



## 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 your 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

for being a wonderful mentor throughout my project.

I thank ultimately/god, my parents and my friends without whose help this project would not have been completed.

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**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.*

## EXECUTIVE SUMMARY

This report presents a summary of my internship experience focused on improving retail success and driving sales within the retail sector.

The goal of this internship was to gain practical insights into retail operations, customer engagement strategies, and sales optimization techniques. Understanding retail operation helps to develop a comprehensive understanding of retail operation and sales processes. It gained hands-on experience in managing store layout, inventory control and daily sales, operations ensuring a seamless customer experience.

During the internship period, I was involved in a wide range of activities that contributed to the overall success of the retail operations.

Analyzed sales data to identify trends and helped output retail reports.

Overall, the internship provided valuable insights into the retail sector, offering practical experience.

## Chapter-2: Overview of the organisation

Smart Bridge is a platform that offers virtual internship to the students. The platform goal is to prepare students for the job market by establishing a cooperative relationship between industry & Academia. Smart Bridge partners with companies such as Google to offer virtual internships. The internships provide students with hands on experience with the latest technologies and enable project based learning. Smart Bridge's flagship event is the "Summer Skills in Emerging Technologies" i.e.

- 1) Artificial Intelligence
- 2) Machine Learning
- 3) Internet of things

## Organization's 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 of university. Smart Bridge offers suitable skill development and training to the young talent before boarding their first job.

## Chapter - 3 Internship Part Description of the Activities / Responsibilities undertaken

- Registering with apsche smartbridge & enrolling for smartbridge's Data Analytics cause i.e. live training sessions as per the pre-scheduled training calendar.
- Participating weekly quiz & completing weekly assignment with respect to data analytics team formation & selection of project topic "Student performance Analysis" on Global Malnutrition.
- Gathering, cleansing & Analyzing the excel data sets of the project topic on "A Student is Global malnutrition Analysis".
- Attending project - Mentoring sessions and designing and developing interactive dashboard, story, report on the project topic using IBM cognos Analytics.
- Web integration of above project deliverable with team webpage using visual studio code.
- Submission of team project via uploading the project files in gitHub repository of the team.

**ACTIVITY LOG FOR THE FIRST 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 3/7/24	Introduction of data analysis and interpreted data visualization	Analysis of the topic	
Day - 2 4/7/24	Agenda and understanding consumers	clear view of business problem and its solution	
Day - 3 5/7/24	Types of analytics, power and download of power BI	clear analysis on DA tools and process regarding it	
Day - 4			
Day - 5			
Day - 6			

**WEEKLY REPORT**

WEEK - 1 (From Dt. 3/7/24 To Dt. 5/7/24.....)

**Objective of the Activity Done:** Summary for power bi and data Analytics

**Detailed Report:** The data Analytics is the programme of utilizing data, statistical method and technology to extract meaningful insight and make decision of accordingly.

→ The key components of the Analytics, data visualization and interpretation the DA Tools are soft ware of the given programme and applications of the other that can help the professional analyse data sets to provide insights, prediction and decisions of the information.

The power bi visualizes that the graph of the dashboard and pie chart the facilities reports and many more. The explanation about the features in the power bi.

The power bi and their components like the data and dataview. The power views, and power queries, and desktop etc are the power bi services.

**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	Features and components of power BI	Clear view on every component required	
Day - 2	Power BI in action and its architecture	Visible insights and Sales format	
Day - 3	Power query and transformation operations	Clarity about ETC tools	
Day - 4	Tools present in Power BI Desktop	Clear view on each and every tool present	
Day - 5	Analyzing the data in different types	Learned about practicality on data usage	
Day - 6			

**Objective of the Activity Done:**

Data importing and modeling

**Detailed Report:**

explored different data connections, such as excel, SQL data bases, and online services, ETL, practiced data modeling techniques, relationships with tables, using DAX, functions, designing columns.

This week was dedicated to the mastering data importing and modeling with the power bi. We have learned many modelings in the power bi like we have discussed in the given report of the data importing and the data modeling in the power bi.

Successfully imported data sets from the multiple sources into the power bi sets, and the power bi service. Then built a robust of the data model with the well-defined relationships from the given power bi.

The used DAX to create the calculated the given columns and the measures for the enhanced analysis. This is all about the making of data importing and modeling in data.

**ACTIVITY LOG FOR THE THIRD WEEK**

Day & Date	Brief description of the daily activity	Learning Outcome	Person In - Charge Signature
Day - 1	Data collection and data cleaning	Learned about the process in DA	
Day - 2	Differentiation between Storyboard, dashboard and report	Learned the different about contents to represent.	
Day - 3	Data structuring and its usage with power BI	Learned the usage of data structure	
Day - 4	Revised on topics as for completed	Clear view with the usage of power BI	
Day - 5			
Day - 6			

**Objective of the Activity Done:**

**Detailed Report:**

Data visualization Techniques  
Their are Studied various visualization options that are available in the power bi, including advanced charts, maps and the custom visuals in the power bi.

The participated in a hands on session to design interactive dashboards of the slices and filters and the given drill throughs . Lets learned the best practices for choosing the appropriate visualization for the different data types and insights.

The Designed a comprehensive of the dash based featuring key metrics using a mix of visuals. The implemented interactivity through the slices and filters to allow users to explore the data dynamically . presented the dashboard to peers for the feedback. This week was focused on the creativity effective and interactive data visualization in the power bi. This is all about in this week which we have learn how to visualization and its Techniques.

**ACTIVITY LOG FOR THE FOURTH WEEK**

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

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

**Objective of the Activity Done:**

The Advanced data analysis with

**Detailed Report:**

DAX completed the advanced DAX training modules covering topics such as time intelligence, advanced filtering and the context management. They worked on a case study that required creating complex measures to calculate the year-over-year growth and rolling average. They collaborated with peers to troubleshoot DAX-related issues in our data models in Power BI. They developed proficiency in writing complex DAX expressions, applied time intelligence functions to analyze trends over time. They improved the accuracy and efficiency of data models using advanced DAX.

This week was dedicated to deepening our understanding of DAX for the advanced in the given data of the Power BI. This is about the advanced data analysis with the DAX. This is the report and the explanation of this activity of advanced data analysis with DAX.

**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</b>
Day - 1 29/7/24	explained more factors in DAX	Learned about expression and functions in DAX	
Day - 2 30/7/24	More about filter functions in DAX	Clear view on different views	
Day - 3 31/7/24	Preparation for grand assessment	Prepared for test	
Day - 4 1/8/24	Preparation for grand assessment	Prepared for test	
Day - 5 2/8/24	Preparation for grand assessment	Grand thi assessment	
Day - 6			

**WEEKLY REPORT**  
**WEEK-5 (From Dt.....29/7/24 To Dt.....21/8/24.....)**

**Objective of the Activity Done:**

Sales Analytics

**Detailed Report:**

Received a data set of the report showing sales of the data from a financial fictional company. The defined key performance of the indicators (KPIs) such as sales growth, customers and acquisition and the product of the performance, then built a sales growth, customers, dashboard to visualize the KPIs and identify the trends, outliers and areas for improvement. The creation of a comprehensive sales dashboard that using highlighted crucial business insights. Used the story telling technique to communicate for finding it effectively then received positive feedback from mentors on the practical from the application of power bi skills. This focus the week was on applying power bi skills to a real-world sales analytics case study. This is all about the Sales Analytics on the power bi and its services.

**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>
Day - 1 5/8/24	Optimising Power BI report	clear view on optimisation	
Day - 2 6/8/24	Implementation of incremental data	Learned about PA with huge database	
Day - 3 7/8/24	Application in business scale	clear view on evaluation application	
Day - 4 8/8/24	Application of technique to size data model	Learned about sizing data model	
Day - 5 9/8/24	Learned about user information with reports	clear view on report based data	
Day - 6			

**WEEKLY REPORT**  
**WEEK-6 (From Dt.....5/8/2011..... to Dt.....9/8/2011.....)**

**Objective of the Activity Done:**

Optimizing and performance Tuning

**Detailed Report:**

learning about the power bi report the optimizing techniques , including data reduction, efficient uses of a DAX and the query optimization. The implemented incremented data refresh to improve report loaded times. Explored the best practices for managing large datasets and reducing the memory usage.

The optimizing existing reports to load faster and handle larger datasets. Applied the given techniques to reduce the size of the given data models without losing critical information in it.

The improvement of the overall performance and the user experience from the power bi reports.

This week focused on the given optimizing power bi reports for the performance and scalability. This is about the optimization and the performance tuning we have discussed in this week from the power bi classes. This is all about from this week in power bi services.

## 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	Formation of team	Clear view on team	
Day - 2 13/8/24	Project scope and objectives	Clear view on Project assigned	
Day - 3 14/8/24	Aggregation of public reports	Segregation of data analysis	
Day - 4 15/8/24	Configured public refreshers	Reviewed self on dataset	
Day - 5 16/8/24	Feedback on accessibility with published reports	Clear view on outcome of reports	
Day - 6			

**WEEKLY REPORT**

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

**Objective of the Activity Done:**

Publishing and Sharing Report

**Detailed Report:**

Explored the different power bi service features, including workspace, sharing option and security settings and published reports to the power bi service and configured schedule reference. To create and shared an app in power bi that the aggregates multiple reports into a single, easy-to-access package for the stakeholders.

The successfully published reports to the power bi service and shared them with the team. To configured a role-based security to control access to sensitive data.

To received the feedback on the accessibility and usability of the published reports.

This week was dedicated to learning how the publish and share power bi reports have discussed in this week in publishing and sharing report from the power bi and power bi services.

### ACTIVITY LOG FOR THE EIGHT 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 19/8/24	Presenting actionable insights	clear view on pictorial representation	
Day - 2 20/8/24	Presenting the dashboard and reports	Representing the final output	
Day - 3 21/8/24	Collaborations, file uploading	Allotting work to all members in team	
Day - 4 22/8/24	Reviewing on dashboard, report	Clear view on work done in DA	
Day - 5 23/8/24	Submission of Project	Submitted to mentor	
Day - 6			

**WEEKLY REPORT**

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

**Objective of the Activity Done:**

final project and presentation

**Detailed Report:**

The worked on a final project that have involved on analyzing a complex dataset and the presenting a actionable insights to a mock client. To developed a comprehensive the power bi report that included data exploration for advanced visualization and key recommendations. To presented the final report to the internship of the supervision , showcasing the internship. the successfully completed the capture project , demonstrating a strong understanding of data analytics using the power bi. The received positive feedback on the quality of analysis and presentation skills. concluded that the final week we was focused on completing the given final project and presentation. This is project from power bi and servie.

## 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 Smart Bridge has been a transformative experience, equipping me with practical skills in Data Analytics and a deep understanding of the role of IBM cognos Analytics in the industry. The hands-on experience & exposure to real-world projects has not only sharpened my technical abilities but also honed my communication skills and project management skills. The work environment fostered a collaborative atmosphere with clear task-scales, well-defined protocols & structured procedures. The facilities were equipped with necessary tools for data Analysis. Team members exhibited mutual support and teamwork, contributing to a harmonious relationship overall. The internship provided a comprehensive experience in data Analytics.

**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 the complex data sets
- \* **Statistical Analysis:** Understanding and applying statistical methods to derive insights
- \* **Data Visualization:** Mastery in creating compelling visualizations for effective communication of data
- \* **Analytics tools proficiency:** Proficiency with web based tools like MS-Excel, Power BI, Google Colab for analytics visualization
- \* **Programming language:** knowledge & expertise in python programming language.
- \* **Visualization generation:** Skills in developing interactive dashboards, comprehensive reports, narrative stories in cognos Analytics
- \* **Problem solving:** Developing solutions to challenges encountered during data analysis
- \* **Data cleaning and pre processing:** 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: Coordinating tasks, setting goals and ensuring the timely completion of the data analytics project
- \* Team Collaboration: Working effectively in the group setting, delegating tasks & fostering a collaborative environment
- \* Leadership skills: Taking initiative, guiding the team and making decisions to achieve project objectives
- \* Time Management: Prioritizing tasks, meeting deadlines, and efficiently allocating resources
- \* Problem Solving as a team: Addressing challenges collectively and finding solutions through group discussion (&) collaboration
- \* Adaptability: Being flexible & adapting to changes in project scope or requirements
- \* Quality Assurance: Ensuring the accuracy & quality of the data analytics project deliverables produced by team
- \* Feedback & Improvement: Providing constructive feedback to team members & actively participating in continuous improvement process

**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, dashboards, visualization & projects
- \* Team Collaboration: Collaborating with team members to share information, discuss project progress & updates
- \* Written communication: Drafting clear & concise reports, documentation and emails related to data analytics process.
- \* Conflict Resolution: Addressing & resolving conflicts within the team to maintain a positive and productive environment between team members
- \* Feedback Delivery: Providing constructive feedback to peers, mentors & trainees and receiving feedback,  
∴ fostering a culture of continuing improvement.
- \* Clarity in instructions: Clearly communicating project, tasks, goals<sup>Page No</sup> & expectations, roles to every team member.

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

### Description of the Digital technologies

- 1) IBM cognos Analytics: IBM cognos analytics is a business intelligence tool for managing and analysing data. It integrates reporting, modeling, analysis, dashboards stories and event management to effectively organize data for effective decision making.
- 2) Video based learning: interactive videos and live streaming
- 3) Visual Studio Code: Visual Studio Code aka vs code is a source code editor developed by Microsoft for Windows, Linux and macOS. It is used for program code editing like debugging, task running and version control, code Refactoring.
- 4) Artificial Intelligence: personalized learning, adaptive assessments and intelligent tutoring.
- 5) Cloud Computing: Scalable infrastructure, collaborative tools and remote access.
- 6) Gamification: engaging learning experiences, rewards and competition.

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

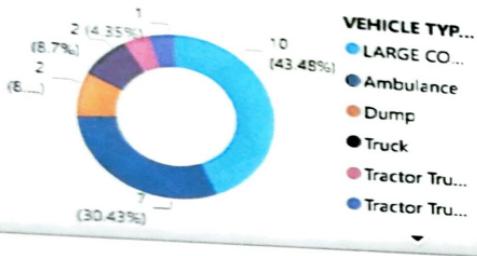
Reflecting on my experience in the data analysis at Smartbridge interns, I've identified key areas for enhancing my abilities in group discussion team participation and leadership. To improve my contributions in group discussions, I aim to actively listen to others, ask insightful questions and share my opinions/perspectives clearly & effectively. As a team member, I plan to strengthen collaboration by practically offering support, leveraging my technical skills and embracing different viewpoints of team members. I plan to focus on taking initiative, creating a positive team environment and effectively coordinating team activities. Through the measures, I am committed to continuous growth and excellence in my role within the team.

**PHOTOS & VIDEO LINKS**

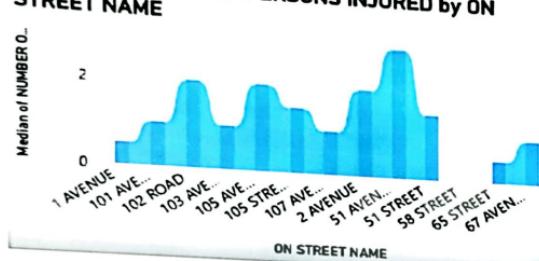
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# Enhancing Road Safety: Motor Vehicle Collisions-

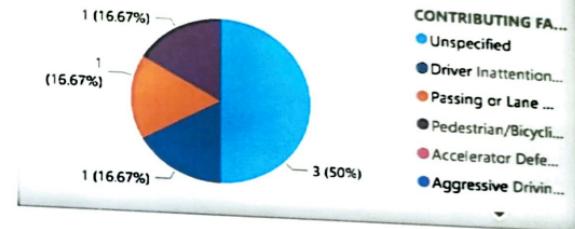
Min of NUMBER OF MOTORIST INJURED by VEHICLE TYPE CODE 3



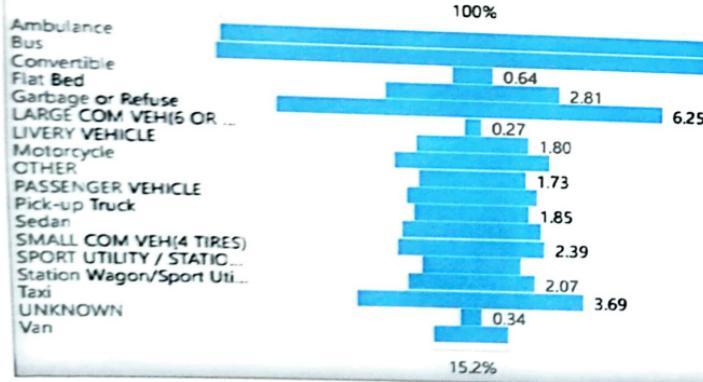
Median of NUMBER OF PERSONS INJURED by ON STREET NAME



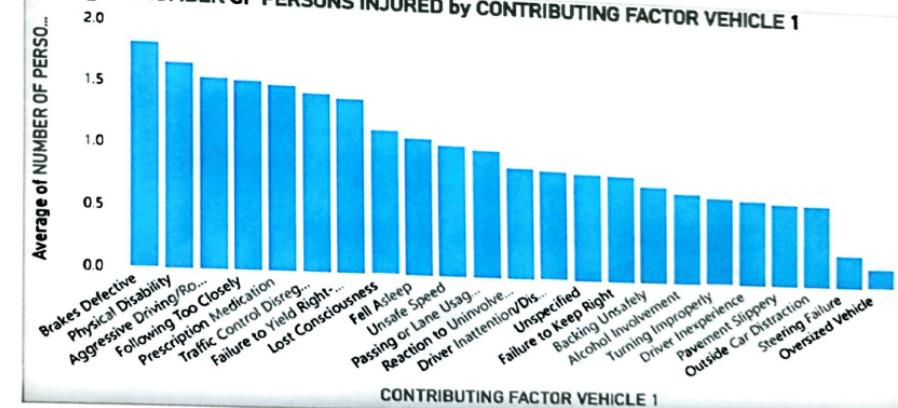
Max of NUMBER OF CYCLIST INJURED by CONTRIBUTING FACTOR VEHICLE 2



Variance of NUMBER OF MOTORIST INJURED by VEHICLE TYPE CODE 1



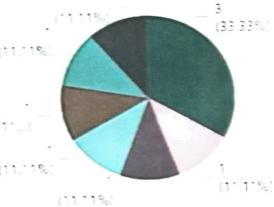
Average of NUMBER OF PERSONS INJURED by CONTRIBUTING FACTOR VEHICLE 1



# Enhancing Road Safety: Motor Vehicle Collisions - Crashes

## MAXIMUM OF CYCLIST INJURED BY VEHICLE TYPE CODE 2

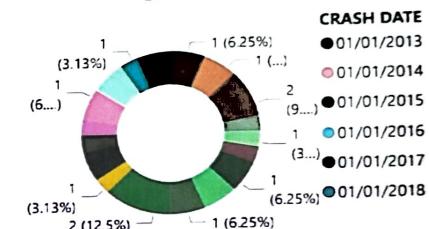
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 ● Stati...  
 ● BICY...  
 ● Bike  
 ● Bus



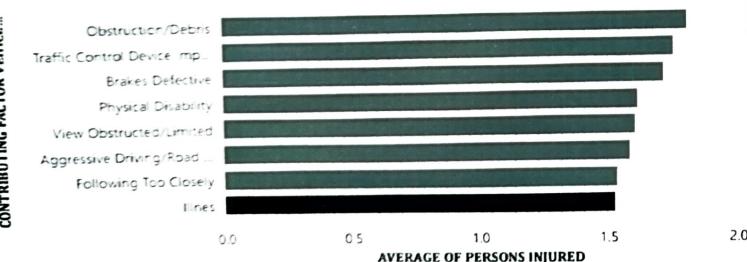
## VARIANCE OF NUMBER OF PEDESTRIANS KILLED BY IN STREET NAME



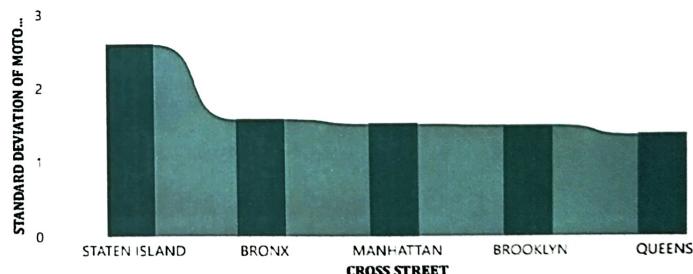
## MEDIAN NUMBER OF PERSONS KILLED BY USING CRASH DATE



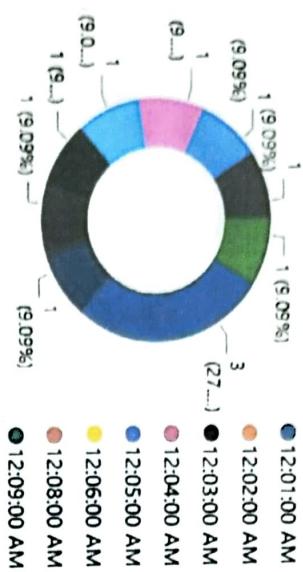
## AVERAGE NUMBER OF PERSONS INJURED BY CONTRIBUTING FACTOR VEHICLE 1



## STANDARD DEVIATION OF NUMBER OF MOTORIST INJURED IN CROSS STREET



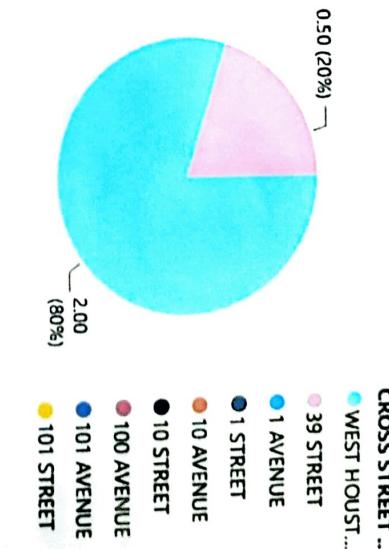
Min of NUMBER OF MOTORIST KILLED by CRASH TIME



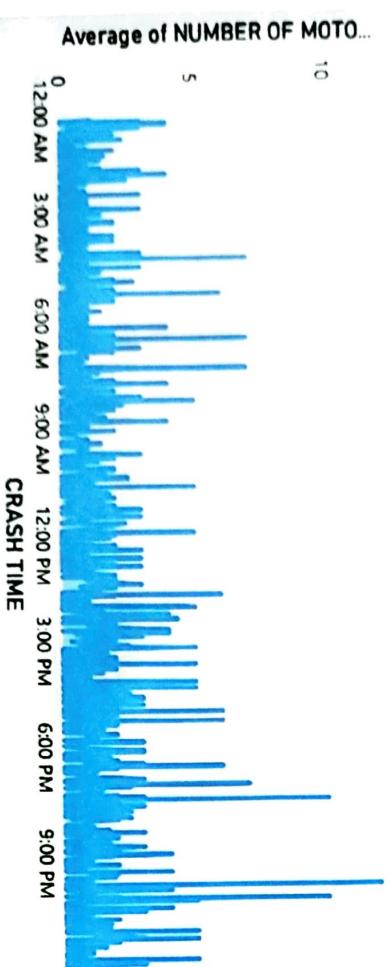
Max of NUMBER OF MOTORIST KILLED by CONTRIBUTING FACTOR VEHICLE 1



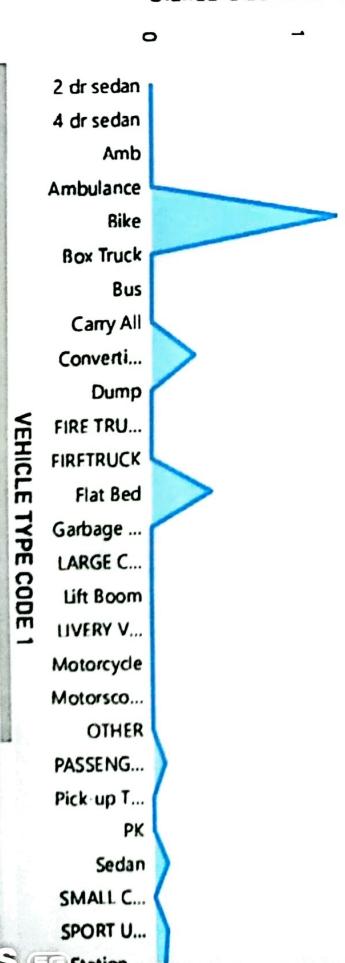
Average of NUMBER OF CYCLIST KILLED by CROSS STREET NAME



Average of NUMBER OF MOTORIST INJURED by CRASH TIME

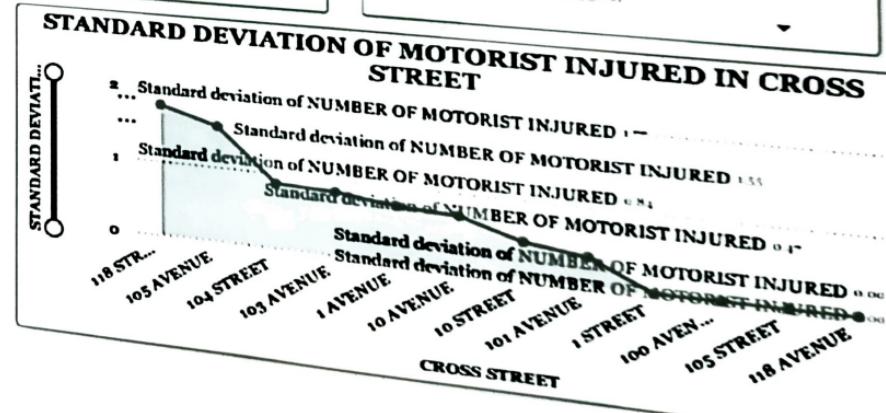
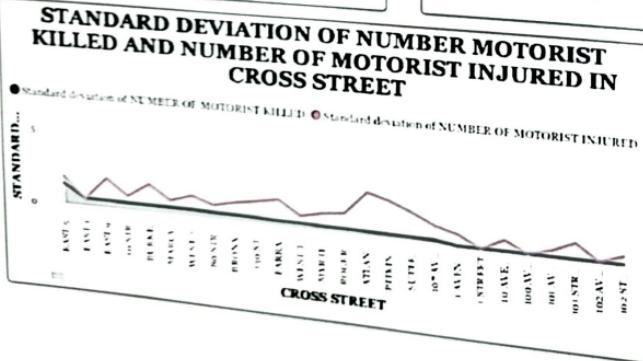
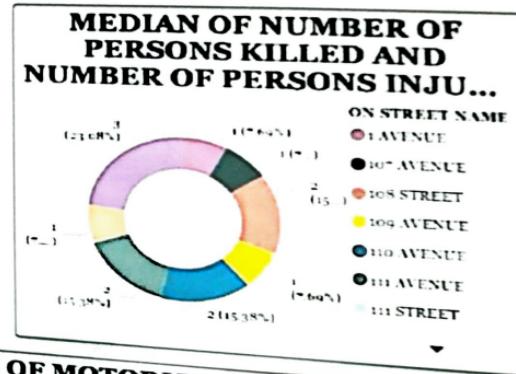
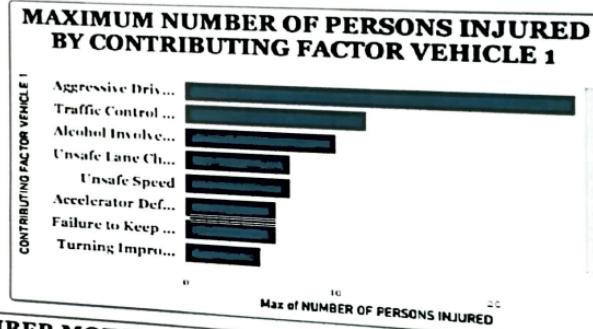
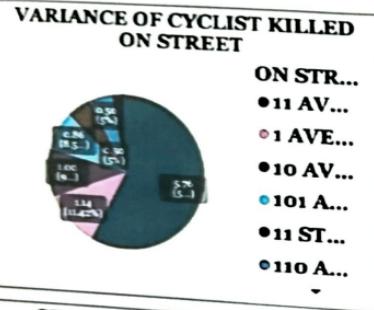


Standard deviation of...



Standard deviation of NUMBER OF CYCLIST INJURED by VEHICLE TYPE CODE 1

## **ENHANCING ROAD SAFETY : MOTOR VEHICLE COLLISIONS -CRASHES**



# ENHANCING ROAD SAFETY: MOTOR VEHICLE COLLISIONS-CRASHES

