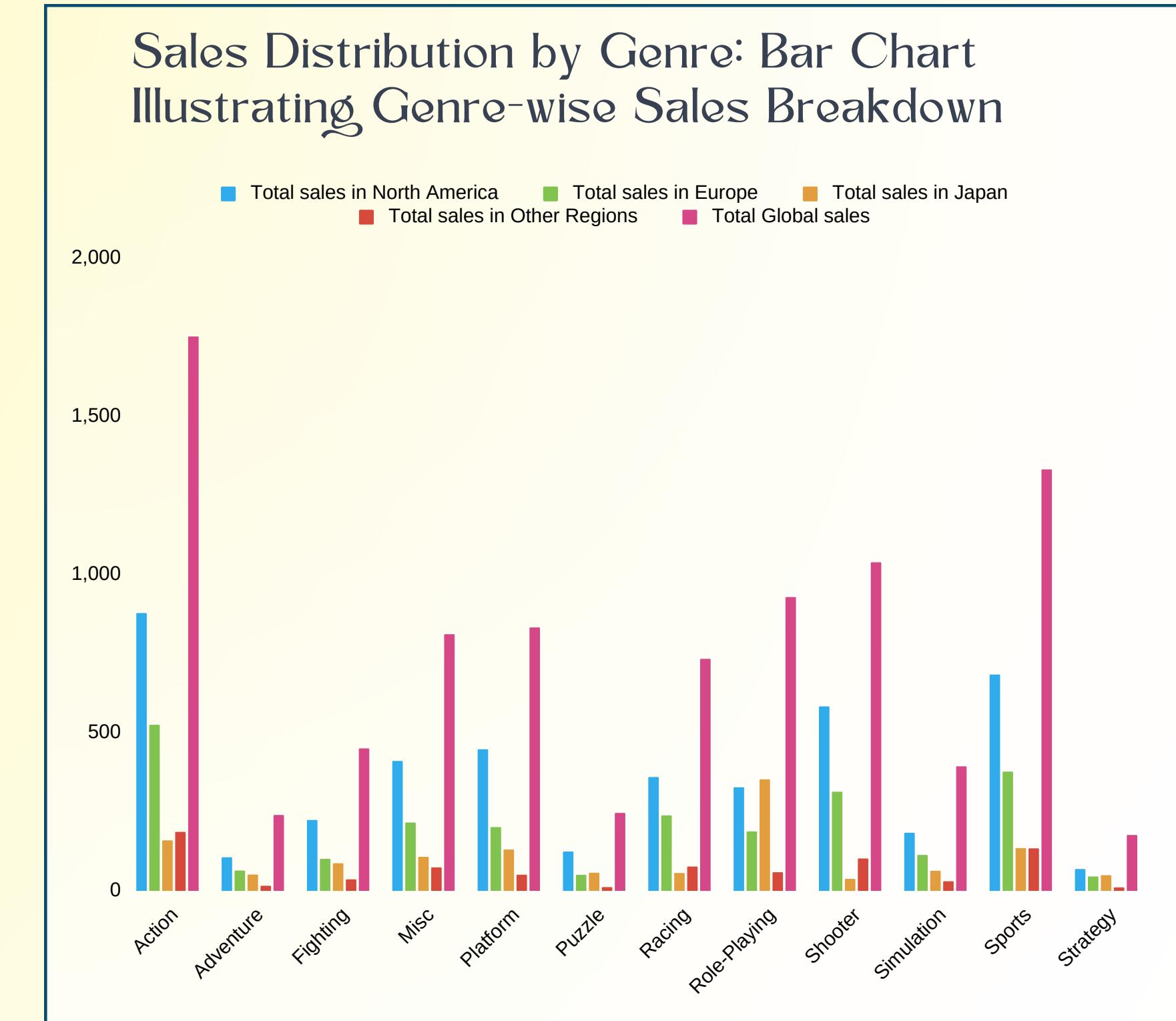
- Data Cleaning
- Data Integrity and Quality
- PivotTables
- Data Grouping and Summarizing
- Calculated Fields
- Descriptive Analysis



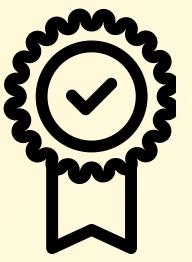
# Key insights and findings from data analysis



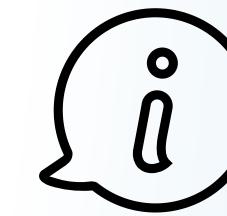
A clear decline of sales is observed across various regions during time period 2008-2016



North America leads sales in almost every genre



## Recommendations based on the analysis



## Additional sources



- Allocate budget for exploring emerging markets like Europe and cater to local customer demand.
- Identify genres that have shown growth despite an overall decline and focus marketing efforts on maximizing returns in those genres.
- Pay attention to Shooter, Sports, and Action genres as they are emerging in Europe and North America in 2016.
- Allocate marketing budget according to sales distribution, with emphasis on North America due to its significant contribution to overall sales.



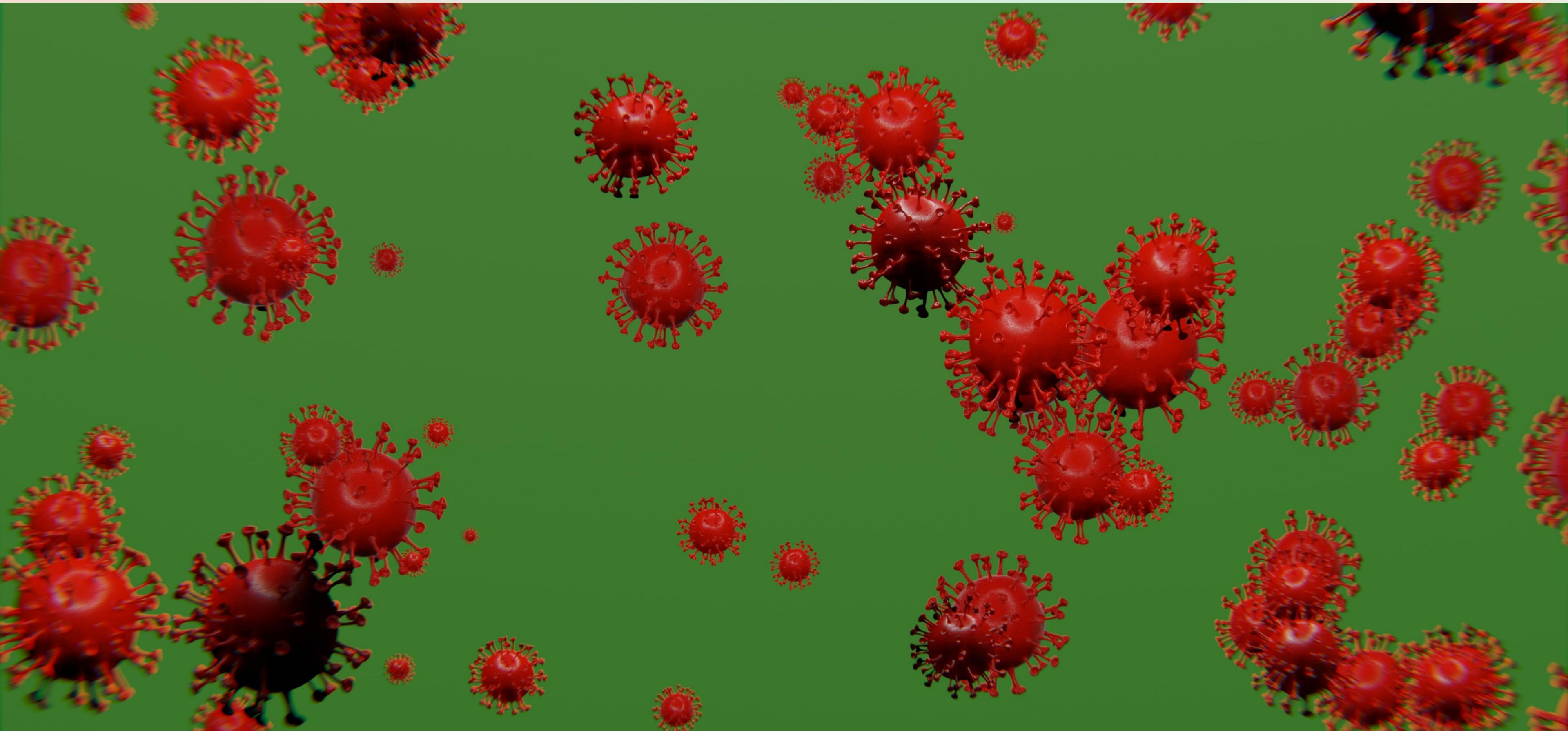
### Data analysis



### Final Presentation



# Influenza Season in the USA: Tracking and Analyzing Trends for Improved Public Health Preparedness



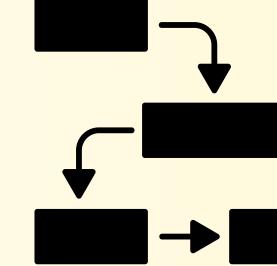
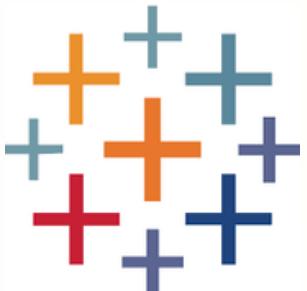
# Overview: Understanding Patterns, Impacts, and Mitigation Strategies in the USA



Enhancing Preparedness for Influenza Season by Identifying High-Demand Timeframes and Locations for Additional Staff Allocation



Influenza deaths by geography, time, age, and gender  
Population data by geography



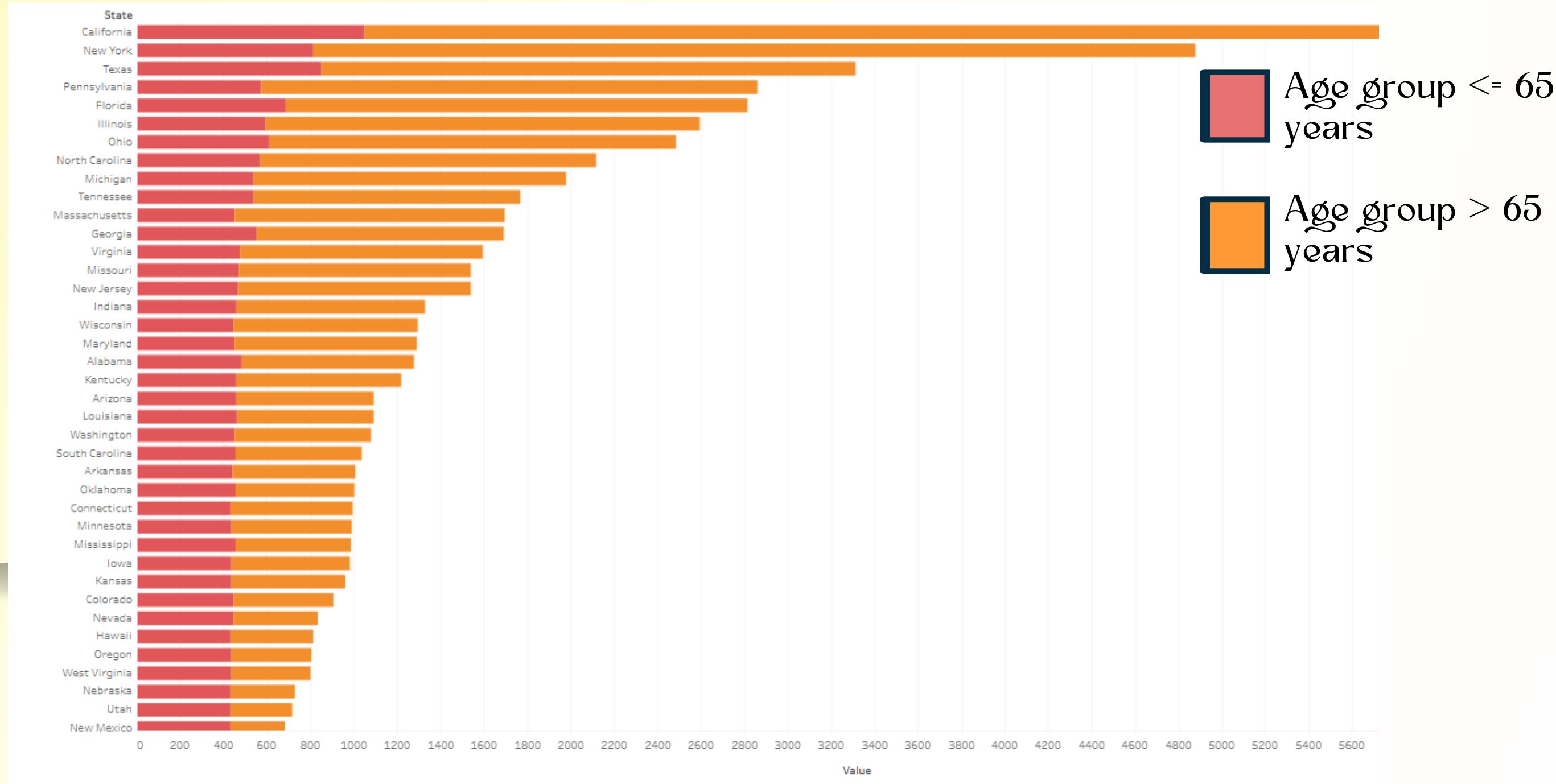
- Data Cleaning
- Data Transformation and Integration
  - Excel: Pivot Tables, VLOOKUP, PowerPoint
- Data Profiling and Integrity
- Designing a Data Research Project
- Data Visualization and Storytelling (Tableau)



# Key insights and findings from data analysis



## Comparison of Average Flu Death Rates by State and Age Group: Bar Chart Analysis



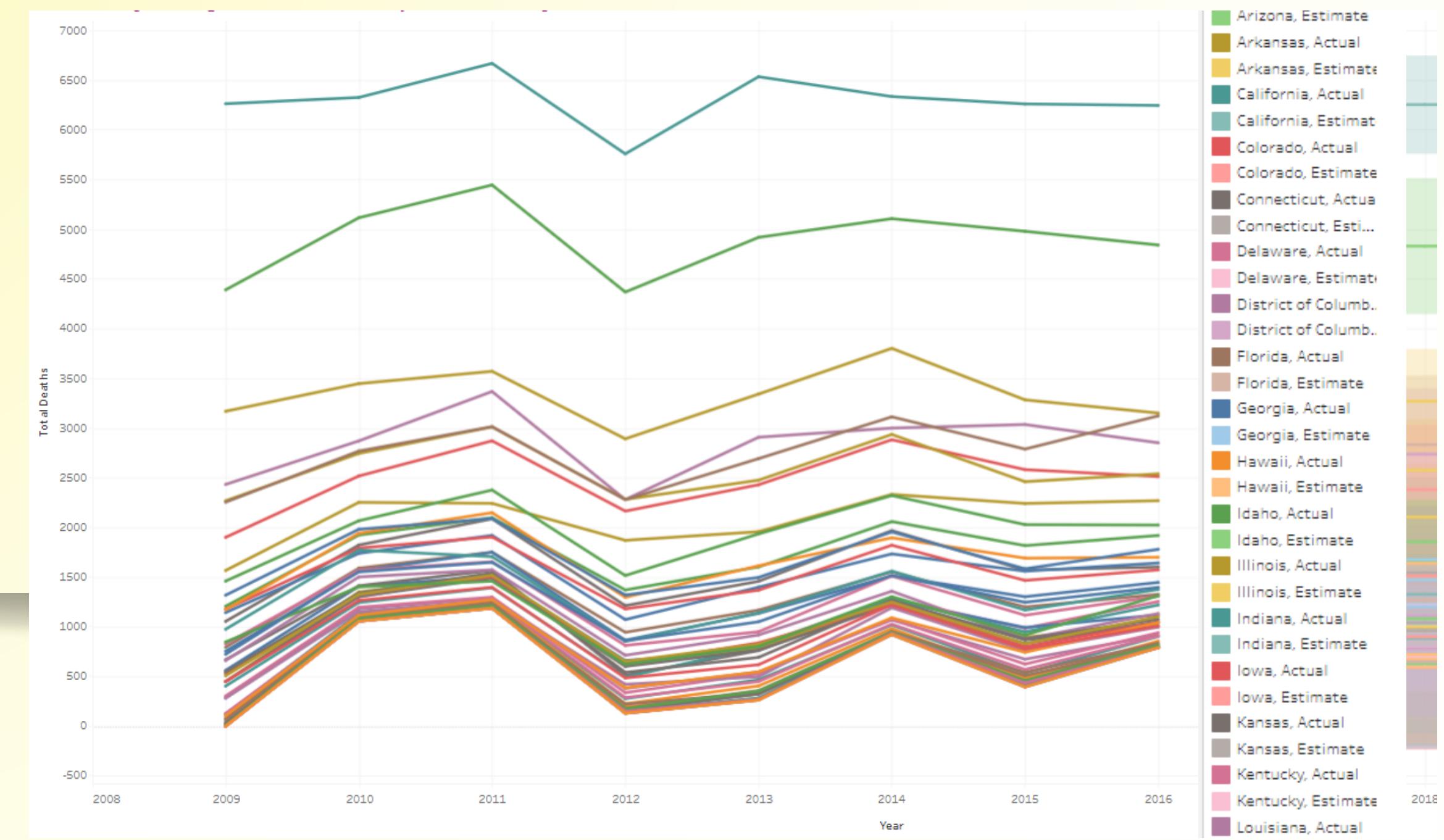
Vulnerable population (age group of 65 years and above) are more vulnerable to influenza related deaths especially in states such as California, New York and Texas being the top 3 states with higher influenza death rates



# Key insights and findings from data analysis



## State-wise Death Forecasts: Line Chart Analysis of Projected Mortality Rates



Forecast of Influenza deaths by State provides us with projectives for the upcoming years based on available data



# Recommendations based on the analysis



## Additional sources



- Prioritize the allocation of additional medical staff to states with higher vulnerable populations, ensuring adequate healthcare resources during the influenza season.
- Implement targeted campaigns to increase awareness of flu shots among the general population, aiming to reduce mortality rates associated with influenza
- Enhance surveillance systems to closely monitor influenza activity, enabling timely response and resource allocation based on real-time data.



Data analysis



Interim Report



Tableau Storyboard



Video Presentation



# Rockbuster Stealth Data Analysis: Revolutionizing Resource Exploration with Advanced Stealth Analysis Techniques



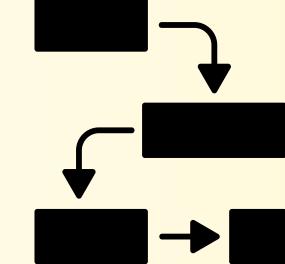
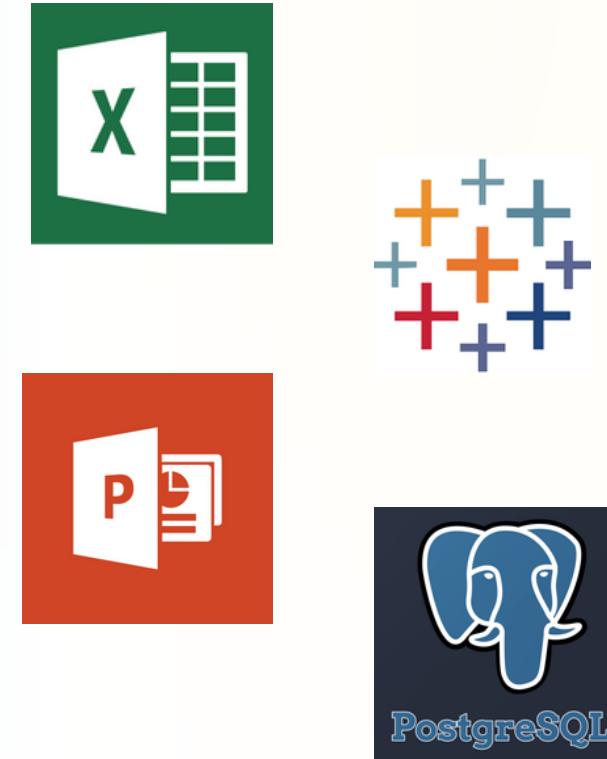
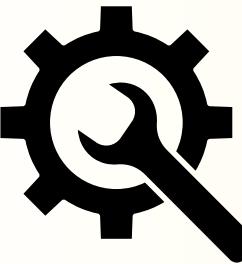
# Overview: Innovations in Stealth Analysis for Enhanced Resource Exploration



Utilize data analysis to answer key business questions and support the successful launch of an online video rental service for Rockbuster



Rockbuster  
Dataset



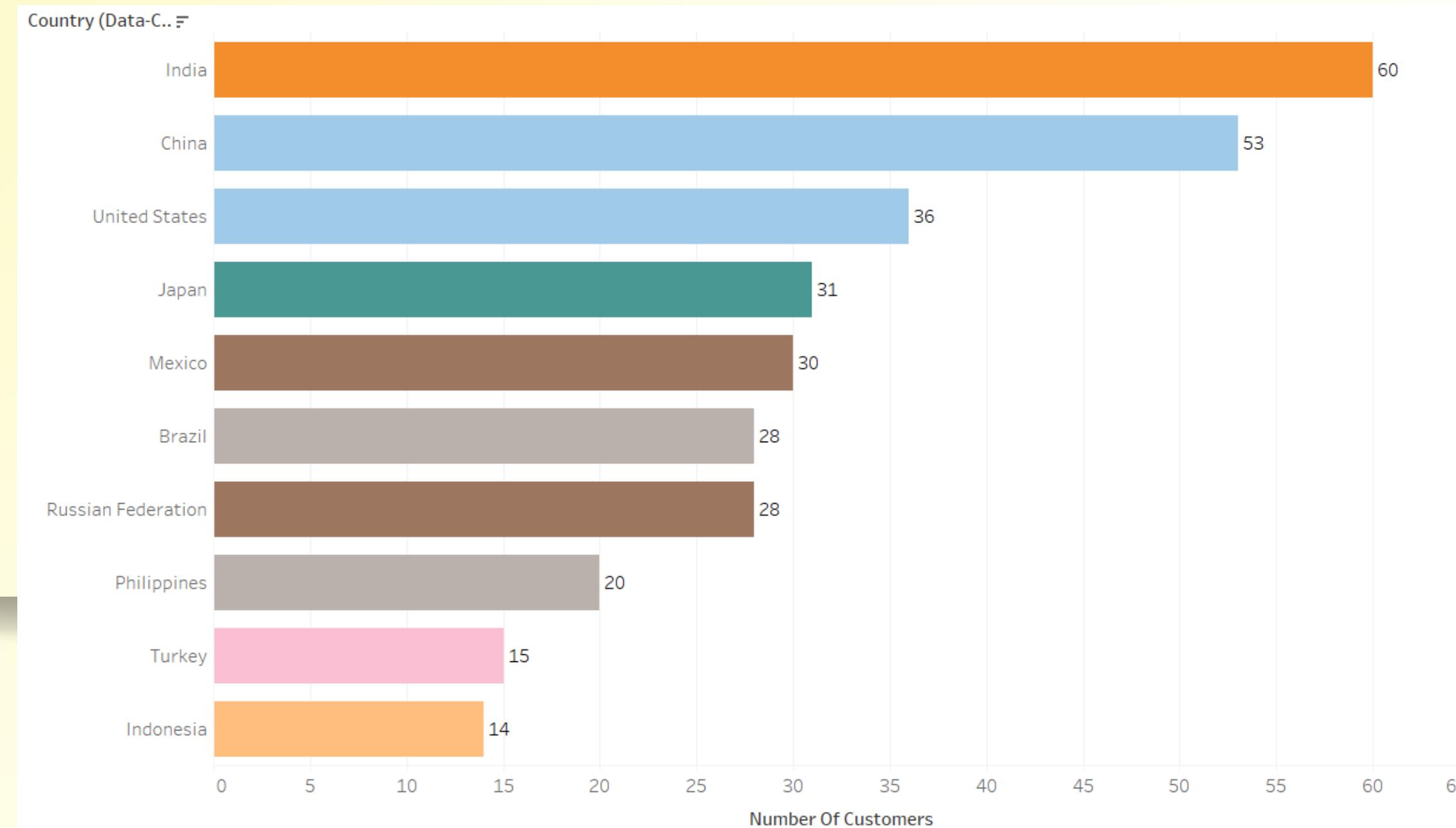
- Data Cleaning and Summarizing
- Relational Databases
- Creating a Data Dictionary
- Entity Relationship Diagram
- Filtering Data
- Joining Tables
- Subqueries



# Key insights and findings from data analysis



Bar graph representing the top 10 countries by customers



India and China are having the highest Rockbuster customers



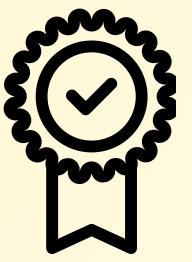
# Key insights and findings from data analysis



Do sales figures vary between geographic regions?



The sales figures vary between geographical regions, India being the top followed by China



# Recommendations based on the analysis



# Additional sources



- Expand movie collection by acquiring films from various release years
- Implement a customer loyalty program that rewards our top-performing customers with incentives such as loyalty cards, discounts, and special gifts.
- Enhance the customer experience by continuously updating and refreshing our movie selection
- Collaborate with local distributors for more foreign language films



## SQL Code



## Tableau visualizations



## Final Presentation



# Instacart: Revolutionizing Grocery Shopping with On-Demand Delivery Services.

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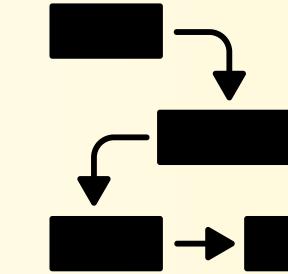
# Overview: Analyzing Customer Profiles, Buyer Behavior, and Sales in the Online Grocery Delivery Service Industry



Analyze customer profiles, buying behavior, and departmental sales patterns to gain insights and provide targeted marketing recommendations for departments within the Instacart platform.



Instacart Dataset



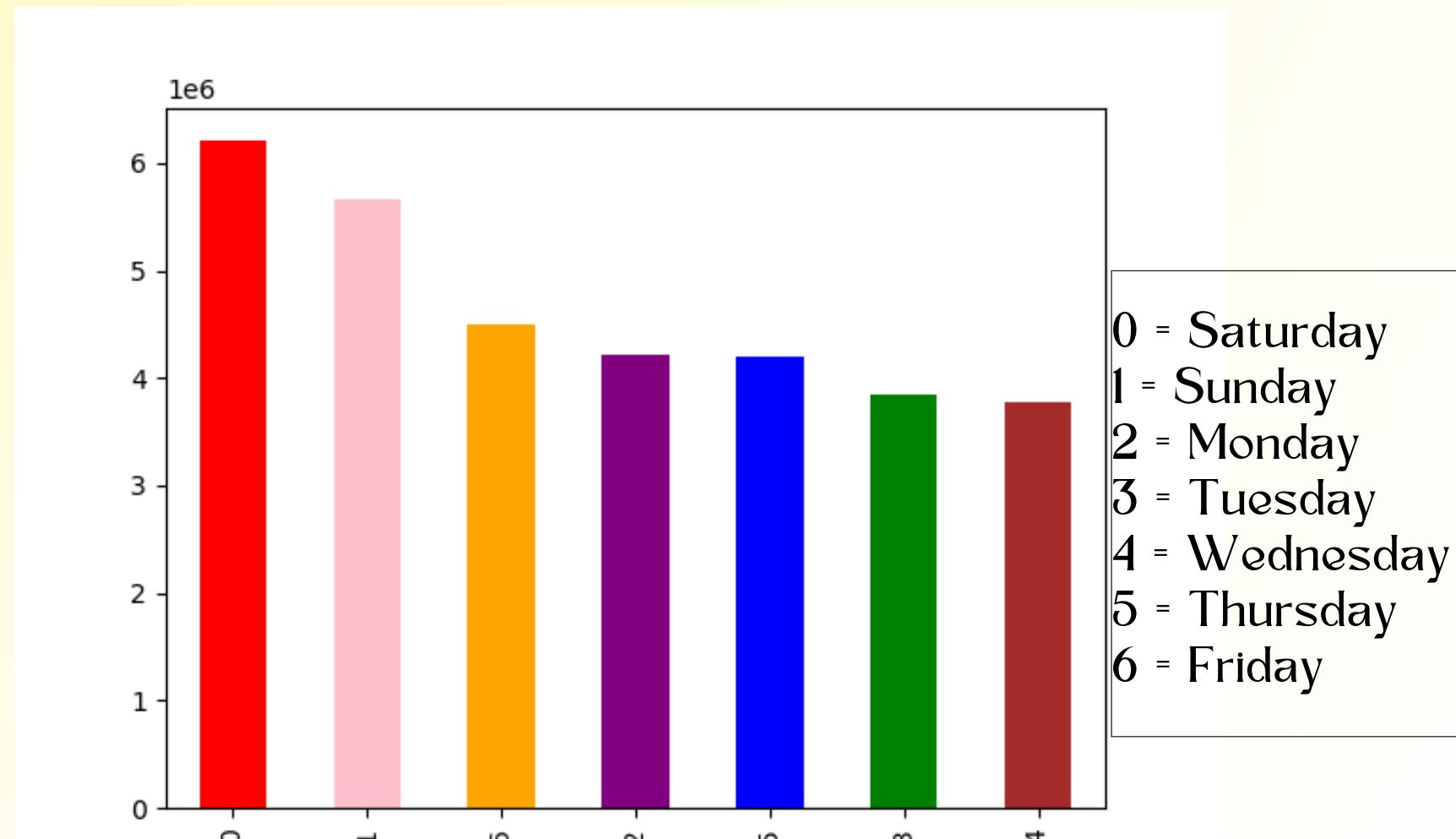
- Data Cleaning: Wrangling
- Combining and Exporting Data
- Grouping Data and Aggregating Variables
- Python Visualization
- Excel Report



# Key insights and findings from data analysis

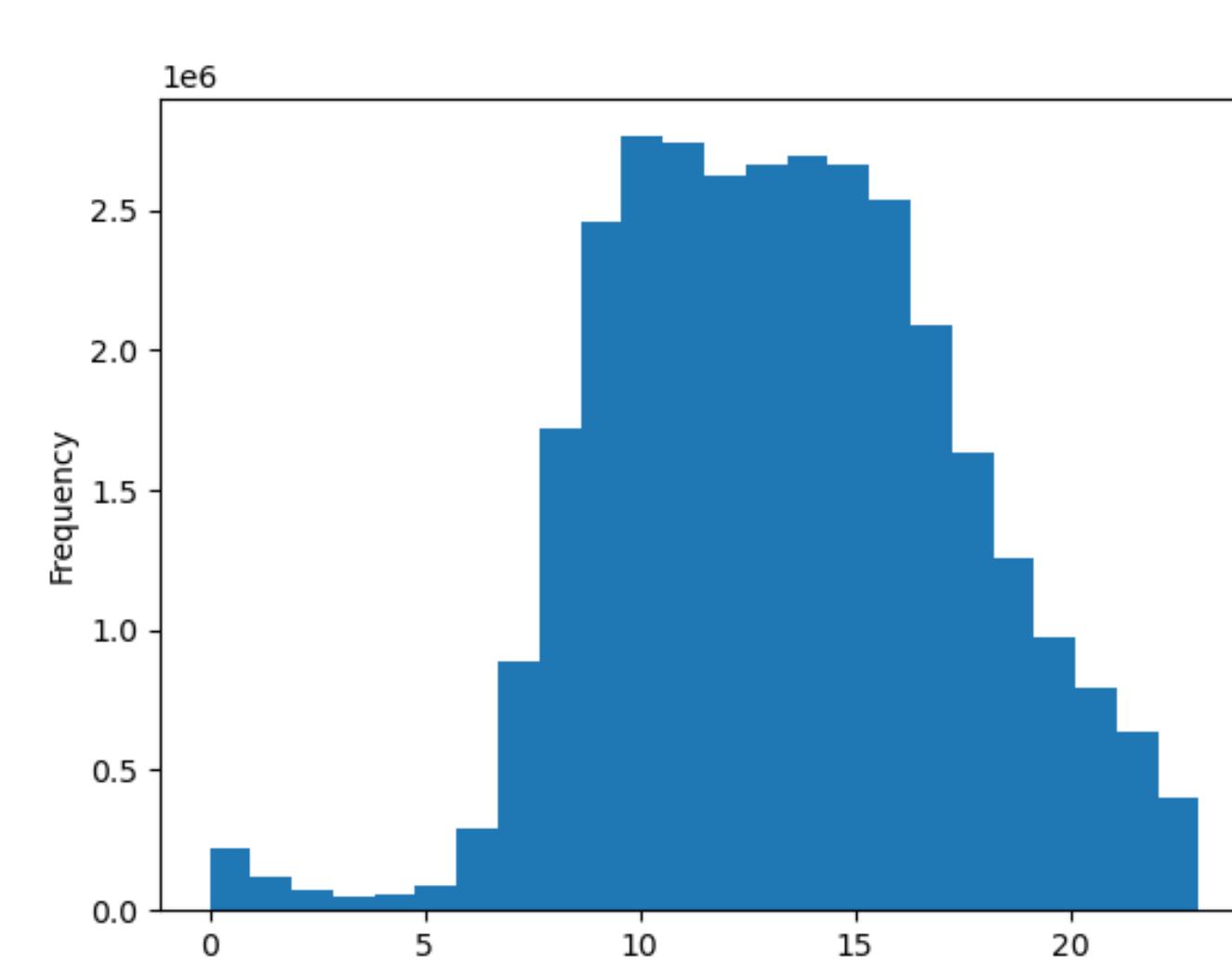


Distribution of Sales over days of week



Saturday and Sunday are the busiest days of the week

Distribution of Sales by hours of the day



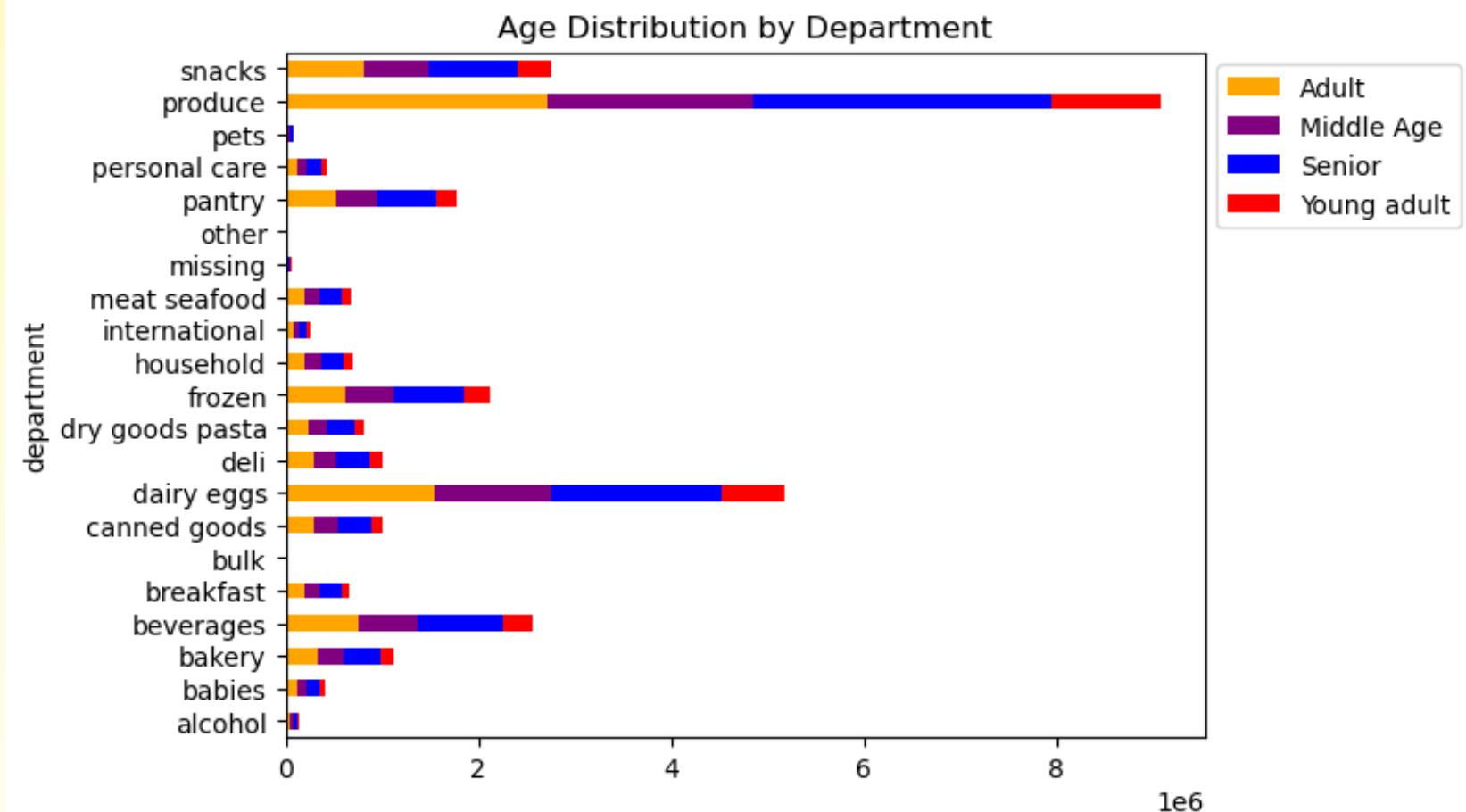
Busiest hours of the day is between 10am-3pm



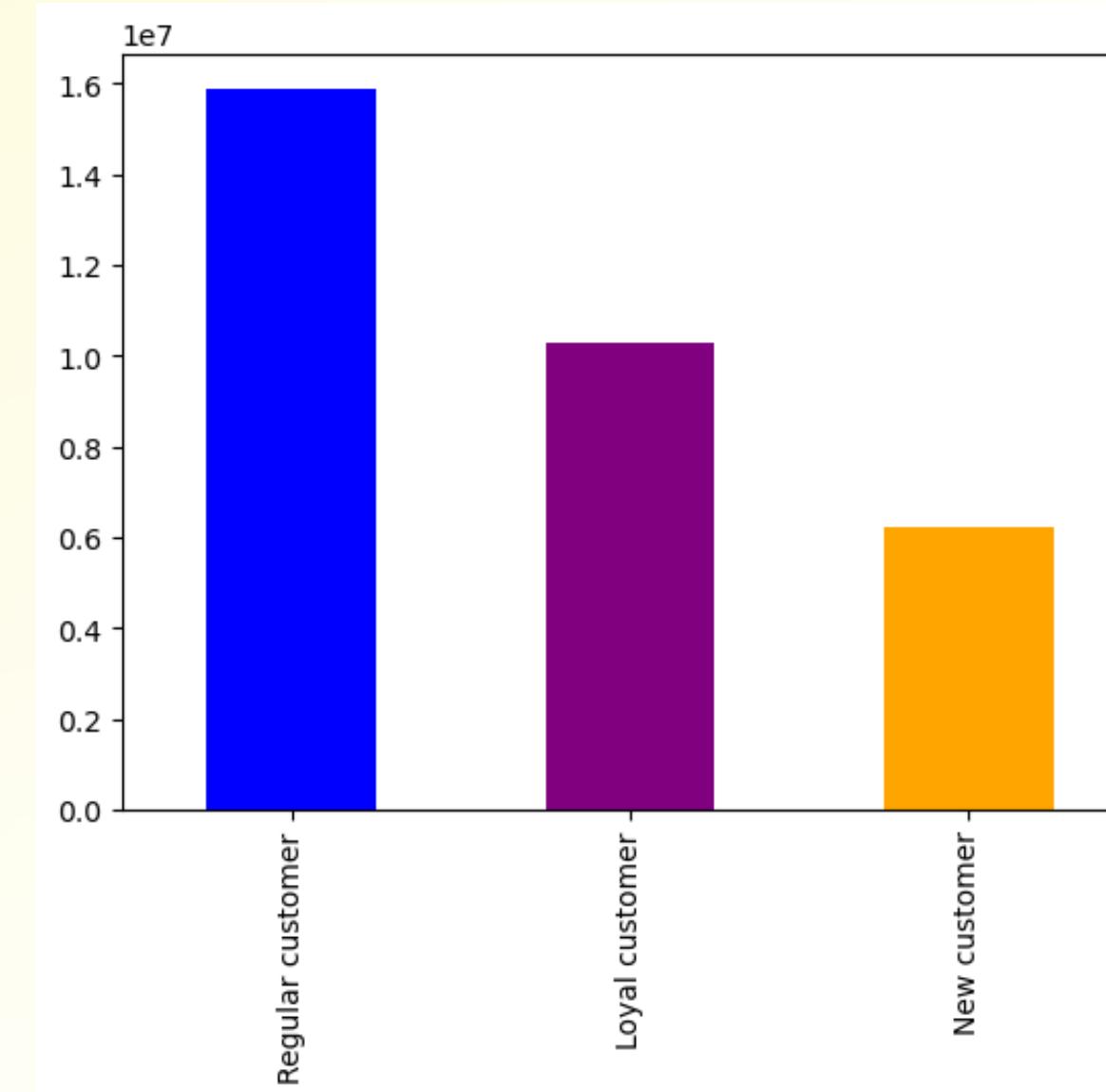
# Key insights and findings from data analysis



Distribution of departments by age group

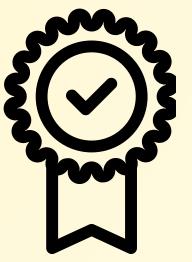


Distribution among customers based on loyalty flag



Saturday and Sunday are the busiest days of the week

Busiest hours of the day is between 10am-3pm



## Recommendations based on the analysis

- Optimize the delivery time slot availability based on the busy and slow days. Provide more flexible and varied delivery options during peak days
- Consider offering promotions or incentives during the less busy hours to encourage orders during these periods.
- Develop targeted marketing campaigns that focus on specific customer segments beyond age and family status.



## Additional sources



### Python Code



### Final Report



# Pig E Bank: Empowering Financial Literacy with a Digital Piggy Bank App





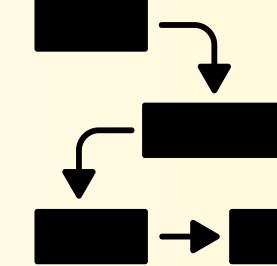
# Overview: Predicting Potential Customer Churn in the Banking Industry



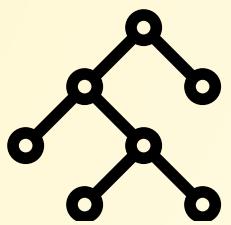
Utilizing Data Mining Techniques to Construct a Decision Tree for Predicting Potential Customer Churn in Banking Industry



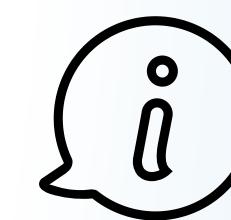
Client Dataset



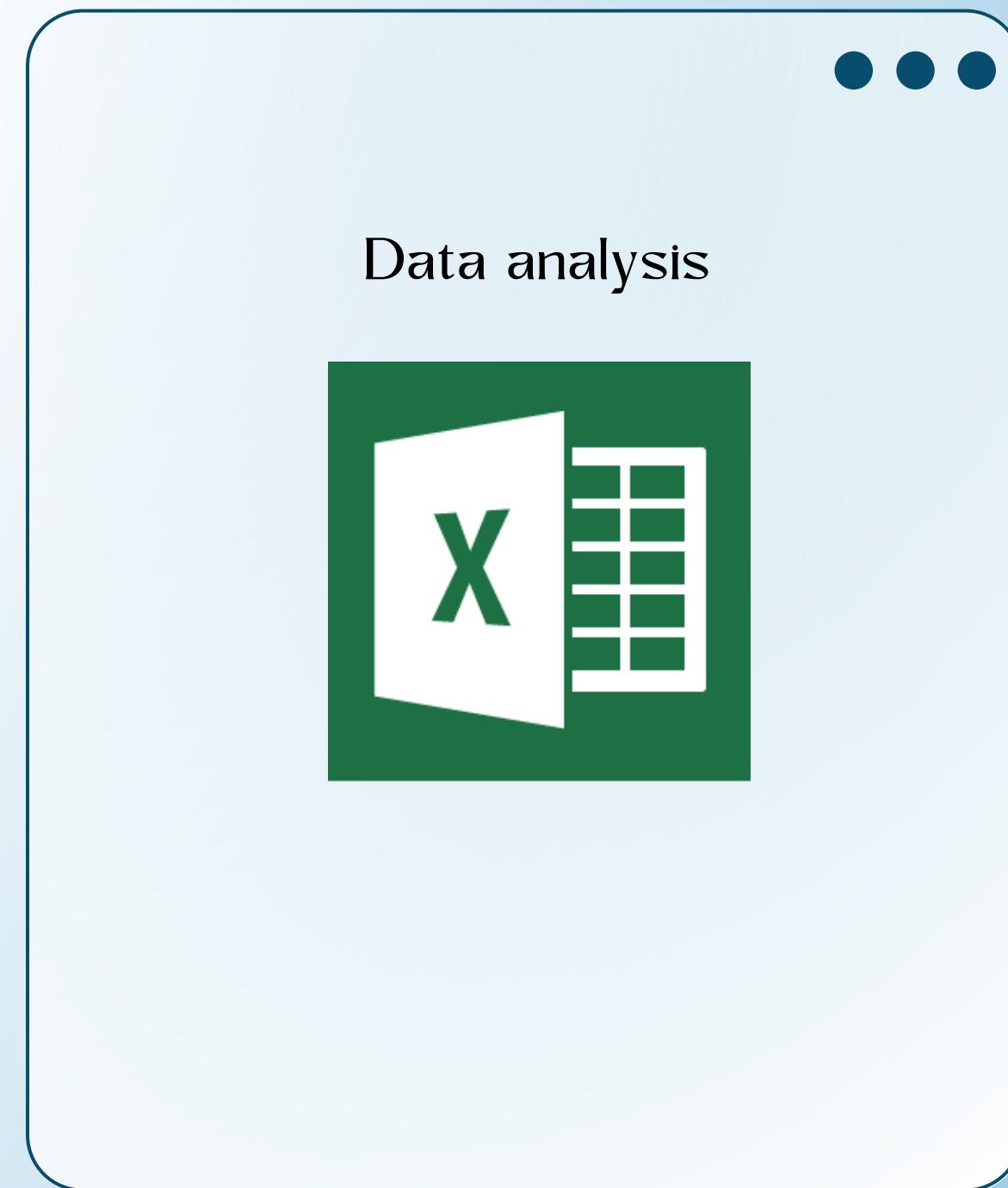
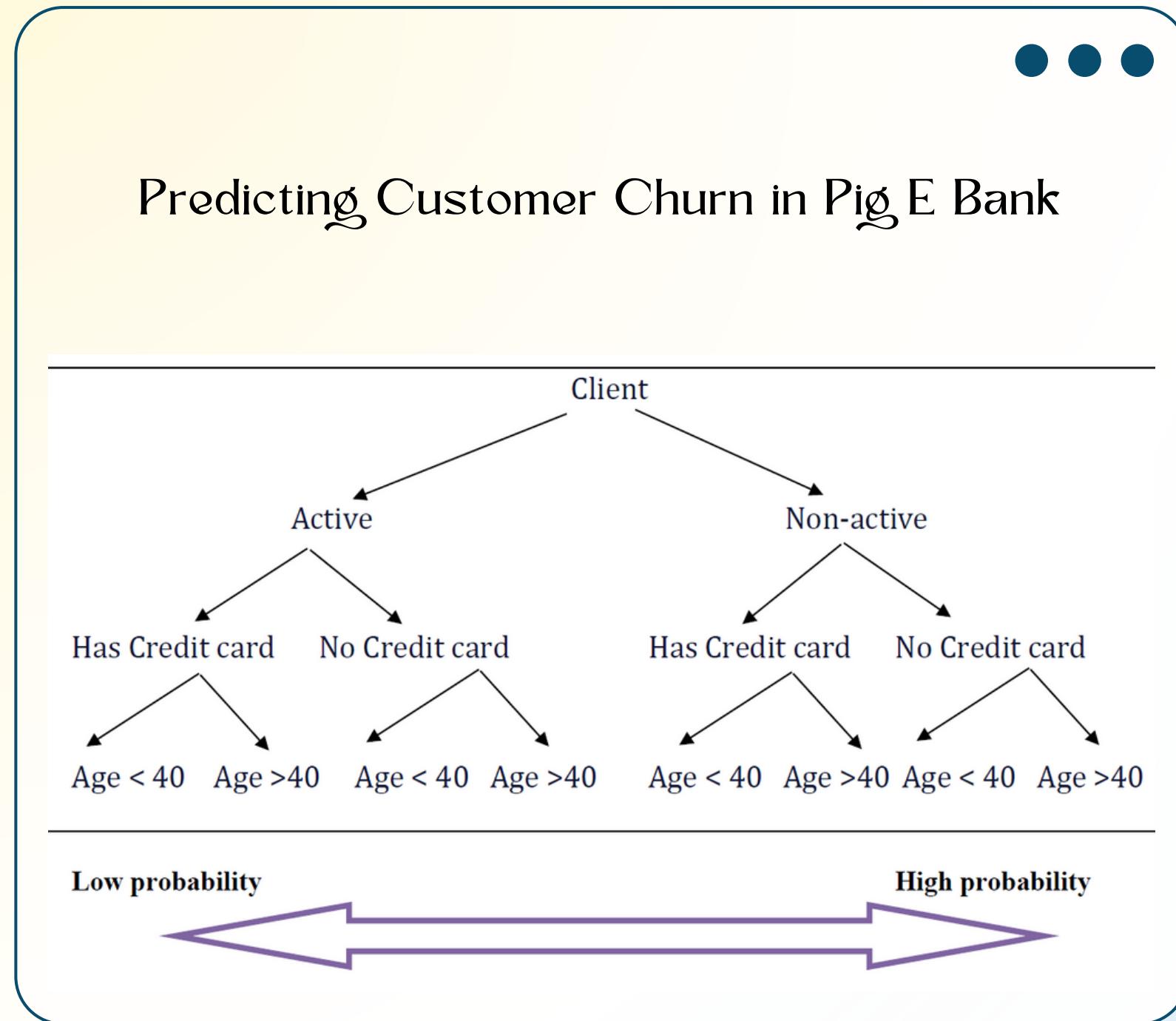
- Data Cleaning, sorting and filtering
- Data Grouping and Summarizing
- Descriptive Analysis
- Data ethics
- Data mining
- Building a decision tree



# Decision tree analysis



## Additional sources

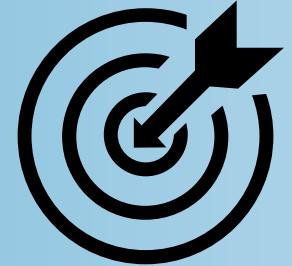


# Immoscout Rental Data Analysis: Insights into Germany's Rental Market

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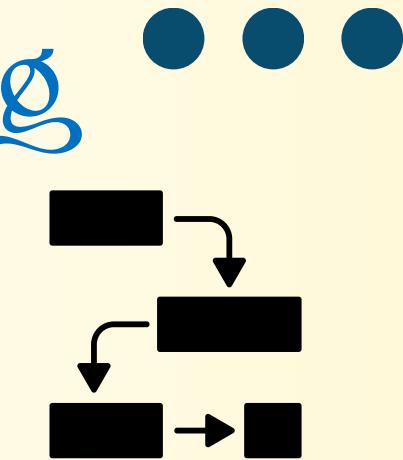
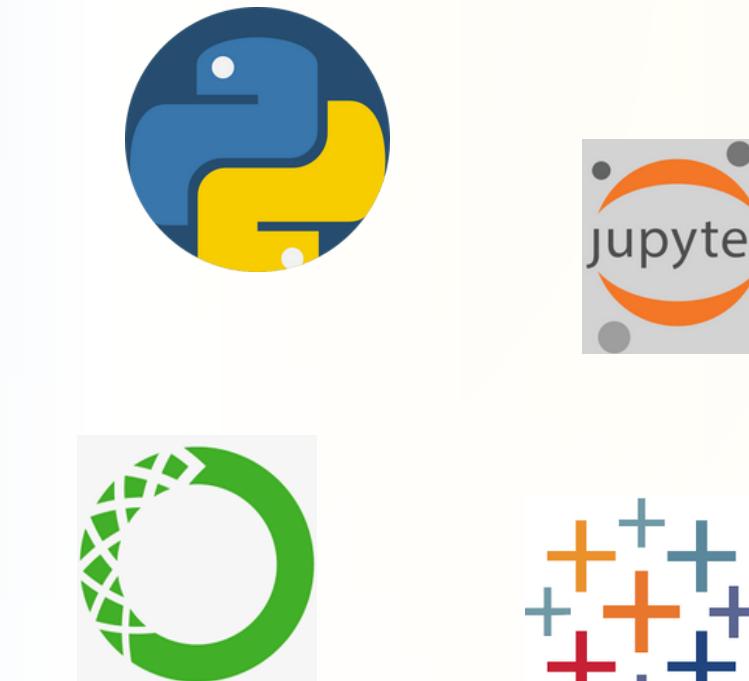
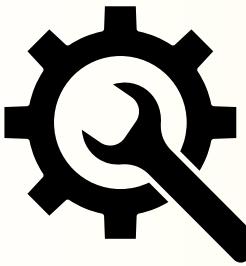
# Overview: Analyzing Germany's housing rental data for valuable insights and informed decision-making



To understand the key trends and factors influencing the housing rental market in Germany, providing valuable insights for stakeholders and guiding informed decision-making.



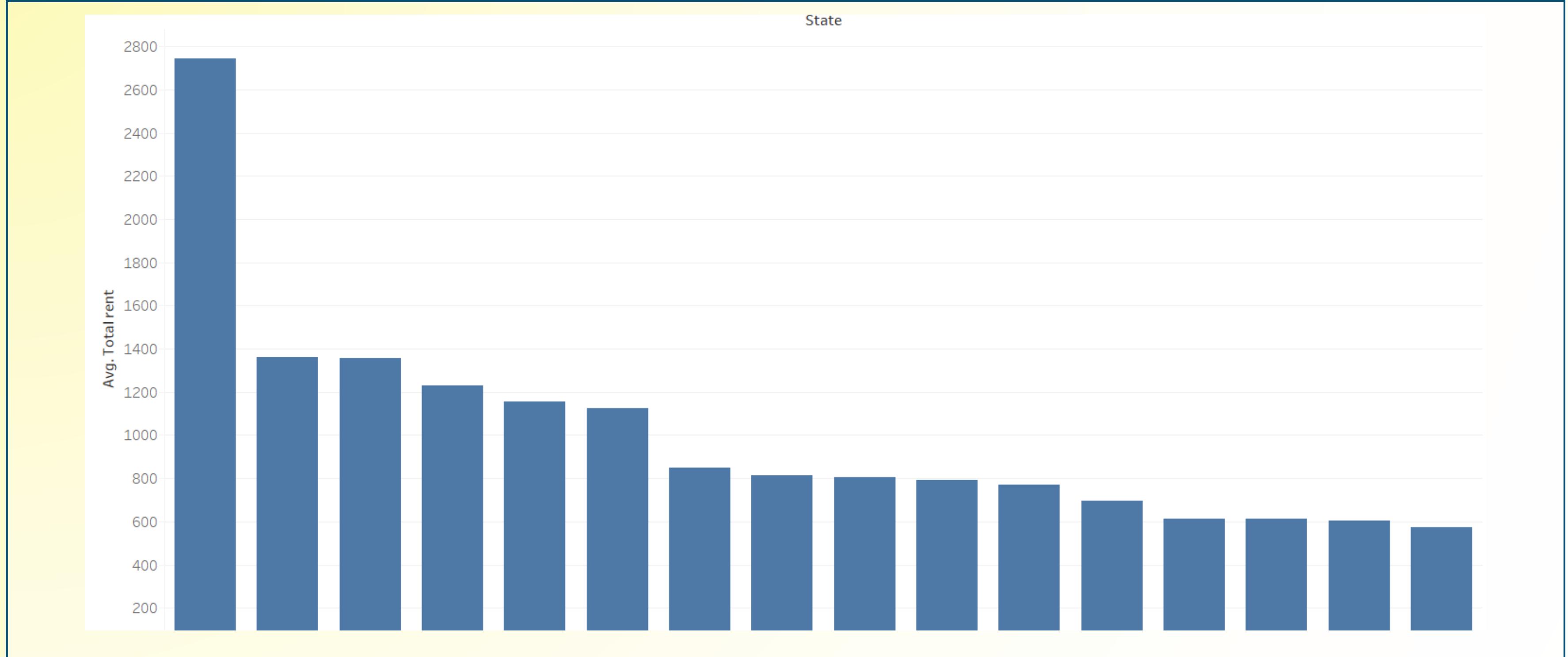
Immoscout Data



- Sourcing open data
- Exploring relationships
- Data Cleaning, sorting and filtering
- Clustering and Regression analysis
- Time series data analysis



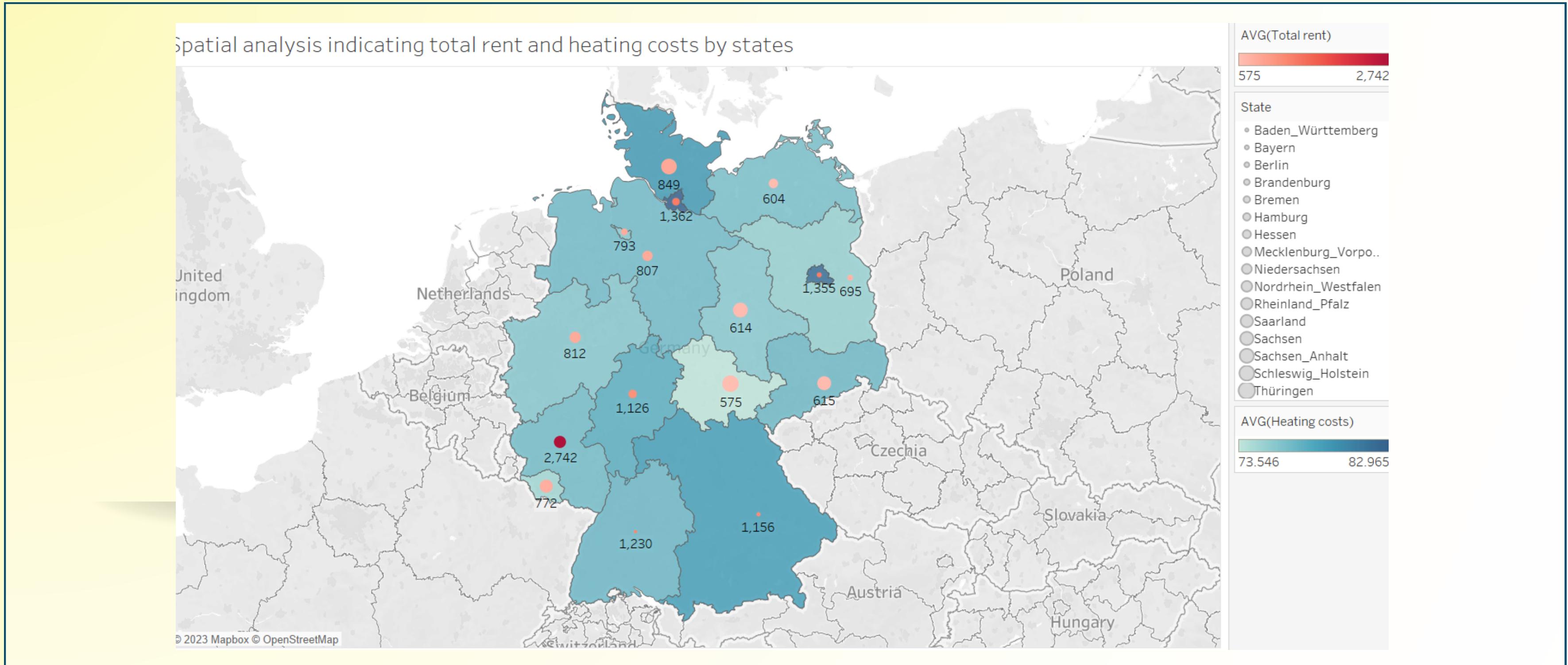
# Key insights and findings from data analysis



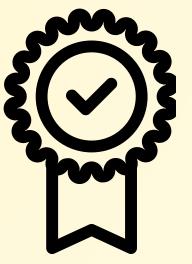
The top most state indicating the highest average rent is Rheinland Pfalz followed by Hamburg and Berlin



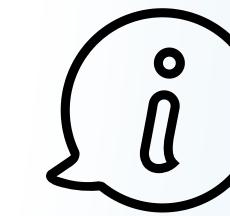
# Key insights and findings from data analysis



The rental prices are indicated by circle and the heating costs are indicated by the shading. Rheinland-Pfalz state has the highest rental price followed by Berlin which has higher heating costs and rental prices.



## Recommendations based on the analysis



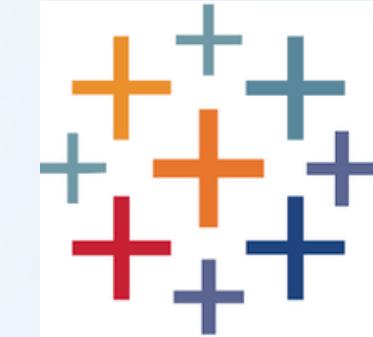
## Additional sources



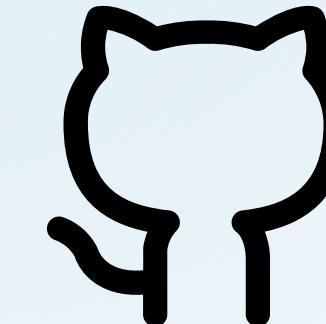
- Prospective renters should consider the impact of location on rental prices and explore regions that align with their budget and preferences.
- For those seeking cost-effective options, considering properties with a moderate number of rooms and living space could lead to more affordable rental options.



Tableau  
Storyboard



Github repository





Thank You For Watching



Shruti Garka



[shruti.garka@gmail.com](mailto:shruti.garka@gmail.com)



[www.linkedin.com/in/shruti-garka-715525105](https://www.linkedin.com/in/shruti-garka-715525105)

