



SHORT-TERMINTERNSHIP



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Acknowledgements

This power BI representation on topic "A visual exploration of artists and their creations" with artists and their art works. 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 expertise in art works and their creations which informed our predictive model. we thank for the providing of data related to ratings done in this project. we thank our members for their contributions to data analysis and visualizations and insights. we acknowledge organization for providing the resources and support necessary to complete this project. we acknowledge to our viewers in succeeding this power bi - presentation to this project. 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 Descriptions
7. photos & video links

CHAPTER 1 : EXECUTIVE SUMMARY

Description of the sector of business and intern organization: Smart bridge operators in the data analytics sector providing innovative solutions to enhance the business intelligence. The organization aims to empower clients with actionable insights enabling data-driven decision making.

Learning Objectives and Outcomes

- Data cleaning
- Data preprocessing and manipulation
- Statistical analysis.

Summary of Internship Activities

- Attending live training sessions and project mentoring sessions
- Selection of topic - "Student Performance Analysis" and gathering, cleaning and analysing its related data sets in excel.
- Team formation and assignment of tasks to team members
- Designing and developing dashboard and report
- Drafting project video demonstration and preparation of final reports.

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. The internship provide students with hand-on experience with the latest technologies and enable project based learning. Smart Bridge flagship event is the "Summer Internship program". The program develops students skills in emerging technologies like

- Artificial Intelligence
- Machine Learning
- Internet of things

Organization Objective: Smart bridge's main objective is to bridge the existing gaps between prevailing Industry standards and what the academy offer to the graduates which passing out of university. Smart bridge's offers suitable skills development.

and 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 work along the time to offer best programs. that helps the students to gain practical knowledge 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 certificates and becomes a talent factory of India by 2026.

CHAPTER 3 : INTERNSHIP PART

Description of the activities / responsibilities undertaken:

- Registering with APSCHE Smart Internz and enrolling for Smart bridge's data analysis course in live training sessions as per the pre-scheduled training calendar.
- Participating weekly quiz and completing weekly assignments with respect to data analytics
- Team formation and selection of project topic "A visual exploration of Artists and their creations".
- Gathering, clearing and analyzing the crucial data sets of the project.
- Attending project - mentoring sessions and designing and developing interactive dashboard story, report
- web integration of above project deliverables with team's web page using visual studio code, drafting a project video demonstration and preparation of final report.
- 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.)

Description of work environment:

The internship at Smart Bridge has been a transformational experience, equipping me with practical skills in Data Analysis and a deep understanding of the role of Power BI in the industry. The hands-on experience and 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 fostered a collaborative atmosphere with clear task-roles. Team members exhibited mutual support and teamwork, contributing to a harmonious relationship. Overall, the internship provided a comprehensive exposure in data analysis within a well-organized and supportive work environment.

Artistry unveiled : A visual exploration of artists and their creation

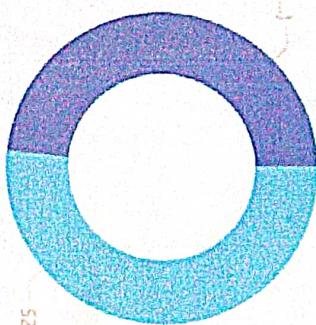
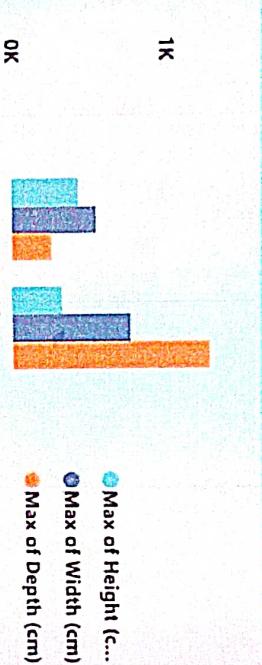
THE MAXIMUM OF HEIGHT, DEPTH AND
WIDTH BY CLASSIFICATION



MINIMUM OF
ARTWORK ID BY NAME

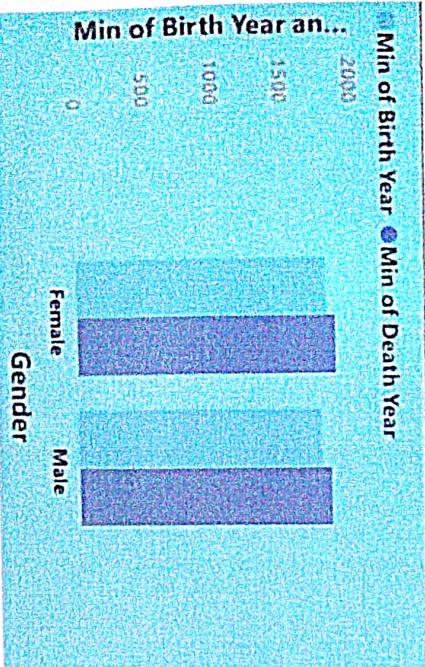
AVERAGE OF CATALOGUE BY HEIGHT

Max of Height (cm), Min...



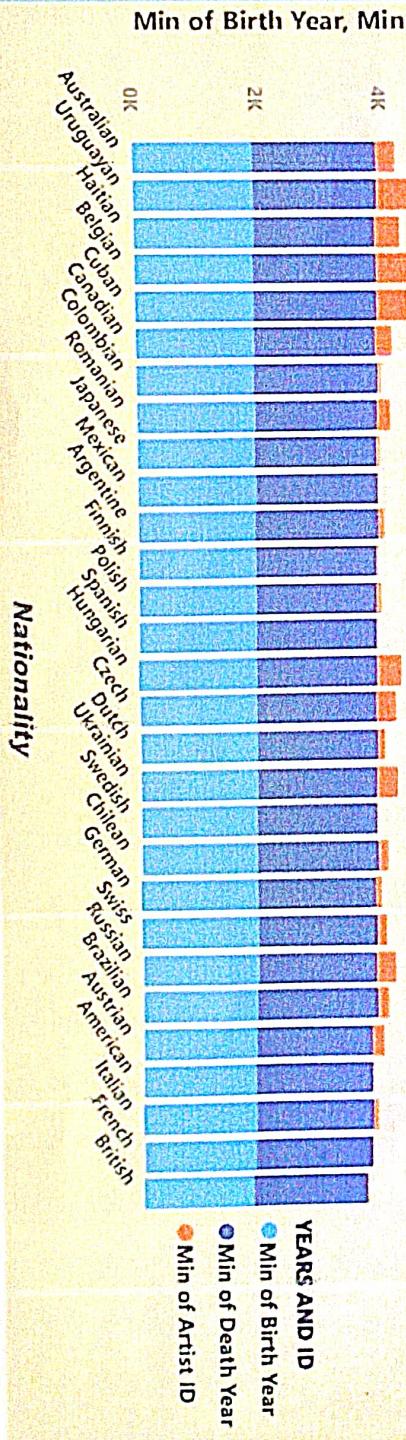
MAXIMUM OF BIRTH AND DEATH
YEARS BY GENDER

Min of Birth Year ● Min of Death Year



MINIMUM OF BIRTH AND DEATH YEARS BY NATIONALITY

Min of Birth Year, Min ...



YEARS AND ID

- Min of Birth Year
- Min of Death Year
- Min of Artist ID

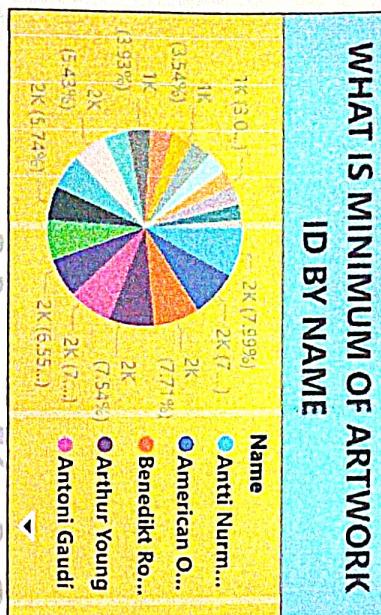
Artistry unveiled : A visual exploration of artists and their creation



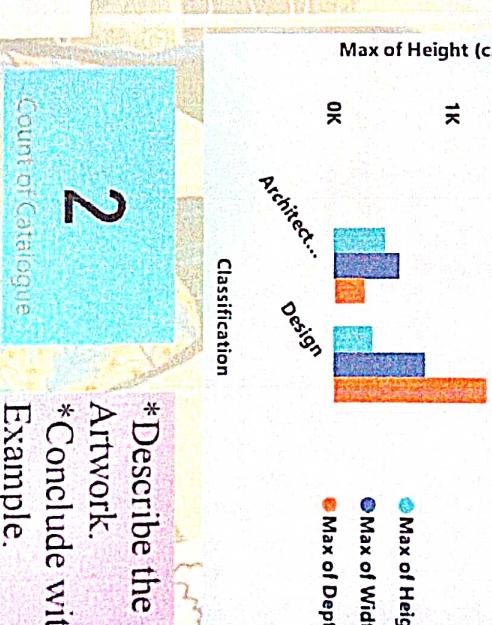
The Museum of Modern Art (MoMA) acquired its first artworks in 1929, the year it was established. Today, the

Museum's evolving collection contains almost 200,000 works from around the world spanning the last 150 years. The

collection includes an ever-expanding range of visual expression, including painting, sculpture, printmaking, drawing, photography, architecture, design, film, and media and performance art.

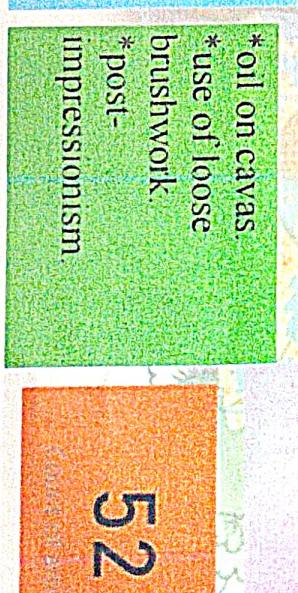
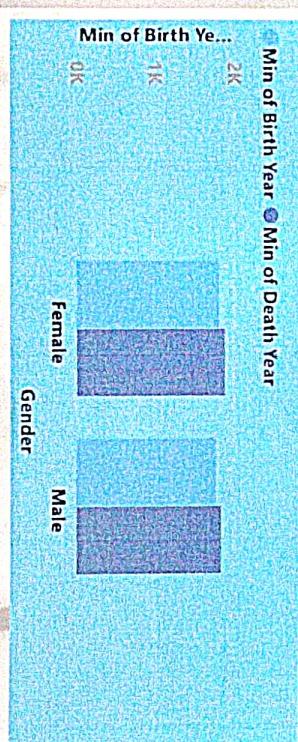


WHAT IS THE MAXIMUM OF HEIGHT,DEPTH AND WIDTH BY HEIGHT,DEPTH AND WIDTH BY CLASSIFICATION



* impressionism focused on light, color, and capturing fleeting moments.

* cubism, fragmented and abstract representation of subjects.



ACTIVITY LOG FOR THE FIRST WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|-------------------|--|---|----------------------------|
| Day - 1 8/7/24 | Introduction of data analysis and interpreted data visualization | Analysis of the topic | |
| Day - 2 9/7/24 | Agenda and understanding consumers | clear view of business problem and its solution | |
| Day - 3 5/7/24 | Types of analytics process and download of power BI | clear analysis on OA tools and process regarding it | |
| Day - 4 | | | |
| Day - 5 | | | |
| Day - 6 | | | |

WEEKLY REPORT

WEEK - 1 (From 01/07/24 to 05/07/24.....)

Objective of the Activity Done: Introduction to power BI Data analytics

Detailed Report: Agenda of data analytics includes, understanding the fundamentals of power BI and the importance of data analytics in business decision making.

- * attended an orientation session on the Internship objectives and deliverables.
- completed introductory modules on power BI, including its interface, key features and capabilities.
- learned about the various types of data sources that can be connected to power BI.
- Developed a foundational understanding of power BI.
- Connected to different data sources and performed basic data cleaning.
- Created a simple report showcasing basic visualizations such as bar charts and line graphs.
- Participated in a workshop on basic data cleaning and transformation techniques.

^{SECOND}
ACTIVITY LOG FOR THE FIRST WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|--------------------|---|--|----------------------------|
| Day - 1 8/7/24 | features and components of power BI | clear view on every component required | |
| Day - 2 9/7/24 | power BI in action and PBI architecture | visible insights and seeks format | |
| Day - 3 10/7/24 | power query and transformation operations | clarity about ETC tools | |
| Day - 4 11/7/24 | Tools present in power BI desktop | clear view on each and every tool present | |
| Day - 5 12/7/24 | Analyzing the data in different | learned about practically on data analysis | |
| Day - 6 | Analyzing the data in different types | | |

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

Objective of the Activity Done:

Data importing and modeling

Detailed Report:

This week dedicated to mastering data importing and modeling within power BI explored different data connections available in power BI, such as excel, SQL database, and online services.

Learning about the ETL (Extract, Transform, Load) process within 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

Built a robust data model with well-defined relationships

Used DAX to create calculated columns and measures for enhanced analysis.

THIRD
ACTIVITY LOG FOR THE FIRST WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|--------------------|---|--|----------------------------|
| Day - 1 15/7/24 | Data collection and data cleaning | learned about the process of DA | |
| Day - 2 16/7/24 | Differentiated between storyboard, dashboard and report | learned the differences about contents & represent | |
| Day - 3 18/7/24 | Data structuring and its usage with power BI | learned the usage of data structure | |
| Day - 4 19/7/24 | Revised on topics as far completed | clear views with the usage of power BI | |
| Day - 5 | | | |
| Day - 6 | | | |

WEEKLY REPORT
WEEK-3 (From Dt...15/7/24.....to Dt.....19/7/24.....)

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 matrices using a mix of visuals.
- Implemented interactivity through slicers and filters to allow users to explore the data dynamically.
- Presented the dashboard to peers for feedback.

FOURTH
ACTIVITY LOG FOR THE FIRST WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|--------------------|---|---------------------------------------|----------------------------|
| Day - 1 22/7/24 | Research the additional information | Additional information about power BI | |
| Day - 2 23/7/24 | Revised about data collection and data cleaning | Learned about starting process in DA | |
| Day - 3 24/7/24 | Revised about the data visualization | Clear view on visualization part | |
| Day - 4 25/7/24 | DAX and DAX functions | Clear view on DAX functions | |
| Day - 5 26/7/24 | All the functions present in power BI | Learned about the functions to apply | |
| Day - 6 | | | |

WEEKLY REPORT

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

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 modules 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 models.
- Developed proficiency in writing complex DAX expressions.
- Applied time intelligence functions to analyze trends over time.
- Improved the accuracy and efficiency of data models using advanced DAX.

FIFTH
ACTIVITY LOG FOR THE FIRST WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|--------------------|---|--|----------------------------|
| Day - 1 29/7/24 | Explained max factors in DAX | Learned about expressions and functions in DAX | |
| Day - 2 30/7/24 | Max about filters functions in DAX | learns view on different views | |
| Day - 3 31/7/24 | Preparation for grand assessment | prepared for test | |
| Day - 4 1/8/24 | preparation for grand assessment | prepared for test | |
| Day - 5 2/8/24 | grand assessment test | grand the test | |
| Day - 6 | | | |

WEEKLY REPORT
WEEK-5 (From Dt.....29.1.24.. To Dt.....2.2.24.....)

Objective of the Activity Done:

Real-world case study: sales analysis

Detailed Report:

This week focused on applying power BI 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 KPIs and identify trends, outliers and areas for improvement.
- Created a comprehensive sales dashboard that highlighted crucial business insights.
- Used data storytelling techniques to communicate findings effectively.
- Received positive feedback from mentor on the practical application of Power BI skills.

SIXTH
ACTIVITY LOG FOR THE FIRST WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|------------------|---|--------------------------------------|----------------------------|
| Day -1 5/8/24 | Optimising power BP report | clear view in optimising | |
| Day -2 6/8/24 | Implementation of Incremental data | learned about DA with huge dataset | |
| Day -3 7/8/24 | Application in business scales | clear view on real-time applications | |
| Day -4 8/8/24 | Application of techniques to size data models | learned about fitting data models | |
| Day -5 9/8/24 | learned about user information with reports | clear view on report based data | |
| Day -6 | | | |

WEEKLY REPORT

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

Objective of the Activity Done:

Report optimization and tuning

Detailed Report:

This week focused on optimizing Power BI reports for performance and scalability.

- Learned about Power BI report optimization techniques, including data reduction, efficient use of DAX and query optimization.
- Implemented incremental data refresh to improve report load times.
- Explored best practices for managing large databases and reducing memory usage.
- Optimized existing reports to load faster and handle large datasets.
- Applied techniques to reduce the size of data models without losing critical technical information.

SEVENTH
ACTIVITY LOG FOR THE FIRST WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|--------------------|---|-----------------------------------|----------------------------|
| Day - 1 12/8/24 | Formation of team | clear views on team | |
| Day - 2 13/8/24 | Project scope and objectives | clear views on Project assigned | |
| Day - 3 14/8/24 | Aggregation of public reports | Seggregation of data analyses | |
| Day - 4 15/8/24 | Configured public refreshes | Reviewed self on dataset | |
| Day - 5 16/8/24 | Feedback on accessibility with published report | clear views on outcome of reports | |
| Day - 6 | | | |

WEEKLY REPORT

WEEK-7 (From Dt.....12.8.24..... to Dt.....16.8.24.....)

Objective of the Activity Done:

Data analysis and
Project work - visualization.

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 Intech, cleaning and 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.

^{EIGHTH}
ACTIVITY LOG FOR THE FIRST WEEK

| Day & Date | Brief description of the daily activity | Learning Outcome | Person In-Charge Signature |
|-------------------|---|--|----------------------------|
| Day -1 19/8/24 | Presenting actionable insights | clear view on pictorial representation | |
| Day -2 20/8/24 | Presenting the dashboards and reports | Representing the final output | |
| Day -3 21/8/24 | collaborations file uploading | Allocating work to all members in team | |
| Day -4 22/8/24 | Reviewing on dashboard , report | clear view on work done in DA | |
| Day -5 23/8/24 | Submission of project | Submitted to mentors | |
| 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 Intern 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 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 cleaning and Interpolating complex data set.

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, power bi, google colab for analytics and visualization.

Programming language: Knowledge and expertise in python programming language.

Visualization language: Skills in developing interactive dashboards, comprehensive reports, narrative stories

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

Data cleaning and pre-processing: proficiency in data cleaning and 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 and ensuring the timely completion of the data analytics

Team Collaboration: Working efficiently in a group setting, delegating tasks and fostering a collaborative leadership skills: Taking initiative, guiding the team and making decisions.

Time management: Prioritizing tasks, meeting deadlines, and efficiently allocating resources

Problem Solving as a team: Addressing challenges collectively and finding solutions through group discussions and collaboration

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

Quality Assurance: Ensuring the accuracy and quality of the data

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 and findings

Presentation skills: Creating and developing engaging presentations to communicate insights, dashboard.

Team collaboration: Collaborating with team members to share information, discuss project process and updates

Written communication: Drafting clean and concise reports, documentation and emails related to data analytics processes

Conflict Resolution: Addressing and resolving conflicts within the team to maintain a positive and productive environment between team members.

Feedback delivery: Providing constructive feedback to peers, mentor and trainers and receiving feedback, fostering a culture of continuous improvement.

Clarity in Instructions: clearly communicating project tasks, goals and expectations, roles to every team member.

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 experience in data analytics at Smart Bridge Int'l, 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 and 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 atmosphere. 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:

Power Bi: Power Bi (Business Intelligence) tool & used for managing and analyzing data. It integrates reporting , modeling analysis , dashboards , stories and event management to effectively organize data for effective decision making

Python: Python is a high - level , interpreted and object - oriented scripting language. It is used for server - side

Visual studio Code: Visual studio code AKA VS code is a source code editor software developed by microsoft for windows and macos. It is used for program code editing like debugging , task running and version control.