

## SHORT-TERMINTERNSHIP



**Dr. LANKAPALLI BULLAYYA COLLEGE  
VISAKHAPATNAM**

# *PROGRAM BOOK FOR SHORT-TERM INTERNSHIP*

**Name of the Student :** S.S.R. APREA DEVI

**Name of the College :** Dr Lankapalli Bullayya College, Visakhapatnam

**Registration Number :** 722128805417

**Period of Internship :** 03/7/24 to 28/8/24

**Name & Address of Intern Organization:**

**Name of the University :** Andhra University

**Year :**

# An Internship Report on

DATA ANALYTICS

Submitted in accordance with the requirement for the degree of

Bachelor of SCIENCE OF COMPUTER SCIENCE

Under the Faculty Guideship of

K. Moudula Bravera

Department of

Management Fw-01

Dr Lankapalli Bullayya College Visakhapatnam

Submitted by

S S R Anita Devi

Reg. No.

722128805417

Dr. Lankapalli Bullayya College  
Visakhapatnam-13

## Official Certification

This is to certify that S.S. R. ARIKA DEVI

Reg. No. 771288D5417 has completed Internship in

on Data Analytics

Under my supervision as part of a partial fulfillment of the requirement for  
the Degree of Bachelor Science of Computer Science in Department of

Dr. Lankapalli Bullayya College, Visakhapatnam.

This is accepted for evaluation

**Signature with Date and seal**

## Endorsements

## Faculty Guide

Head of the Department : \_\_\_\_\_

## Principal :

## Declaration

I S.S.R. ARIKA DEVI student of Bachelor of Science of Computer Science Program, Reg. No. 722128855417 of the Department of Management (u-6) Dr.L.B College do hereby declare that I have completed mandatory Short-Term Internship Under the Faculty Guideship of K. Hrudula Praveena Department of BSC, Dr.L.Bullayya College, Visakhapatnam.

Signature of the student

## Acknowledgements

I would sincerely like to thank APSCHE for providing me this short-term Internship which helped me gain Practical Experience and knowledge on Data Analytics.

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

I would also like to thank our Head of the Department Miss Hymavathi mam, Department of Bsc Computer Science and guide K. Mrudula Praveena mam for being a wonderful mentors throughout my Project.

I thank my Lecturers, Mentors and my friends who helped me to do this Project. Without them this Project would not have been completed.

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

## **1: EXECUTIVE SUMMARY**

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

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

### **Suggestive contents**

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

## **3: INTERNSHIP PART**

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

## CHAPTER 1 :- EXECUTIVE SUMMARY.

Description of the Sector of business and Intern Organization.

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

Learning Objectives and Outcomes:-

- 1) Understand Power BI fundamentals.
- 2) Data Modeling
- 3) Proficiency in Power BI tools
- 4) Data cleaning & transformation.
- 5) Data Visualization.
- 6) Report Design and Sharing.

Summary of Internship Activities:-

- 1) Attending pre-training sessions and Project-Mentoring Sessions
- 2) Selection of topic - "Student Performance analysis" and gathering, cleaning and analyzing its related datasets in Excel.
- 3) Team formation and assignment of tasks to team members
- 4) Designing & Developing interactive dashboards, 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 Platform that offers Virtual Partnership to the Student. The Platform's goal is to Prepare Students for the Job market by Establishing a Co-operative relationship between Industry & Academics. Smart Bridge Partners with Companies such as google to offer Virtual Internships. The Partnership Provide Students with hands on Experience with hands on Experience with the latest technologies, and enable Project based learning. Smart Bridge's flagship event is the "Summer Internship Program". The Program develops students skills in Emerging technologies i.e., 1) Artificial Intelligence. 2) Machine learning. 3) Internet of things.

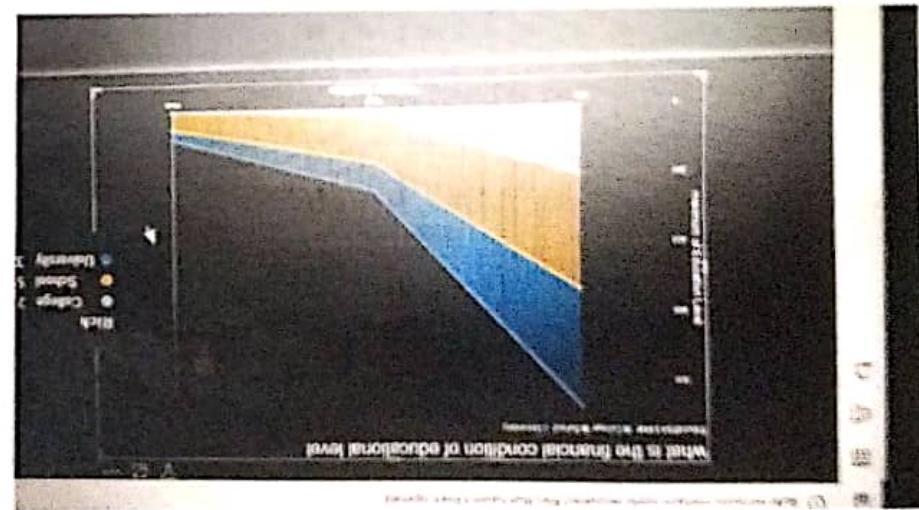
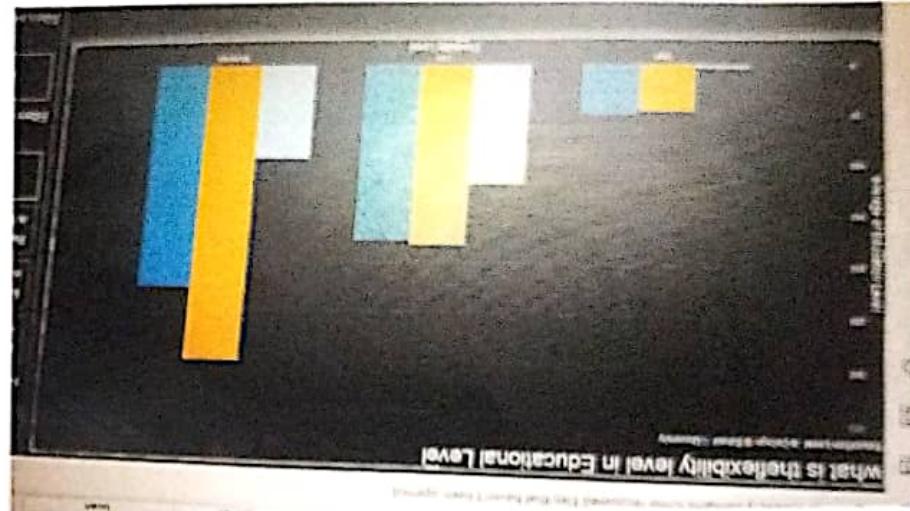
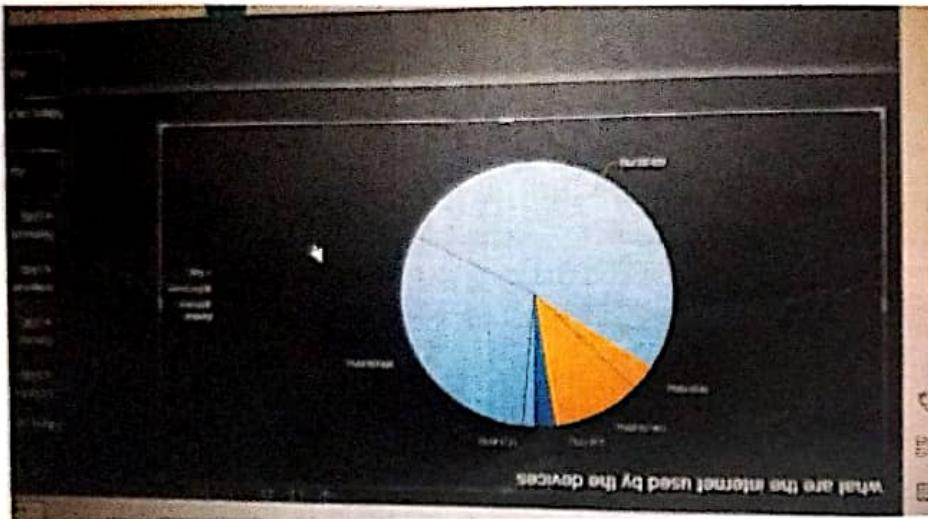
### Organization Objective:-

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 by University. Smart Bridge offers suitable skill development & training to the young talent before entering the job market. Their skill development programs are designed considering the present in demand skills in the industry. We thereby work along the line to offer best programs that helps the students to gain practical knowledge and hands on training to learn skills of the future. Therefore the main objectives of Smart Bridge is Providing Internship for every student, Promote Industry approved Professional electives & become a talent factory of India by 2026.

## CHAPTER - 3 :- INTERNSHIP PART

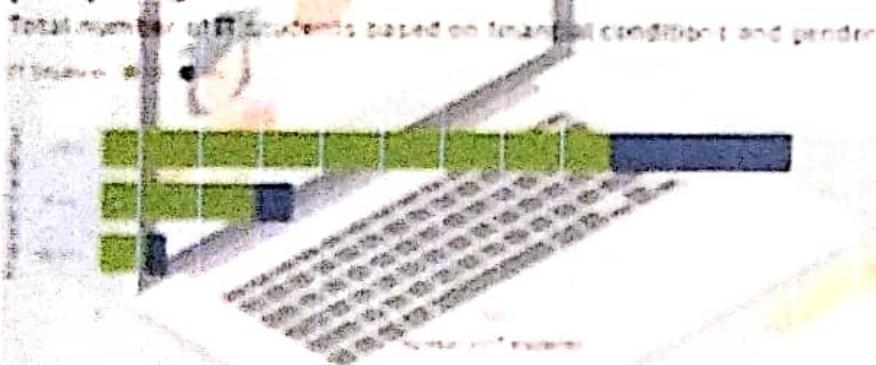
Description of the Activities / Responsibilities Undertaken.

- 1) Registering with APSCHE Smart Learning & Enrolling for Smartbridge's data analytics course i.e., live training session as per the Pre-Scheduled training calendar.
- 2) Participating weekly quiz & completing weekly assignments with respect to data analytics.
- 3) Team formation & Selection of Project topic "STUDENT ADAPTABILITY LEVEL ONLINE EDUCATION".
- 4) Gathering cleaning & analyzing the Excel data sets of the Project topic - "Student adaptability level online education".
- 5) Attending Project - Mentoring session and designing and developing interactive dashboard, Report on the Project topic using Power BI
- 6) Web Integration of above Project deliverable with team's web page using visual studio code , Drafting a Project topic Video demonstration and Preparation of final Report
- 7) Submission of team Project via Uploading the Project files on Github Repository of the team.



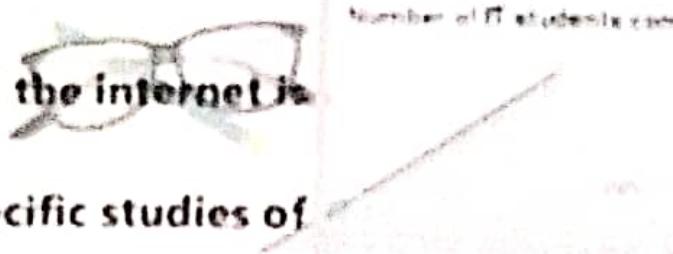
# STUDENTS ADAPTABILITY LEVEL ONLINE EDUCATION

1. For remote work on online learning a stable wifi connection is essential for productivity
2. wifi networks are commonly used for listening online classes
3. many devices like smarthome gadgets on wifi to function properly

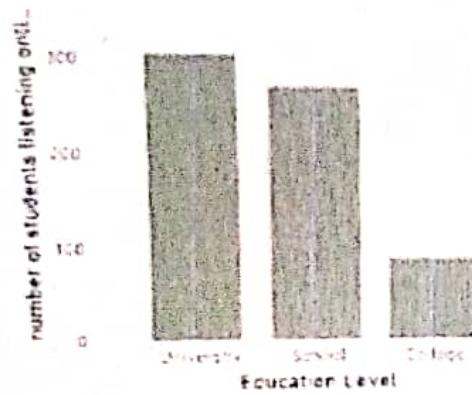


1. Availability of financial aid can effect how many students can pursuv IT studies
2. The financial conditions and other necessities also play a role in students financial decisions
3. Expenses for housing,books, and other necessities also playrole in students

1. Rural area often have fewer educational institution
2. Access to the technology and the internet is often more in rural areas
3. educational institution or specific studies of IT students



THE AVERAGE OF LISTENING ONLINE CLASSES



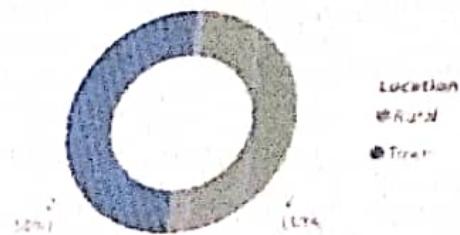
Internet source used by students on online classes



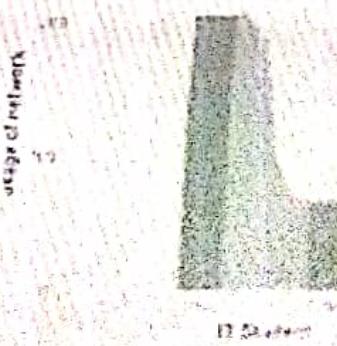
Total number of IT students based on financial conditions and gender



Number of IT students coming from rural and town areas



USAGE OF NETWORK BY IT STUDENTS



## what is the flexibility level in Educational Level

Educational Level: Doctorate & School & University



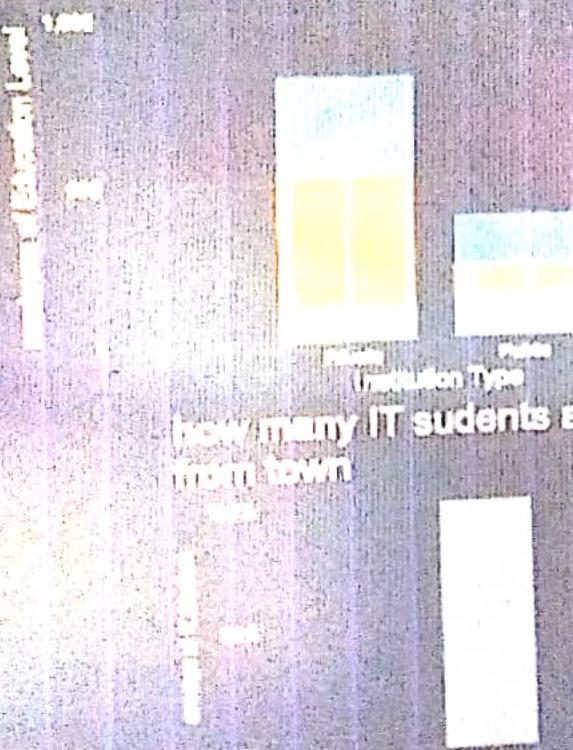
## what is the financial condition of educational level

Educational Level: Doctorate & School & University

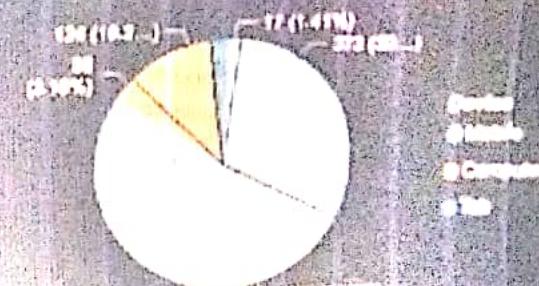


## which is the leading Institute type

Educational Level: Doctorate & School & University

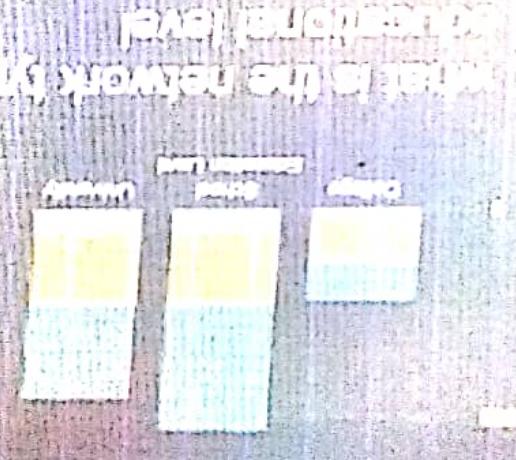


## what are the internet used by the devices



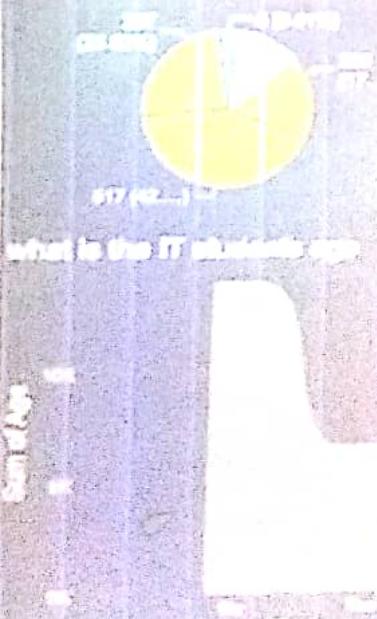
**student adaptability level in online education**

**What is the flexibility level  
used by the institution (Y-axis)  
How many IT students are from  
private institute**

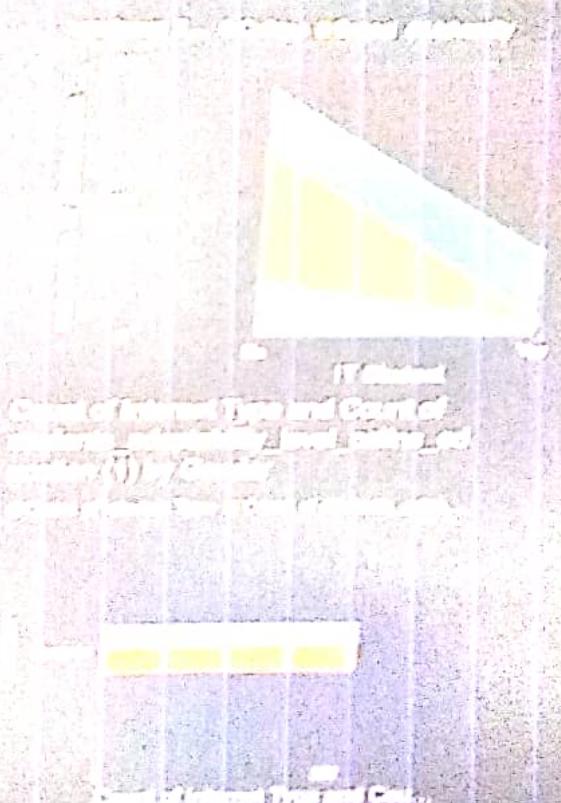


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# what are the dev/ops trend edu... 11/18

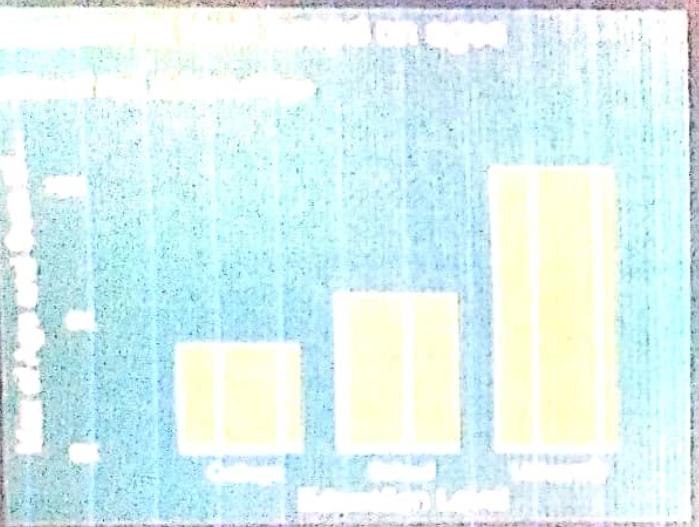


18. *Leucosia* *leucostoma* *leucostoma* *leucostoma*

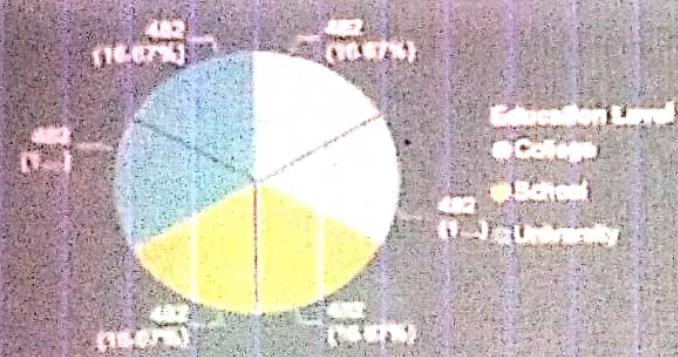


**what is the average of IT students network type**





Population of students regarding education level



Average of schools in education level by Education Level and institution Type

Institution Type: College & Public



Institution Type: College & Private



Average of private educational institutions

Education Level: College & School & University



## ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In Charge Signature
Monday Day -1 8-7-2024	Introduction of Data Analytics	Analysis of the topic.	
Tuesday Day -2 9-7-2024	Introduction of Data Analytics	Analysis of the topic.	
Wednesday Day -3	Agenda. and Understanding Customers	Clear view of business. Problem and Solution.	
Thursday Day -4	Analysis and Implementing data.	Putting the data in visual form.	
Friday Day -5	Data Analytics application.	Where it is used to learn about different tools and insights	
Saturday Day -6	Researched the additional information about Data Analysis.	Additional Information about Data Analysis.	

## WEEKLY REPORT

WEEK - 1 (From Dt. 2/7/24 to Dt. 5/7/24.....)

Objective of the Activity Done:	Introduction to Data Analytics and Power BI
Detailed Report:	<p>In the first week, we were introduced to the fundamentals of data analytics, emphasizing the role of data-driven decision-making in modern businesses. The sessions covered the basics of data analysis, different types of data, and the importance of data visualization.</p> <p>We also explored Power BI, understanding its interface features, and how it integrates with other Microsoft products.</p> <p>The week concluded with a hands-on session on loading and transforming data in Power BI.</p>

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**ACTIVITY LOG FOR THE SECOND WEEK**

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-Charge Signature</b>
Day - 1	Data Analytics Application	learned about different and insights	
Day - 2	Data Analytics Application	where it is used in diff sec	
Day - 3	Data Analytics Application process in steps in DA	learned about data cleaning and processing	
Day - 4	Data Analytics Application process in steps in DA	learned about data cleaning and processing	
Day - 5	DA Types of data - Analytics	different types in DA in clear way	
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:	<p>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.</p>
	<p>Additionally, we were introduced to data modeling concepts such as relationships, cardinality, and data hierarchies.</p>
	<p>The practical sessions helped reinforce these concepts by allowing us to create and manage data models effectively.</p>

**ACTIVITY LOG FOR THE THIRD WEEK**

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

WEEKLY REPORT

WEEK - 3 (From Dt. 15.1.21.25 to Dt ... 19.1.21.24.....)

Objective of the Activity Done:	Data Visualization Techniques
Detailed Report:	<p>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.</p> <p>The sessions included best practices for selecting the right visualizations based on the type of data and the message we want to convey. We also learned about customizing visual elements, using themes, and enhancing reports with interactive features like filters and drill-throughs.</p>

### 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 views	
Tuesday Day - 2	Tables and merges	Learned about the kinds in merge	
Wednesday Day - 3	Tables and merges	Learned about the kinds in merge	
Thursday Day - 4	ETL tools in power query	Whilize power BI data flow	
Friday Day - 5	ETL tools in power query	while power BI data flow	
Saturday Day - 6	Researched the additional information online.	Additional information about BI.	

WEEKLY REPORT

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

<p><b>Objective of the Activity Done:</b> Advanced Analytics and DAX</p>
<p><b>Detailed Report:</b> Week four delved into advanced analytics and Data Analysis Expression (DAX) in Power BI.</p>
<p>We learned how to create Calculated Columns, Measures and Custom tables using DAX. The training covered complex DAX functions such as Time Intelligence filtering, and aggregation.</p>
<p>We also explored advanced analytical techniques like trend analysis, forecasting, and what-if Scenarios.</p>
<p>The week ended with exercises to build dynamic reports using DAX-driven Insights.</p>

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**ACTIVITY LOG FOR THE FIFTH WEEK**

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-Charge Signature</b>
monday Day - 1	Data Sources dash boards and trights	learned how these are used in BI	
Tuesday Day - 2	Data Collection and data cleaning	learned about the process in DA.	
wednesday Day - 3	Data Collection and data cleaning	learned about the process in DA.	
Thursday Day - 4	Data Analytics expressions (DAX)	learned about the expression and functions	
Friday Day - 5	Data Analytics expressions (DAX)	learned about the expression and functions	
Saturday Day - 6	Discussion Regarding project	Discussed about project	

WEEKLY REPORT

WEEK - 5 (From Dt 29.1.24 to Dt ... 218/24.....)

**Objective of the Activity Done:** Power BI Service and Collaboration

**Detailed Report:** The fifth week covered the Power BI Service and its Collaborations features. We learned how to Publish reports to the Power BI Service, Share dashboards and collaborate with teams members in real-time. The sessions emphasized data security, granular-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**

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-Charge Signature</b>
monday Day - 1	Filter Functions in DAX.	Different filters in DAX	
Tuesday Day - 2	Filter Functions in DAX.	Different filters in DAX.	
wednesday Day - 3	preparations for grand assessment test	preparation for Assessment test	
Thursday Day - 4	preparation for grand assessment test	preparation for assessment test	
Friday Day - 5	Grand assessment test	Gave the grand assessment test	
Saturday Day - 6	Researched the additional information online	Additional Information about BI	

WEEKLY REPORT

WEEK - 6 (From Dt. 5/8/23 to Dt. 9/8/23.....)

Objective of the Activity Done:

Detailed Report: In the final week of Partnership classes we focused on best Practices. We focused on best Practices in data analytics and real world applications of Power BI across various industries.

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

The sessions also included case studies showing how companies use Power BI for business intelligence, sales analytics, financial reporting, and operational efficiency. The week wrapped up with an overview of the upcoming project work.

WEEKLY REPORT

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

Objective of the Activity Done:

Project work data Analysis and Visualisation.

Detailed Report:

In Seventh week started the beginning of the Project Phase. We discussed about our Project. Student adaptability level online education level with our team members.

The Project Involved analyzing a data set provided by Smart Intell and cleaning the data transformed data to team members. we installed Power BI and download data in Power BI.

Our Team focused on data visualisation. we are using skills and techniques learned over past 8 weeks.

WEEKLY REPORT

WEEK -8 (From Dt. 19.12.24. to Dt. 23.12.24.....)

Objective of the Activity Done: Finalization and Presentation.

Detailed Report: In the final week, we completed the Project by creating a dashboard. In team we created five dashboards. In dashboard we added interactive elements and ensuring the data was accurately represented.

We created a Project report on Students adaptability level online Education we gather information and we prepared a Project report And we prepared a demo link to Student adaptability level online Education.

The Project was well received, making a successful conclusion to be the Internship.

## CHAPTER 6: OUTCOMES DESCRIPTION

Describe the work environment you have experienced (in terms of people interactions, facilities available and maintenance, clarity of job roles, protocols, procedures, processes, discipline, time management, harmonious relationships, socialization, mutual support and teamwork, motivation, space and ventilation, etc.)

### Description of Work Environment

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

The facilities were equipped with necessary tools for data analysis. Team members exhibited mutual support & teamwork contributing to a harmonious relationship. Overall, the internship provided a comprehensive experience in data analytics within a well-organized and supportive work environment. It helps in connecting to different data sources, cleaning and transforming data, creating interactive reports and dashboards and sharing insights within an organization.

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

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

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

### Description of the technical Skills Acquired

Data Analysis:- Proficiency in examining and interpreting complex data sets.

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 collab for analytics & visualization

Programming Languages:- Knowledge expertise in Python Programming language.

Visualization generation:- Skills in developing interactive dashboards, comprehensive reports, narrative stories in data analytics.

Problem Solving:- Developing solutions to challenges Encountered during data Analysis.

c) Data Cleaning and Preprocessing:- Proficiency in data cleaning & preparing data for analysis.

Describe the managerial skills you have acquired (in terms of planning, leadership, team work, behaviour, workmanship, productive use of time, weekly improvement in competencies, goal setting, decision making, performance analysis, etc.

### Description of the Managerial Skills Acquired

Project Management :- Coordinating tasks, Setting goals & ensuring the timely completion of the data analytics Project

Team Collaboration :- Working effectively in a group Setting delegating task & fostering a collaboration environment

Leadership Skills :- Taking Initiative, guiding the team & making decision to achieve Project objectives.

Time Management :- Prioritizing tasks, Hitting deadlines, & Efficiently allocating resources.

Problem Solving as a team :- Addressing challenges collectively finding solutions through group discussions & collaboration.

Adaptability :- Being flexible & adapting to changes in Project scope or requirements.

Describe how you could improve your communication skills (in terms of improvement in oral communication, written communication, conversational abilities, confidence levels while communicating, anxiety management, understanding others, getting understood by others, extempore speech, ability to articulate the key points, closing the conversation, maintaining niceties and protocols, greeting, thanking and appreciating others, etc.)

### Description of the Communication Skills Acquired.

Technical Communication :- Effectively Conveying Complex Data Analytics Concepts & Findings.

Presentation Skills :- Creating & Delivering Engaging Presentations to Communicate Insights, Dashboard, Visualization & Projects.

Team Collaboration :- Collaborating with team members to share information, discuss Project Program Process Update.

Written Communication :- Crafting clear and concise reports, documentation and emails related to data analytics processes.

Conflict Resolution :- Addressing and Resolving Conflicts within the team to maintain a productive environment between team members.

Feedback Delivery :- Providing constructive feedback to peers, mentors 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 experience in data analysis at Smartbridge, we identified key areas for enhancing my abilities in group discussions, team participation, and leadership.

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

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

Lastly to enhance my leadership capabilities,

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

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

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

## Description of digital technologies of Power BI:-

i) Data Connectivity :- Power BI connects to wide array of data sources, including databases, cloud services, and web APIs. This technology allows live connection to data sources, enabling real time data analysis without importing data into Power BI.

ii) Data Transformation and Modeling :- Power Query Editor enables user to clean, transform and shape data through a user-friendly interface. Power BI provides capabilities for creating relationships between different data tables, calculated columns using DAX.

iii) Data Visualization :- User can create interactive dashboards with wide range of visualization such as charts, graphs, tables. These can be customized and tailored to specific needs.

iv) Natural language Processing (NLP) :- Q&A feature enables natural language and Power BI will generate visualization based on the queries. This helps user interact with data in a more intuitive way.