

Project Report

GLOBAL SALES DATA ANALYTICS

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Introduction:

Project Overview :

Sales analytics refers to the technology and processes used to gather sales data and gauge sales performance. Sales leaders use these metrics to set goals, improve internal processes, and forecast future sales and revenue more accurately.

The goal of sales analytics is always to simplify the information available to you. It should help you clearly understand your team's performance, sales trends, and opportunities.

Generally, sales analytics is divided into four categories:

Descriptive: What happened?

Descriptive analytics entails tracking historical sales data—revenue, number of users, etc.—so you can make comparisons and better understand what's currently happening.

Descriptive: What happened?

Descriptive analytics entails tracking historical sales data—revenue, number of users, etc.—so you can make comparisons and better understand what's currently happening.

Diagnostic: Why did it happen?

Diagnostic analytics is examining and drilling down into the data to determine exactly why something occurred.

Predictive: What's going to happen?

Predictive analytics is taking what you've learned about past sales and using it to gauge patterns and trends. This allows you to make educated predictions.

Prescriptive: What's the best solution or action?

Prescriptive analytics involves assessing all the data and recommending the best plan of action.

Purpose :

Sales Analysis is the process of understanding how your business performs in terms of sales. It provides insights into the past, present, and future performance of a business and can be used to help you forecast trends, identify opportunities for growth, and develop a strategic action plan for your company.

Literature Survey:

Existing Problem:

- Sales reps have a hard time developing product or market specialization (unless the organization commits to specialized sales force allocated by geography).
- Many time it is hard for the retailers to comprehend the market condition since their retail stores are at various geographical locations.
- Though firms are sometimes constrained in materials supply with inability to procure parts timely, the underlying ES technology provides the analytical and knowledge leveraging support in managing their sales and customer service processes efficiently.
- The challenge for company marketing and sales reps in preparing forecasting is that internal bias is hard to avoid. Sales reps look better and tend to earn more commission when they achieve high sales Goals.

References:

- IBM Systems Journal.
- 2017 4th Asia-Pacific World Congress on Computer Science and Engineering.
- 2018 5th Asia-Pacific World Congress on Computer Science and Engineering (APWC on CSE).
- 2020 2nd International Conference on Information Technology and

Computer Application (ITCA).

Problem Statement Definition:

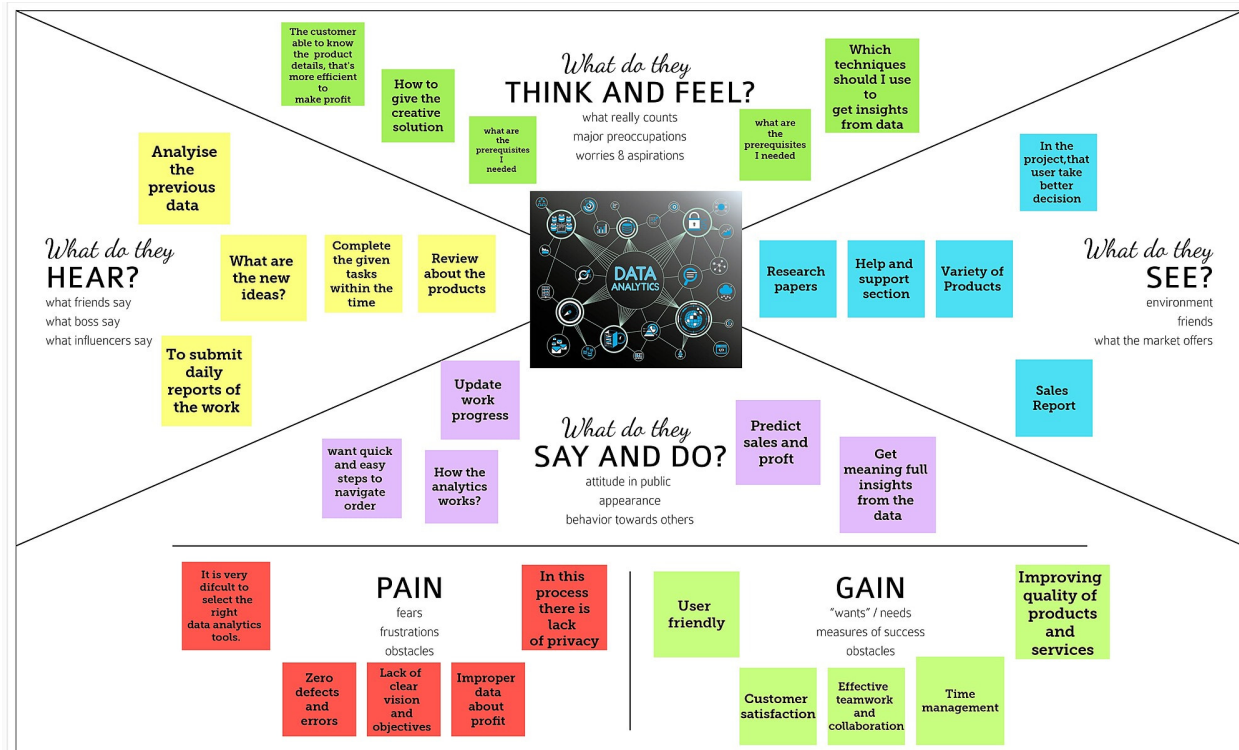
- Sales professionals need to identify new sales prospects, and sales executives need to deploy the sales force against the sales accounts with the best potential for future revenue. We describe two analytics-based solutions developed within IBM to address these related issues. The Web-based tool On TARGET provides a set of analytical models to identify new sales opportunities at existing client accounts and noncustomer companies. The models estimate the probability of purchase at the product-brand level. They use training examples drawn from historical transactions and extract explanatory features from transactional data joined with company firmographic data (e.g., revenue and number of employees).
- Information technology in this 21st century is reaching the skies with large-scale of data to be processed and studied to make sense of data where the traditional approach is no more effective. Now, retailers need a 360-degree view of their consumers, without which, they can miss competitive edge of the market. Retailers have to create effective promotions and offers to meet its sales and marketing goals, otherwise they will forgo the major opportunities that the current market offers. Many times it is hard for the retailers to comprehend the market condition since their retailstores are at various geographical locations.
- To manage customer ordering and sales services efficiently, sales forecasting and operations planning as well as order intake and

return material authorization processes must be responsive and nimble in an enterprise. Organizations have implemented enterprise systems (ESs) to integrate their supply chain operations such as receipt of customer orders, planning of production and shipping of goods. It evaluates the management of sales and customer service processes in manufacturing firms using an ES and its information. Three case studies are conducted in manufacturing companies that have implemented ESs to examine how these systems support the management practices and strategies in sales and service operations.

- Sales forecasting is a vital technology nowadays in the retail industry. With the help of advanced machine learning and deep learning algorithms, business owners can accurately predict the sales of thousands of products and make optimum decisions based on them. It proposed a sales forecasting system based on CatBoosting. The algorithm is trained on the Walmart sales dataset, by far the largest dataset in this field. We performed effective feature engineering to boost prediction accuracy and speed.

Ideation & Proposed Solution:

Empathy Map:



Ideation and Brainstorming:

GLOBAL SALES DATA ANALYTICS

Shopping online is currently the need of the hour. Because of this COVID, it's not easy to walk in a store randomly and buy anything you want. So, try to understand a few things like, Customer Analysis and Product Analysis of this Global Super Store.

RULES OF BRAIN STORMING

1. STAY IN TOPIC
2. ENCOURAGE WILD IDEA
3. LISTEN TO OTHER
4. DON'T BE JUDGEMENTAL

BRAIN STORM IDEA

JAWAHAR RAJA

TRENDING
MODEL

EASILY
ACCESSIBLE

ECONOMICAL

TECHNOLOGICALLY
ACCESSIBLE

EBIN N L

REGRESSION
MODEL

COMPARING
THE MODEL

ANALYTICS
PLATFORM

IBM
COGNOS

HARIHARAN P

INCLUDE
EXTERNAL
IDEA

LINEAR
REGRESSION

JUPYTER
NOTEBOOK

GOOGLE
COLLAB

BOGGALA THULASI REDDY

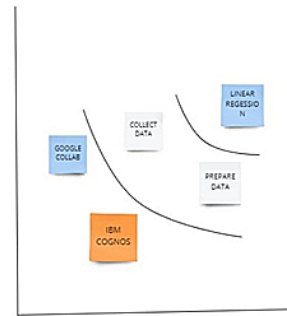
ASK

PREPARE
DATA

COLLECT
DATA

SHARE
AND ACT

PRIORITIZE



Problem Statement and Proposed Solution:

Problem Statement:

Shopping online is currently the need of the hour. Because of this COVID, it's not easy to walk in a store randomly and buy anything you want. It is mandatory for sales team to judge the plan and administrate to make improvements. The way of knowing the performance is done through sales analysis. Sales analysis gives insights such as sales data, profit, and other related information. So, try to understand a few things like, Customer Analysis and Product Analysis of this Global Super Store. It is used to increase sales and grab customer easily.

Problem Statement (PS)	I am	I'm trying to	But	Because	Which makes me feel
PS-1	Customer and store	Online shopping and product sales	Sales strategy is unknown	Customer need is measureless	Dis-stressed
PS-2	Store	Infer profitable products, profitable customers also non movable products	Decision making is confusing	Huge customers in various locations	Confused
PS-3	Customer and store	Know shopping patterns	shopping pattern changed	Due to pandemic	Depressed
PS-4	Customer and store	Online shopping with contactless payments	Mode of product receival changed	Due to pandemic	Confused

Solution:

The methodology is solved by the sales analyst by using data analytic techniques and propose unique solution for the problem

Requirement Analysis:

Functional Requirements:

Functional Requirements: Following are the functional requirements of the proposed solution. FR No. Functional Requirement (Epic) Sub Requirement (Story / Sub-Task)

FR-1 - Download the dataset Get the data from the given resource.

FR - 2 - Data pre processing Fill missing values, Remove duplicate values.

FR- 3 - Choose the tool for visualization IBM Cognos analytics is chosen.

FR- 4 - Data visualization Required graph, charts are chosen for visualization.

FR- 5 - Prepare dashboards Dashboards,story boards and reports are created in IBM Cognos analytics.

Non - Functional Requirements:

Following are the non-functional requirements of the proposed solution. FR

No. Non-Functional Requirement Description

NFR-1 - Usability It should be easier to understand the insights for the customers.

NFR-2 - Security The data is protected from unauthorized access.

NFR-3 - Reliability Connecting the data to the software and further process.

NFR-4 - Performance The analysed information is recorded and updated.

NFR-5 - Availability The tool is only available for the authorized persons to create, update, remove and the record customer information.

NFR-6 - Scalability Everyday activities are monitored for the growth of work. Analytic tool should support even the size of data is increased.

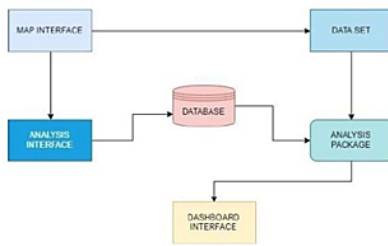
Project Design:

Data Flow Diagram:

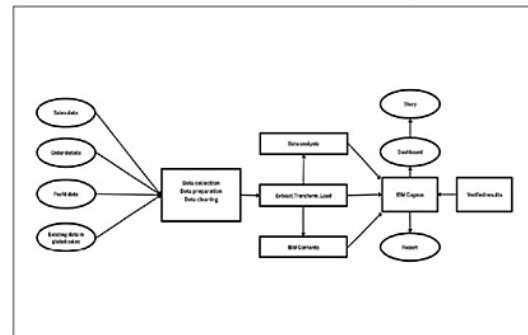
Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Example: (Simplified)



Example: DFD Level 0 (Industry Standard)



User Stories:

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Sales analyst/Customer	Data and HTML preperation	USN-1	As a user I can download the required data set and convert it in to utf-8 and also create a html file for embedding the dashboard	Required data will be accepted and the bootstrap is working	High	Sprint-1
			create a html file for embedding the dashboard with the help of bootstrap		High	Sprint-1
	Login	USN-2	As a user, I will log in to the desired application using login credentials.	I can get the order details, sales and profit dashboards, reports, and stories used for customer analysis and product analysis.	Low	Sprint-2
	Dashboards	USN-3	As a sales analyst/customer, I can view the important sales and profit of the products and other information in real-time.		High	Sprint-1
Administrator		USN-4	As an administrator, I can access the database of the customers, sales reports, and a secure interface.	Customer relationship is managed and responsible for maintaining, updating the data.	High	Sprint-2

Technical Architecture:

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table2

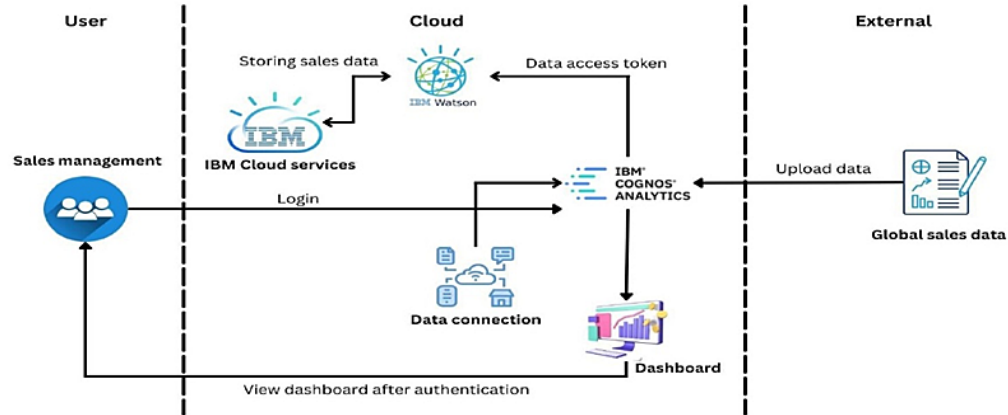


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	user interacts with application or web	IBM Cognos analytics
2.	Dataset	Global sales dataset is uploaded	
3.	Working with the dataset	Cleaning, extracting process is done with the dataset.	IBM Cognos analytics with Watson
4.	Data exploration	Information in the data is identified according to the requirements	IBM Cognos analytics
5.	Data visualization	Various data are represented in charts, graphs according to need of the customers.	
6.	Data demonstration (results)	The charts, graphs are represented to customers through dashboards, story, and report.	IBM Cognos analytics with Watson
7.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloud ant
8.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	IBM Cognos
2.	Security Implementations	Secure storage and access of information	Active directory
3.	Scalable Architecture	Support different in data size	IBM cloud
4.	Availability	Multiple reports are viewed ignoring the platform and specifications	IBM cloud
5.	Performance	Large amount of information can be processed	IBM Cognos analytics with Watson

Project Planning & Scheduling:

Sprint Planning and Estimation:

TITLE	DESCRIPTION	COMPLETED DATE
Literature Survey & Information Gathering	Prepare Literature survey for the selected project & gathering information	1NOVEMBER 2022
Prepare Empathy Map	Prepare Empathy Map Canvas to capture the user Pains & Gains, Prepare list of problem statements	1NOVEMBER 2022
Ideation	List the by organizing the brainstorming session and prioritize the top 3 ideas based on the feasibility & importance.	1NOVEMBER 2022
Proposed Solution	Prepare the proposed solution document, which includes the novelty, feasibility of idea, business model, social impact, scalability of solution, etc.	7NOVEMBER 2022
Problem Solution Fit	Prepare problem - solution fit document.	7NOVEMBER 2022
Solution Architecture	Prepare solution architecture document.	7NOVEMBER 2022

Customer Journey map	Prepare the customer journey maps to understand the user interactions & experiences with the application (entry to exit).	7 NOVEMBER 2022
Functional Requirement	Prepare the functional requirement document.	7 NOVEMBER 2022
Data Flow Diagrams	Draw the data flow diagrams and submit for review.	7 NOVEMBER 2022
Technology Architecture	Prepare the technology architecture diagram.	7 NOVEMBER 2022
Prepare Milestone & Activity List	Prepare the milestones & activity list of the project.	7 NOVEMBER 2022
Sprint delivery plan	Prepare the sprint delivery plan of the project	7 NOVEMBER 2022
Project Development - Delivery of Sprint-1	Develop & submit the developed code by testing it.	Completed.
Project Development - Delivery of Sprint-2	Develop & submit the developed code by testing it.	Completed.
Project Development - Delivery of Sprint-3	Develop & submit the developed code by testing it.	Completed.

Project Development - Delivery of Sprint-4	Develop & submit the developed code by testing it.	Completed.
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Sprint Delivery Planning:

Sprint	Functional Requirement (Epic)	User Story Number	User Story/ Task	Story Points	Priority	Team Members
Sprint-1	Data and HTML preperation	USN-1	As a user I can download the required data setand convert it in to utf-8 and also createa html filefor embedding the dashboard	2	medium	EBIN N L JAWAHARRAJA HARIHARA N P BOGGALA THULASI REDDY
Sprint-2	Pre processing	USN-4	As a user, I can do the datacleaning process.	2	High	EBIN N L JAWAHARRAJA HARIHARA N P BOGGALA THULASIREDDY
		USN-5	As a user, I can perform Extract, TransformLoad (ETL)process.	2	High	

Sprint-3	Dashboard	USN-6	As a user, I can upload the data of global sales for analysis.	1	Medium	EBIN N L JAWAHARRAJA HARIHARA N P BOGGALA THULASIREDDY
Sprint-3	Dashboard	USN-7	As a user, I can analyse the data by performing calculations and executing several visualization charts.	2	High	EBIN N L JAWAHARRAJA HARIHARA N P BOGGALA THULASIREDDY
Sprint-3		USN-8	As a user, I can gain insights of the data for business analysis	2	High	EBIN N L JAWAHARRAJA HARIHARA N P BOGGALA THULASIREDDY
Sprint-3		USN-9	As a user, I can get the information for business analysis.	1	Medium	EBIN N L JAWAHARRAJA HARIHARA N P BOGGALA THULASIREDDY
Sprint-4	Report, Story and customer care	USN-10	As a user, I can generate report for the customer or sales analyst for knowing the insights about the sales.	2	Medium	EBIN N L JAWAHARRAJA HARIHARA N P BOGGALA THULASIREDDY

Reports from JIRA:

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	4	6 Days	04 Nov 2022	10 Nov 2022	4	10 Nov 2022
Sprint-2	4	6 Days	05 Nov 2022	11 Nov 2022	4	11 Nov 2022
Sprint-3	6	6 Days	06 Nov 2022	12 Nov 2022	6	12 Nov 2022
Sprint-4	4	6 Days	07 Nov 2022	13 Nov 2022	4	13 Nov 2022

Coding:

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body style="border: 10px;margin: 20px;">
  <h1 style="text-align: center;color: white;background-color:rebeccapurple;border-radius: 5px;">GLOBALS SALES DATA ANALYTICS</h1>
  <h2 style="text-align: center;color: white;background-color:cornflowerblue;border-radius: 5px;">Dashboard</H2>
  <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.public_folders%2Ffinal%2Bnt%2Fglobal%2Bsuperstore%2Bdashboard&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=view&mode=dashboard&subView=model000001846a22d7cc_00000000"
width="1250" height="800" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
  <h2 style="text-align: center;color: white;background-color:cornflowerblue;border-radius: 5px;">Report</h2>
  <iframe
```

src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.public_folders%2Ffinal%2Bnt%2FNew%2Breport&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=run&format=HTML&prompt=false" width="1200" height="1700" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

<iframe

src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.public_folders%2Ffinal%2Bnt%2FSECOND%2BREPORT&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=run&format=HTML&prompt=false" width="1250" height="1750" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

<h2 style="text-align: center;color: white;background-color:cornflowerblue;border-radius: 5px;">Story</h2>

<iframe

src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&pathRef=.public_folders%2Ffinal%2Bnt%2Fpresentation%2Bfinal%2Bnt&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=view&sceneId=model000001847631a39e_00000000&sceneTime=0" width="1200" height="790" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

</body>

</html>

Testing:

Test Cases:

Test case ID	Feature Type	Component	Test Scenario	Pre-Requisite	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(Y/N)	BUG ID	Executed By
HTML PAGE	Functional	Home Page	Verify user ARE ABLE TO VIEW THE PAGE	IBM ID	1.Enter URL and click go 2.OPEN WITH IBM ID 3.CHECK CREDENTIALS	HTML FILE AND VISUAL STUDIO	DISPLAY OF WEBPAGE	Working as expected	Pass	NIL	NIL	NIL	JAWAHAR
DATA WRANGLING	DATA ANALYSIS	DATA ANALYSIS TOOL	CLEAN AND EDIT AD CREATE A DATA MODULE	DATA SET	1.SEARCH DATASET 2.DOWNLOAD DATASET API 3.DOWNLOAD DATASET a. ENCODE WITH UTF FORMAT b. UPLOAD TO CLOUD c. CREATE DATA MODULE d. ANALYS AND PREPARE THE DATA	GLOBAL SALES DATA CSV	a. DOWNLOAD THE API b. UPLOAD TO DES CLOUD c. RETRIEVE METADATA d. CREATE DATA MODULE e. DATA WRANGLING	Working as expected	PASS	NEED PROPER DATASET	NO	NIL	EBIN
CREATE DASHBOARD	Functional	DASHBOARD	Verify user is able to create a dashboard	ibm cognos analytics	1.open ibm cognos 2.upload data module 3.create dashboard 4.create visualization 5.save the dashboard	GLOBAL SALES DATA CSV	create interactive dashboard	Working as expected	Pass	NEED PROPER NET CONNECTION	NO	NIL	BOGGALA THULASI REDDY
CREATE REPORT	Functional	REPORT	Verify user is able to create a REPORT	ibm cognos analytics	1.open ibm cognos 2.upload data module 3.create REPORT 4.create visualization 5.save the REPORT	GLOBAL SALES DATA CSV	create interactive REPORT	Working as expected	Pass	NEED PROPER INTERNET CONNECTION	NO	NIL	HARHARAN P
CREATE STORY	Functional	STORY	Verify user is able To create a story	ibm cognos analytics	1.open ibm cognos 2.upload data module 3.create story 4.create visualization 5.save the story	GLOBAL SALES DATA CSV	create a interactive story	Working as expected	Pass	NEED PROPER INTERNET CONNECTION	no	nil	EBIN
EMBEDDING IN WEB APPLICATION	Functional	HTML EMBEDDED CODE	TO CREATE A WEBAPPLICATION WHICH CONSIST OF DASHBOARD,REPORT,STORY	VISUAL STUDIO HTML EMBEDDED CODE.COGNOS ANALYTICS	1.CREATE EMBEDDED CODE FROM COGNOS ANALYTICS 2.CREATE HTML FILE AND PASTE IT IN HEADER TAG 3.USE LIVE SERVER TO DEPLOY IT 4.PREVIEW THE VISUALIZATION	EMBEDDED CODE AND SALES DATA	CREATE A WEB APPLICATION TO VIEW THE DASHBOARD, REPORT AND STORY	Working as expected	Pass	NIL	NO	NIL	EBIN

User Acceptance Testing:

Purpose of Document:

The purpose of this document is to briefly explain the test coverage and

open issues of the Global sales data analytics project at the time of the release to User Acceptance Testing (UAT).

Defect Analysis:

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	5	2	2	0	9
Duplicate	1	0	5	0	6
External	2	3	0	1	6
Fixed	11	2	4	10	27
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	19	12	15	13	59

Test Case Analysis:

This report shows the number of test cases that have passed, failed, and untested

Html page creation	Total Cases	Not Tested	Fail	Pass
Print Engine	7	0	0	7
Data wrangling	20	0	3	17
Create dashboard	2	0	0	2
Create story	3	0	0	3
Create report	9	0	0	9
Final Report Output	4	0	0	4
Embedded page	2	0	0	2

Results:

Phase Performance Metrics:

Performance metrics:

S.No.	Parameter	Values
1.	Dashboard design	14
2.	Data Responsiveness	14/16 AND RPS 4.2
3.	Amount Data to Rendered (DB2 Metrics)	1206/1206 and Hit ration is 100%
4.	Utilization of Data Filters	100
5.	Effective User Story	12
6.	Descriptive Reports	12

Advantages & Disadvantages:

Advantages:

- Boost sales productivity. Sales reps need to always be on their toes to achieve results.
- Identify new sales opportunities.
- Plan effective sales targets.
- Improve customer acquisition.
- Incentivise sales teams.
- Increase customer retention.
- Market Research Analytics.
- Product Sales Analytics.

Disadvantages:

- Lack of alignment within teams. There is a lack of alignment between different teams or departments within an organization.
- Lack of commitment and patience.
- Low quality of data.
- Privacy concerns.
- Complexity & Bias.

Conclusion:

With the right data, sales success is far more achievable and, importantly, measurable. You just need to know how to analyze this data.

- Identify the key sales metrics you need, such as win rate and average deal size.
- Use a tool (such as Pipedrive's CRM) to track this data as leads travel through your pipeline.
- Record this data in visual dashboards.
- Review the data regularly against historical averages to monitor growth and problem areas.

Sales data is enormously powerful and it's something you come by just by tracking your activities effectively. Knowing how to fully utilize it will revolutionize your sales process, leading to better lead generation, client engagement and retention and, ultimately, more sales.

When coupled with the sales activities we've explored, you'll have a cycle that provides you with refined data, revealing how you can save time and make money.

But remember, analyzing your data isn't a one-time event; it's a constant process. The sales industry doesn't stay still for long and you'll want to make sure your team has the best chance it can to beat the competition.

Future Scope:

1. Improved Decision Making:

Data Analytics eliminates guesswork and manual tasks. Be it choosing the right content, planning marketing campaigns, or developing products. Organizations can use the insights they gain from data analytics to make informed decisions. Thus, leading to better outcomes and customer satisfaction.

2. Better Customer Service:

Data analytics allows you to tailor customer service according to their needs. It also provides personalization and builds stronger relationships with customers. Analyzed data can reveal information about customers' interests, concerns, and more. It helps you give better recommendations for products and services.

3. Efficient Operations:

With the help of data analytics, you can streamline your processes, save money, and boost production. With an improved understanding of what your audience wants, you spend lesser time creating ads and content that aren't in line with your audience's interests.

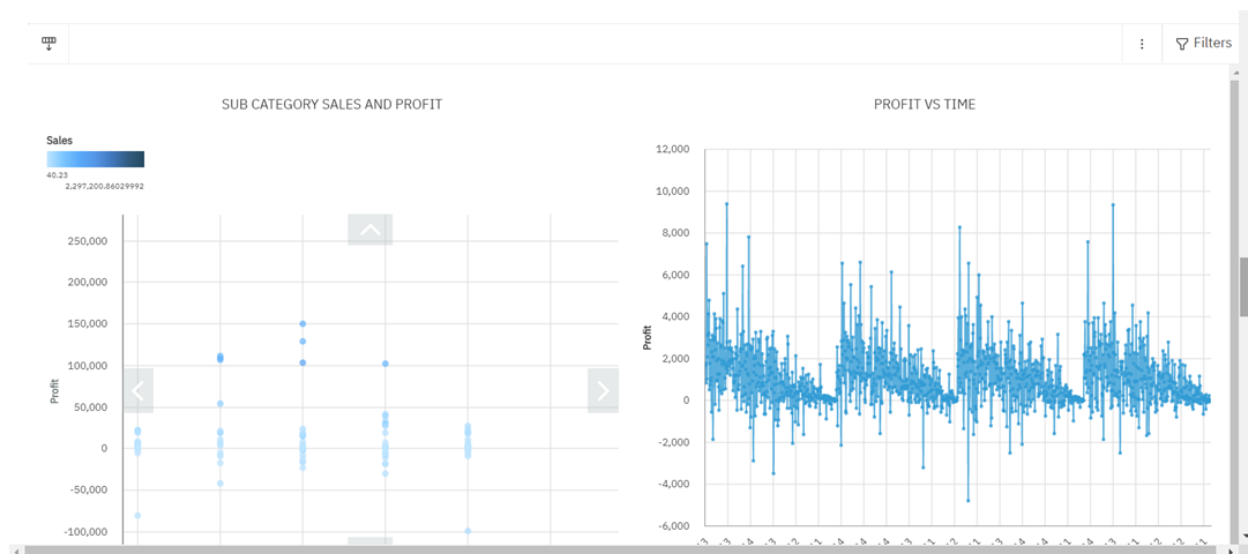
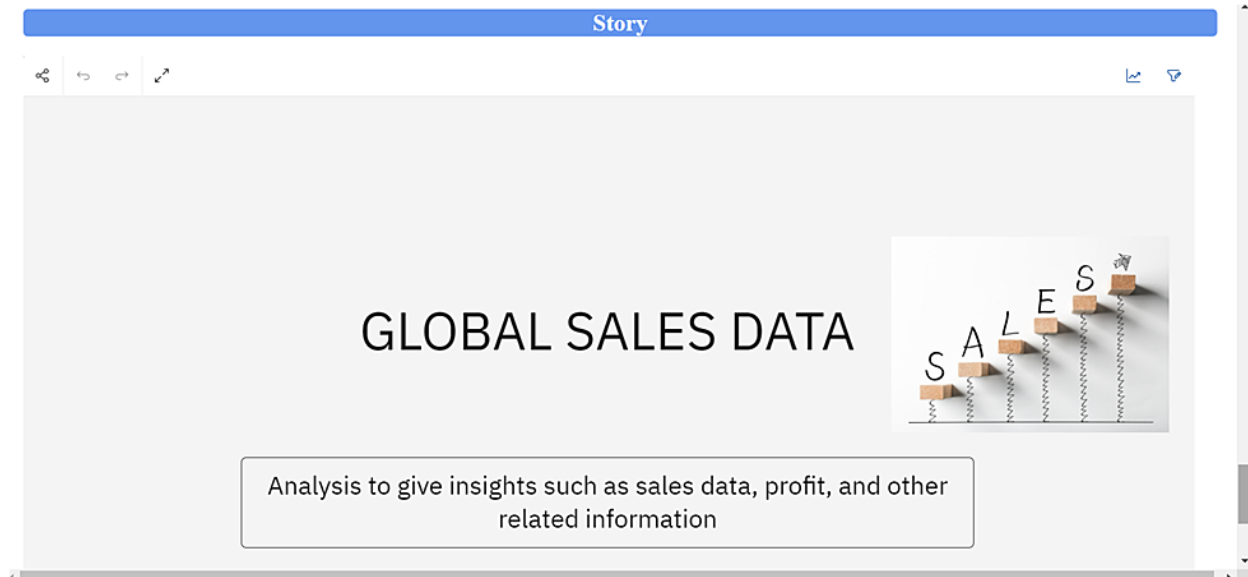
4. Effective Marketing:

Data analytics gives you valuable insights into how your campaigns are

performing. This helps in fine-tuning them for optimal outcomes. Additionally, you can also find potential customers who are most likely to interact with a campaign and convert into leads.

Appendix:

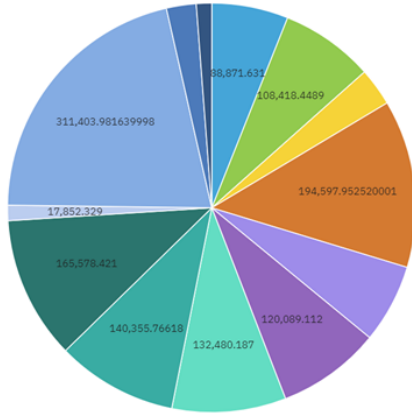
Project Demo:



PROFIT PER REGION

Region

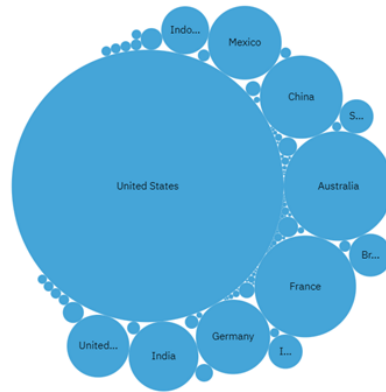
- Africa
- West
- EMEA
- North
- East
- Oceania
- Central Asia
- South
- North Asia
- Southeast Asia
- Central
- Caribbean
- Canada



COUNTRY WISE SALES AND PROFIT

Sales

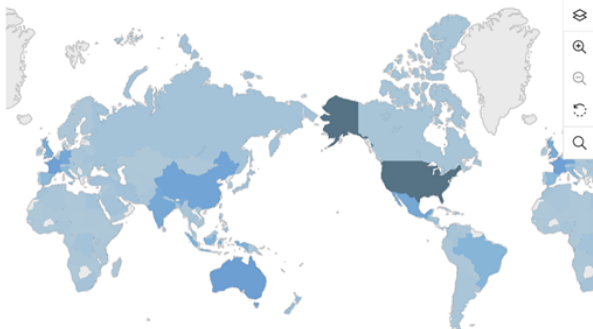
150.51 2,297,200.86029992



COUNTRY WISE SALES AND PROFIT

Sales Profit

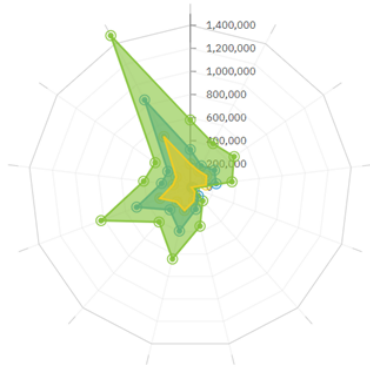
150.51 2,297,200.86029992 -98,447.232 266,397,021699998



REGION SHIPPING COST ,SALES AND PROFIT PER COUNTRY

	Sales		Profit		Shipping Cost
Australia	925,235.853	Australia	103,907.433	Australia	100,359.02
Senegal	28,848.9	Senegal	7,511.16	Senegal	3,451.3
Mexico	622,590.61752	Mexico	102,818.09752	Mexico	67,659.85
Indonesia	404,887.4979	Indonesia	15,608.6779	Indonesia	43,948.62
Iran	113,746.11	Iran	26,856.24	Iran	13,032.74
Nicaragua	149,687.06456	Nicaragua	33,401.44456	Nicaragua	17,155.51
Austria	92,539.05	Austria	24,341.7	Austria	9,688.23
Ecuador	13,342.98036	Ecuador	2,548.10036	Ecuador	1,653.88
Belarus	13,386.09	Belarus	4,534.26	Belarus	1,437.58
South Africa	95,292.27	South Africa	21,936.63	South Africa	11,721.21
Argentina	57,511.78328	Argentina	-18,693.79672	Argentina	6,366.51
Vietnam	65,800.1994	Vietnam	-1,870.2306	Vietnam	7,684.37
Cameroon	22,349.37	Cameroon	5,664.75	Cameroon	2,713.03
Hungary	14,254.05	Hungary	3,201.93	Hungary	1,747.51
Ghana	23,272.26	Ghana	5,568.54	Ghana	2,339.32
Zambia	26,035.5	Zambia	7,001.73		

Segment
 Corporate Consumer Home Office



INSIGHTS

Sales
 40.23 925,235,853

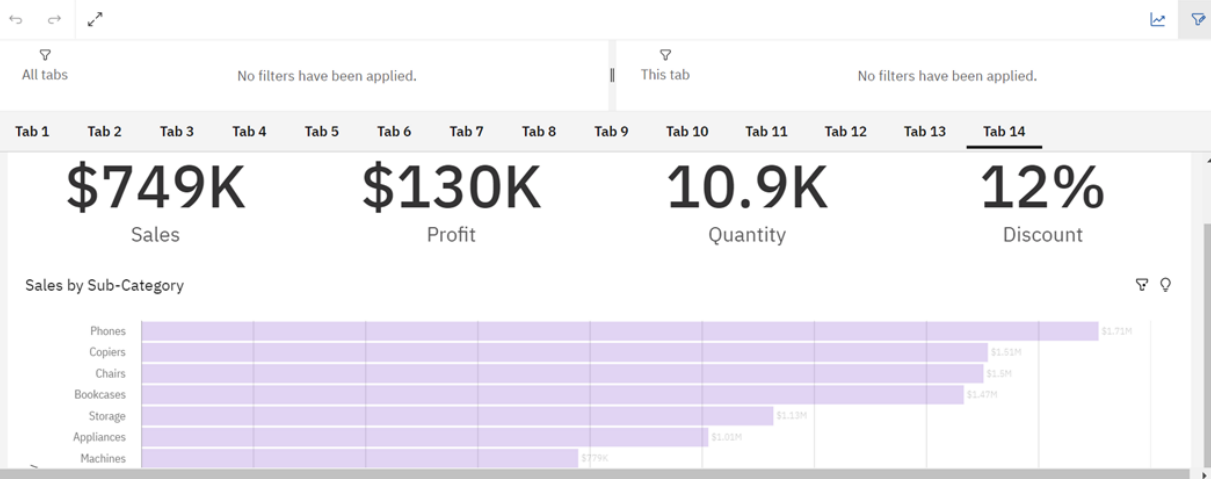
Region
 Africa Caribbean East Canada South North Oceania Central EMEA Central Asia Southeast Asia North Asia West

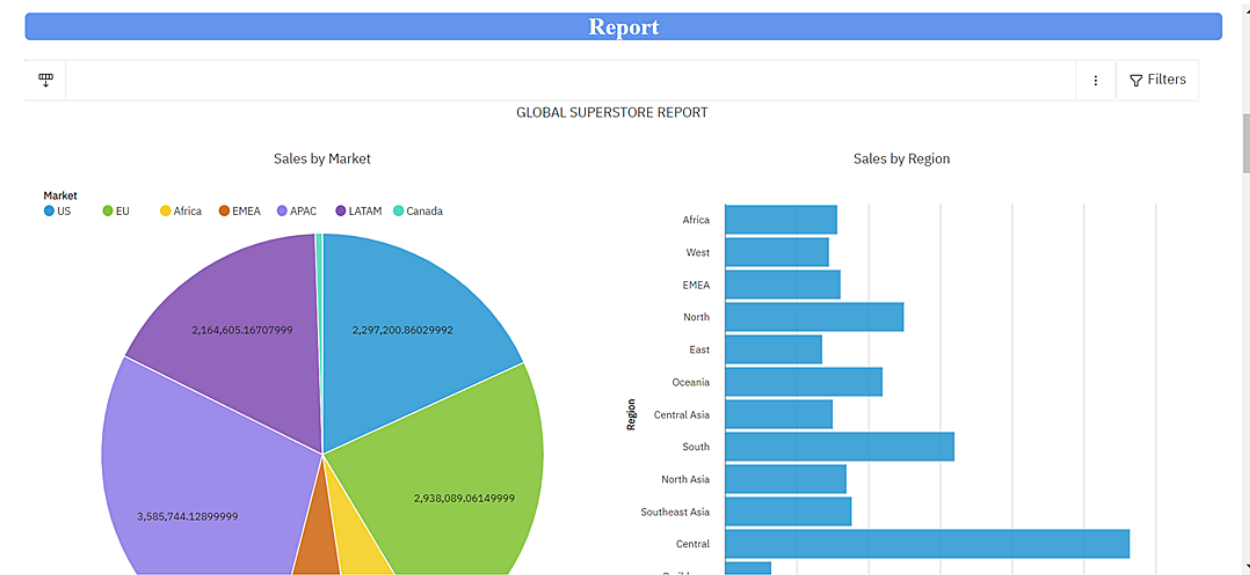


SUGGESTION

GLOBALS SALES DATA ANALYTICS

Dashboard





Project Demo Link:

https://drive.google.com/file/d/1WzfLOp_jNoOSGfbi1woZzq0BKecOKNYW/view?usp=sharing

GitHub Link:

<https://github.com/IBM-EPBL/IBM-Project-33169-1660215460>

THANK YOU

