SHORT-TERMINTERNSHIP

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Acknowledgements

This power BI presentation on topic "Industrial safety and health analytics" we acknowledge the power BI community for their valuable resources, tutorials and forms 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 Industrial safety and health analytics, in the Industries and health field which informed our predictive model. we thank our team members for their contributions to data analize and visualization and insights.

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

Contents

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, enable data - driven decision - making.

Learning objectives & 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 live training Sections and Projects monitoring Sessions.

ii) Selection of topic "Optimising Coffee chain Sales & insights" 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 demonstrating and Preparation of final Report.

CHAPTER 2 : OVERVIEW OF THE ORGANIZATION

Smart bridge is a platform that offers a virtual internship to the students. The platforms goal is to prepare students for the job marketing by establishing a comparative relationship.

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 skills development & training to the young talent before on boarding their first job.

We here by work along the line to offer best performance 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 promot industry approved professional collectives becomes a talent factors of india by 2026.

ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1 3-7-24	Introduction of data analytics	Analysis of the topic	
Day - 2 4-7-24	Agenda and understanding Customers	Clear view of Business problems and Solution	
Day – 3 5-7-24	Analysing and Implementing data	Putting the data in visual form	
Day – 4 -7-24	Data analytics tools and technology	Learned about different tools and insights	
Day – 5 -7-24	Data analytics applications	Where it is used in different Sector	
Day –6 -7-24	Researched the additional information online	Additional information about DA	

WEEKLY REPORT

WEEK – 1 (From Dt 03/7/24 **to Dt** 05/7/24 **)**

Objective of the Activity Done: What is data Analytics?

Detailed Report: The process involved in data analytics in the first learned about the definition, Agenda and steps to Understand about the data Analytics also discard the problems and Solutions to Analyse the data and based on steps as

- Comparing the data
- Putting the data in Visual
- Breaking the data

Also understand the Concept of tool in data Analytic, which helps to store the data in efficient and Secure manner.

- SQL
- NO SQL

DA technologies like

Data Management like, data Visualisation predictive model.

We also learned about where this data Analytics is used on applied is Various industries like finance retail, landing, Agriculture and Companies like Uber use DA for growth

ACTIVITY LOG FOR THE SECOND WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Monday Day – 1 8	Data analytics application	Learned about different tools and insight	
Tuesday Day - 2 9	Data analytics application	where it is used in different Section	
Wednesday Day – 3 10	Data analytics process and steps in DA	Learned about data clearing and processing	
Thurs Day – 4 10	Data analytics process and steps is DA	learn about data clearing and processing	
friday Day – 5 11	Types of Analytics	different types in DA in Clear way	
Saturday Day –6 12	Revision on given topics	Revised about DA	

WEEKLY REPORT

WEEK-2 (From Dt. 08/7/24 to Dt. 12/7/24)

Objective of the Activity Done: Data Analytics process & Structure

Detailed Report:

the Second week learned about the different process that is required in data analytics data cleaning and processing the data in a detailed manner and also this data type of DA into 4 Catogories

→ Descriptive analytics
Diagnostic analytics
predictive analytics
Prescriptive analytics

Also learned about the challenges faced in the organisation with the solutions, with power bi in action which gives visible insight and sales farce forecasting also about the structure of the data analytics mainly teaches about DWH that is data were hoarding and data bases

Collect - integrates - store - analysis
Distribute and react with ETL tools.

ACTIVITY LOG FOR THE THIRD WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1 15-7-24	Business problems and the solutions (practise)	Challenges faced in organisation	
Day - 2 16/7/24	Business problems and the solutions (practice)	Challenges faced in organisation	
Day – 3 17/7/24	Power BI in action	Visible insight & Sales for Coast	
Day – 4 18/7/24	BI architecture	learned about Structure	
Day – 5 19/7/24	BI Architecture	learned about Structure	
Day –6 19/7/24	Revision on given topics	Revised about DA	

WEEKLY REPORT

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

Objective of the Actuvity Done: Data insights and flow PBI

Detailed Report:

In the third weeks learned about the insight of data flow in power bi which viewed the model and data merge and tables in columnes and source with join kind

→ Left outer

Right outer

full outer

Inner (only matching rows)

left anti (rows only in first)

Right anti (rows only in second)

Also learned about ETL tool in power query that is extract transform load (ETL) which helps to extract the data and transforming also learned about the the data view and the Model view for data modelling to generate Report and insights also learned about the Overload Orderline in the process of analysis in BI research about as an ETL tool.

ACTIVITY LOG FOR THE FORTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1 22/7/24	Data to insight flow in Power BI	learned about data and model view	
Day - 2 23/7/24	tables and merges	learned about the kinds in merge	
Day – 3 23/7/24	tables and merges	learned about the kinds in merge	
Day – 4 24/7/24	ETL tools in power Querry	while power BI data flows	
Day – 5 25/7/24	ETL tools in power Querry	while power BI data flows	
26/7/24 Day –6	Research 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: Data analytics expression

Detailed Report:

In fourth Week, I learned about the Concept of DAX (Data analytics expression) in DAX

Different DAX function

→ Aggregate function → is blank, is number, is text

text function → lower, max, average, sum

Data function → lower, upper, Replace,

logical function → Date, data, Add, difference

Counting function → and, or, not

information function → Count, distinct Count

in the end of the fourth week Revised all the topics that were Thought from the first day of the internship programme. which helped me to attend the grand assesment test after prepairing for the assessment test will gave assessment test on all the topics we learned.

In this fourth week we make appropriate database eventually making the data analytics ETL. In

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	Data Sources dash board and Insights	learned how these are used in BI	
Day - 2 30/7/24	Data Collection and data cleaning	learned about the process in DA	
Day - 3 31/7/24	Data Collection and data cleaning	learned about the process in DA	
Day - 4 01/7/24	Data analytics expressions (DAX)	learned about the process in DA	
Day - 5 02/7/24	Data analytics expressions (DAX)	learned about the process in DA.	
Day -6 02/7/24	Discussion Regarding project	discussed about project	

WEEKLY REPORT

WEEK-5 (From Dt. 29/7/24 To Dt. 02/8/24)

Objective of the Activity Done: Power BI and Collaboration

Detailed Report:

The fifth week Covered the Power BI Service and its Collaboration features

We learned how to push 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 workspace.

We also explored power BI integral with Others microsoft tools like exel, teams and share point making it easier to Collaborate and share insight across the organisation

ACTIVITY LOG FOR THE SIXTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1 5/8/24	Filter functions in DAX	different filters in DAX	
Day - 2 6/8/24	filter function in DAX	different filter in DAX	
Day – 3 6/8/24	preperation for grand assement test	preperation for assessment test	
Day – 4 7/8/24	Preperation for grand assessment test	preperation for assessment test	
Day – 5 8/8/24	grand assessment test.	gave the grand assessment test	
Day –6 9/8/24	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 practice and industry application

Detailed Report:

In the final week of internship classes we focused on best practices in data analytics and realworld applications of Power BI, across various industry

we discussed key strategies for optimising data & models, enhancing report performance and maintaining data governance.

The Sessional also included case studies showcasing how Companies use Power BI for Business inbelligence.

Series, analysis, financial report and Operational efficiency the week wrapped up with an overview of the upcoming project works.

ACTIVITY LOG FOR THE SEVENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1 12/8/24	Data analytics Visualisation & analysis	We started defining the project scope	
Day - 2 13/8/24	Data analysis and Visualisation	Started the Begining of project	
Day – 3 13/8/24	analysing a data set	data set provides Smart intern	
Day – 4 14/8/24	analysiing a data set	data dashboards are Created	
Day – 5 15/8/24	Analysing a data set	Visualise the skills and techniques	
Day – 6 16/8/24	Building a data model.	techniques learned over past six weeks	

WEEKLY REPORT

WEEK-7 (From Dt.....12/8/24..... to Dt.....16/8/24.....)

Objective of the Activity Done: Project Work -data analysis & Visualisation.

Detailed Report:

The Seventh week marked the beginning of the project phase.

We started by defining the project Scope, objectives and deliverable.

The project involved analysing a dataset provided by Smart interns. Cleaning and transforming the data and building a data model.

Our team focused on indentifying key matrics, trends and pattern that could drive business decision

The initial reports and dashboards where created to visualize the skills and techniques learned over the past 5 weeks.

The project involved analysing a dataset providing by Smart interns cleaning and transforming the data and building a data model.

hazards, and provide real-time data to enhance safety.

Wearable sensors: Track worker movements exposure to hazardous conditions, and provide alerts to prevent injuries.

online learning platforms: offers flexible training options with interactive content, quizzes, and assessments That can be accessed from any where, at any time.

mobile learning: Allows employees to access safety training materials and updates via smartphones and tablets, improving accessibility and convenience. hazardous. provides. alter to prevent with interactive content access from any where any time. in The measure. ment of at The options with The persolity of all The where.

ACTIVITY LOG FOR THE EIGHTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day-1 19/8/24	Refining report	Refining the dashboards	
Day-2 20/8/24	Usability of dash boards	We focused enhancing the visuals	
Day-3 21/8/24	Usability of dash boards	The data was accurately represents	
Day-4 22/8/24	Project requirements	The data was accurate represented	
Day-5 23/8/24	enhancing the visual appeal	how to the data could be applied	
Day-6 24/8/24	Project Submission	Final Submission for uploading the project	

WEEKLY REPORT

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

Objective of the Activity Done: Finalisation and presentation

Detailed Report:

In the final week we Complete 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 dashboard by adding interacting elements and ensuring the data was accurately represents the week eliminate with a presentation to the finant interns where we showcased our findings explained the methodology used and demonstrate how to hesitate could be applied to solve real business problem

the project was well received making a successful Conclusion to the internship

we focused on enhancing the visual appeal and usability of the dashboard by adding interacting elements and ensuring the data was accurately represents the week.

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.)*

in a project focused on industrial safety and health, The work environment typically emphasizes several key aspects

Safety protocols: There is a strong focus on adhering to safety regulations and protocols. This includes regular safety audits, proper use of personal protective equipment (PPE), and adherence to safety procedures.

Training and Awareness: ongoing training sessions are common, aiming to educate employee on best practices for safety and health. This might include workshops, drills, and continuous.

updates on safety standards.

Risk Assessment: Regular risk assessments and hazard analyses are conducted to identify potential risks and implement controls to mitigate them.

collaboration: Team work and communi-cation are crucial. safety and health projects often involve collaboration between various departments, including safety officers, engineers, and management, to ensure a compre-hensive approach to risk management.

Documentation: meticulous documentation of safety procedures, incidents, and compliance records is maintained to track performance and improvements.

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

In "industrial safety and Health" project real-time technical skills typically involve using mono analyzing data from sensors or. applying real-time risk assessment techniques. Describe The real time technical skills you have acquired in The project industrial safety and health.

in The industrial safety and Health project, real time techincal skills typically involve using monitoring tools for safety compo-liance analyzing data from sensors or reports to identify hazards and applying real-time risk assessment techniques. skills might also include The implementation of emergency response systems and The use of softwore.

Safety monitoring systems: proficiency in using real-time safety monitoring systems, such as Environment Health and safety (EHS) software or indus internet of Things (IIOT). Sensors, to track environ--mental condutions and detect hazards.

Data Analysis and Visualization: skills in analy--zing real time data from vorious sources data, accident reports) and using visualization tools to interpret trends and identify potential risks.

incident management software: Experience with software for logging, tracking, and managing safety incidents, including tools for auto mating notifications and updates.

Risk Assessment tools: using real-time risk assessment tools to evalute and mitigate potential hazards based on current data, such as dynamic risk

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.*

Risk management: Developing The ability to identify, assess, and mitigate risks associated with industrial processess. This includes imple--menting safety protocols and emergency response plans.

compliance and Regulation: understanding and ensuring adherence to relevant safety regul--ations and standards, such as OSHA or local regulations, and staying updated on changes in legislation.

Team Leadership: leading and motivating a team to prioritize safety, ensuring That all members understand and follow safety procedures and fostering a culture of safety.

Communication : Effectively communicating safety policies and procedures to staff, conducting safety training sessions, and addressing safety concerns or incidents promptly.

Training and development : Designing and developing safety training programs for employees to raise awareness and promote safe practices.

Incident investigation : Analyzing Accidents and near-misses to identify root cause and implement corrective actions to prevent recurrence.

Data Analysis : utilizing safety metrics and incident data to track performance, identify trends, and make informed decisions for continuous improvement.

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.,)*

Clear messaging: use simple jargon-free language to ensure that safety industions are easily understood of their back graund.

Training and Education: conduct regular training sessions on safety procedures and ensure that the material is engaging and relevant Tailor training to different roles and learning styles.

Feed back mechanisms: Implement systems for employees to report safety hazards and suggestions anonymously if needed. Act on this feedback to show that it is valued.

Regular updates: keep communication channels open for updates on new safety protocols or changes in procedures. Regular updates help maintain awareness and compliance.

Cultural sensitivity: Be aware of cultural different and ensure That safety communications are respectful and inclusive of all employees.

Visual Aids: use diagrams, charts and signage to supplement verbal instructions. Visual aids can make complex information more accessible.

Active Listening: pay attention to feedback and concerns from works. This helps in Identifying potential safety issues and understanding Their perspectives.

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

Active Listening and communication: practice active listening to understand different percepect- tives and provide Thoraughtful responses. use clear and consise language to corticulate your points.

Team participation: Engage in open communi and ask clarifying questions to ensure mutual understanding. The roles and strengths of other team members to complement Their efforts effectively.

group Discussions: Address disagreements constructively by focusing on Their on The issue rather Than personal conflicts. seeks to find common ground and comp -romise when necessary.

Page No

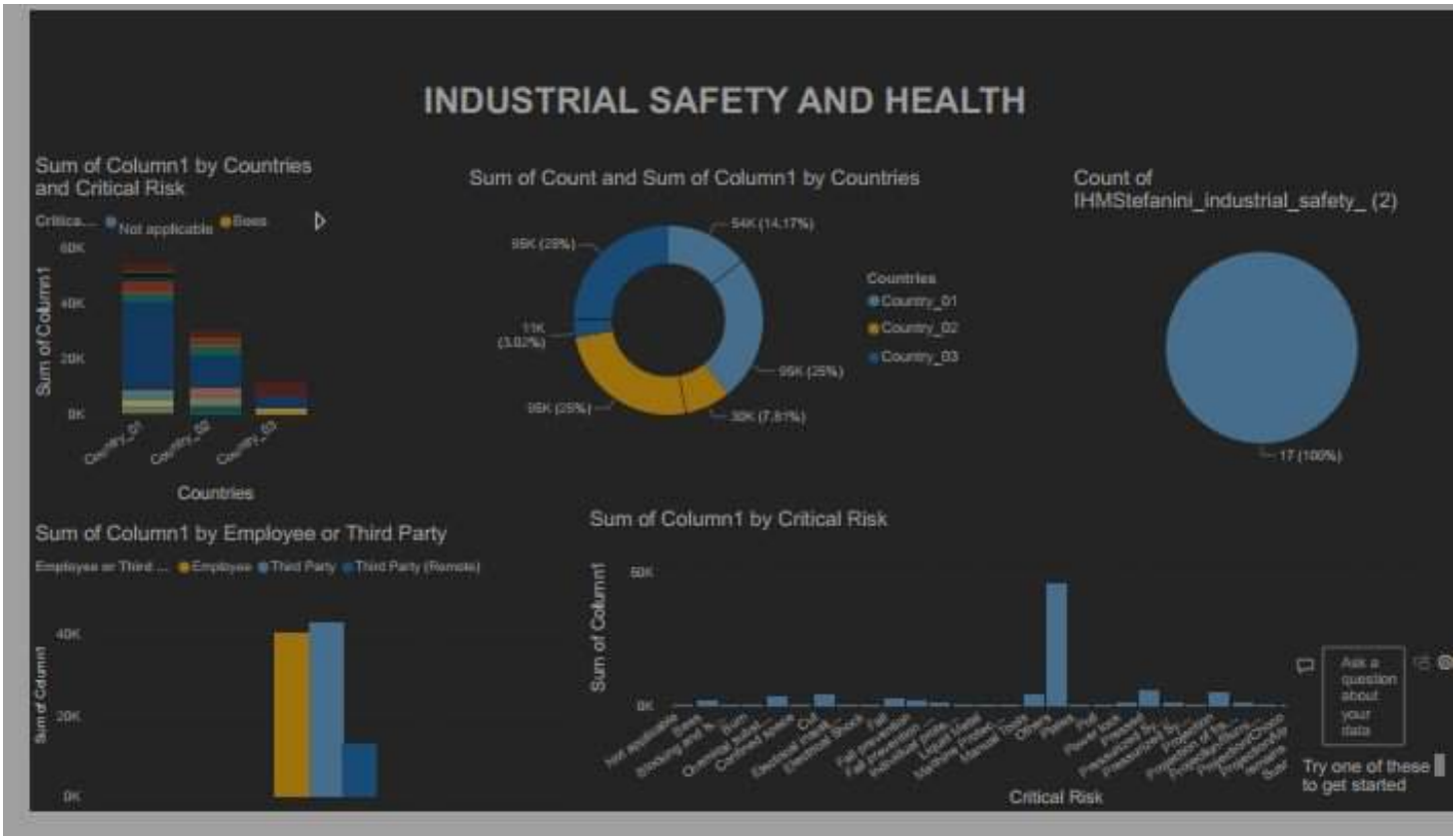
Describe the technological developments you have observed and relevant to the subject area of training *(focus on digital technologies relevant to your job role)*

AR Training : overalys digital information onto The physical woorld, helping trainees interact with real equipment while receiving guidance and safety instructions.

Simulation Tools : coreate orealistic senrnoriaus for training including emergency response and equipment handling . These tools help train--ees experience and manage complex sitiutions safety.

Gramification : Incorporates game-like elements into training programs to engage users and improve learning outcomes . it can make safety training more interactive and enjoyable

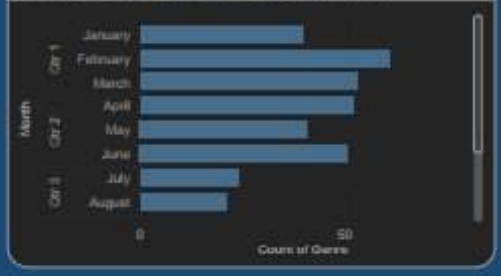
Smart Helmets and Glasses : Equipped with sensors to monitar vital sings, detect environmental



INDUSTRIAL SAFETY AND HEALTH

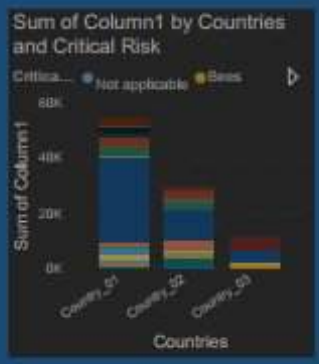
95K

TOTAL GENRE BY QUATER & MONTH



MAXIMUM IN INDUSTRY SECTOR

Sum of Column1 by Countries and Critical Risk



REPORT: This data from "REAL-WORLD" manufacturing plants.which comes from one of the biggest industry in brazil and in the world.The primary reason we are sharing this data is that there is a urgent need for compaines to understand and the employees still suffer some injuries in plants.Sometimes they also die in such environment .

The data is basically records of accidents from **"12 DIFFERENT PLANTS IN 03 DIFFERENT COUNTRIES"**.Which every line in data is an occurrence of an accident and this is the report from INDUSTRIAL SAFETY AND HEALTH .

Student Self Evaluation of the Short-Term Internship

Student Name: **Registration No:**

Term of Internship: **From:** **To :**

Date of Evaluation:

Organization Name & Address:

Please rate your performance in the following areas:

Rating Scale: **Letter grade of CGPA calculation to be provided**

1	Oral communication	1	2	3	4	5
2	Written communication	1	2	3	4	5
3	Proactiveness	1	2	3	4	5
4	Interaction ability with community	1	2	3	4	5
5	Positive Attitude	1	2	3	4	5
6	Self-confidence	1	2	3	4	5
7	Ability to learn	1	2	3	4	5
8	Work Plan and organization	1	2	3	4	5
9	Professionalism	1	2	3	4	5
10	Creativity	1	2	3	4	5
11	Quality of work done	1	2	3	4	5
12	Time Management	1	2	3	4	5
13	Understanding the Community	1	2	3	4	5
14	Achievement of Desired Outcomes	1	2	3	4	5
15	**OVERALL PERFORMANCE**	**1**	**2**	**3**	**4**	**5**

Date: **Signature of the Student**

MARKS STATEMENT
(To be used by the Examiners)
ASSESSMENT STATEMENT

Name Of the Student:

Programme of Study:

Year of Study:

Group:

Register No/H.T.No:

Name of the College:

University:

Sl.No	*Evaluation Criterion*	*Maximum Marks*	*Marks Awarded*
1	Activity Log	10	
2	Internship Evaluation	30	
3	Oral Presentation	10	
	GRAND TOTAL	50	

Date:

Signature of the Faculty Guide