



SHORT-TERMINTERNSHIP



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VISAKHAPATNAM**

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Acknowledgements

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

I thank our respected 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 Department of Psc, MECS and our guide ~~miss.Hymavathi~~ ^{K.Mrudula} for being a wonderful mentor throughout my project.

I thank Almighty God, my parents and my friends without whose help 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.

Description of the sector of business and intern organization

Smart bridge operator in the data analysis sector, providing innovative solutions to enhance business intelligence. The organization leverages Power BI Data Analysis to empower clients with actionable insights, enabling data-driven decision-making.

- Learning objects and outcomes:
- 1) Understand Power BI Fundamentals
 - 2) Data modeling
 - 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 five training sessions and project-mentoring session.
 - 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 and developing interactive dashboards, story 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 students. The platform's goal is to prepare students for the job market by establishing a cooperative relationship between industry and academia. Smart Bridge partners with companies such as Google to offer virtual internships. These internships provide students with hands-on experience with the latest techniques and enable project-based learning. Smart Bridge's flagship event is the "Summer Internship Program". The program develops student skills in emerging techniques i.e.

- 1) Artificial Intelligence
- 2) Machine Learning
- 3) Internet of Things.

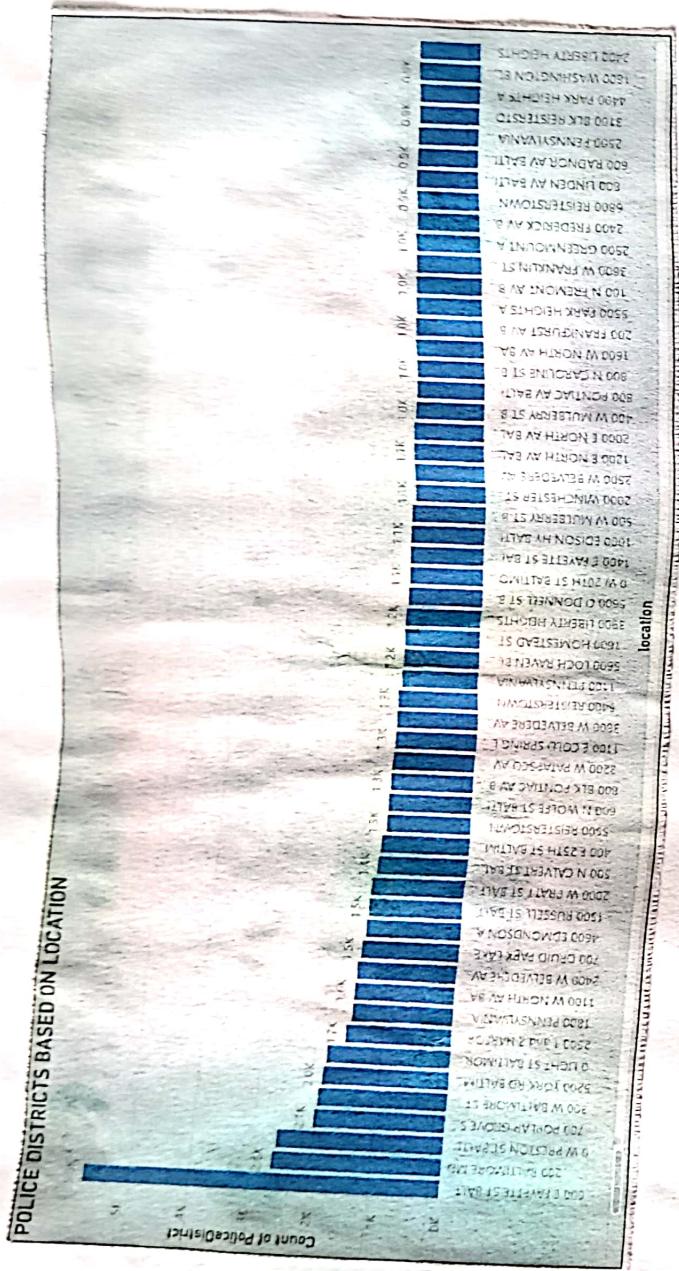
Organization's Objective:-
Smart Bridge's main objective is to bridge the existing gaps between prevailing industry standards and what the academics offer to the graduates while passing out of university. Smart Bridge offers suitable skill development training to the young talent before boarding their first job. Their skill development programs are designed considering the present work demand in the industry, we thereby work along the line to offer programs that help 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, problem promote industry approved professional electives become a talent factory of India by 2026.

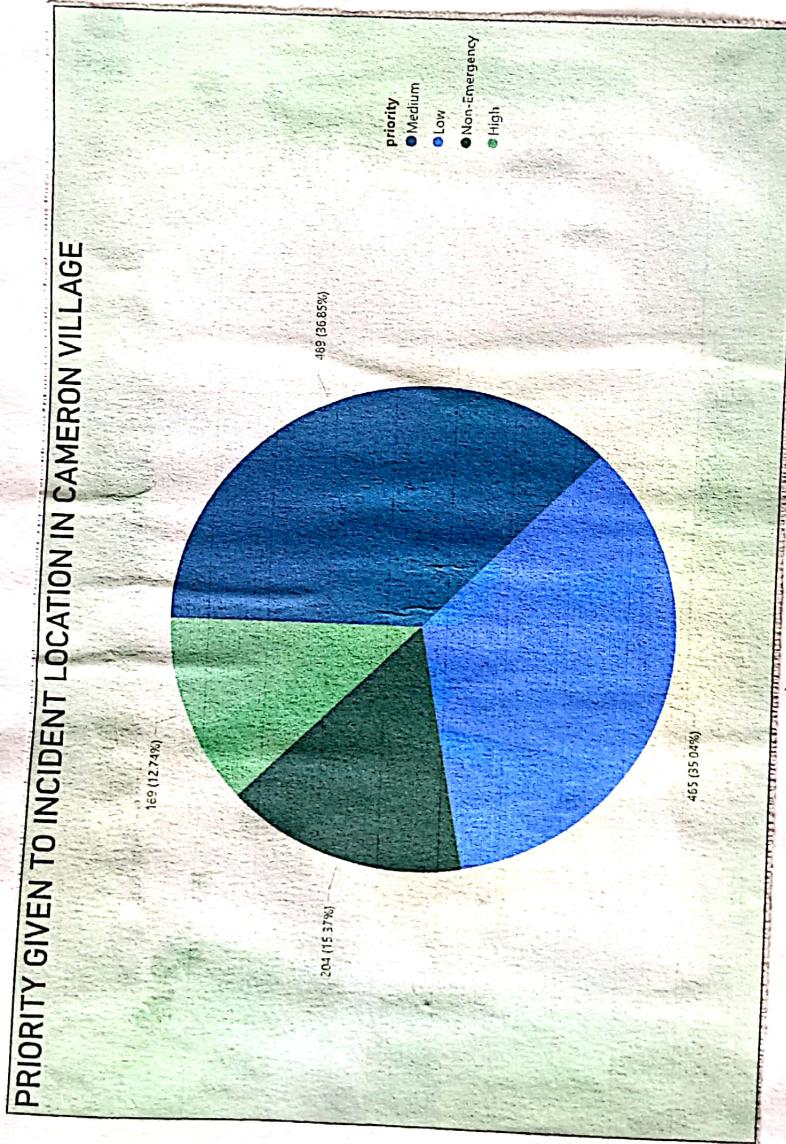
3: INTERNSHIP PART

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.

- 1) Description of the activities/ Responsibilities undertaken
- 1) Registering with APSCHIE Smartintern & enrolling for Smartbridge's data analysis course i.e live training sessions as per the pre-scheduled training calendar.
- 2) participating weekly quiz and completing topic "Quantitative analysis of 2019 to 911 call for services"
- 3) Team Formation & Selection of project topic . " 911 call for services"
- 4) Gathering Cleaning analyzing the excel data sets of the project topic - " 911 call for services"
- 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 pages using visual studio code drafting a projects video demonstration and preparation of final report
- 7) submission of team project via uploading the project file in Github Repository of the team.



PRIORITY GIVEN TO INCIDENT LOCATION IN CAMERON VII | AGE

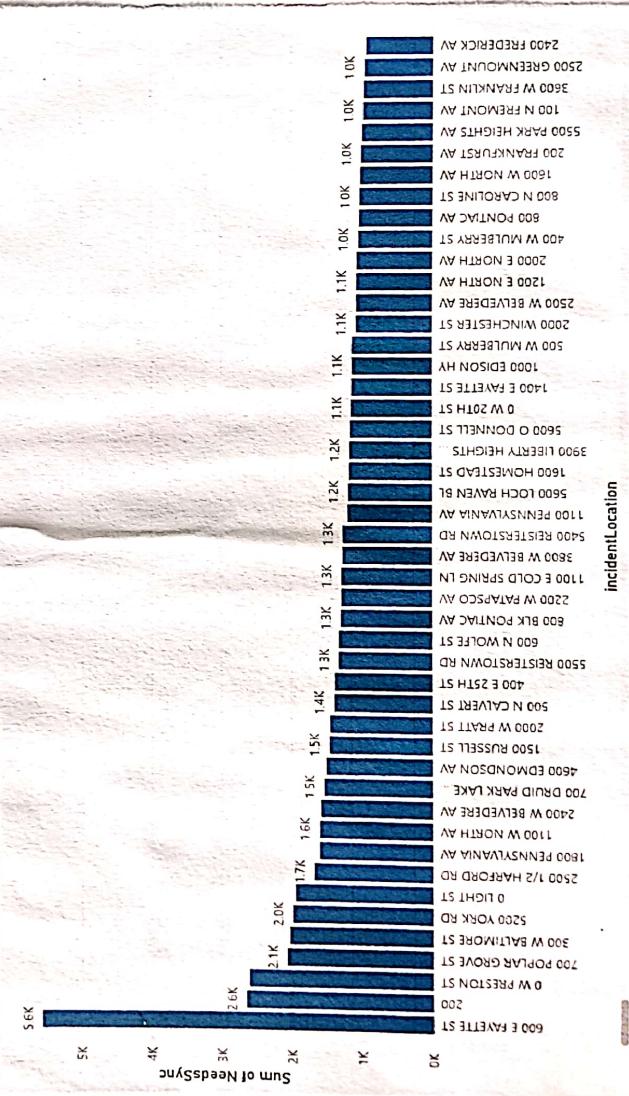


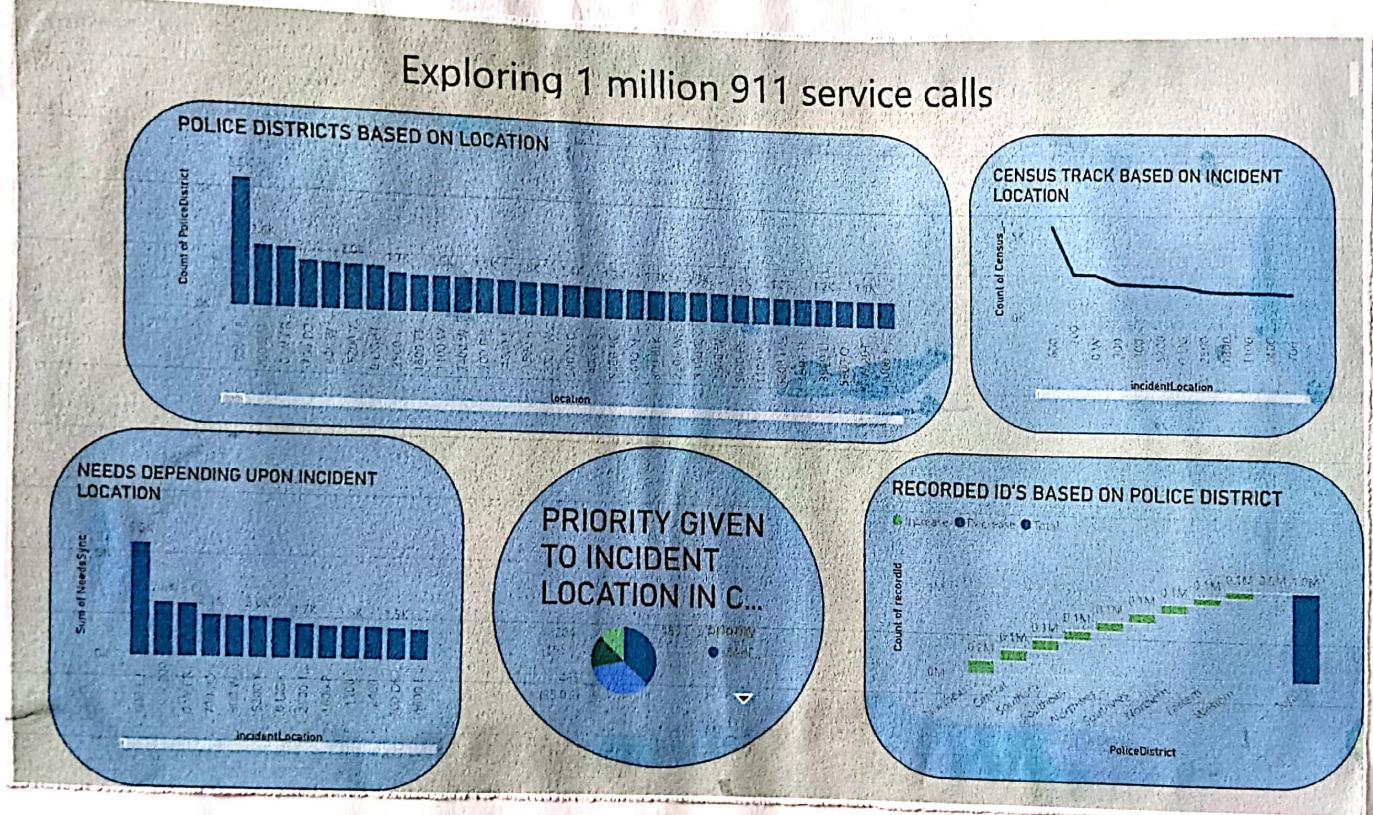
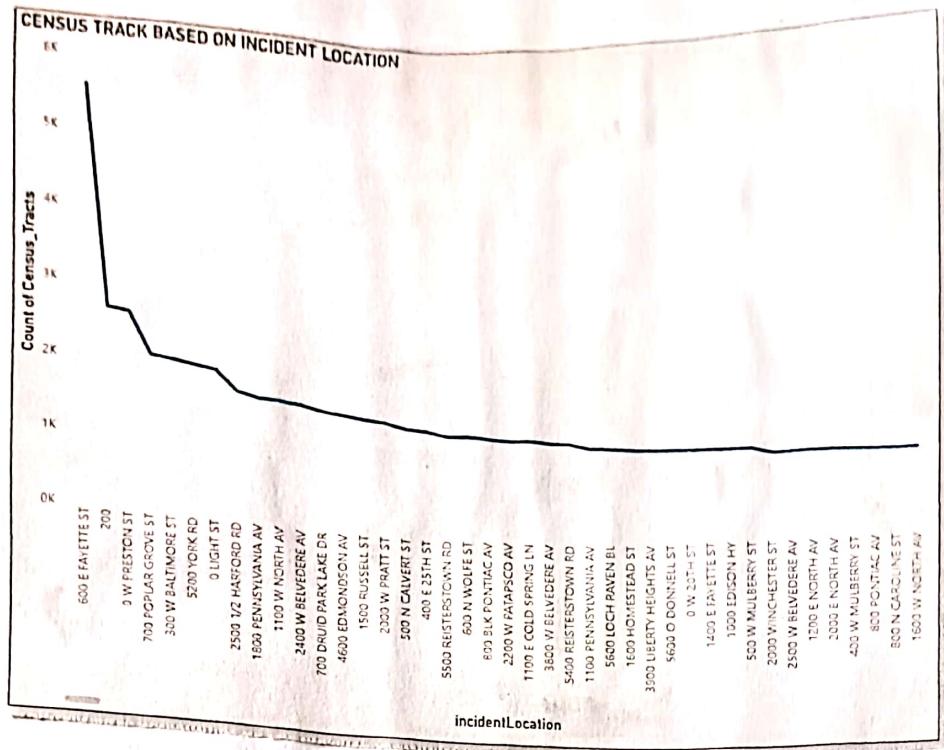
PHOTOS & VIDEO LINKS

RECORDED ID'S BASED ON POLICE DISTRICT

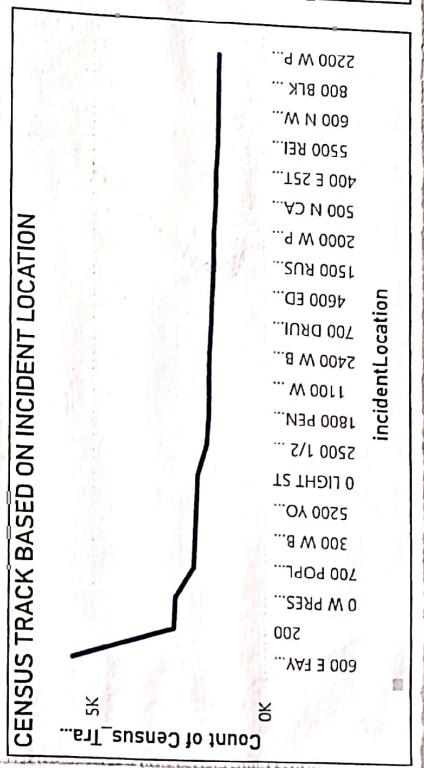
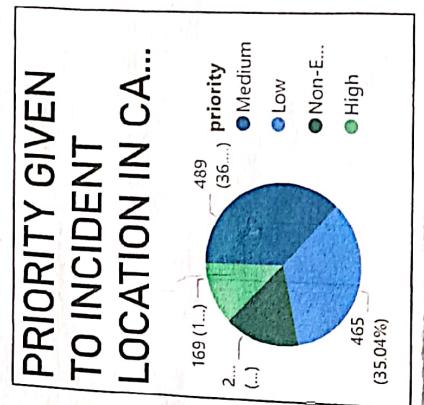
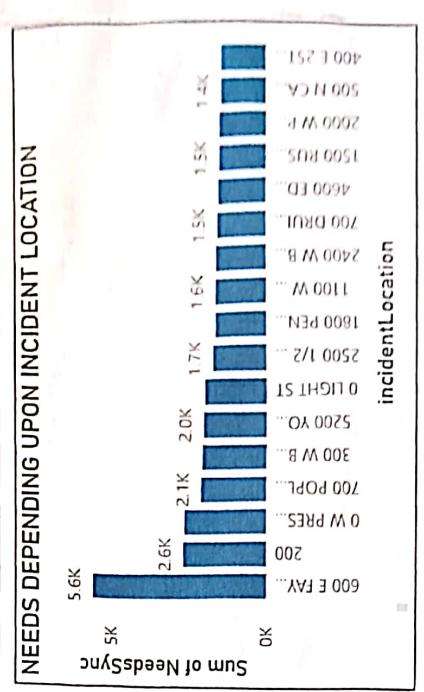
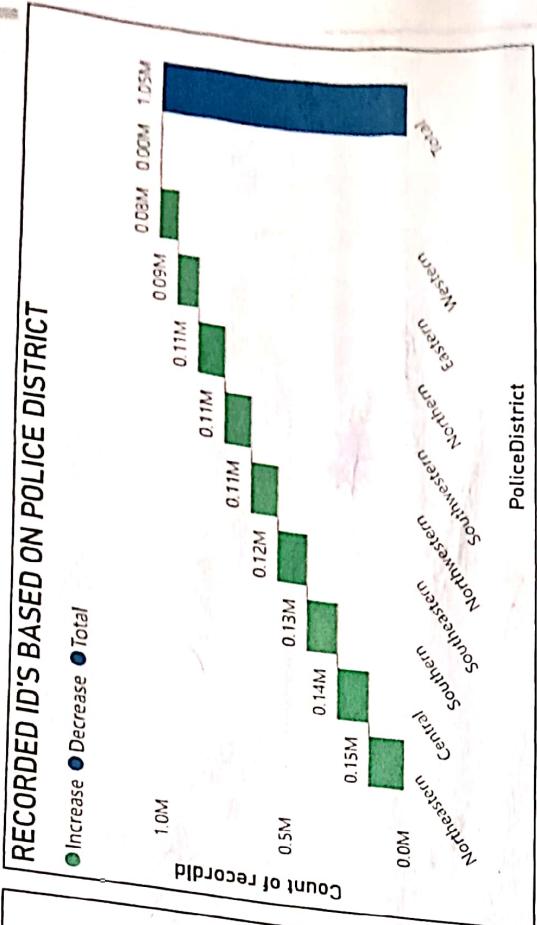
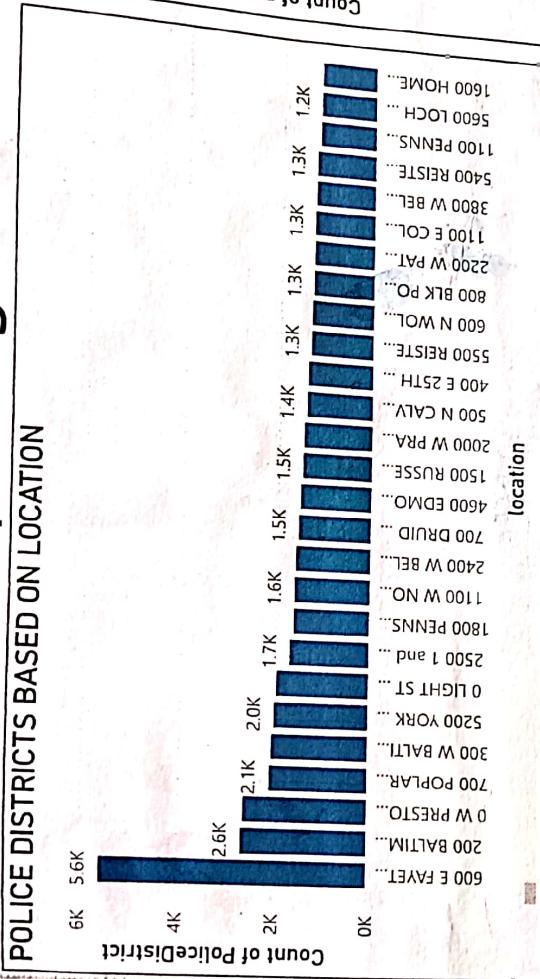


NEEDS DEPENDING UPON INCIDENT LOCATION





Exploring 1 million 911 service calls



ACTIVITY LOG FOR THE FIRST WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|-----------------------------|--|--|----------------------------|
| Monday Day -1 8-07-24 | Introduction of data Analytics | Analysis of the topic | |
| Tuesday Day -2 9-7-24 | Introduction of data Analytics | Analysis of the topic | |
| Wednesday Day -3 | Agenda and understanding customers | clear view of business problem and solutions | |
| Thursday Day -4 | Analysis and implementing data | Putting the data in visual form | |
| Friday Day -5 | Data Analytics applications | Learned about different tools and insights | |
| Saturday Day -6 | Researched the additional information online | Additional information about DA | |

WEEKLY REPORT

WEEK - 1 (From Dt. 3/7/2024 to Dt. 5/7/2024.....)

Objective of the Activity Done:

Power BI

Detailed Report:

In the first week, we were introduced to the fundamentals of data analytics, emphasizing the role of data - driven decision-making in modern business. The sessions covered the basics 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 Analysis application | learned about different tools and insights | |
| Tuesday Day - 2 | Data analytics application | where it is used in diff sec | |
| wednesday Day - 3 | data Analytics Process and steps is DA | learned about data clearing and processing | |
| Thursday Day - 4 | data Analytics process and steps is 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 | |

WEEKLY REPORT

WEEK - 2 (From Dt. 8/7/24 to Dt. 12/7/24.....)

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 hierarchies.

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

ACTIVITY LOG FOR THE THIRD WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|-----------------------|---|-------------------------------------|-----------------------------------|
| monday Day -1 | business problems and the solutions (Prouti) | challenges faced in organization | |
| tuesday Day -2 | business problems and the solutions | challenges faced in organization | |
| wednesday Day -3 | power BI in Action | visible insights and sales for cost | |
| thursday Day -4 | BI Architecture | learned about structure | |
| friday Day -5 | BI Architecture | learnd about structure | |
| saturday Day -6 | Revision on given topics | Revised about DA | |

WEEKLY REPORT

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

Objective of the Activity Done: Data visualization techniques

Detailed Report: 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 selection 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 slices 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 merges | |
| Wednesday Day - 3 | Table and merges | learned about the kinds in merges | |
| Thursday Day - 4 | ETL tools in power Query | visualize power BI data flows | |
| Friday Day - 5 | ETL tools in power Query | visualize power BI data flows | |
| Saturday Day - 6 | Researched the additional information online | additional information about BI | |

WEEKLY REPORT

WEEK - 4 (From Dt.22/2/24 to Dt. 26/2/24.....)

Objective of the Activity Done:

Advanced Analytics and DAX

Detailed Report: Week Four delved into advanced analytics and data Analytics 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 intelligences, 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 about 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 expressions and functions | |
| Friday Day - 5 | data Analytics expressions (DAX) | learned about the expressions and functions | |
| Saturday Day - 6 | discussion Regarding project | discussed about project | |

WEEKLY REPORT

WEEK - 5 (From Dt. 29/3/24 to Dt. 21/4/24.....)

Objective of the Activity Done: Power BI Service and Collaboration

Detailed Report: The Fifth week covered the power BI services and its collaborations features

We learned how to publish reports to the power BI services, share dashboards and collaboration 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 SharePoint, making it easier to collaborate and share insights across the organization.

ACTIVITY LOG FOR THE SIXTH WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|-----------------------|--|---------------------------------------|-----------------------------------|
| Monday Day - 1 | Filter Functions in DAX | Different Filters in DAX | |
| Tuesday Day - 2 | Filter functions in DAX | Different filters in DAX | |
| Wednesday Day - 3 | Preparations for grand assignment test | Preparation for assignment test | |
| Thursday Day - 4 | Preparation for grand assignment test | Preparation for assignment test | |
| Friday Day - 5 | Grand assignment test | Give the grand assignment test | |
| Saturday Day - 6 | Researched the additional 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:

Best practices and industry applications

Detailed Report:

In the final week of internship classes we focused on best practical 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.

WEEKLY REPORT

WEEK - 7 (From Dt.2/8/24. to Dt.16/8/24.....)

Objective of the Activity Done: Project work data analysis and ^{Visualization}

Detailed Report: The seventh week marked the

beginning of the project phase.

We started by defining the project scope objectives, and deliverables.

The project involved analyzing a data set provided by Smart Intentz Cleaning and transforming the raw data and building a data model.

The initial reports and dashboard were created to visualize these insights, using the skill and techniques learned over the past six weeks.

WEEKLY REPORT

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

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 internz term, where we showcased our findings.

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 power BI. The hands-on experience and exposure to real-world projects has not only sharpened my technical abilities but also improved my communication skills and project management skills. The work environment fostered a collaborative atmosphere with clear task-roles, well-defined protocols & structured procedures. The facilities were equipped with necessary tools for data analysis, team members exhibited mutual support and teamwork contributing to a harmonious relationship, overall the internship provided a well-organized comprehensive experience in data analytics and supportive work environment.

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

Describe of technical skills acquired

- * Data Analysis:- proficiency in examining and interpreting complex dataset.
- * Statistical analysis: understanding and applying statistical methods to derive insights.
- * Data visualization: mastery in creating compelling visualization for effective communication of data.
- * programming language:- knowledge expertise in programming language.
- * Visualization generation: skills in developing interactive dashboards, comprehensive reports in power BI
- * Data transformation:- Transformation data using power Query, which involves data cleaning merging appending.
- * performance optimization:- Improving the performance & reports by optimization data models, reducing data set size and managing relationships.
- * Error handling:- Diagnosing and fixing issues related to data refresh, query errors and visual inconsistencies.

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 managerial skills acquired:

- * project management: coordination tasks, setting goals and ensuring the timely completion of the data analytics project.
- * Team collaboration: working effectively in a group setting, delegating tasks & fostering a collaboration environment.
- * Leadership skills: taking initiative, guiding the team, and making decisions to achieve project objectives
- * Time management: prioritizing tasks, meeting deadlines, & effectively allocating resources.
- * problem solving as a team: addressing challenges collectively finding solution through group discussions and collaboration.
- * Adaptability:- Being flexible & adapting to changes in project scope or requirements.
- * Quality Assurance:- Ensuring the accuracy & quality of quality of the data analytics projects deliverables produced by the team.

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.,)

Describe of the communication skills acquired:

- * **Technical communication**: Effectively conveying complex data analysis concepts or findings.
- * **Presentation skills**:- Creating delivering engaging presentation to communicate insights dashboards visualization projects.
- * **Team collaboration**:- collaborating with team members to share information, discuss project progress updates.
- * **Written communication**: crafting clear & concise within the team reports, documentation and emails related to data analytics process.
- * **Conflict resolution**:- Addressing & resolving conflicts within the team to maintain a positive & productive environment between team members.
- * **Feedback delivery**:- providing constructive feedback to promoters and trainers and receiving feedback .. fostering a culture of continuous improvement.

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

Reflecting on my experiences in data analytics at Smartbridge Interz 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 leader, 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 creating a positive team environment and effectively coordinating team activity through these measures, I am committed to continuing 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 digital technologies of power BI:

- 1) Data connectivity:- power BI connects to wide array of data sources , including database , cloud connect services and web API's . This technology allows live connection to data sources , enabling real-time data analysis without importing data into power BI
- 2) Data transformation and modeling:- power Query editor enables user-friendly to clean transform and shape data through a user-friendly interface . power BI provides capabilities for creating relationships between different data table , calculated columns using DAX.
3. Data visualization: user can create interactive dashboard with a wide range of visualizations such as charts , graphs tables . These can be customized and tailored to specific needs
4. Natural language processing(NLP): A feature enables users to ask questions about their data using natural language and power BI will generate visualizations based on the query . This helps users interact with data in a more intuitive way.