SHORT-TERMINTERNSHIP

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Acknowledgements

I would sincerely like to thank APSCHE 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 Mrs. Hymavathi, Department of BSc, and our guide Satyavathi 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

Contents

1: EXECUTIVE SUMMARY
2: OVERVIEW OF THE ORGANIZATION
3: INTERNSHIP PART
4: ACTIVITY LOG FOR THE EIGHT WEEKS
5: WEEKLY REPORTS
6: OUTCOMES DESCRIPTION
7: Student Self Evaluation of the Short-Term Internship
8: Evaluation by the Supervisor of the Intern Organization
9: PHOTOS & VIDEO LINKS
10: ASSESSMENT STATEMENT

Chapter-1: Executive Summary

Learning Objectives :-

* Learn how to obtain, clean/process and transform data.
* Learn how to use appropriate models of analysis, assess the quality of input.
* Learned how to apply computing theory, language and algorithms as well as mathematical statistics models to formulate and use data analysis
* Learned how to perform well in group.
* Learned how to interpert data findings effictively to any audience visually and in written formats.

Learning Outcomes :

* Developing relavant programming abilities.
* Abilities to build and acess data-Based models.
* Able to create some visulizations

Brief Description About Smart Bridge :-

"Smart Bridge" is an ed-Tech Organization with a vision to bridge the gap between acadamic and Industry.

Activities :-

I have done some Activities during my internship such as gathering, cleaning and Organizing the data for given Superstone Dataset in IBM Cognos Analytics

Chapter 2: Overview of the Organization

A. "Smartintern" is an ed-Tech Organization with a vision to bridge the gap between acadamic and Industry. Experential learning programs on emerging Technologies (IOT, AI, ML, Data Science, Robotics) are building skilled-entry.

B. "Smart Intern" is in mission to build technology Communities in accademic to encourage Students towards Innovation. Since, Inception, They trained thousands of students and faculty.

C. "Smart Intern" restrict access to interns, who are not restricted in APSCHE-LMS. They want to maintain a respectful environment for everyone.

D. "Smart Intern" Organization almost trained 7 Lakhs plus students, 3 Lakhs Interns and they have done 2000+ projects.

E. Roles of the employees are to Assist and Contribute to the team.

F. It employees many and has a good performance in terms of market value.

G. In a Mission to build Technology Communities in Academic to encourage students towards Innovation & entrepreneurship

Chapter-3 : Internship Part

Internships are valuable way to gain new found knowledge. This internship is a university-provided Internship. It is a paid Internship. This internship are structured and with a "Learning Agenda". All potential Interns must and should attend to every class so that they can learn new things. This is the main Agenda of the Smart interns Organization.

Skills:

* Data cleaning and preparation.
* Data Analysis Techniques.
* Data visualization.
* Creating visualization Dashboard
* Creating visualization Report.
* Creating story telling
* Best practices.
* Data literacy.
* Modifying Templates.

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 Smartintern has been a transformative experience, equipping me with pratical Skills in Data - Analytics and a deep understanding of the role of power- BI analytics in the industry. The hands-on experience & exposure to real-world projects has not only sharpened my technical abilities but has also showed 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. Overall, the internship provided a comprehensive experience in data Analytics within a well-organized and Supportive work environment.

ANALYZING TRENDS FROM LINKEDIN INFLUENCERS

Average of connections by name and about

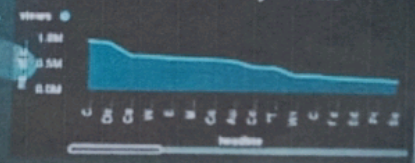
Engaging post that encourage discussions and community interactions'

Shares Education resources , General knowledge making them popular among both practitioners and learners.

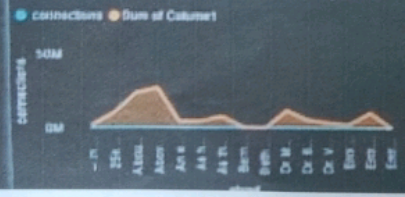
The highest views and connections are reached by the headline of CEO of PALMER Group.

The minimum views and connections are reached by the headline of Senior Editor at healthcare Global WDW Group.

max views and connections by headline



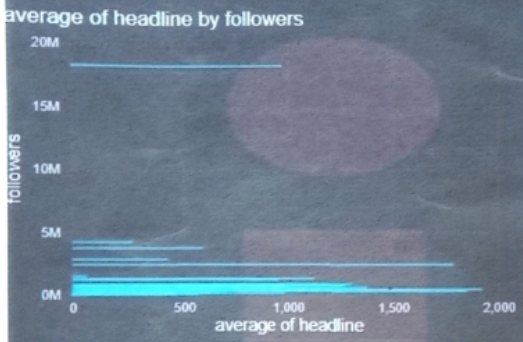
connections and Sum of Column1 by about

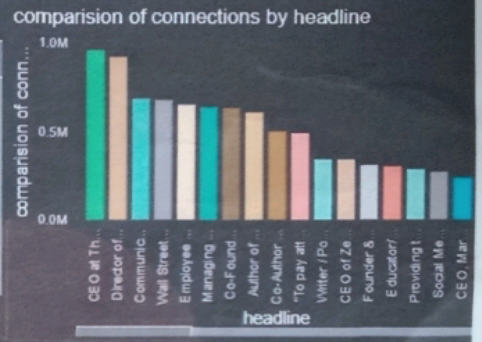


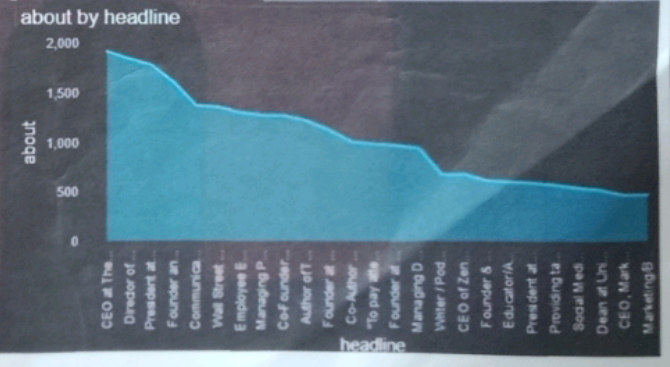
Connections of the influencers are maximum and minimum according to their about and content.

High engagement through POSTS,ARTICLES and VIDEOES are more attractive to the followers by viewing content.

DETAILED INFORMATION ABOUT HEADLINES OF INFLUENCERS







ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Started Smart Interng Data Analytics Course	Learned about Current Bussiness	
Day - 2	Attended to live Session with positive enthologim attitude	Learnt about Overview of Bussiness Intelligence	
Day – 3	Attended to live sessions to learn new Concepts	Learnt about Overview of Data analytics.	
Day – 4	Logged into the zoom live session	Learnt about Overview of Data visulization.	
Day – 5	Learn How to Create an IBM Cognos Account	Create IBM Cogros account	
Day –6	Revised all the previous class	Check the all covered Concepts.	

WEEKLY REPORT

WEEK-1(From Dt.03/07/24 to Dt.05/07/2024)

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 introdutory models 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
- It developed a fundamental understanding of power BI
- Connected to different data sources and performed basic data cleaning
- Created to different data simple report showcasing basic visuliazations such as bar charts and line graphs
- Participated in a workship on basic data cleaning and transformation techniques.

ACTIVITY LOG FOR THE ~~FIRST~~ Second WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Registered into IBM Cognos Analytics program.	Verified my IBM cognos Account.	
Day - 2	Launched the Cognos Analytics cloud Trail	Logged into a IBM cognos account.	
Day – 3	Overview of the IBM Cognos	Learnt what is IBM Cognos	
Day – 4	Overview of the IBM Cognos portal	Learnt about IBM cognos portal.	
Day – 5	Attended to live session with a positive attitude	Learnt how IBM cognos portal work.	
Day – 6	Revised all the previous concepts	Got clearcut info about IBM portal.	

WEEKLY REPORT

WEEK-2 (From Dt. 08/07/2024 to Dt. 12/07/2024)

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 source into power BI

Built a robust data model with well-defined relationships.

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

ACTIVITY LOG FOR THE ~~FIRST~~ third WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Downloaded sample Superstore .xls file	Learn how to upload the data	
Day - 2	Prepared data for visualization	Learnt how to prepare data.	
Day – 3	Saved prepared data for superstore data module	Learnt what to save data module	
Day – 4	Features of Power-BI	Learnt what are the features.	
Day – 5	Overview of data exploration	Learnt about data exploration	
Day –6	Revised all the perivous Concepts	Data Saploation and about power BI	

WEEKLY REPORT

WEEK-3 (From Dt. 15/07/2024 to Dt. 19/07/2024.)

Objective of the Actuvity 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 sesion 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.

Page No.

Fourth

ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Created a bar chart visulization	Learnt how to prepare bar chart	
Day - 2	Created a pie chart visualization	Learnt how to prepare pie chart.	
Day – 3	Created a bubble chart visualization	Learnt how to prepare bubble chart.	
Day – 4	Created a area chart visualization	Learnt how to prepare area chart.	
Day – 5	Created a line chart visulization	Learnt how to prepare line chart.	
Day –6	Practised all the visualizations	Learnt how to prepare visualizations	

WEEKLY REPORT

WEEK-4 (From Dt....22/07/2024. To Dt.....26/07/2024.)

Objective of the Activity Done: Advanced data Analysis with DAX

Detailed Report:

This were was dedicated to depending 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

34th

ACTIVITY LOG FOR THE ~~FIRST~~ WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Created a line and Column chart visualization	Learnt how to Create line and column	
Day - 2	Created a waterfall visualization	Learnt how to Create a waterfall.	
Day – 3	Created a Hierrachical bubble chart	Learnt how to Create Hierichical bubble.	
Day – 4	Created a line chart for forecasting	Learnt how to Create line chart	
Day – 5	Overview of cognos Dashboard	Learnt what is power BI dashboard	
Day –6	Revised and practiced all the concepts	Learnt about more visualiza-tions.	

WEEKLY REPORT

WEEK-5 (From Dt. 29/03/2024 To Dt. 02/08/2024)

Objective of the Activity Done:

Real-world case study: Sales Analytics

Detailed Report:

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

ACTIVITY LOG FOR THE ~~FIRST~~ sixth WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Created a dashboard with Data Source Superstore Data	Learnt how to Create Dashboard	
Day - 2	Modified with some of the parameters	Edited Dashboard	
Day – 3	Created another dashboard with visualization	Learnt how to add visualization	
Day – 4	Inserted map chart, Donut chart	Learnt how to add visualization	
Day – 5	Inserted word cloud to the dashboard	How to insert visualization.	
Day – 6	Revised and practical all Concepts	Learnt how to Create dashboard.	

WEEKLY REPORT

WEEK-6 (From Dt. 05/08/2024 to Dt. 09/08/2024)

Objective of the Activity Done: Report optimization & 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 datasets and reducing memory usage.

- Optimized existing reports to load faster and handle larger datasets.
- Applied techniques to reduce the size of data models without losing critical information.

Seventh
ACTIVITY LOG FOR THE ~~FIRST~~ WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Overview of the Power-BI report	Learnt about Power-BI report.	
Day - 2	Presented data in report format	Learnt about presenting data	
Day – 3	Created a report using the visualization	Learnt how to create a report.	
Day – 4	Created another report	Learnt how to create a report	
Day – 5	Created a report using visualization	Learnt how to create report	
Day –6	Revised and practiced all Concepts	Learnt report.	

WEEKLY REPORT

WEEK-7 (From Dt....12/08/2024..... to Dt....16/08/2024.....)

Objective of the Activity Done: project work - Data analysis and 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 intern, cleaning and transforming the data and building a data model.
- Our team focused on identifying key metrices trends and patterns that could drive business decisions.
- The initial reports and dashboards users created to visulize these insights, using the skills and techniques learned over the past six weeks.

ACTIVITY LOG FOR THE ~~FIRST~~ Eighth WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day – 1	Overview of Power-BI story	Learnt about story.	
Day - 2	Created a story in portal	Learnt how to Create Power-BI story	
Day – 3	Created a guided Journey story	Learnt about guided journey story	
Day – 4	Create a slide-show story	Learnt how to Create slide show	
Day – 5	Created 6 Scenes in story	Learnt about types of story	
Day –6	Revised and practied all the concepts	Learnt about story Creation	

WEEKLY REPORT

WEEK-8 (From Dt....19/08/2024..... to Dt.....23/08/2024.....)

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 smartintern 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 examining and inter--preting 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: Knowledge & Experience in Pyton Programming language.

* Visualization Generation: Skills in developing interactive Dashboards, Comprehensive reports, narrative stories in Power-BI

* Problem solving: Developing solutions to challenges encountered during data analysis.

* Data cleaning and Preprocessing: Proficiency in Data cleansing & 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: Co-ordinating tasks, setting goals & ensuring the timely completion of the data analytics project.
* Team Collabolation:- Working effectively in a group setting, delegating tasks & fostering a collaborative environment.
* Leadership skills: Taking initative, guiding the team, & making decisions to achieve project objectives.
* Time Management: Prioritzing tasks, muting deadlines, & efficiently allocating resources.
* Problem solving as a team: Addressing challenges Collectively & finding solutions through group dicussion (&) collabiation.
* Feedback & Improvement: Providing Constructive feedback to team members & actively participating in Continous improvement processes.

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, visulizations & projects.
* Team Collobrations: Collaborating with team members to share information, discuss project progress & updates.
* Written Communication: Grafting clear & concise reports, documentation and emails. related to data analytics processes.
* Feedback Delivery: Providing constructive, feedback to peers, mentors & traniers 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 smartinternz, 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 thers, ask insightful questions and share my opinions, perspectives, clearly & effectively. As a team members, I plan to strengthen collabration by proactively offering support, leveraging my technicall 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 continous 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)*

By integrating data with power-BI we can analyze large set of data easily and can predict the future consequences for any events. It takes a lot of time to analyze data manually but through power-BI we can easily sort lot of data within seconds. It is very easy to understand data in visualization such as graphs, Bar diagram, line charts, pie charts, map charts etc.

The power-BI company was growing fast and expected to expand four times its size by 2030; owing to futher advancements in data analytics is the analysis of huge data volumes generated by connected devices.

The future of data analytics looks bright with emerging technologies such as artificial intelligence, machine learning and block chain these technologies have the potential to transform data, leading to new insights and discoveries that were previously impossible.