



SHORT-TERMINTERNSHIP



**Dr. LANKAPALLI BULLAYYA COLLEGE
VISAKHAPATNAM**

Acknowledgements

This Power BI presentation on topic "COMPREHENSIVE ANALYSIS OF HOUSE PRICING". We acknowledge the power BI community for their valuable resources, tutorials and forums that aided in our project development. We thank for creating a powerful and intuitive platform for data visualization and analysis. We thank for their expertise in plant growth and agriculture, in the house construction field, which informed our predictive model. We thank our team members for their contributions to data analysis and visualizations and insights.

Finally, we thank our team members for their hard work and dedication to this project.

Contents

1: EXECUTIVE SUMMARY

2: OVERVIEW OF THE ORGANIZATION

3: INTERNSHIP PART

4: ACTIVITY LOG FOR THE EIGHT WEEKS

5: WEEKLY REPORTS

6: OUTCOMES DESCRIPTION

7: PHOTOS AND VIDEO Links.

CHAPTER 1 : EXECUTIVE SUMMARY

Description of the sector of business Intern organization

Smart bridge operators in the data analytics sector providing innovative solutions to enhance business intelligence. The organization leverages power. with actionable insights, enabling data - driven decision - making.

Learning objectives and outcome

- 1) Understand power BI fundamentals
- 2) Data modelling
- 3) Proficiency in power BI tools
- 4) Data cleaning and transformation
- 5) Data visualization
- 6) Report design and sharing.

Summary of Internship activities

- 1) Attending live training sections and project monitoring sessions.

- ii) Selection of topic "Comprehensive analysis of house policing" using power BI
- iii) Team formation and assigned tasks to team members.
- iv) Designing & developing interactive dashboards, story, report on project using power BI
- v) Drafting a project video demonstration and preparation of final report.

CHAPTER 2 : Overview of the Organization

Smart Bridge is a platform that offers virtual internship to the students. The platform's goal is to prepare students for the job market by establishing a comparative relationship between industry or academic.

Organization's objective

Smart Bridge main objective is to bridge the existing gaps between prevailing industry standard and what the academics offers to the graduates while passing out of universities. Smart bridge offers suitable skill development & training to the young talent before on boarding their first job.

We here by work along the line to offer best programs that helps the students to gain practical knowledge and hands on training to learn skills of these future... The main objectives of the smart bridge is providing internship for every student promote industry approved professional electives become a talent factors of India by 2026.

CHAPTER 3: INTERNSHIP PART

Description of the activities / responsibilities undertaken

- 1) Registering with APSCHIE smart internship enrolling for smart beige's data analytics course i.e., live training sessions as per the pre scheduled training calendar
- 2) Participating weekly quiz & completing weekly assignment w.r.t data analytics
- 3) Gathering team formation and detection of project topic - "A comprehensive analysis of house policing"
- 4) Gathering, cleaning & analysing the excel data sets of the project topic - "House policing"
- 5) Attending project-mentoring sessions and designing and developing interactive dashboard report on the project topic using power BI
- 6) Web integration of above project deliverables with team's web page using visual studio code, drafting a project video demonstration
- 7) Submission of team project via uploading the project files in github repository of the team.

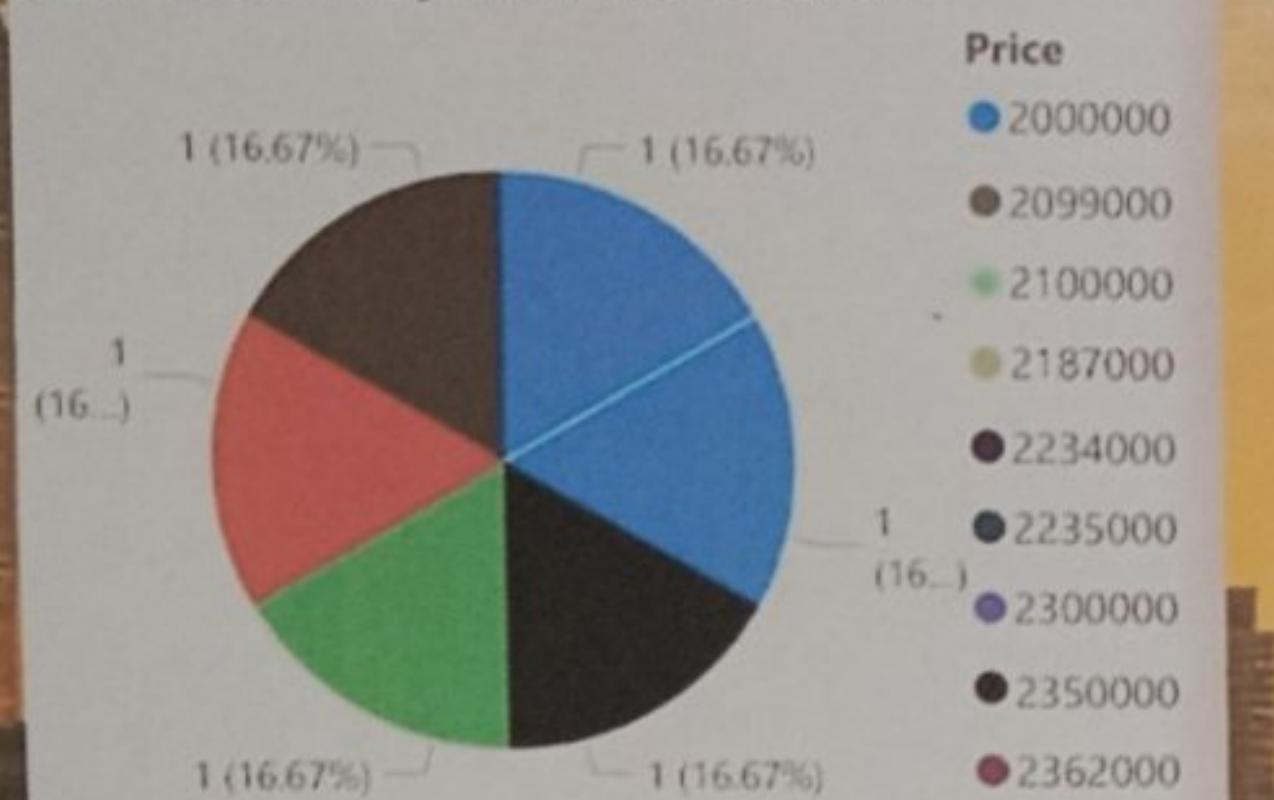
CHAPTER 4 OUTCOMES DESCRIPTION

Describe the work environment you have experienced (in terms of people interactions, facilities available and maintenance, clarity of job roles, protocols, procedures, processes, discipline, time management, harmonious relationships, socialization, mutual support and teamwork, motivation, space and ventilation, etc.)

- * During the project we have to got to known about the house policing in different locations.
- * We have analysed the data with basic facilities needed for the house.
- * The data set which was given to us was loaded into power BI and we data cleaning process is done to remove the unwanted data.
- * During the project my team mates and I had a good interaction.
- * Finally we have done the project by the power BI successfully.

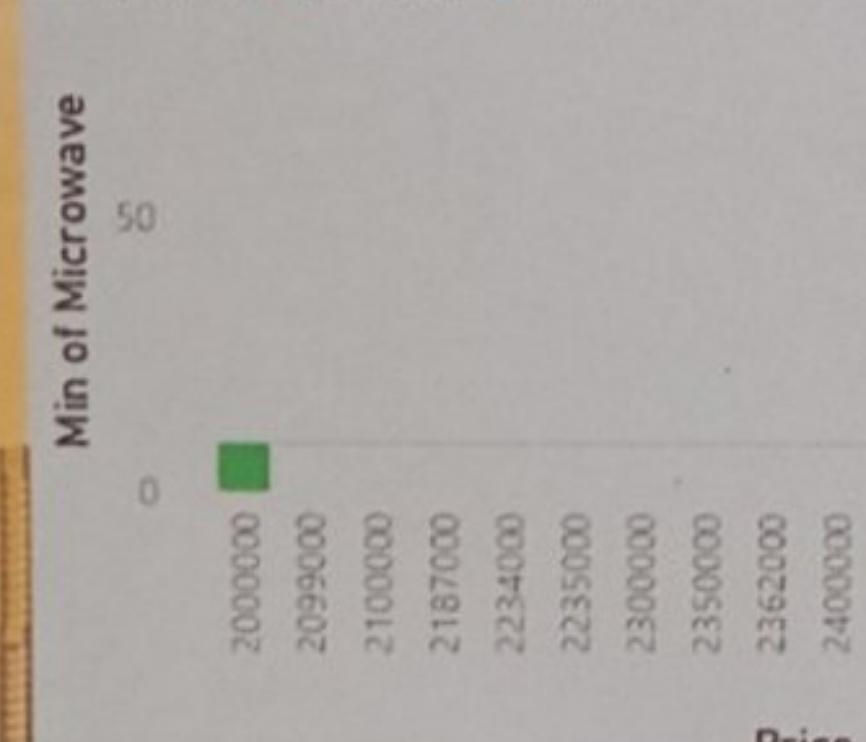
A COMPREHENSIVE ANALYSIS OF HOUSE PRICING

Max of Resale by Price and Location

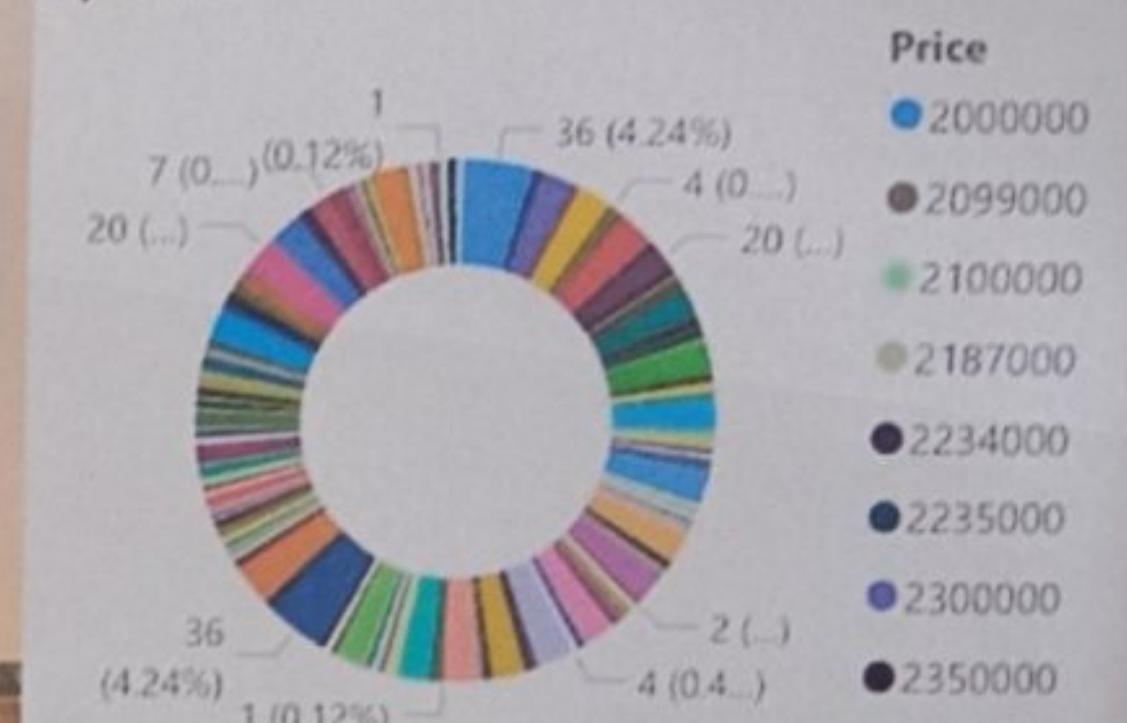


Min of Microwave by Price

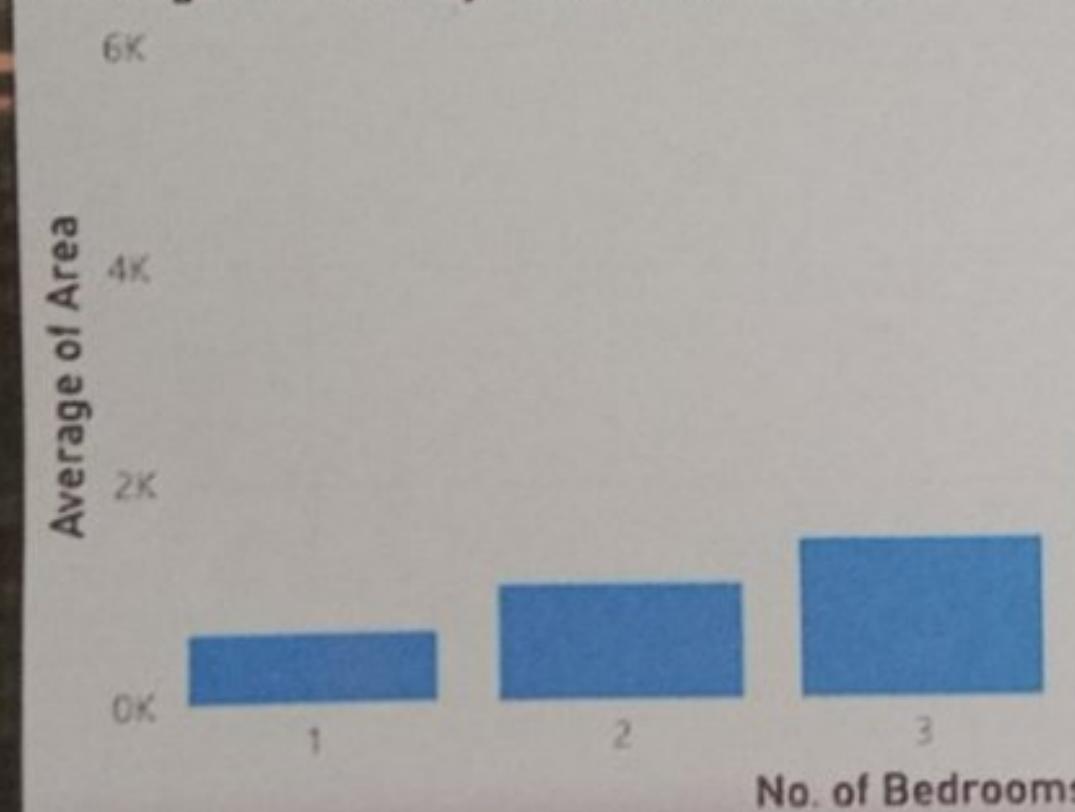
● Increase ● Decrease ● Total



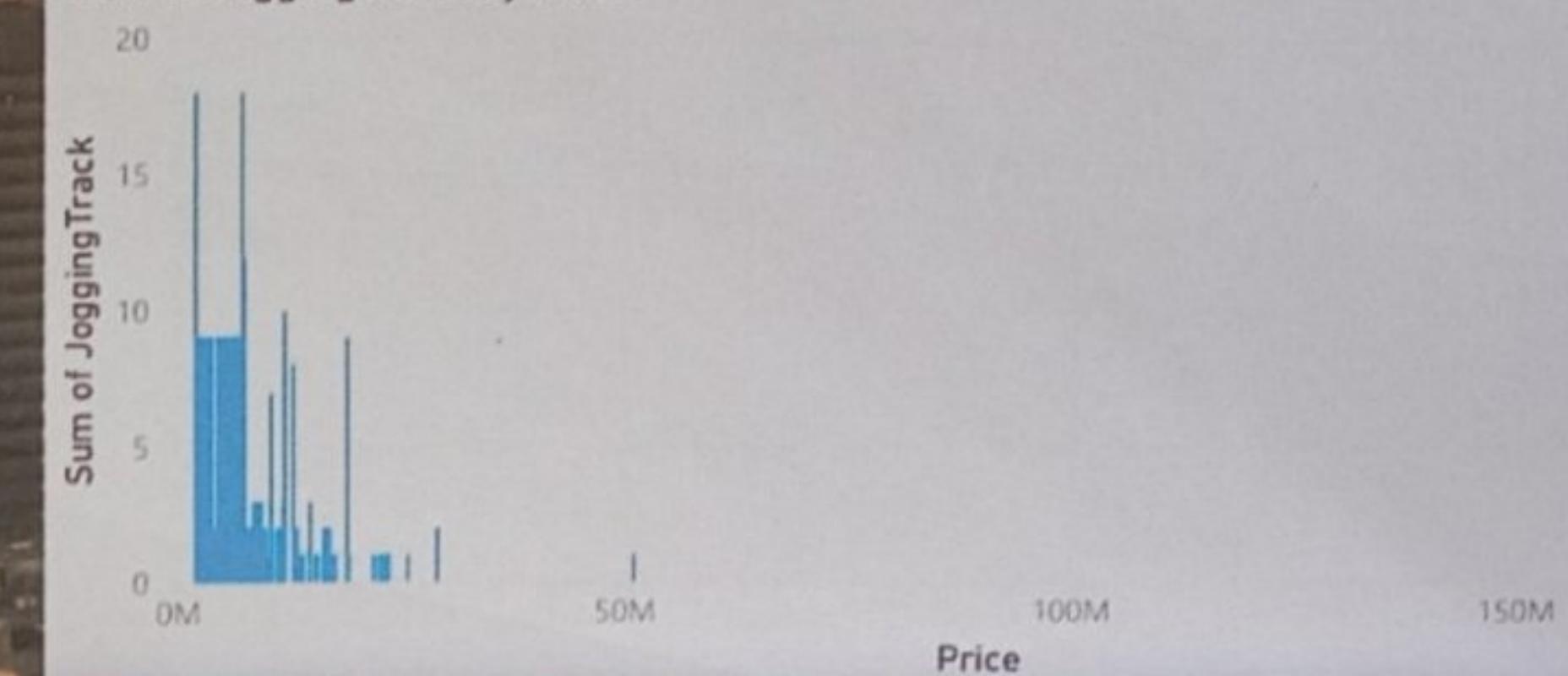
Sum of Gymnasium + Sum of SwimmingPool by Price



Average of Area by No. of Bedrooms



Sum of JoggingTrack by Price



REPORT : HOUSE PRICING

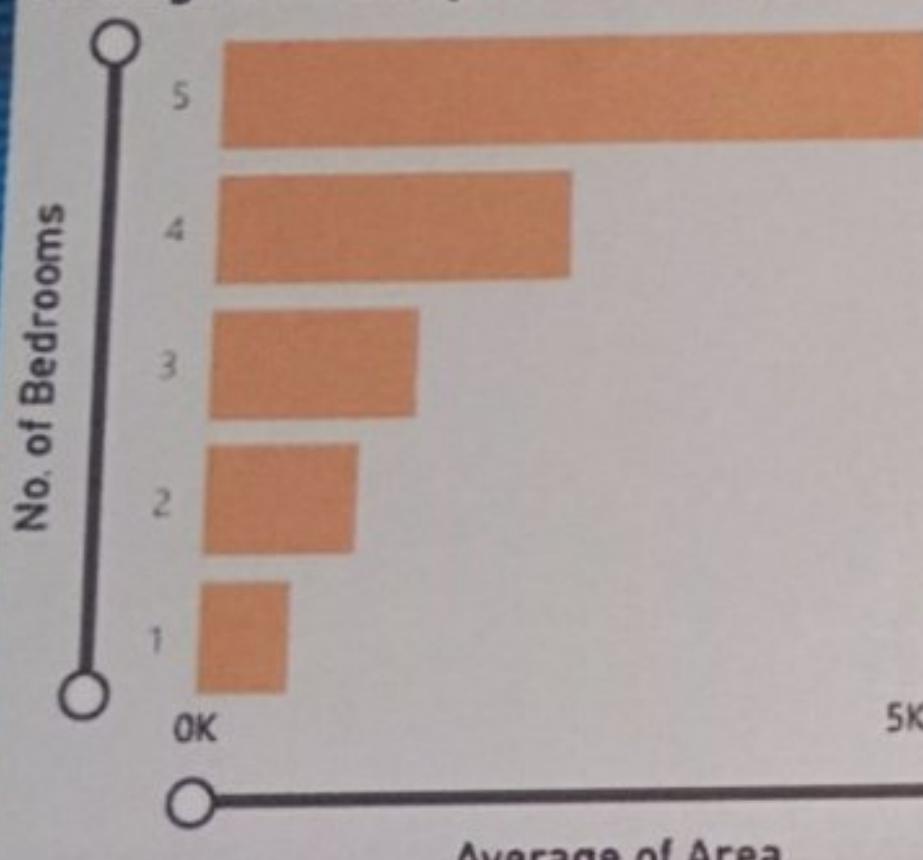
163M

Max of Price

0.40

Average of Resale

Average of Area by No. of Bedrooms



As the number of bedrooms increases , the average area of the property also increases. This is expected since larger homes tend to

HOUSE PRICING: The sums in money for which houses may be bought or sold.

350

Min of Area

452

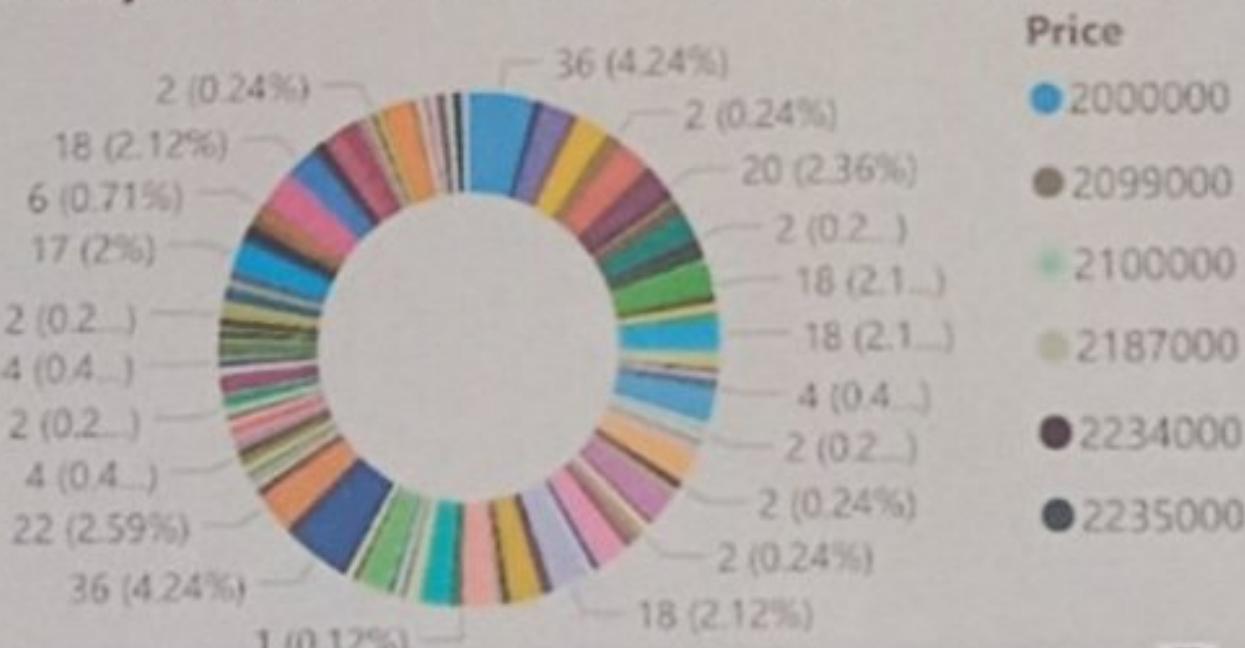
Count of Location

111.7...

Maximum of Price

This visualization is helpful in understanding how the availability of certain amenities (gymnasium +

Sum of Gymnasium + Sum of SwimmingPool by Price



Average of Price and Average of Price by Location



It provides the clear comparison of the average property prices across different locations. this information is useful for understanding the real estate market

ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 03/07/24	Introduction to Data Analytics - IBM Logos	Agenda, various types of data and key points	
Day - 2 04/07/24	Difference between Business Intelligence and business analytics	Power BI, and business intelligence & cognos account.	
Day - 3 05/07/24	Visualization creation clearing of data	Types of visualizations and its creation.	
Day - 4			
Day - 5			
Day - 6			

WEEKLY REPORT

WEEK - 1 (From Dt...3-7-24 to Dt...5-7-24.....)

Objective of the Activity Done: Introduction to PowerBI, Data Analysis

Detailed Report: Agenda of Data Analytics includes, understanding the fundamentals of PowerBI and the importance of data analytics in business decision-making.

- * Attended an orientation session on the internship objectives and deliverables.
- * Completed introductory modules on PowerBI, including its interface, key features and capabilities.
- * Connected to different data sources and performed basic data cleaning.
- * Created a simple report showing basic visualizations such as bar charts and line graph.

ACTIVITY LOG FOR THE SECOND WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In Charge Signature
Day 1 08/07/24	Creating data visualizations	Summary chart, Bubble chart & scatter chart.	
Day -2 09/07/24	Inserting visualization on dashboard and its creation	Dashboard creation and inserting visualizations	
Day -3 10/07/24	Inserting visualization on dashboard and its creation	Dashboard creation and inserting visualization	
Day -4 11/07/24	Report creation	Report creating.	
Day -5 12/07/24	Assignment	Create visualizations	
Day -6			

WEEKLY REPORT

WEEK - 1 (From Dt. 8-7-24 to Dt. 12-7-24....)

Objective of the Activity Done:

Data Importing & Modeling

Detailed Report: This week dedicated to mastering data importing and modeling within Power BI.

- * Explored different data connectors available in Power BI, such as Excel, SQL database and online services.
- * Learning about the ETL (Extract, Transform Load) process with Power BI
- * Practiced data modeling techniques, including creating relationships between tables, using DAX (Data Analysis Expressions) functions, and designing calculated columns.
- * Successfully imported datasets from multiple sources into power BI.

ACTIVITY LOG FOR THE THIRD WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 15/07/24	Data Visualization techniques.	Creating effective & interactive data visualization	
Day - 2 16/07/24	Visualizations options in Power BI	Studied various visualization including charts	
Day - 3 17/07/24	Designing interactive dashboards	Participated in a hands-on session to design dashboards	
Day - 4 18/07/24	Appropriate visualizations learned best for different data types practices in diff data types		
Day - 5 19/07/24	Creating a dashboard.	Designed a comprehensive dashboard.	
Day - 6			

WEEKLY REPORT

WEEK - 3 (From Dt. 15/12/24 to Dt. 19/12/24.....)

Objective of the Activity Done: Data Visualization Techniques

Detailed Report: This week focused on creating effective and interactive data visualizations in Power BI.

* Studied various visualizations options available in Power BI, including advanced charts, maps and custom visuals.

* Participated in a hands-on session to design interactive dashboards with slicers, filters and drill-throughs.

* Learned best practices for choosing appropriate visualizations for different data types and insights.

* Designed a comprehensive dashboard featuring key metrics using a mix of visuals.

ACTIVITY LOG FOR THE FORTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 23/07/24	Advanced data Analysis with DAX.	Understanding of DAX for advanced data Analysis	
Day - 2 24/07/24	Completed advanced DAX training modules covering topics.	Completion of advanced DAX	
Day - 3 25/07/24	Case study that required creating complex measures.	Calculate year-over-year growth and rolling averages.	
Day - 4 26/07/24	Troubleshoot DAX - related issues	Collaborated with peers to fix.	
Day - 5			
Day - 6			

WEEKLY REPORT

WEEK - 4 (From Dt. 25.1.2024 to Dt ... 26.1.2024.....)

Objective of the Activity Done: Advanced Data Analysis with DAX

Detailed Report: This week was dedicated to

deepening our understanding of DAX
for advanced data analysis.

- * Completed advanced DAX training module covering topics such as time intelligence, advanced filtering and context management.
- * Worked on a case study that required creating complex measures to calculate year-over-year growth and rolling averages.
- * Collaborated with peers to troubleshoot DAX-related issues in our data model.
- * Improved the accuracy and efficiency of data models using advanced DAX.

ACTIVITY LOG FOR THE FIFTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 29/7/24	Real-world case study.	Sales Analysis.	
Day - 2 30/7/24	Applied Power BI skills to a real-world sales analytics project.	Focus on Power BI skills	
Day - 3 31/7/24	Defined key performance indicators (KPIs) for sales growth and customer acquisition.	Sales growth, customer acquisition.	
Day - 4 01/8/24	Built a sales dashboard to visualize the KPIs.	Understanding the visualization of KPIs.	
Day - 5 02/8/24	Built a sales dashboard to visualize the KPIs.	Understanding the visualization of KPIs.	
Day - 6			

WEEKLY REPORT

WEEK - 5 (From Dt. 29.7.24 to Dt. 2.8.24.....)

Objective of the Activity Done: Data Visualizations Techniques

Detailed Report: This week focused on creating effective and interactive data visualizations in power BI.

* Studied various visualizations options available in power BI, including advanced charts, maps and custom visuals.

* Participated in a hands on session to design interactive dashboards with slicers, filters and drill-throughs.

* Learned best practices for choosing appropriate visualizations for different data types and insights.

* Designed a comprehensive dashboard featuring key metrics using a mix of visuals.

X

ACTIVITY LOG FOR THE SIXTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 05/08/24	Practical application of Power BI skills.	Understanding the application	
Day - 2 06/08/24	Identify trends, outliers and areas	Identifying & Improving.	
Day - 3 07/08/24	Defined by product performance.	Doing the product performance	
Day - 4 08/08/24	Sales Analytics by case study.	Case study.	
Day - 5 09/08/24	Visualizing the KPI's	Doing it in the visualization.	
Day - 6			

WEEKLY REPORT

WEEK - 6 (From Dt. 5.12.24. to Dt. 9.12.24....)

Objective of the Activity Done:

Real-world case study: Sales Analy

Detailed Report:

The focus this week was on applying PowerBI skills to a real-world sales analysis case study.

- * Received a dataset representing sales data from a fictional company.
- * Defined key performance indicators (KPIs) such as sales growth, customer acquisition, and product performance.
- * Built a sales dashboard to visualize the KPI's and identify trends, outliers and areas for improvement.
- * Received positive feedback from mentors on the practical application of Power BI skills.

**ACTIVITY LOG FOR THE ~~LAST~~ WEEK
SEVENTH**

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 12/8/24	Project work.	Doing the presentation.	
Day - 2 13/8/24	Project scope, objectives & deliverables	Started by doing project scope.	
Day - 3 14/8/24	Cleaning & transforming	Data should be cleared before loading.	
Day - 4 15/8/24	Holiday.		
Day - 5 16/8/24	Identifying key metrics, trends & patterns	Which drive business decisions	
Day - 6			

WEEKLY REPORT

WEEK - 1. (From Dt. 12/8/24 to Dt. 16/8/24.....)

Objective of the Activity Done: Project work - Data Analysis and visualizations.

Detailed Report: This week marked the beginning of the project phase.

- * Started by defining the project scope, objectives and deliverables.
- * The project involved analyzing a dataset provided by Smart Internz, cleaning & transforming the data, and building a data model.
- * Our team focused on identifying key metrics, trends and patterns that could drive business decisions.
- * The initial reports and dashboards were created to visualize these insights, using the skills and techniques learned over the past six weeks.

**ACTIVITY LOG FOR THE ~~FOURTEEN~~ WEEK
EIGHTEH**

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1 19/8/24	Finalization and presentation.	Completion of the project	
Day - 2 20/8/24	Enhancing the visual appeal and usability of the dashboards.	Ensuring the data was accurately represented	
Day - 3 21/8/24	Presentation & voice over.	Explanation about project.	
Day - 4 22/8/24	At last we showcased our findings & methodologies	Insights could be applied to solve real business problems.	
Day - 5 23/8/24	Submission of the project.	Successful conclusion to the internship.	
Day - 6			

WEEKLY REPORT

WEEK - 8 (From Dt. 19/8/24 to Dt. 23/8/24....)

Objective of the Activity Done: Project work - finalization and presentation.

Detailed Report: In this week, we completed the project by refining our reports and dashboards ensuring they met the project requirements.

- * We focused on enhancing the visual appeal and usability of the dashboards by adding interactive elements and ensuring the data was accurately represented.
- * The week culminated with a presentation to the smart Internz team, where we showcased our findings, explained the methodologies used and demonstrated how the insights could be applied to solve real business problems.
- * The project was well received, marking a successful conclusion to the internship.

Describe the technological developments you have observed and relevant to the subject area of training (focus on digital technologies relevant to your job role)

Technological Developments

- * Preparing the data for visualization
Involves cleaning the data to remove irrelevant or missing data.
- * Transforming the data into a format that can be easily visualized exploring the data to identify patterns and trends.
- * This process helps to make the data easily understandable and ready for creating visualization to gain insights into the performance & efficiency.

Describe how could you could enhance your abilities in group discussions, participation in teams, contribution as a team member, leading a team/activity.

Group Discussions

- * Our team members had a group discussion making on visualizations about the data given to us.
- * We had deeply get into the data and analysed the data and transformed the data into the power BI.
- * We all had decided and separated the work by the given data and assigned the work to every team member.
- * We have visualized the data into graphical representation to explain about the visualization easily to the other person.

Describe how you could improve your communication skills (in terms of improvement in oral communication, written communication, conversational abilities, confidence levels while communicating, anxiety management, understanding others, getting understood by others, extempore speech, ability to articulate the key points, closing the conversation, maintaining niceties and protocols, greeting, thanking and appreciating others, etc.,)

Improving Communication Skills

- * While explaining the project the communication is very important.
- * We need to deliver the process of the data which we analysed and visualized in the bar charts (or) pie charts.
- * Our written communication also helps others to analyse the data by reading.
- * The way we deliver the data and getting understood by others is very important.

Describe the managerial skills you have acquired (in terms of planning, leadership, team work, behaviour, workmanship, productive use of time, weekly improvement in competencies, goal setting, decision making, performance analysis, etc.

Leadership Skills

- * Effective leadership requires a combination of technical knowledge, interpersonal skills and strategic thinking.
- * Making informed and timely decisions, even under pressure, considering both short term and long-term impacts.
- * Developing a clear vision for the future and formulating strategies to achieve that vision.
- * Identifying challenges and obstacles and developing effective solutions.
- * Addressing and managing conflicts within the team in a constructive manner.

Describe the real time technical skills you have acquired (in terms of the job-related skills and hands on experience)

Real time technical skills

- * These skills are crucial in industries where immediate processing, response, or feedback is essential such as finance, gaming, telecommunications or embedded systems.
- * Skills in testing and debugging systems where timing and synchronization are critical, ensuring that real-time constraints are not violated.
- * Managing databases that support real-time data retrieval and updating, critical for systems like locations, areas and prices.
- * These skills are often developed through specialized education, hands-on experience and continuous learning and reliability.