Data Analytics with Tableau

A Summer Internship Report submitted in partial fulfillment of the requirements for the award of a degree of

BACHELOR OF TECHNOLOGY

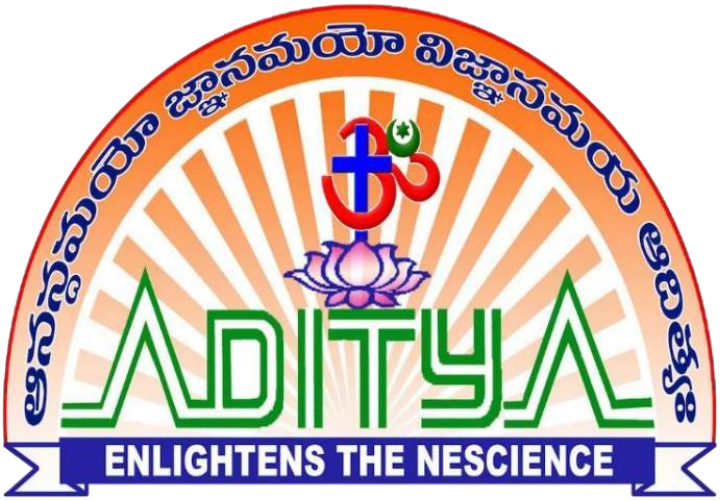
In

COMPUTER SCIENCE AND ENGINEERING

Submitted by

MUDAMANCHU GURUNAGESH

Regd. No: 22P31A05A2



Department of Computer Science And Engineering

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY(A)

Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada & Accredited by NAAC 'A+' Grade

Recognized by UGC under the sections 2(f) and 12(B) of the UGC act 1956

Aditya Nagar, ADB Road-Surampalem,533437, Kakinada.

2025-2026

CERTIFICATE

Department of Computer Science and Engineering

This is to certify that the Internship report entitled **"Data Analytics with tableau"** is being submitted by **MUDAMANCHU GURUNAGESH (22P31A05A2)**. In partial fulfillment of the requirements for award of the B.Tech. degree in Computer Science And Engineering of the academic year 2025- 2026.

Internship Guide

Mr.M M Siva Krishna,M.Tech,(Ph.D)
Assistant Professor
Department of CSE

Head of the Department

Dr. CH. SVVSN. Murty, M.Tech, Ph.D.
Associate Professor
Department of CSE

DECLARATION

I hereby declare that the Internship entitled **"Data Analytics with Tableau"** is a genuine report. This work has been submitted to the **ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY (A),** Surampalem, permanently affiliated to **JNTUK, KAKINADA** in partial fulfillment of the **B. Tech** degree**.**

I also hereby declare that this internship report is not submitted in full or partial to any other university for any degree.

MUDAMANCHU GURUNAGESH

(22P31A05A2)

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Ph: 99591 76665, Email: office@acet.ac.in, www.acet.ac.in

VISION

To induce higher planes of learning by imparting technical education with

- ✓ International standards
- ✓ Applied research
- ✓ Creative Ability
- ✓ Value based instruction and to emerge as a premiere institute

MISSION

Achieving academic excellence by providing globally acceptable technicaleducation by forecasting technology through

- ✓ Innovative Research And development
- ✓ Industry Institute Interaction
- ✓ Empowered Manpower

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VISION:

To become a center for excellence in Computer Science and Engineering education and innovation.

MISSION:

- Provide state of art infrastructure
- Adapt skill-based learner centric teaching methodology
- Organize socio cultural events for better society
- Undertake collaborative works with academia and industry
- Encourage students and staff self-motivated, problem-solving individuals using Artificial Intelligence
- Encourage entrepreneurship in young minds.

Head of the Department

Head of the Department
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAM EDUCATIONAL OBJECTIVES

PEO1: Capability to design and develop new software products as per requirements of the various domains and eligible to take the roles in various government, research organizations and industry

PEO2: More enthusiastic to adopt new technologies and to improve existing solutions by reducing complexity which serves society requirements as per timeline changes

PEO3: With good hands-on basic knowledge and ready improve academic qualifications in India or Abroad

PEO4: Ability to build and lead the team to achieve organization goals.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAM OUTCOMES

1. ENGINEERING KNOWLEDGE: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. PROBLEM ANALYSIS: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. DESIGN/DEVELOPMENT OF SOLUTIONS: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. CONDUCT INVESTIGATIONS OF COMPLEX PROBLEMS: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. MODERN TOOL USAGE: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

6. THE ENGINEER AND SOCIETY: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant to the professional engineering practice.

7. ENVIRONMENT AND SUSTAINABILITY: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. ETHICS: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. INDIVIDUAL AND TEAM WORK: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. COMMUNICATION: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, give and receive clear instructions.

11. PROJECT MANAGEMENT AND FINANCE: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. LIFE-LONG LEARNING: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Head of the Department

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAM SPECIFIC OUTCOMES

PSO 1: The ability to design and develop computer programs for analyzing the data.

PSO 2: The ability to analyze data & develop Innovative ideas and provide solution by adopting emerging technologies for real time problems of software industry.

PSO 3: To encourage the research in software field that contribute to enhance the standards of human life style and maintain ethical values.

Head of the Department

Head of the Department
Dept.of CSE
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SURAMPALEM-533 437

Certificate of Internship

SMARTBRIDGE

ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION

(A Statutory Body of the Government of A.P)

CERTIFICATE OF COMPLETION

This is to certify that Ms./Mr. **Mudamanchu Gurunagesh** of **Computer Science And Engineerinng** with Registered Hall ticket no. **22P31A05A2** under **ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY** of **JNTUK** has successfully completed Short-Term Internship of 2 months on **Data Analytics with Tableau** Organized by **SmartBridge Educational Services Pvt. Ltd.** in collaboration with **Andhra Pradesh State Council of Higher Education.**

Certificate ID: **EXT-APSCHE _DA-53580**

Date: 21-Jul-2025

Place: Virtual

Amarendar Katkam

Founder & CEO

ACKNOWLEDGEMENTS

I extend my heartfelt thanks to the esteemed Principal, **Dr. A. Ramesh**,M.Tech,(Ph.D) of Aditya College of Engineering & Technology (A), for his invaluable support and cooperation.

My sincere gratitude goes to **Dr. CH. SVVSN Murthy**, **M.Tech., Ph.D.**, Head of the Department of Computer Science and Engineering, for his continuous encouragement.

I am especially grateful to my internship coordinator, **Mr. Jagatha Satya Narendra Kumar**, **M.Tech. (Ph.D.)**, Assistant Professor, and my internship guide, **Mr.M M Siva Krishna,M.Tech,(Ph.D)**, Assistant Professor, Department of Computer Science and Engineering, for their guidance and support, which were instrumental in the successful completion of this internship.

Lastly, I express my profound appreciation to the management of Aditya College of Engineering & Technology (A) for their unwavering support and commitment to providing a conducive learning environment.

MUDAMANCHU GURUNAGESH

(22P31A05A2)

Learning Objectives / Internship Objectives

During my **Data Analytics internship**, I worked on a real-world project titled **"Visualization Tool For Electrical Vehicle Charge And Range Analysis."**
This project helped me understand how to turn business data into useful insights through visualization. I learned how data analysis supports better marketing and product placement decisions in retail.

Key Learning Objectives:

1. Gain Practical Experience in Data Analytics

- Worked with real sales data to explore and understand trends using Tableau.
- Learned how to clean, organize, and visualize data effectively.

2. Build Interactive Dashboards

- Designed dashboards using **bar, donut, funnel, and waterfall charts** to show sales and product performance.
- Added filters and calculated fields for better analysis and user control.

3. Improve Data Interpretation and Storytelling

- Learned how to turn raw numbers into clear visual stories for business use.
- Used Tableau Story to explain insights in a simple, visual way.

4. Understand Consumer and Sales Insights

- Analyzed how **promotion, product placement, and customer type** affect sales.
- Gained a better understanding of consumer behavior through visual trends.

5. Develop Presentation and Design Skills

- Focused on clean layout, color balance, and easy-to-read visuals.
- Learned how to present findings clearly to managers and non-technical users.

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CHAPTER 1: EXECUTIVE SUMMARY

1.1 Learning Objectives of Summer Internship

The main goal of my summer internship at APSCHE in collaboration with SmartBridge was to gain practical experience in Data Analytics and Visualization using Tableau. Through my project titled "Visualization Tool For Electrical Charge And Range Analysis," I learned how to collect, clean, and analyze data to find useful business insights. The internship helped me understand how companies use data to make better marketing and product placement decisions.

1.2 Learning Outcomes of Summer Internship

During this internship, I:

- Learned how to clean and prepare data for analysis.
- Created interactive dashboards using **Tableau** with different charts like bar, donut, and funnel charts.
- Gained experience in finding trends and patterns in sales data.
- Improved my skills in **data storytelling** and report presentation.
- Understood how product placement, traffic, and promotions affect sales.
- Completed a full analytical project and learned to present insights clearly.

1.3 A Brief Description of the Intern Organization

The Andhra Pradesh State Council of Higher Education (APSCHE), in collaboration with SmartBridge, provides students with industry-oriented internship programs in emerging technologies. SmartBridge is a learning platform that offers hands-on experience in fields like Data Analytics, Artificial Intelligence, Cloud Computing, and IoT. Through this partnership, students work on real datasets and projects under expert guidance, enhancing their technical and problem-solving skills.

1.4 Summer Internship Summary

My internship at APSCHE in collaboration with SmartBridge was a valuable learning experience. Working with a real dataset and building interactive dashboards in Tableau helped me strengthen both my technical and analytical skills. The project enhanced my understanding of how data visualization contributes to informed business decision-making. Overall, this internship provided me with practical knowledge, boosted my confidence, and prepared me for future roles in the field of data analytics and visualization.

CHAPTER 2: OVERVIEW OF THE ORGANIZATION

2.1 Introduction of the Organization

The Andhra Pradesh State Council of Higher Education (APSCHE), in collaboration with SmartBridge, provides students with industry-driven learning opportunities that bridge the gap between academia and industry. SmartBridge is a learning and innovation platform that partners with leading companies and academic institutions to deliver experiential education through project-based internships, skill development programs, and expert mentorship. The platform offers hands-on training in areas such as Data Analytics, Artificial Intelligence, Machine Learning, Cloud Computing, and the Internet of Things (IoT), preparing students for technology-oriented careers.

2.2 Vision, Mission, and Values of the Organization

Vision:
To empower students and professionals with hands-on skills in emerging technologies and make them industry-ready.

Mission:
To create a strong bridge between academia and industry through experiential learning, mentorship, and innovation-driven projects.

Values:

- Learning by doing
- Innovation and creativity
- Collaboration and teamwork
- Integrity and transparency
- Focus on practical industry exposure

2.3 Policy of the Organization, in relation to the Intern Role

APSCHE, in collaboration with SmartBridge, provides interns with a structured and guided learning environment that emphasizes both technical competence and practical application. The key approaches include:

- **Mentorship:** Interns are guided by mentors and project coordinators throughout their training.
- **Skill Development:** Emphasis is placed on building technical and analytical skills using industry-standard tools.
- **Project Work:** Interns work on real-time projects to apply their learning practically.
- **Evaluation & Feedback:** Regular feedback sessions are conducted to track learning progress and project performance.

2.4 Organizational Structure

SmartBridge follows a collaborative organizational structure that promotes teamwork, innovation, and mentorship.
The main divisions include:

- Training & Learning Team – designs and manages internship programs.
- Mentorship Team – provides project guidance and technical support.
- Technology & Development Team – works on backend systems and data handling.
- Operations Team – manages coordination between students, mentors, and partner institutions.

2.5 Roles and Responsibilities of the Employees in which the Intern is Placed

During the internship, interns typically work with mentors and data analysts on real-world datasets.
The common roles and responsibilities include:

- Data Preparation: Cleaning and organizing datasets for analysis.
- Data Analysis: Using Tableau to analyze patterns and trends.
- Dashboard Design: Creating interactive dashboards and visual reports.
- Documentation: Recording observations, analysis results, and visual insights.
- Presentation: Preparing final dashboards and reports for evaluation and sharing.

2.6 Performance of the Organization

APSCHE, in collaboration with SmartBridge, has built a strong reputation for delivering high-quality internship programs and promoting industry-focused learning. Partnering with leading organizations such as IBM SkillsBuild and AWS Educate, it offers globally recognized certifications and guided learning experiences. Through these initiatives, thousands of students across India have gained valuable technical exposure and enhanced their employability.

2.7 Future Plans of the Organization

APSCHE, in collaboration with SmartBridge, plans to expand its programs in Artificial Intelligence, Data Analytics, and Cloud Computing while introducing advanced cloud-based learning modules. The partnership aims to enhance the SmartInternz platform for interactive remote internships and strengthen collaborations with tech companies and universities to promote innovation-driven, industry-oriented learning across India.

CHAPTER 3: INTERNSHIP PART

3.1 Introduction

During my Data Analytics internship with APSCHE in collaboration with SmartBridge, I gained valuable hands-on experience in data visualization and business analysis using Tableau. Through my project titled *"*Visualization Tool For Electrical Charge And Range Analysis*,"* I worked with a real retail dataset to study how factors such as product placement, promotions, and customer demographics influence sales performance. I learned to clean and organize data, create insightful visualizations, and design interactive dashboards that support data-driven business decisions. This internship significantly enhanced my technical proficiency, analytical thinking, and data storytelling skills, preparing me for future roles in data analytics and visualization.

3.2 Equipment and Tools

To complete the project successfully, I used the following equipment and tools:

- **Hardware:** Personal computer/laptop
- **Software and Tools:** Tableau Public / Tableau Desktop
- **Data Source:** Electrical Vehicle.csv dataset
- **Supporting Tools:** Microsoft Excel (for data cleaning), Google Sheets (for preprocessing)
- **File Storage:** Local system and Google Drive

3.3 Tasks Performed

During the internship, I completed several important tasks that helped me understand real-world analytics workflows:

1. **Data Collection and Preparation**
    - Imported the *Electrical Vehiccle.csv* dataset into Tableau.
    - Cleaned and formatted data, handled missing values, and created calculated fields like *Price Gap* and *Promotion Impact*.
2. **Data Analysis**
    - Explored relationships between product placement, promotions, foot traffic, and demographics.
    - Identified sales trends and consumer behavior patterns through data exploration.
3. **Dashboard and Visualization Design**
    - Created interactive dashboards using bar, donut, funnel, waterfall, and highlight tables.
    - Added filters for product category, promotion, and traffic to allow dynamic exploration.
    - Designed an overall dashboard layout for readability and presentation impact.
4. **Storytelling and Insights**
    - Used Tableau Story feature to present key insights in a step-by-step narrative.
    - Highlighted findings such as how promotions and high-traffic zones improved sales performance.
5. **Documentation and Presentation**
    - Recorded dashboard visuals, insights, and learning outcomes.
    - Prepared final project documentation and presented findings to mentors.

3.4 Skills Acquired

Through this internship, I gained a comprehensive understanding of Data Analytics principles and practical skills in the following areas:

Technical Skills:

- Proficiency in Tableau for data visualization and dashboard design.
- Understanding of data preparation, cleaning, and calculated fields.
- Ability to analyze relationships between business variables using charts and filters.
- Knowledge of data storytelling and insight presentation for business intelligence.

Soft Skills:

- Improved analytical thinking and attention to detail while exploring datasets.
- Strengthened communication and presentation skills through dashboard explanations.
- Developed problem-solving and critical thinking abilities by interpreting data trends.
- Enhanced time management and project planning skills while completing the project phases.

CHAPTER 4: WEEKLY REPORTS

4.1 ACTIVITY LOG FOR THE FIRST WEEK

	Date	Day	Brief Description of Daily Activity	Learning Outcomes
1st WEEK	19-05-2025	Monday	Introduction to Data Analytics	Understood fundamentals & scope
	20-05-2025	Tuesday	Data Analytics Process	Learned key stages of analysis
	21-05-2025	Wednesday	Data Visualization Concepts	Recognized visualization importance
	22-05-2025	Thursday	Data Analytics Tools Overview	Got tool-level awareness
	23-05-2025	Friday	Excel for Data Cleaning	Cleaned and prepared dataset
	24-05-2025	Saturday	Project Session 1	Understood project framework

4.1.1 WEEKLY REPORT

WEEK – 1 (From Dt: 19/05/2025 **to** Dt: 24/05/2025)

Objective of the Activity Done:

The main objective was to build a foundational understanding of data analytics, including its processes, tools, and practical applications.

Detailed Report:

The internship began with an introduction to data analytics, covering fundamental concepts and its scope. Key stages of the data analytics process were explored, followed by learning the importance of data visualization. An overview of analytics tools provided awareness of software commonly used in the field. Practical sessions included using Excel for data cleaning and preparation of datasets. Finally, Project Session 1 introduced the framework for applying the learned concepts in a real-world project, bridging theory with hands-on experience.

4.2 ACTIVITY LOG FOR THE SECOND WEEK

	Date	Day	Brief Description of Daily Activity	Learning Outcomes
2nd WEEK	26-05-2025	Monday	SQL Basics	Installed and configured MySQL Workbench
	27-05-2025	Tuesday	SQL Operations	Created and queried tables
	28-05-2025	Wednesday	Aggregate Functions	Performed data summarization
	29-05-2025	Thursday	Filtering & Grouping	Applied filters and grouping
	30-05-2025	Friday	SQL Joins	Combined multiple datasets
	31-05-2025	Saturday	Project Session 2	Integrated SQL with dataset

4.2.1 WEEKLY REPORT

WEEK – 2 (From Dt: 26/05/2025 **to Dt**: 31/05/2025)

Objective of the Activity Done:

The objective was to gain hands-on experience with SQL, learning to manage, query, and analyze data efficiently using relational database concepts.

Detailed Report:

The internship sessions began with SQL Basics, where the intern installed and configured MySQL Workbench, setting up the environment for database operations. During SQL Operations, they created and queried tables, practicing fundamental data manipulation skills. Aggregate Functions were applied to perform data summarization, while Filtering & Grouping techniques were used to refine and organize query results. In the SQL Joins session, the intern learned to combine multiple datasets to extract meaningful insights. Finally, Project Session 2 focused on integrating SQL with datasets, applying all learned concepts in a practical project scenario to consolidate their understanding of relational databases and data analysis.

4.3 ACTIVITY LOG FOR THE THIRD WEEK

	Date	Day	Brief Description of Daily Activity	Learning Outcomes
3rd WEEK	02-06-2025	Monday	Tableau Introduction	Understood Tableau interface
	03-06-2025	Tuesday	Dimensions & Measures	Learned data classification
	04-06-2025	Wednesday	Basic Visualizations	Built simple charts in Tableau
	05-06-2025	Thursday	Advanced Charts	Understood chart selection for data types
	06-06-2025	Friday	Dashboard Building	Designed and formatted dashboards
	07-06-2025	Saturday	Project Work	Drafted first dashboard for project

4.3.1 WEEKLY REPORT

WEEK – 3 (From Dt: 02/06/2025 to Dt: 07/06/2025)

Objective of the Activity Done:

The objective was to learn data visualization using Tableau, enabling the creation of insightful and interactive dashboards from raw datasets.

Detailed Report:

The internship sessions began with a Tableau Introduction, where the intern familiarized themselves with the Tableau interface and its functionalities. During Dimensions & Measures, they learned how to classify and organize data effectively for visualization. In Basic Visualizations, the intern built simple charts to represent data clearly, and Advanced Charts focused on selecting appropriate chart types based on data characteristics. Dashboard Building sessions allowed the intern to design and format interactive dashboards, combining multiple visualizations for comprehensive insights. Finally, Project Work involved drafting the first project dashboard, applying all learned skills to present data in a meaningful and visually appealing manner.

4.4 ACTIVITY LOG FOR THE FOURTH WEEK

	Date	Day	Brief Description of Daily Activity	Learning Outcomes
4th WEEK	09-06-2025	Monday	Tableau Calculated Fields	Enhanced data with computed metrics
	10-06-2025	Tuesday	Parameters & Filters	Improved dashboard interactivity
	11-06-2025	Wednesday	Quick Table Calculations	Added analytical insights
	12-06-2025	Thursday	Analytics Pane	Discovered predictive and trend visualization
	13-06-2025	Friday	LOD Expressions	Controlled granularity of data
	14-06-2025	Saturday	Assignment 1 - Visual Creation	Created visuals using first dataset in Tableau

4.4.1 WEEKLY REPORT

WEEK – 4 (From Dt: 09/06/2025 to Dt: 14/06/2025)

Objective of the Activity Done:

The objective was to enhance Tableau skills by learning advanced features, enabling the creation of interactive, insightful, and analytically rich dashboards.

Detailed Report:

The sessions began with Tableau Calculated Fields, where the intern learned to create computed metrics to enrich datasets. Parameters & Filters were applied to improve dashboard interactivity, allowing dynamic data exploration. Quick Table Calculations helped add analytical insights, while the Analytics Pane was used to explore predictive and trend visualizations. LOD Expressions (Level of Detail) were introduced to control the granularity of data for precise analysis. Finally, Assignment 1 - Visual Creation involved creating visuals using the first dataset in Tableau, consolidating all the advanced techniques learned into practical application.

4.5 ACTIVITY LOG FOR THE FIFTH WEEK

	Date	Day	Brief Description of Daily Activity	Learning Outcomes
5th WEEK	16-06-2025	Monday	Tableau Storytelling	Created narrative visual flow
	17-06-2025	Tuesday	Data Blending	Merged multiple data sources
	18-06-2025	Wednesday	Tableau Public	Published dashboard online
	19-06-2025	Thursday	Advanced Chart Practice	Practiced Donut and Pareto charts
	20-06-2025	Friday	Assignment 2 - Visual Creation	Created visuals using second dataset
	21-06-2025	Saturday	Mentor Feedback	Improved visualization design

4.5.1 WEEKLY REPORT

WEEK –5 (From Dt: 16/06/2025 to Dt: 21/06/2025)

Objective of the Activity Done:

The objective was to develop storytelling and data presentation skills in Tableau, enabling the creation of compelling, multi-source dashboards and narratives for effective data communication.

Detailed Report:

The sessions began with Tableau Storytelling, where the intern learned to create a narrative flow with visuals to communicate insights effectively. Data Blending techniques were applied to merge multiple data sources for comprehensive analysis. Tableau Public was used to publish dashboards online, making the visualizations accessible and shareable. Advanced Chart Practice focused on creating specialized charts, including Donut and Pareto charts, to represent data creatively. In Assignment 2 - Visual Creation, the intern applied these techniques to a second dataset, consolidating practical skills. Mentor Feedback sessions helped refine the dashboards, improving design, clarity, and overall visualization quality.

4.6 ACTIVITY LOG FOR THE SIXTH WEEK

	Date	Day	Brief Description of Daily Activity	Learning Outcomes
6th WEEK	23-06-2025	Monday	Project Development Begins	Started building project collaboratively
	24-06-2025	Tuesday	Dashboard Optimization	Enhanced visuals and interactivity
	25-06-2025	Wednesday	Project Analytics	Generated insights using Tableau
	26-06-2025	Thursday	Story Presentation	Completed story narration
	27-06-2025	Friday	Testing & Documentation	Prepared report and screenshots
	28-06-2025	Saturday	AMA + Feedback	Received final corrections and suggestions

4.6.1 WEEKLY REPORT

WEEK – 6 (From Dt: 23/06/2025 to Dt: 28/06/2025**)**

Objective of the Activity Done:

The objective was to apply all learned data analytics and Tableau skills in a comprehensive project, creating an interactive and insightful dashboard with proper documentation and presentation.

Detailed Report:

The project development began with Project Development Begins, where the intern started building the project collaboratively, integrating multiple datasets and visualizations. Dashboard Optimization sessions focused on enhancing visuals and interactivity for better user experience. During Project Analytics, insights were generated from the data using Tableau, applying advanced analytical and visualization techniques. Story Presentation involved completing a narrative flow to communicate findings effectively. Testing & Documentation ensured that the dashboard and report were accurate, including screenshots and explanatory notes. Finally, in AMA + Feedback, the intern received final corrections and suggestions from mentors to refine the project for completion.

4.7 ACTIVITY LOG FOR THE SEVENTH WEEK

	Date	Day	Brief Description of Daily Activity	Learning Outcomes
7th WEEK	30-06-2025	Monday	Final Report Preparation	Compiled complete internship report
	01-07-2025	Tuesday	Dashboard Video Presentation	Learned data storytelling via screen recording
	02-07-2025	Wednesday	Final Project Submission	Submitted all reports and dashboards
	03-07-2025	Thursday	Mentor Review & Feedback	Received final assessment
	04-07-2025	Friday	Performance Evaluation	Understood evaluation process
	05-07-2025	Saturday	Internship Closing Session	Completed internship successfully

4.7.1 WEEKLY REPORT

WEEK – 7 (From Dt: 30/06/2025 **to** Dt: 05/07/2025**)**

Objective of the Activity Done:

The objective was to finalize all internship deliverables, demonstrate data storytelling skills, and complete the formal closure and evaluation process.

Detailed Report:

The internship concluded with Final Report Preparation, where the intern compiled a complete and comprehensive report of all activities, learnings, and projects. In Dashboard Video Presentation, they learned to present insights effectively through screen-recorded storytelling. Final Project Submission involved submitting all reports and dashboards for assessment. During Mentor Review & Feedback, the intern received constructive evaluations, helping to identify strengths and areas for improvement. Performance Evaluation provided insights into the assessment process, and the Internship Closing Session marked the successful completion of the program, consolidating all skills and experiences gained throughout the internship.

4.8 ACTIVITY LOG FOR THE EIGTH WEEK

	Date	Day	Brief Description of Daily Activity	Learning Outcomes
8th WEEK	07-07-2025	Monday	Repository Creation	Created GitHub repository for project
	08-07-2025	Tuesday	File Upload	Uploaded project files to GitHub
	09-07-2025	Wednesday	Form Submission	Submitted internship form with GitHub link
	10-07-2025	Thursday	Documentation Review	Ensured all reports and visuals uploaded correctly
	11-07-2025	Friday	Final Reflection	Reviewed learning outcomes of internship
	12-07-2025	Saturday	Internship Closure	Completed final formalities successfully

4.8.1 WEEKLY REPORT

WEEK – 8 (From Dt: 07/07/2025 to Dt: 12/07/2025)

Objective of the Activity Done:

The objective was to organize, document, and submit all internship deliverables through GitHub, completing the formal closure of the internship.

Detailed Report:

The final sessions began with Repository Creation, where the intern created a GitHub repository for the project. During File Upload, all project files, dashboards, and reports were uploaded to ensure proper documentation. Form Submission involved submitting the internship form along with the GitHub repository link. In Documentation Review, the intern verified that all reports, visuals, and project files were correctly uploaded and organized. Final Reflection provided an opportunity to review all learning outcomes and skills gained throughout the internship. The Internship Closure marked the successful completion of all formalities, culminating the internship experience with full documentation and submission of deliverables.

CHAPTER 5: OUTCOMES DESCRIPTION

5.1 Work Environment I Have Experienced

During my Data Analytics internship with APSCHE in collaboration with SmartBridge, I experienced a structured and supportive virtual learning environment. The program was well-organized, with clear timelines, regular mentor guidance, and weekly milestones. Open communication with mentors and peers fostered a collaborative atmosphere, while the platform provided easy access to training materials, datasets, and project instructions. This environment helped me develop self-discipline, improve time management, and gain confidence in working independently while being part of a larger learning community.

5.2 Real-Time Technical Skills I Have Experienced

Throughout the internship, I gained hands-on experience with data analytics and visualization tools. I learned how to collect, clean, analyze, and visualize data to derive meaningful insights.
Key technical skills included:

- **Tableau:** Created interactive dashboards and stories to visualize sales performance, promotions, and product placement.
- **Data Cleaning and Preparation:** Managed data formatting, removed duplicates, and handled missing values in Excel and Tableau.
- **Calculated Fields:** Created custom measures such as *Price Gap*, *Promotion Impact*, and *Sales Growth Rate* to support deeper analysis.
- **Data Visualization:** Designed multiple visuals including bar, donut, funnel, waterfall, and highlight tables to represent trends clearly.
- **Storytelling:** Used Tableau Story to build a visual narrative that explains how product placement and promotions affect sales outcomes.
- **Data Interpretation:** Learned how to analyze charts and dashboards to uncover business insights and make recommendations.

These skills were applied in my project, "Strategic Product Placement Analysis," where I combined multiple visuals into one interactive dashboard to support business decisions.

5.3 Managerial Skills I Have Acquired

This internship not only improved my technical abilities but also helped me develop important managerial and professional skills:

- **Time Management:** I learned how to plan my tasks, set realistic goals, and meet weekly deadlines.
- **Project Planning:** Managed the project phases — data collection, analysis, visualization, and documentation — effectively.
- **Goal Setting:** Set measurable learning goals for each stage of the internship, ensuring consistent progress.
- **Self-Discipline:** Working independently in a virtual internship helped me stay motivated and accountable for my work.

5.3 How I Improved My Communication Skills

My communication skills improved throughout the internship as I interacted with mentors and peers regularly.

- **Written Communication:** Learned to write clear project updates, reports, and documentation in a professional format.
- **Feedback and Discussion:** Regularly shared dashboards with mentors for feedback, improving the clarity of my work and presentation.
- **Collaboration:** Participated in team discussions and shared ideas for better visualization design and data interpretation.

1. Group Discussion

We discussed dashboard design choices, color themes, and visualization methods as a team. These sessions helped me understand how collaborative input improves the overall quality of analytics projects.

2. Participation in Teams

I participated in project discussions, progress reviews, and idea-sharing sessions. Working as part of a team helped me learn how to present my thoughts clearly and listen to others' suggestions.

3. Contribution as a Team Member

As an intern, my main contributions included:

- Collecting and cleaning data for visualization.
- Creating and testing Tableau dashboards.
- Designing visual layouts for easy interpretation.
- Preparing documentation and presenting project insight.

5.4 Technological Developments I Have Observed

During the internship, I observed how data analytics and visualization tools are evolving to make business decision-making more efficient and data-driven.

Key developments included:

- **Tableau Advancements**: Learning advanced features like calculated fields, filters, and storytelling showed how modern BI tools simplify complex data.
- **Cloud Collaboration:** Observed how cloud-based Tableau Public allows easy sharing of dashboards and global access.
- **AI and Automation:** Understood how AI and predictive analytics are increasingly used to forecast business trends.
- **Interactive Dashboards:** Realized the importance of interactivity in modern analytics, enabling users to explore data freely.
- **Data-Driven Decisions:** Saw how organizations rely on visual insights to plan marketing strategies and improve customer engagement.

Student Self-Evaluation of the Short-Term Internship

Student Name: Mudamanchu Gurunagesh

Registration No: 22P31A05A2

Duration of Internship:8 weeks

From:15/05/25 To: 12/07/25

Date of Evaluation:

Organization Name & Address: APSCHE & Mangalagiri

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	Interaction ability with the community	1	2	3	4	5
4	Positive Attitude	1	2	3	4	5
5	Self-confidence	1	2	3	4	5
6	Ability to learn	1	2	3	4	5
7	Work Plan and Organization	1	2	3	4	5
8	Quality of work done	1	2	3	4	5
9	Time Management	1	2	3	4	5
10	Achievement of Desired Outcomes	1	2	3	4	5
OVERALL PERFORMANCE						

Student Signature

Evaluation by the Supervisor of the Intern Organization

Student Name: Mudamanchu Gurunagesh

Registration No: 22P31A05A2

Duration of Internship:8 weeks

From: 15/05/25 To :12/07/25

Date of Evaluation:

Organization Name & Address: APSCHE

Name & Address of the Supervisor with Mobile Number & Mangalagiri

Please rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the Student's self-evaluation

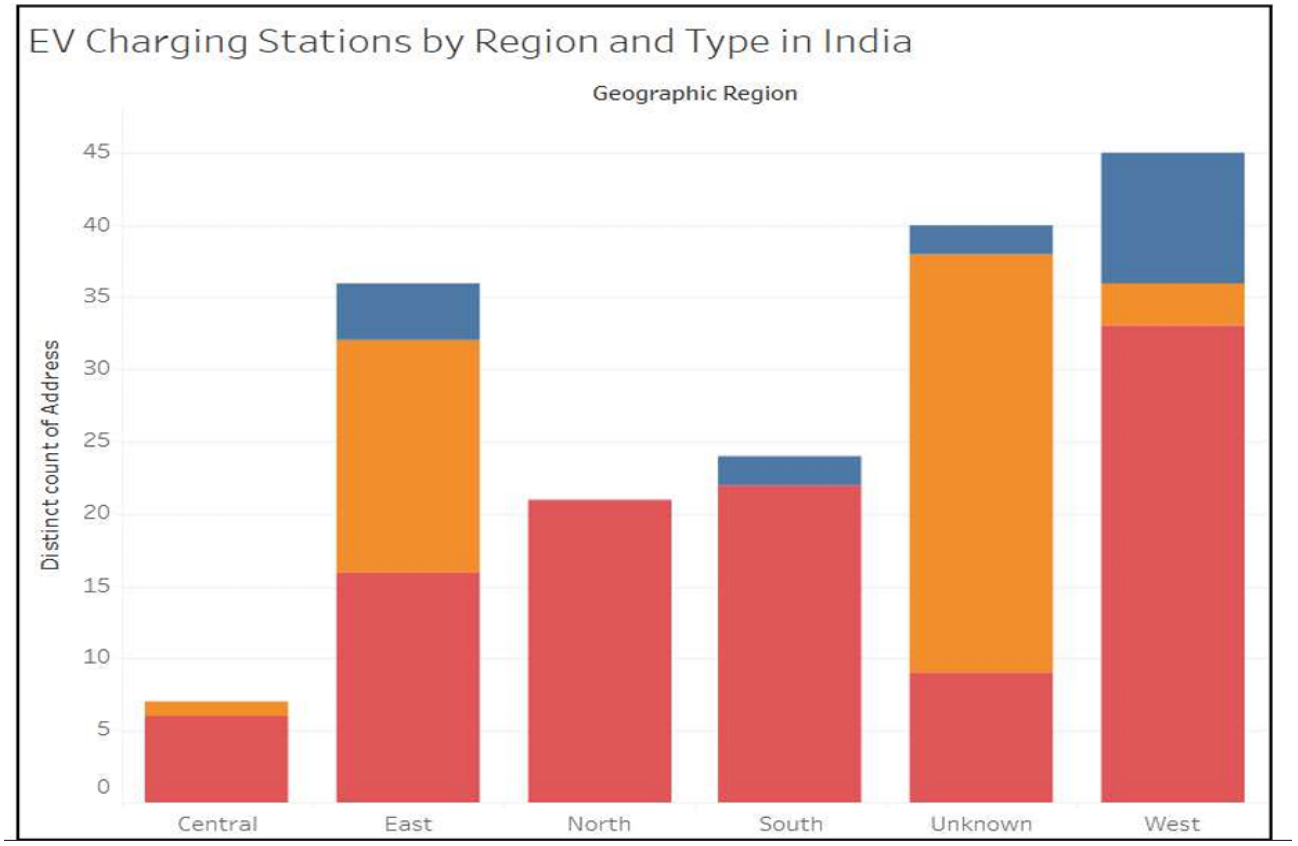
Rating Scale: 1 is the lowest and 5 is the highest rank

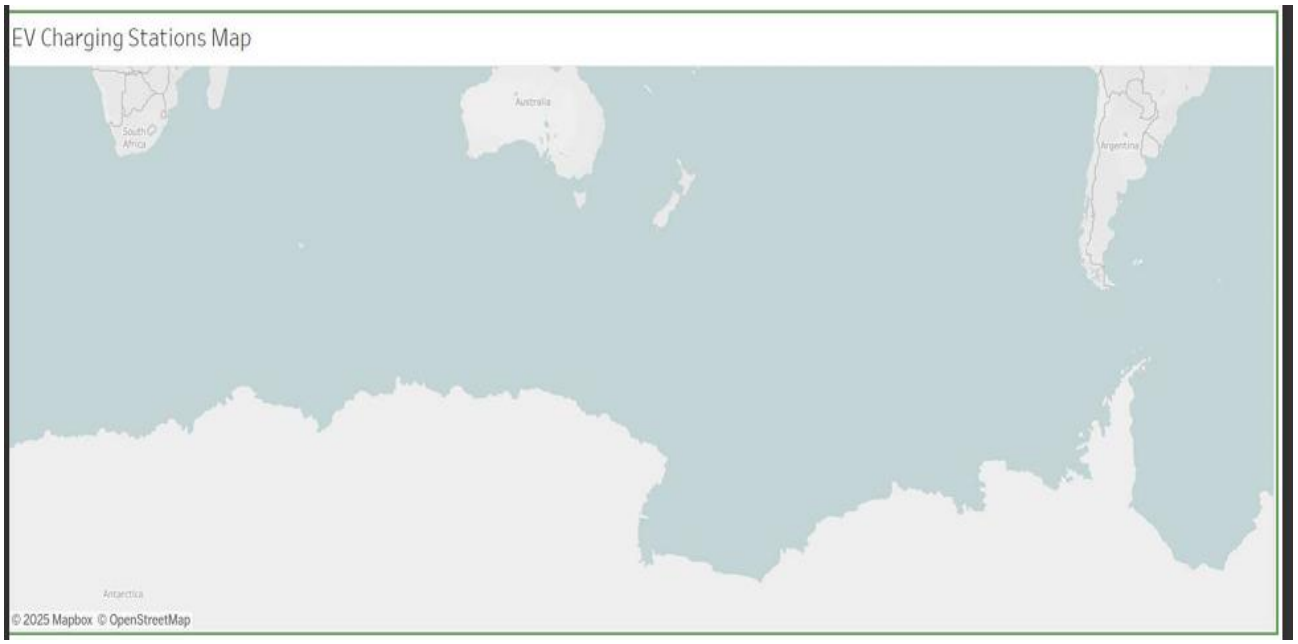
1	Oral communication	1	2	3	4	5
2	Written communication	1	2	3	4	5
3	Interaction ability with the community	1	2	3	4	5
4	Positive Attitude	1	2	3	4	5
5	Self-confidence	1	2	3	4	5
6	Ability to learn	1	2	3	4	5
7	Work Plan and Organization	1	2	3	4	5
8	Quality of work done	1	2	3	4	5
9	Time Management	1	2	3	4	5
10	Achievement of Desired Outcomes	1	2	3	4	5
OVERALL PERFORMANCE						

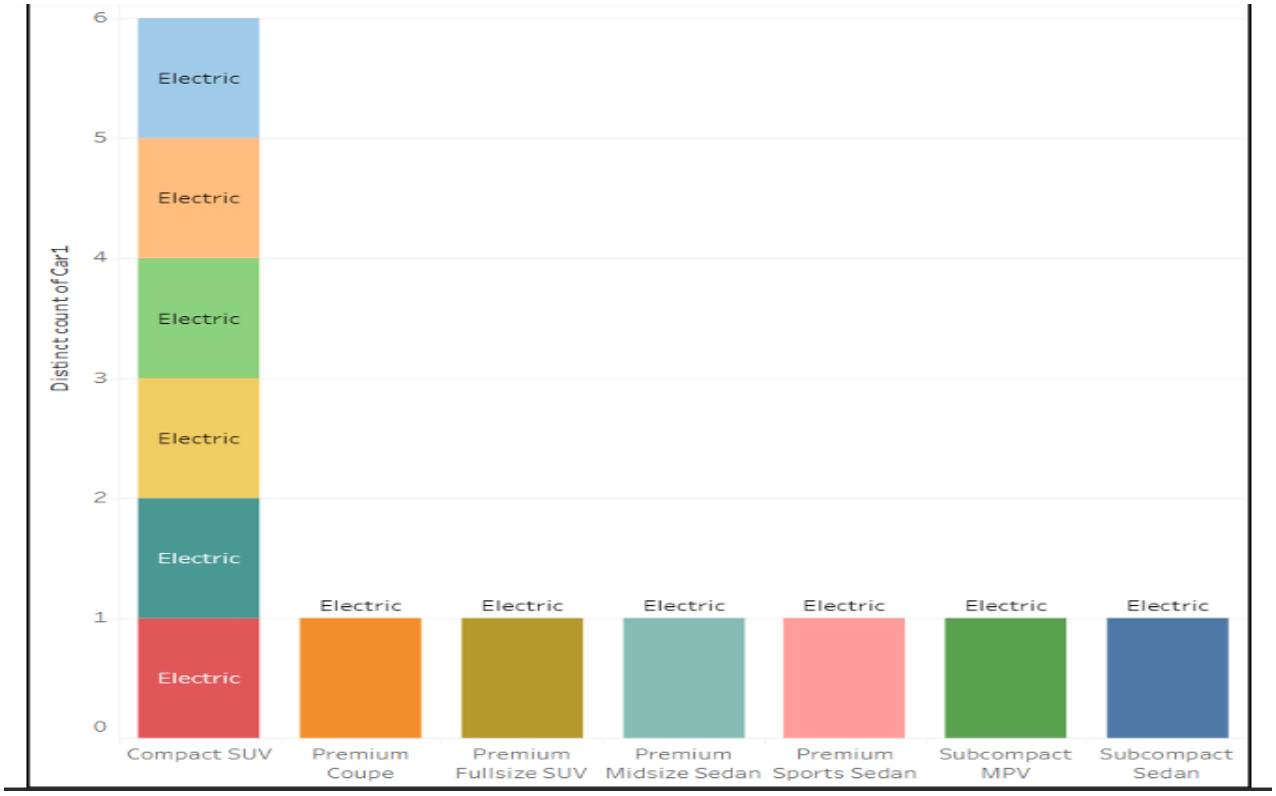
Signature of the Supervisor

PHOTOS & VIDEO LINKS

Dashboard & Story:







VIDEO LINK: Visualization Tool For Electric Vehicle Charge And Range Analysis video.mp4 - Google Drive
GITHUB REPOLINK: https://github.com/Gurunagesh/visualization-tool-for-electric-vehicle-charge-and-range-analysis

MARKS STATEMENT

(To be used by the Examiners)

ASSESSMENT STATEMENT

Name of the Student: M . G u r u n a g e s h

Program of Study: Bachelor Of Technology

Year Of Study: 4th

Group: Computer Science And Engineering

Register No/H.T.NO: 22P31A05A2

Name of the college: Aditya College Of Engineering and Technology

University: JNTUK

Sl.No	***Evaluation Criterion***	***Maximum Marks***	***Marks Awarded***
1.	Internship Evaluation (**Documentation**)	20	
2.	Oral Presentation (**PPT**)	30	
	GRAND TOTAL	**50**	

Date: **Signature of Head of the Department with seal**

Signature of Internship Mentor:

Signature of External