



## SHORT-TERMINTERNSHIP



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## Acknowledgements

I would sincerely like to thank Apsche for providing me this short-term internship which helped me gain practical experience and knowledge on Data Analytics.

I would like to thank our principal Sir Dr. G.S.K Chakravarthy for giving me this wonderful opportunity.

I would also like to thank our Head of the department Miss Hymavathi mam Department of BSC computer Science and Our guide K. Mrudula praveena mam for being a wonderful mentor throughout my project.

I thank my lecturers mentors and my friends who helped me to do this project. without them this project would not have been completed.

**This page content gives an idea only, which topics have to write.**

## **1: EXECUTIVE SUMMARY**

The internship report shall have a brief executive summary. It shall include five or more Learning Objectives and Outcomes achieved, a brief description of the sector of business and intern organization and summary of all the activities done by the intern during the period.

## **2: OVERVIEW OF THE ORGANIZATION**

### **Suggestive contents**

- A Introduction of the Organization
- B Vision, Mission, and Values of the Organization
- C Policy of the Organization, in relation to the intern role
- D Organizational Structure
- E Roles and responsibilities of the employees in which the intern is placed.
- F Performance of the Organization in terms of turnover, profits, market reach and market value.
- G Future Plans of the Organization.

## **3: INTERNSHIP PART**

*Description of the Activities/Responsibilities in the Intern Organization during Internship, which shall include - details of working conditions, weekly work schedule, equipment used, and tasks performed. This part could end by reflecting on what kind of skills the intern acquired.*

## Executive Summary

Description of the Sector of business(B) Intern Organization  
 Smartbridge operates in the data Analytics Sector providing innovative solutions to enhance business intelligence. The organization leverages power BI to empower clients with actionable insights enabling data-driven decision making.

### Learning Objectives and Outcomes:

1. Understand power BI fundamentals
2. Data Modeling
3. Proficiency in power BI Tools
4. Data cleaning transformation
5. Data visualization
6. Report design and sharing

### Summary Of Internship Activities:

1. Attending live training sessions and project - mentoring sessions
2. Selection of topic - "Student performance analysis" and gathering - cleaning and analyzing its related datasets in Excel
3. Team formation and assignment of tasks to team members
4. Designing developing interactive dashboards stories report on project using Power BI
5. 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 student. The platform's goal is to prepare student for the job market by establishing a cooperative relationship between Industry Academic. Smart bridge partners with companies such as google to offer virtual internships. The Internships provide students with handle an experience with the latest technologies and enable project based learning. Smart bridge flagship went is the "Summer Internship program". The program develops students skills in emerging technologies

- 1. Artificial Intelligence
- 2. Machine learning
- 3. Internet of things

### Organization's Objective:

Smart Bridge's main objective is to bridge the existing gaps between prevailing industry standards and what the academics offer to the graduate while passing out of university. Smart Bridge offers suitable skill development training to the young talent before on boarding their first job. Their Skill development programs are

designed considering the present in demand skills in the industry. we there by present in demand work along the line to offer best programs that helps the students to gain practical knowledge and hands on training to learn skills of the future.

Therefore the main objectives of Smart bridge is providing internship for every student promote industry approved professional electives become a talent factory of India by 2026.

## CHAPTER 3 : INTERNSHIP PART

Description of the Activities / Responsibilities undertaken

- 1) Registering with APSOCHE Smart Intern & Enrolling for smartbridge's Data Analytics course i.e. love training sessions as per the scheduled training calendar.
- 2) Participating weekly quiz & completing weekly assignments with respect to data analytics.
- 3) Team formation & Selection of project topic "Customer support ticket dataset".
- 4) Gathering, cleaning & analyzing the excel data set of the project topic - "Customer support ticket dataset".
- 5) Attending project-Mentoring Sessions and designing and developing interaction dashboard, report on the project topic using Power BI.
- 6) Web Integration of above project deliverable with team's webpage using visual studio code drafting a project video demonstration and preparation of final Report.
- 7) Submission of team project via uploading the Project files in Github Repository of the team.

It helps in connecting to different data sources, cleaning and transforming data, creating interactive reports and dashboards and sharing insights within an organization.

It can handle large datasets, create relationships between data tables, apply filters and use various

visualizations like charts and graphs to represent data effectively. It also offers features like DAX for custom calculations and scheduling data refreshes.

## ANALYSIS OF CUSTOMER SUPPORT TICKET DATA SET

**Max of Ticket ID by Ticket Priority**



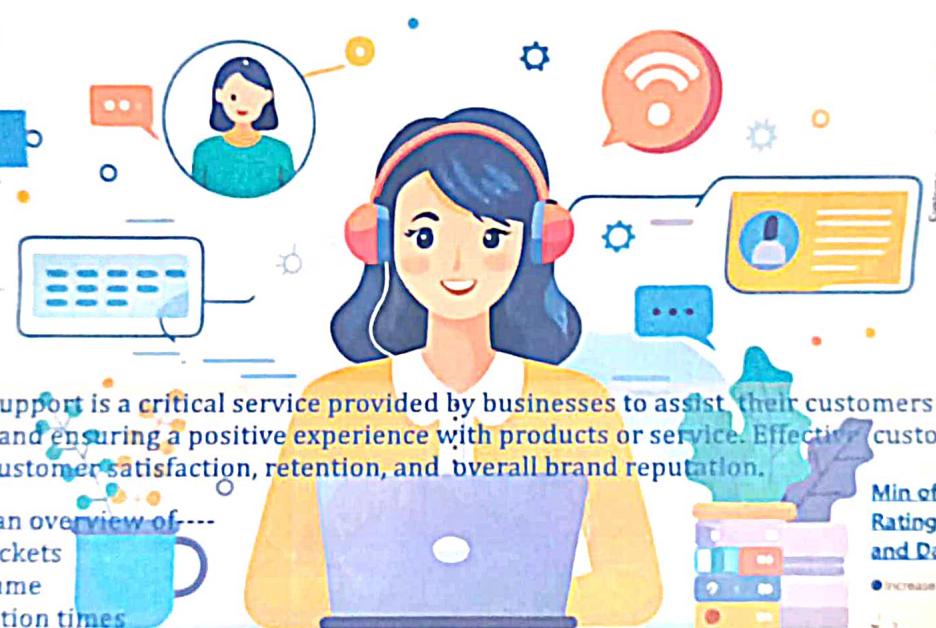
**min Customer Age by Customer Gender**



**REPORT :** Customer support is a critical service provided by businesses to assist their customers in resolving issues, answering questions and ensuring a positive experience with products or service. Effective customer support can significantly impact customer satisfaction, retention, and overall brand reputation.

This report provides an overview of----

- customer support tickets
- including ticket volume
- response and resolution times
- customer satisfaction
- agent performance



**Average of Ticket ID by Customer Name and Ticket Type**



**Min of Customer Satisfaction Rating by Year, Quarter, Month and Day**



### average of Ticket Type by Customer Gender

● Increase ● Decrease ● Total



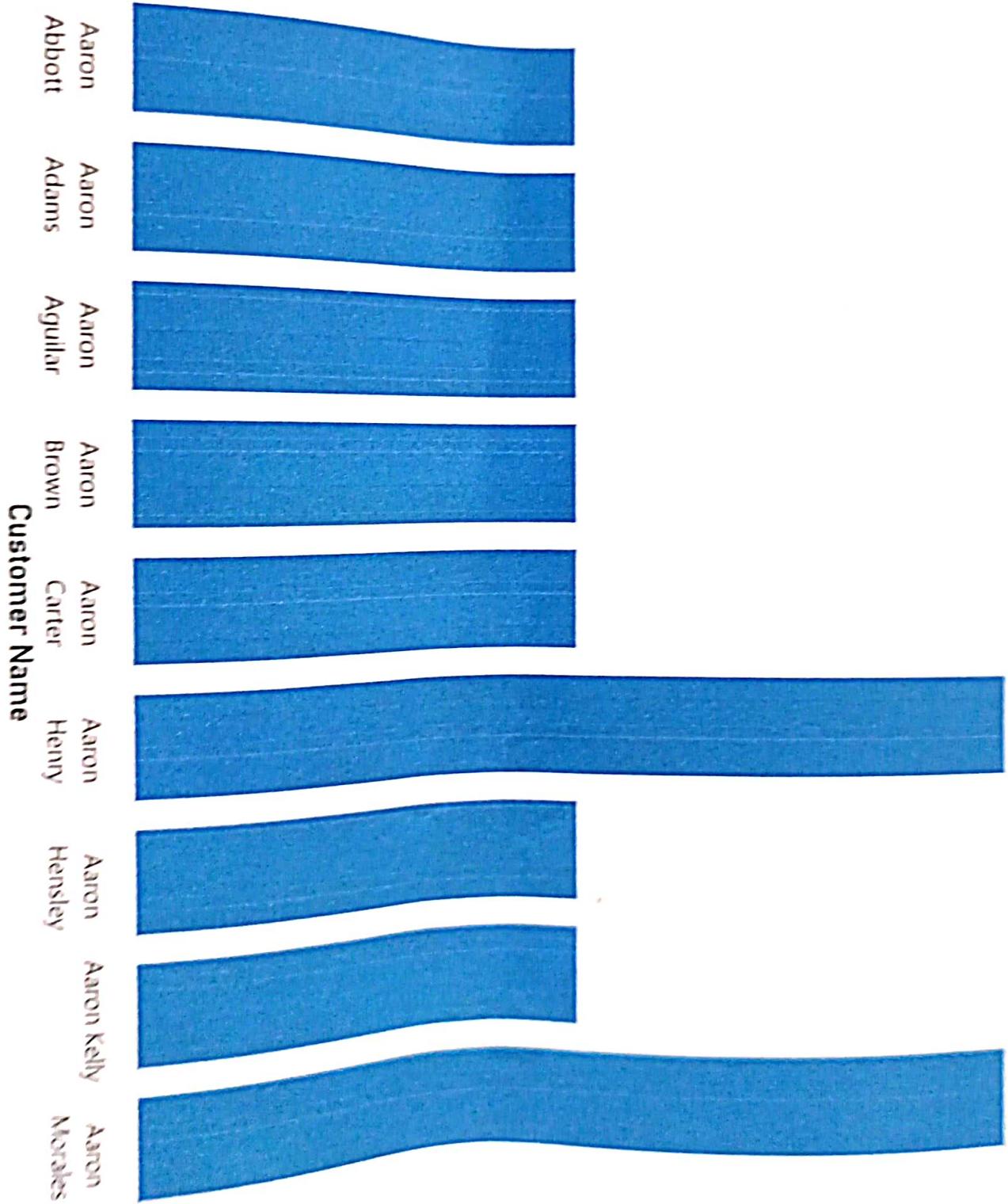
### average of Product Purchased by Customer Name

2

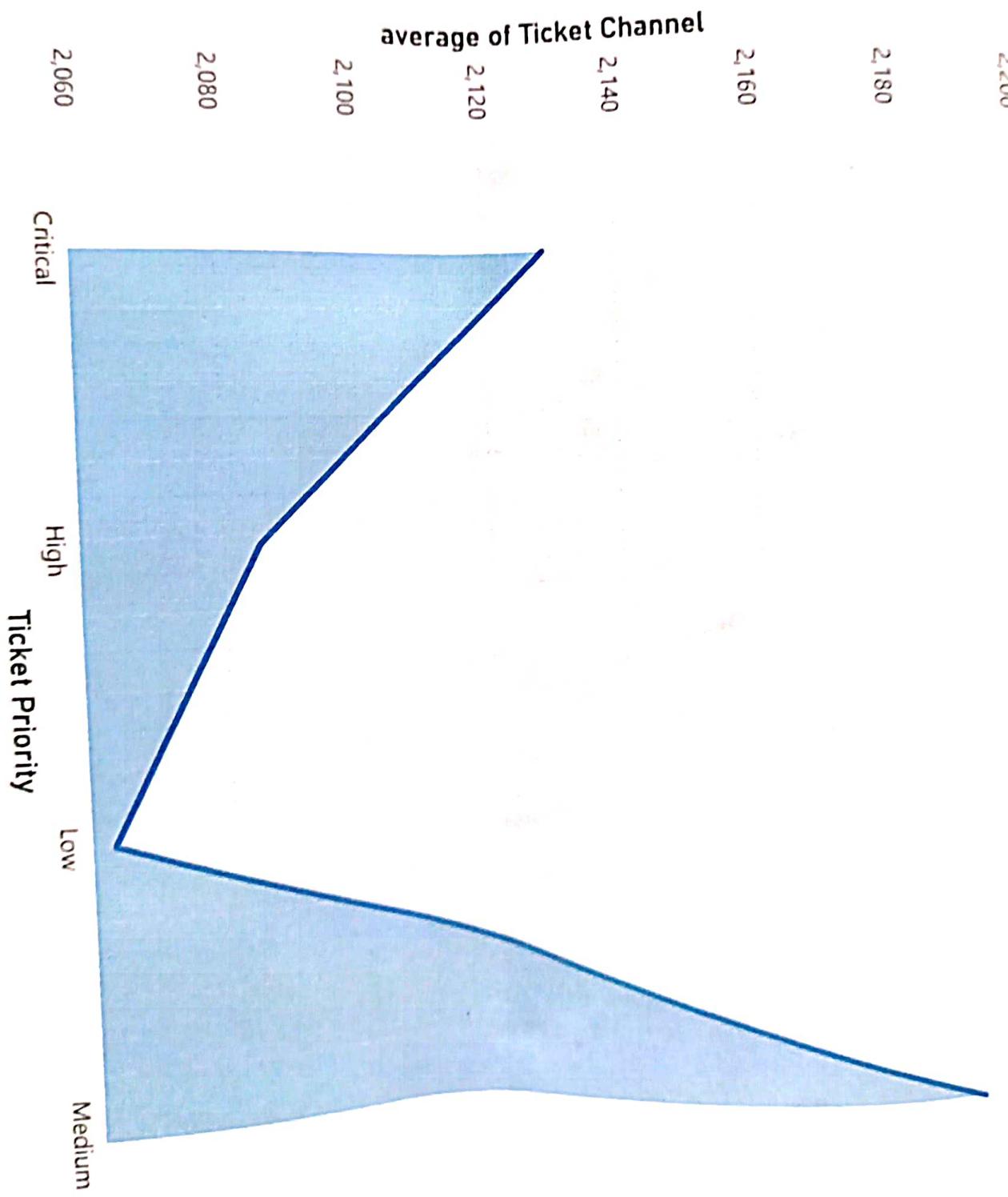
average of Product Purchased

1

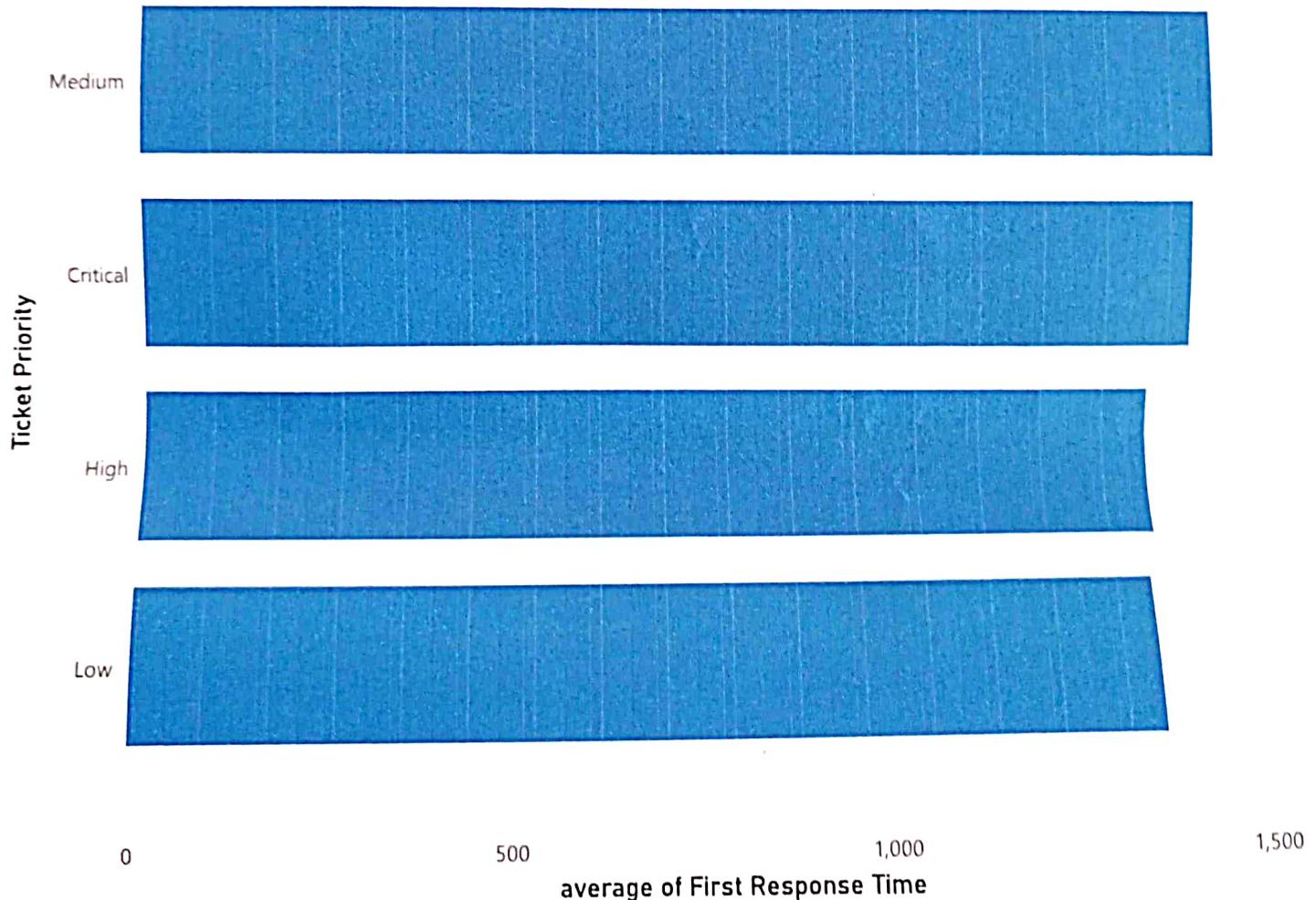
0



## average of Ticket Channel by Ticket Priority



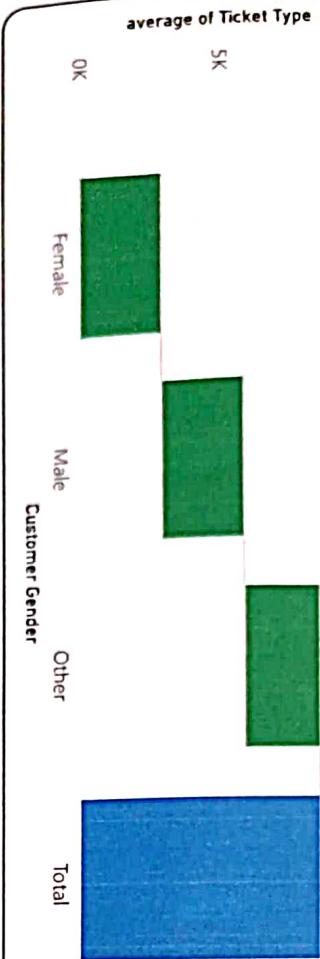
### average of First Response Time by Ticket Priority



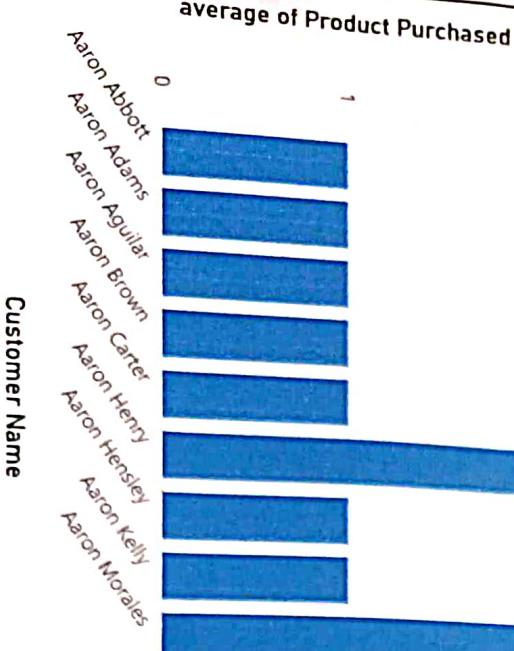
# ANALYSIS OF Customer SUPPORT TICKET Dataset

average of Ticket Type by Customer Gender

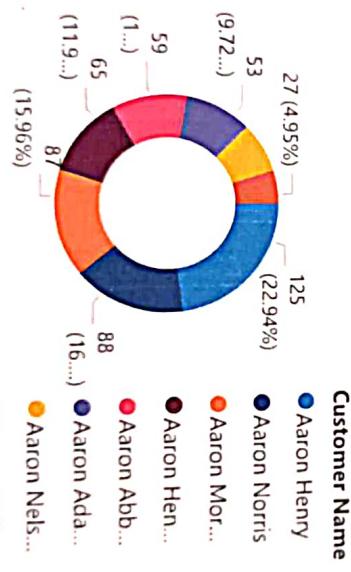
● Increase ● Decrease ● Total



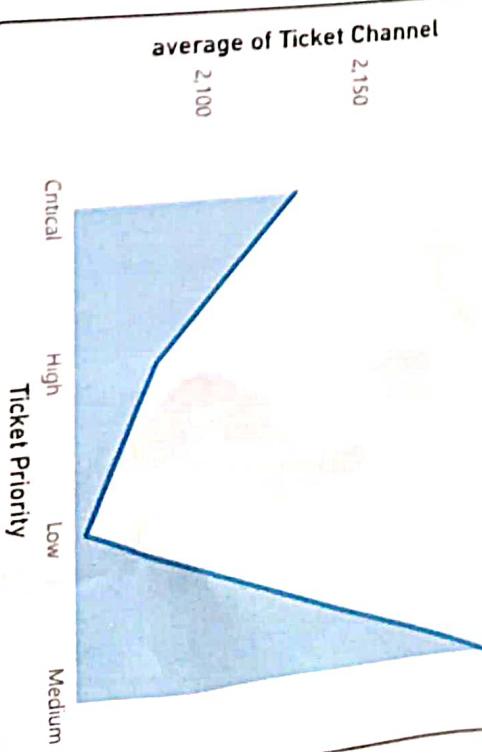
average of Product Purchased by Customer Name



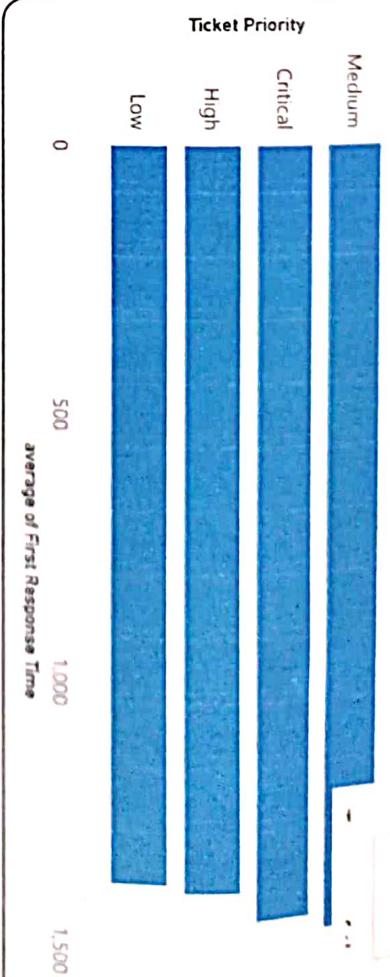
average of Customer Age by Customer Name



average of Ticket Channel by Ticket Priority



average of First Response Time by Ticket Priority



**ACTIVITY LOG FOR THE FIRST WEEK**

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-charge Signature</b>
Monday Day - 1	Introduction of data Analytics	Analysis of the topic	
Tuesday Day - 2	Introduction of data Analytics	Analysis of the topic	
Wednesday Day - 3	Agenda and understanding customers	clear view of business problems and solutions	
Thursday Day - 4	Analysing and implementing data	putting the data in visual form	
Friday Day - 5	Data Analytics application	learned about different tools and insights	
Saturday Day - 6	Researched the additional information online	additional information about DA	

WEEKLY REPORT

WEEK - 1 (From Dt.03/7/24. to Dt ..5/7/24.....)

Objective of the Activity Done: Introduction to Data Analytics

Detailed Report: In the first week we were introduced to the fundamental of data analytics, emphasizing the role of data driven decision-making in modern business. The Sessions covered the basis of data analysis, different types of data and the importance of data visualization.

We also explored power BI understanding its interface features and how it integrates with other microsoft products

The week concluded with a hands on session on loading and transforming data in power BI

## ACTIVITY LOG FOR THE SECOND WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
monday Day - 1	Data Analytics application	learned about different value and insights	
Tuesday Day - 2	Data Analytics application	where PEs used in diff sec	
wednesday Day - 3	data Analytics process and steps of DA	learned about data clearing and processing	
Thursday Day - 4	Data Analytics process and steps of DA	learned about data clearing and processing	
Friday Day - 5	Types of data Analytics	Different types in DA in clear way	
Saturday Day - 6	Revision on given topics	Revised about DA	

Objective of the Activity Done:

Data transformation and Modeling

Detailed Report:

The Second week focused on data transformation and modeling within power BI. We learned to clean, reshape and prepare data using power Query Editor. The training covered essential functions like filtering, merging and appending datasets.

Additionally we were introduced to data modeling concepts such as relationships, cardinality, and data hierarchy.

The practical sessions helped reinforce these concepts by allowing us to create and manage data models effectively.

**ACTIVITY LOG FOR THE THIRD WEEK**

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-Charge Signature</b>
Monday Day - 1	Business problems and the solutions (practise)	challenges faced in Organization	
Tuesday Day - 2	Business problems and the solutions (practise)	challenges faced in Organization	
Wednesday Day - 3	Power BI in Action	Viable insights about Sales Govt cost	
Thursday Day - 4	BI Architecture	learned about Structure	
Friday Day - 5	BI Architecture	learned about Structure	
Saturday Day - 6	Revision on given topics	Revised about DA	

**Objective of the Activity Done:**

**Detailed Report:**

## Data visualization Techniques

In the third week the emphasis was on data visualization techniques using Power BI.

We explored various types of charts, graphs, and maps that can be created in Power BI to visualize data insights.

The sessions included best practices for selecting the right visualizations based on the type of data and the message we want to convey. We also learned about customizing visual elements using themes, and enhancing reports with interactive features like filters and drill-throughs.

### ACTIVITY LOG FOR THE FOURTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Monday Day -1	Data to Insights flow in Power BI	Learned about data and model view	
Tuesday Day -2	Tables and merges	Learned about the kinds in merge	
Wednesday Day -3	Tables and merges	Learned about the kinds in merge	
Thursday Day -4	ETL tools in power query	white power BI data flows	
Friday Day -5	ETL tools in power query	white power BI data flows	
Saturday Day -6	Researched the additional information online	additional information about BI	

**WEEKLY REPORT**  
WEEK-4 (From Dt. 22/7/24..... To Dt.... 26/7/24.....)

**Objective of the Activity Done:**

Advanced Analytics and DAX

**Detailed Report:**

Week four delved into advanced analytics and data analysis expression (DAX) in power BI.

We learned how to create calculated columns, measures, and custom tables using DAX.

The training covered complex DAX functions such as time intelligence, filtering and aggregation.

We also explored advanced analytical techniques like trend analysis, forecasting and what if Scenarios.

The week ended with exercises to build dynamic reports using DAX - driven insights.

**ACTIVITY LOG FOR THE FIFTH WEEK**

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Monday Day - 1	Data Sources dash boards and insights	learned how these are used in BI	
Tuesday Day - 2	Data collection and data cleaning	learned about the process in DA	
Wednesday Day - 3	Data collection and data cleaning	Learned about the process in DA	
Thursday Day - 4	Data Analytics Expressions (DAX)	learned about the expression and function	
Friday Day - 5	Data Analytics Expressions (DAX)	Learned about the expression and functions	
Saturday Day - 6	Discussion Regarding project	Discussed about project	

Objective of the Activity Done:

Detailed Report:

Power BI Service and collaboration

The fifth week covered the power BI Service and its collaborations features

We learned how to publish reports to the power BI Service, share dashboards and collaborate with team members in real time.

The sessions emphasized data security row-level Security (RLS), and managing workspaces

We also explored power BI's integrations with other microsoft tools like Excel, Teams and Share point making

It easier to collaborate and share insights across the organization

**ACTIVITY LOG FOR THE SIXTH WEEK**

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-Charge Signature</b>
Monday Day - 1	Filter functions In DAX	Different filters in DAX	
Tuesday Day - 2	filter functions in DAX	Different filter in DAX	
wednesday Day - 3	preparation for grand assessment test	Preparation for assess- ment test	
Thursday Day - 4	preparation for grand assessment test	Preparation for assessment test	
friday Day - 5	Grand assessment test	Gave the grand assessment test	
Saturday Day - 6	Researched the information online	Additional/ Information about BI	

**WEEKLY REPORT**  
WEEK-6 (From Dt. 5/8/24 ..... to Dt. 9/8/24.....)

**Objective of the Activity Done:**

**Detailed Report:**

Best practices and Industry trends

In the final week of Internship classes we focused on best practices in data analytics and real-world applications of power BI across various industries.

We discussed key strategies for optimizing data models, enhancing report performance, and maintaining data governance.

The Sessions also included case studies showcasing how companies use power BI for Business Intelligence, Sales analysis, financial reporting, and operational efficiency.

The week wrapped up with an overview of the upcoming project work.

Objective of the Activity Done:

Detailed Report:

Project work-data analysis & visualization

The Seventh week marked the beginning of the defining the project scope objectives and deliverables.

The project involved analyzing a dataset provided by Smart Internz cleaning and transforming the data and building a data model.

Our team focused on identifying key matrices, 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.

Objective of the Activity Done:

Finalization and presentation

Detailed Report:

In the final 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 Interns 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, making a successful conclusion to be the Internship

## CHAPTER 6: 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.)

### Description of work Environment

The internship at SmartBridge has been a transformative experience, equipping me with practical skills in data Analytics and a deep understanding of the role of the data Analytics in the industry. The hands-on experience & exposure to real-world projects has not only sharpened my technical abilities but has also honed my communication skills and project Management skills. The work environment featured a collaborative atmosphere with clear tasks-roles, well-defined protocols & structured procedures.

The facilities were equipped with necessary tools for data Analytics. Team members exhibited mutual support & teamwork contributing to a harmonious relationship. Overall the internship provided a comprehensive experience in data Analytics within a well-organized and supportive work environment.

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

## Description of the technical Skills Acquired

Data Analysis: Proficiency in examining and Interpreting complex datasets

Statistical Analysis: understanding and applying statistical methods to derive insights.

Data Visualization: Mastery in creating compelling visualization for effective communication of data

Analytics tools proficiency: proficiency with web based tools like MS Excel powerBI google Colab for analytics & visualization

Programming language: Knowledge & Experience in python programming language

Visualization generation: skills in developing interactive dashboards, comprehensive reports, narrative stories in data Analytics.

Problem Solving: Developing solutions to challenges encountered during data analysis.

Data cleaning and preprocessing:- proficiency in data cleaning & preparing data for analysis

**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.**

## Description of the Managerial Skills Acquired

**Project Management:** Coordinating tasks, setting goals & ensuring the timely completion of the data analytics project.

**Team collaboration:** Working effectively in a group, delegating tasks & fostering a collaborative environment.

**Leadership skills:** Taking initiative, guiding the team & making decisions to achieve project objectives.

**Time management:-** Prioritizing tasks, meeting deadlines, & efficiently allocating resources.

**Problem solving as a team:** Addressing challenges collectively, finding solutions through group discussions & collaboration.

**Adaptability:** Being flexible & adapting to changes in project scope or requirements.

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.,)

## Description of the communication skills acquired

Technical communication: Effectively conveying complex data Analytics concepts & findings

Presentation skills: creating & delivering engaging presentations to communicate insights, dashboard, visualization & projects

Team collaboration: collaborating with team members to share information, discuss project progress & updates.

Written communication: crafting clear & concise reports documentation and emails related to data analytics processes.

Conflict Resolution: Addressing & Resolving conflicts within the team to maintain a positive & productive environment between team members

Feedback Delivery: providing constructive feedback to peers, mentors & trainers and receiving feedback fostering a culture of continuous improvement

Quality Assurance:

Ensuring the accuracy & quality of the data analytic project deliverable produced by the team.

Feedback & Improvement:

Providing constructive feedback to team members & actively participating in continuous improvement processes.

Decision Making:

Making informed decisions based on data, analysis and critical thinking.

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

Reflecting on my experience in data analysis at Smartbridge Intern, I've identified key areas for enhancing my abilities in group discussions, team participation and leadership.

To improve my contributions in group discussions, I aim to actively listen to others, ask insightful questions and share my opinions/perspectives clearly & effectively.

As a team member, I plan to strengthen collaboration by proactively offering support leveraging my technical skills and embracing different viewpoints of team members.

Lastly to enhance my leadership capabilities

I plan to focus on taking initiative, creating a positive team environment, and effectively coordinating team activities.

Through these measures I am committed to continuous growth and excellence in my role within the team.

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

## Description of the Digital technologies

1. **Data connectivity:** PowerBI connects to a wide array of data sources, including databases, cloud services and web APIs. This technology allows live connection to data sources enabling real-time data analysis without importing data onto Power BI.
2. **Data Transformation and Modeling:** Power Query editor enables users to clean, transform and shape data through a user-friendly interface. PowerBI provides capabilities for creating relationships between different data tables, calculated columns using DAX.
3. **Data Visualization:** users can create interactive dashboards with a wide range of visualization such as charts, graphs, tables. These can be customized and tailored to specific needs.
4. **Natural language processing (NLP):** Q&A feature enables users to ask questions about their data using natural language and PowerBI will generate visualizations based on the queries. This helps users interact with data in a more intuitive way.