GLOBAL SALES DATA ANALYTICS

A PROJECT REPORT

Submitted by

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Global Sales Data Analytics

INTRODUCTION:

Category: Data Analytics

Skills Required: Exploratory Data Analysis,IBM Cloud

Project Description:

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.

1 .1 PROJECT OVERVIEW

Regular sales data analysis providesa n understanding of the products that your customers are buying and helps in dissect whythey are behaving in a certain way. It can also find patterns in your lead conversions andd rop offs. All of these aspects enable you to optimize your sales process. This type ofsales analysis is about finding patterns in sales data (whether they are going up or down)o ver a specific timeframe. A micro trend might last for a week for a specific product,w hile a macro trend might last for a quarter over a range of products. It can involveconducting a strictly financial analysis based on the sales revenue generated and how it's meeting your sales targets. Sales management reports are important to monitor the effectiveness of your sales reps and help them identify selling opportunities in customer.The automated, prospective analyses offered by data mining move beyond the analyses of past events provided by retrospective tools typical of decision support

1.2PURPOSE:

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. Regular sales data analysis

provides an understanding of the products that your customers are buying and helps you dissect why they are behaving in a certain way.

2.LITERATURE SURVEY

2.1 Existing Problem:

- Global sales process is way too long and don't have enough leads.
- Leads are unqualified and wasting your effort on bad fit prospects.
- Spending too much time on low-value task
- The statement may include workflow bottlenecks,resources challenges or fundamental difficulties such as understanding a customer base
- Identify the key sales metrics you need, such as win rate and average deal size
- Use a tool (such as Pipe drive's CRM) to track this data as leads travel through your pipeline. Record this data in visual dashboards

Literature survey on Global Sales Data Analytics

ABSTRACT:

Online Shopping play a great importance in the modern business environment. Online shopping has opened the door of opportunity and advantage to the firms. This work analyzed the different issue of online shopping. The research aims to provide theoretical contribution in understanding the present status of online shopping. The Study Discuss the consumers' online shopping behaviors. Work also identify the problems face by the consumers when they want to accept internet shopping. Present work is a expressive study based on the detailed review of earlier pertinent studies related to the various concepts of online shopping to discover the concept of online shopping. Solitude and safety risk emerges regularly as a reason for being cautious about internet shopping. Shopping convenience, information seeking, social contact, and diversity affects the consumer attitude towards online shopping. The impossibility of product testing, problems with complaints, product return and missus of personal data are the main doubts regarding on-line shopping.

IMPORTANCE OF ONLINE SHOPPING

Ling, said that customers can take enjoy online shopping for 24 hour per day. Consumers can purchase any goods and services anytime at everywhere. Online shopping is user friendly compare to in store shopping because consumers can just complete his requirements just with a click of mouse without leaving their home. Online shopping has some advantages like below

Save the Time of the consumers. They can purchase any time any where The can compare the price with the others retailers very easily. Compare the advertising price and actual price They can easily track their product They can use cash back policy They can purchase the product from the foreign marketers.

PROBLEMS OF ONLINE SHOPPING

Online shopping problems are great barrier to the online purchase aim of customers. General problems include prospect of having credit card. The obscurity to confirm the reliability of the provide goods and the risk to buy a product that it would not value as much as customer pay for it. Aftersales problems, involved difficulty to change not working product with a new one and products warranty are not assured. Online shopping has various disadvantages:

The customers can not touch and fell of the products when they want to Purchase. Some time delivery time is so much late Some time they will pay the shipping charges so why the cost of the product may increase. Lack of personal attention by the sellers.More chance to fraud. Security of internet banking password and credit card password Lack of quality

THE FACTORS WHICH AFFECT ONLINE SHOPPING

There is some factors which affect the online shopping by the kotler who is a great marketing writers Convenience (no traffic,crowds,24 hr. access) Product Selection Delivery Mode

CONCLUSION

With discussion of above it is clear that most of the consumers want to purchase the product from online. In the present environment the people have not so much time that they will visit in the stores and purchase the product. Online shop plays a greater role for those types of consumers who have no time and want to avoid the crowd. But still there are some points who affect the consumer's behavior about online shopping but overall in the next 5 to 10 years the online shop give a huge competition to the retailers. Because online consumers are rapidly increasing and if consumers increase than online shop will increase. In last it is clear that in future there is huge scope for online shop and online shopping. The consumers are more attracted towards online shopping.

REFERENCE

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PROBLEM STATEMENT:

- These days, online shopping is essential it’s difficult to just stroll into a store at random and buy whatever you want because of covid-19 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.

- All action taken to sell a good or service to a customer are referred to sales consumer or commercial

- It’s critical that the “sales analytics “denotes the use of technology to gathered and analysis sales data to generate practical knowledge .it is employed to locate, enhance and predicted sales. It makes use of various KPI’s and metrics to plan

an effective sales strategy that increase the company's revenue

- Social impact, price inflation perception business Model/Impact ,sales Growth process Improvement and low customer churn Rates are key solution that we solve through the application.

3.IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas

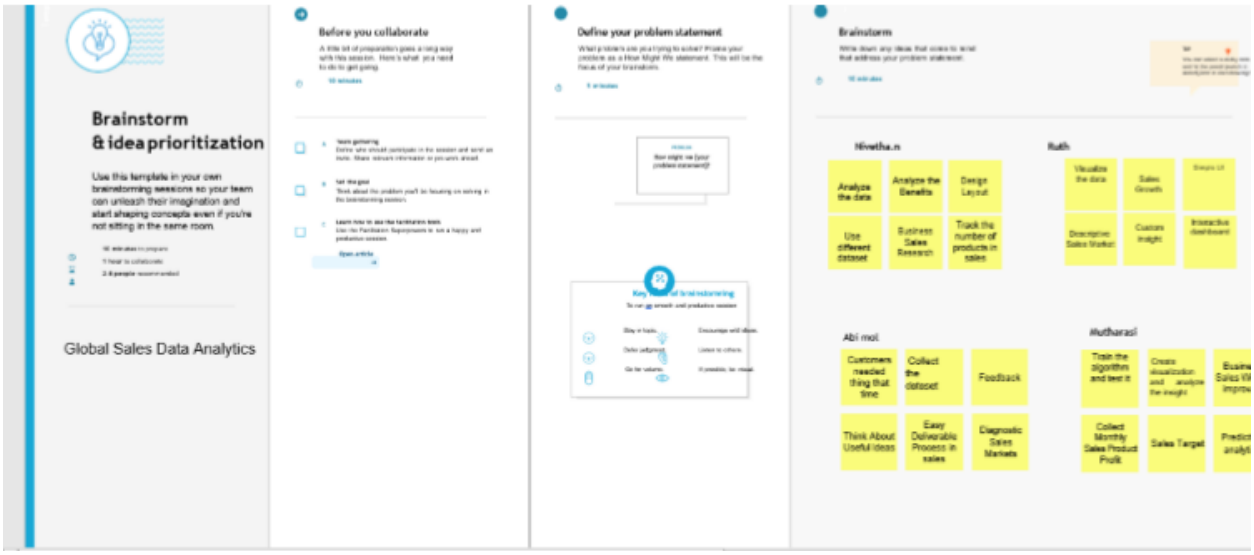
An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes. It is a useful tool to helps teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.

3.2 Ideation & Brainstorming

Step 1 : Team gathering and Problem statement analysis.

Online shopping problems are great barrier to the online purchase aim of customers. General problems include prospect of having credit card. The obscurity to confirm the reliability of the provide goods and the risk to buy a product that it would not value as much as customer pay for it. Aftersales problems, involved difficulty to change not working product with a new one and products warranty are not assured.

Step 2 : Brainstorm, Idea listing and Grouping



Group ideas

Step 3 : Prioritization

3.3 Proposed Solution Template:

Project team shall fill the following information in proposed solution template

S.No.	Parameter	Description
1	Problem Statement (Problem to be solved	➢ Create a simple easy to understand analytics of Sales data, by plotting different visualization. ➢ Use of familiar metrics to analyze data. ➢ Easy to find Insights of data with clear and legible color coding. ➢ Detailed information gathering ➢ Localization of areas of interest, and complete analysis on them ➢ Increase the customer capa buying capacity
2	Idea / Solution description	➢ Identify the customer's priority ➢ Creating an Interactive Dashboard.

		Responsive Design for every screen sizes. Modular file based analytics. Manual Insights for each interaction
3	Novelty / Uniqueness	➢ Use Artificial Intelligence to give solution ➢ Analytics are modular with the help of exporting and importing files. Has ability to add manual insights for later viewing.
4	Social Impact / Customer Satisfaction	➢ Customer will identify their needs even they don't know ➢ Customer gets instant analytical diagrams when they input the file to the software, as long as the file is in the correct format. Customer can reuse the same any number of times.
5	Business Model (Revenue Model)	➢ Any AI model with good accuracy rate ➢ One-time payment for a user. Free Trial for 30 days.
6	Scalability of the Solution	➢ The solution scales well by default, as its file based. Any number of similarly formatted files can be submitted and the analytics will be drawn for that particular file.

3.4 Problem solution fit:

My goal was to create a tool that translates a problem into a solution, taking into account customer behavior and the context around it. None of the existing canvases or frameworks were giving me an overview and insight into the real customer situation during his/her decision-making process. With this template you will be able to take important information into consideration at an earlier stage and look at problem solving in depth.

4.Requirement analysis:

Functional requirements :

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Gmail OR Google Business
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Input	Data uploaded must be of proper format
FR-4	Data Verification and Validation	Data is cleaned and verified for outliers, duplications
FR-5	Data Visualization	Proper graphs and charts are chosen

		for a particular set of data and shown
FR-6	Business Decisions	Recommendations are made according to data

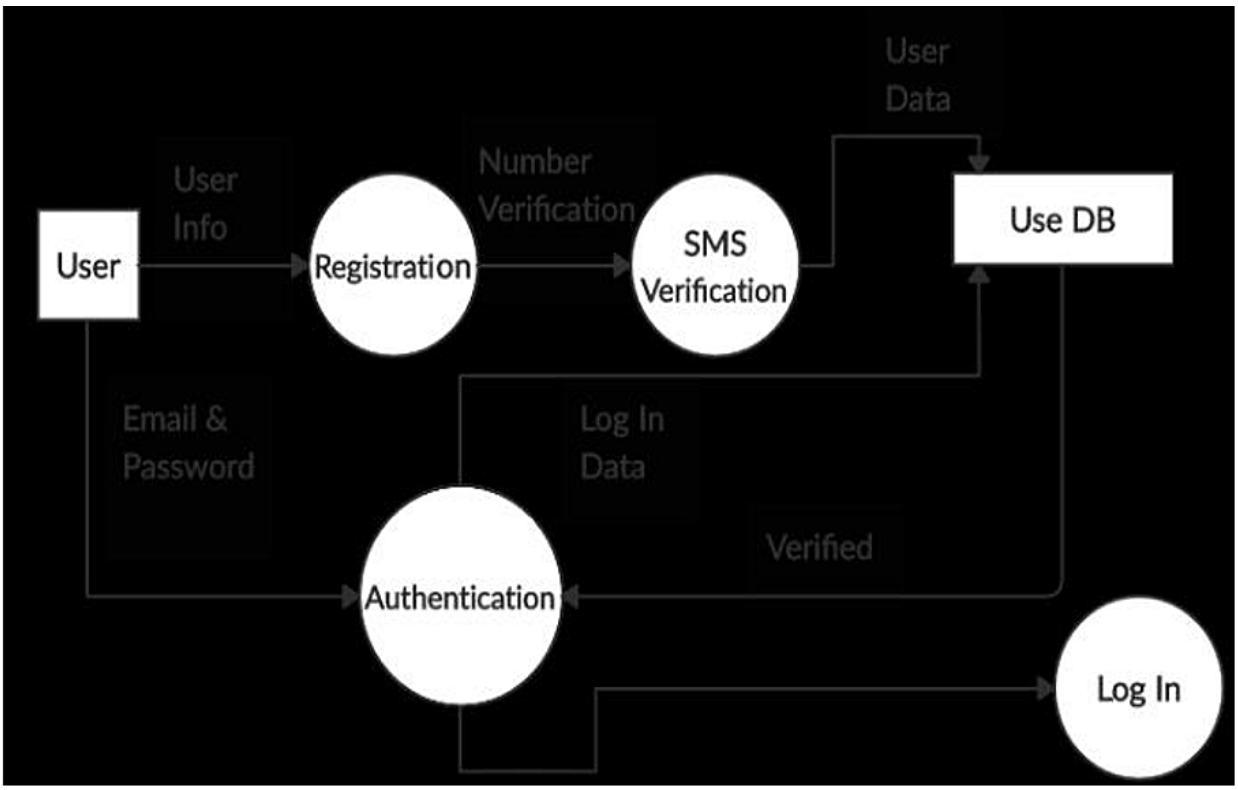
4.2 Non Functional requirement::

FR No	Non Functional Requirement	Description
NFR 1	Usability	The system must be easy to use. The user must be able to upload their sales data easily and filter it in our system.
NFR 2	Security	User sales data must not be misused. The user's login must be secure.
NFR 3	Reliability	User's data and visualizations must stay in the system without crashing. The system's reliability must be ensured by storing proper copies and results of data with their appropriate visualizations.
NFR 4	Performance	The system must be able to withstand large volumes of data and enable visualizations. It should allow multiple team members to access data at the same time. The website must be flexible to different types of data
NFR 5	Availability	Uploaded data must be available at all times and be fault tolerent

NFR 6	Scalability	It should be able to produce advanced graphs and provide proper interpretation of data over large volumes.

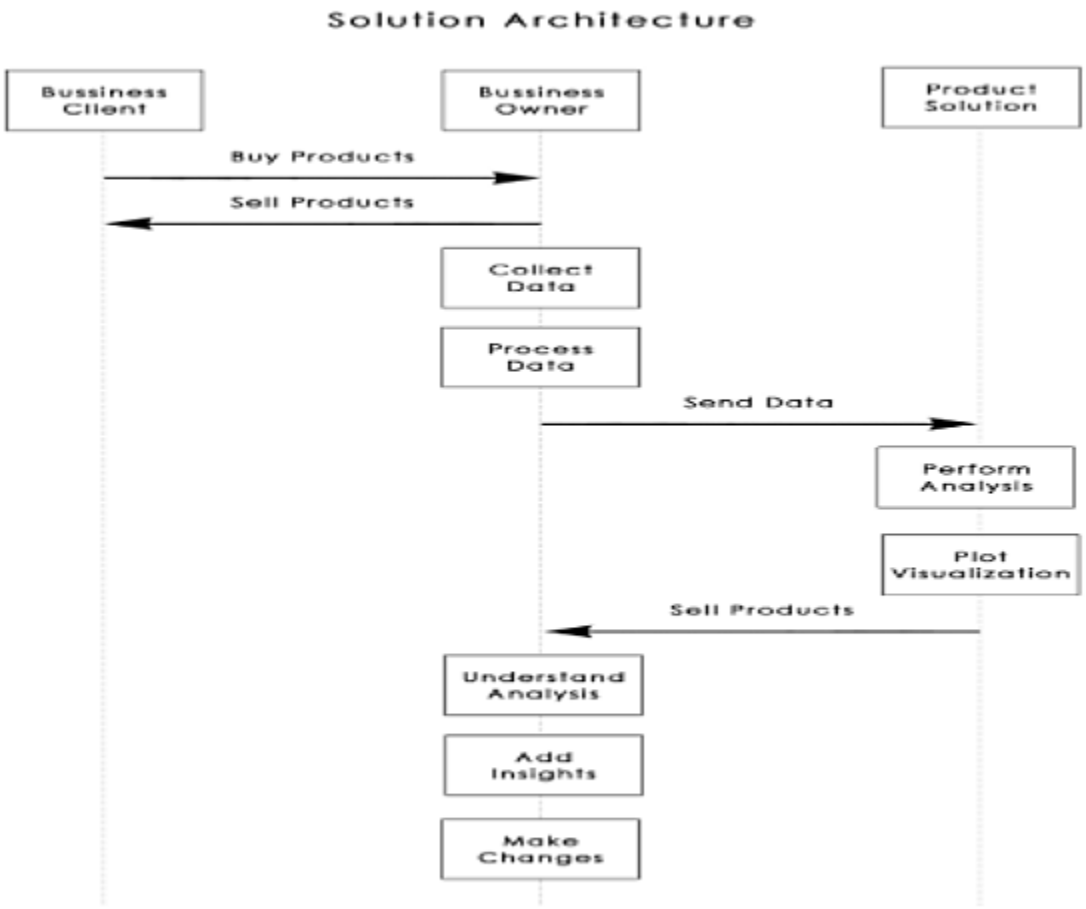
5.Project Design:

5.1.Data Flow Diagram:



Solution & Technical Architecture :

Solution architecture is a complex process with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:



5.3User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Accepta criteria	Priority	Release
Customer (PRODUCT)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password	I can access my account / dashboard	High	sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
				Facebook Login	Medium	Sprint-1
Required Data		history , profit and loss in their ANALYTICS		Past dataset of DATA and field estimation of SALES	High	sprint-2
Analysis		Clean and analyse to			High	sprint-3

		data according to the set past data				

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptan criteria	Priority	Release
Customer care Executive	Customer Care Executive (Communication)		As a user , I can provided support systems for companies that often communication with the customers	I can maintain strong relationship with customer and client , so I can ese their queries and increase SALES	Medium	Sprint-4
Estimator	Estimation		As a user, I can see all the item we will try to estimate that often communicate with the customers	I have a feel for the size of the various item in the product based	Medium	Sprint-4

6.Project Planning & Scheduling:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	2	High	NIVETHA..N
		USN-2	As a user, I will receive confirmation email once I have registered for the application	1	Low	
		USN-3	As a user, I will log in to the desired application using login credentials.	1	Medium	
Sprint-2	Preprocessing	USN-4	As a user, I can do the data cleaning process.	2	High	ABIMOL
		USN-5	As a user, I can perform Extract, Transform Load (ETL) process.	2	High	
Sprint-3	Dashboard	USN-6	As a user, I can upload the data of global sales for analysis.	1	Medium	

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
	Dashboard	USN-7	As a user, I can analyse the data by performing calculations and executing several visualization charts.	2	High	MUTHARASI
		USN-8	As a user, I can gain insights of the data for business analysis	2	High	
		USN-9	As a user, I can get the information for business analysis.	1	Medium	
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	RUTH JEBA MALAR
		USN-11	As a user, I can clear queries of customers from the analysis of the sales.	1	Medium	
		USN-12	As a user, I can modify report according to the information gathered after analysis.	1	Low	

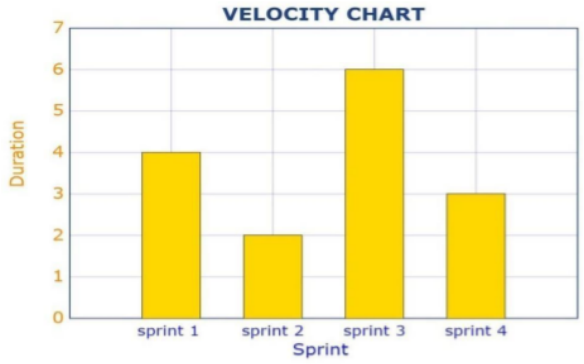
6.2 Sprint Delivery Schedule :

6.2 Sprint Delivery Schedule :

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	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

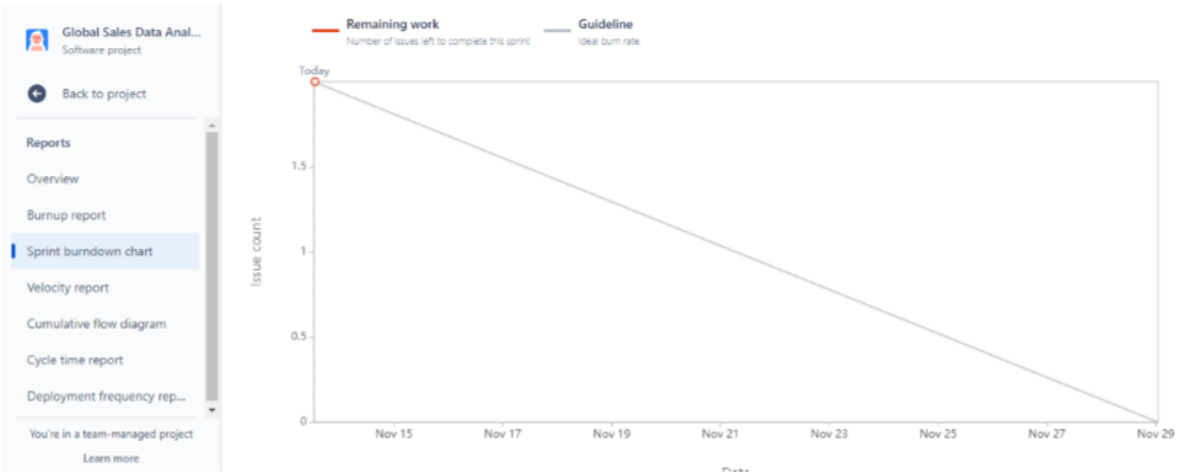
Velocity:
Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

Sprint 1 AV: sprint duration/velocity= 4/6=0.66
Sprint 2 AV: sprint duration/velocity= 2/6=0.33
Sprint 3 AV: sprint duration/velocity= 6/6=1.00
Sprint 4 AV: sprint duration/velocity= 3/6=0.50

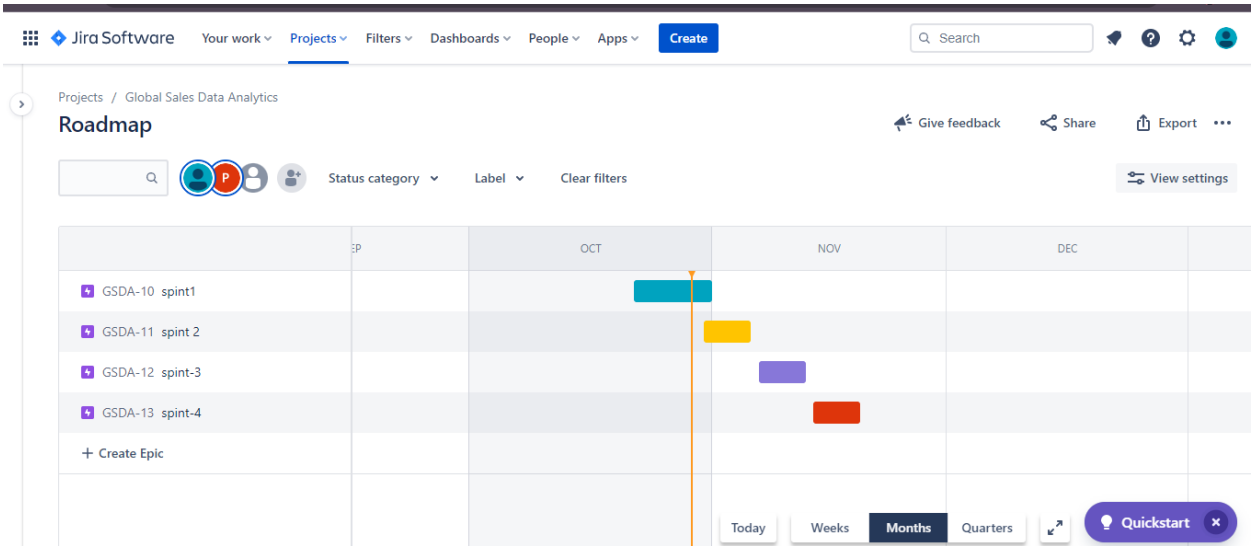


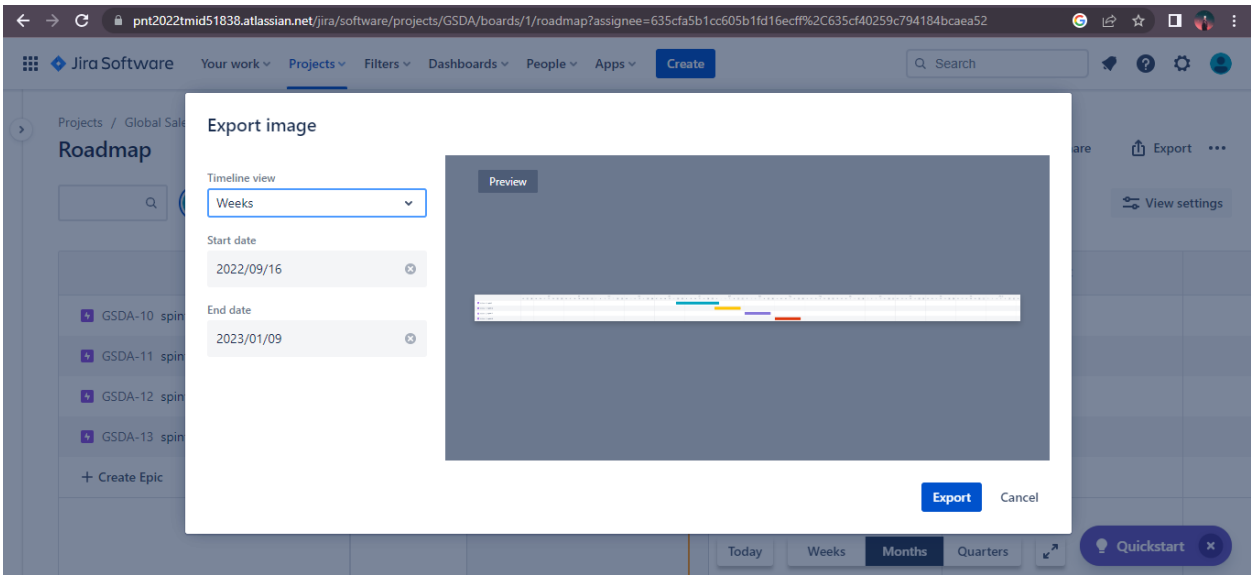
Burndown Chart :

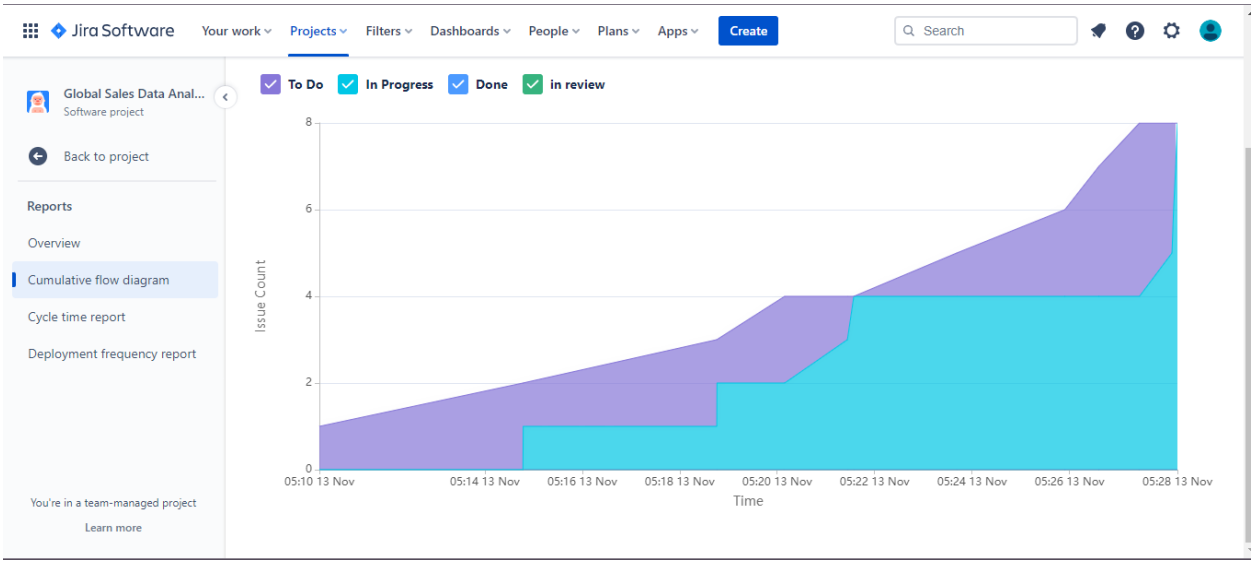
A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.



6.3 Reports from JIRA :


Jira Software
Your work
Projects
Filters
Dashboards
People
Apps
Create
Search
Projects / Global Sales Data Analytics
Roadmap
Give feedback
Share
Export
Status category
Label
Clear filters
View settings
OCT
NOV
DEC
GSDA-10 spint1
GSDA-11 spint 2
GSDA-12 spint-3
GSDA-13 spint-4
Create Epic
Today
Weeks
Months
Quarters
Quickstart


pnt2022tmid51838.atlassian.net/jira/software/projects/GSDA/boards/1/roadmap?assignee=635cfa5b1cc605b1fd16ecff%2C635cf40259c794184bcaea52
Export image
Timeline view
Weeks
Start date
2022/09/16
End date
2023/01/09
Preview
Export
Cancel


Jira Software
Your work
Projects
Filters
Dashboards
People
Plans
Apps
Create
Search
Global Sales Data Anal...
Software project
Back to project
Reports
Overview
Cumulative flow diagram
Cycle time report
Deployment frequency report
You're in a team-managed project
Learn more
To Do
In Progress
Done
in review
Issue Count
0
2
4
6
8
05:10 13 Nov
05:14 13 Nov
05:16 13 Nov
05:18 13 Nov
05:20 13 Nov
05:22 13 Nov
05:24 13 Nov
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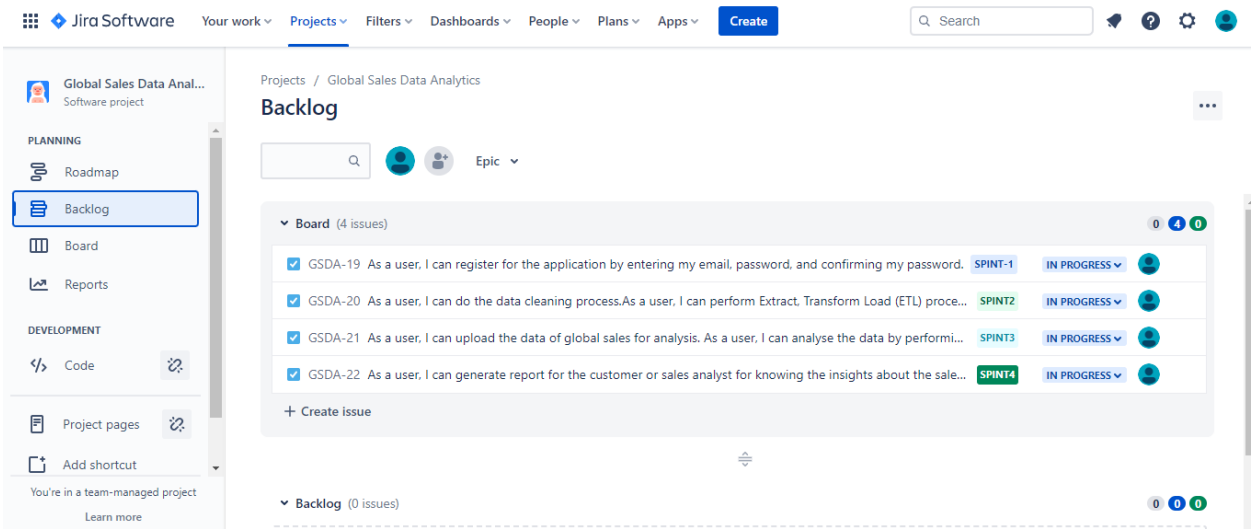
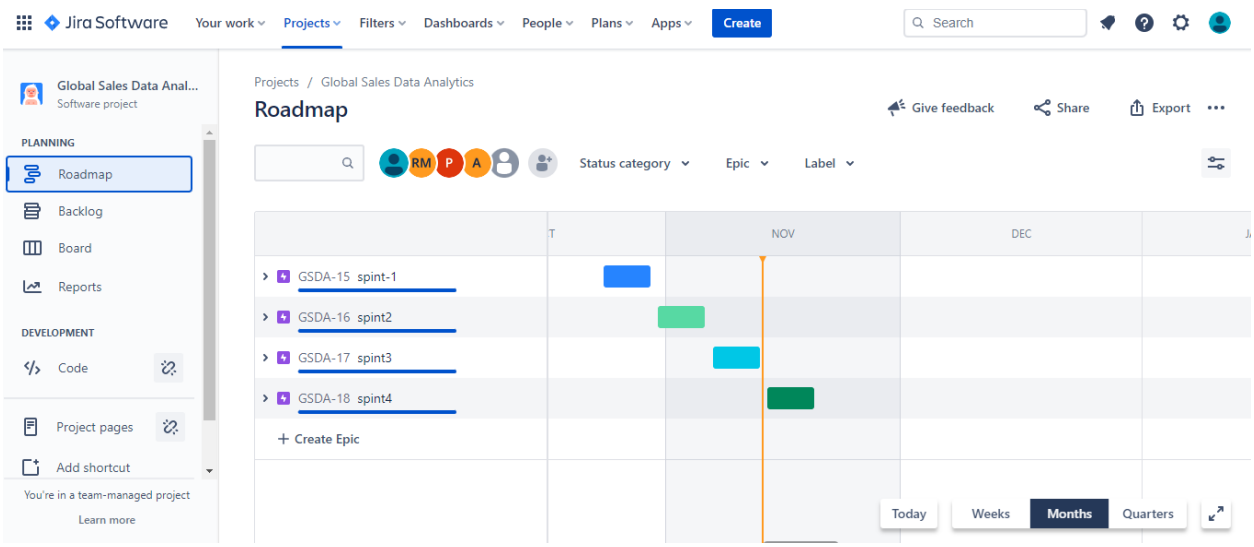
05:28 13 Nov
Time


Jira Software
Your work
Projects
Filters
Dashboards
People
Plans
Apps
Create
Search
Global Sales Data Anal...
Software project
PLANNING
Roadmap
Backlog
Board
Reports
DEVELOPMENT
Code
Project pages
Add shortcut
You're in a team-managed project
Learn more
Projects / Global Sales Data Analytics
Backlog
Epic
Board (4 issues)
GSDA-19 As a user, I can register for the application by entering my email, password, and confirming my password. SPINT-1 IN PROGRESS
GSDA-20 As a user, I can do the data cleaning process.As a user, I can perform Extract, Transform Load (ETL) proce... SPINT2 IN PROGRESS
GSDA-21 As a user, I can upload the data of global sales for analysis. As a user, I can analyse the data by performi... SPINT3 IN PROGRESS
GSDA-22 As a user, I can generate report for the customer or sales analyst for knowing the insights about the sale... SPINT4 IN PROGRESS
Create issue
Backlog (0 issues)



7.Coding & Solution:

7.1 Feature 1

Sales – Analysis:

This is an analysis of the sales data with particular focus given to how promotions and advertising translate into sales, in terms of both units sold and sales dollars.

Different types of Sales Analysis

- Furniture company sales analysis HTML file
- Cereal Company Sales Analysis HTML file
- Financial Statement Analysis PDF file Analysis using R Shiny Dashboard
- Furniture company sales Dashboard R Shiny app

Steps for Cereal Company Sales Analysis

1. Download the Raw Data
2. Analysis code R file
3. Final Analysis R file

Steps for Furniture company sales analysis

1. Download the Raw Data
2. Analysis code R file
3. Dashboard Code HTML file
4. Final Dashboard PDF file
5. Final Analysis HTML file

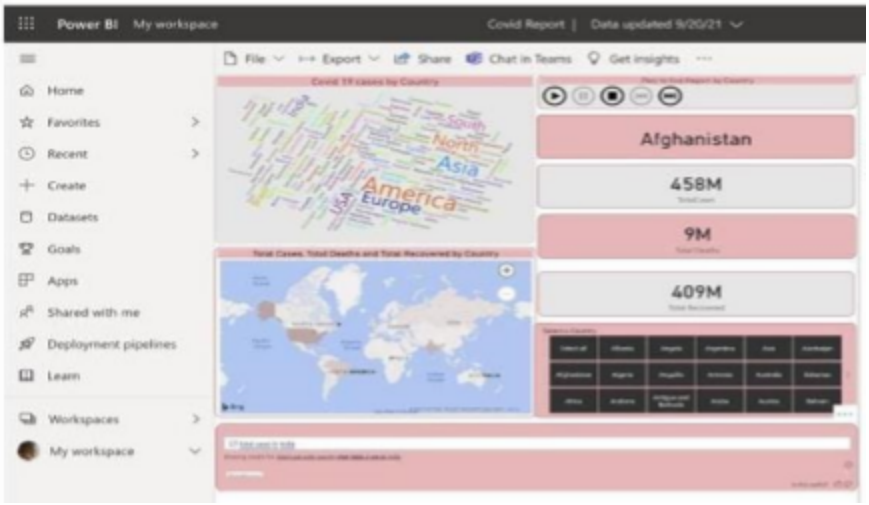
fearture-1:

Step 1: Understand the Business

Step 2: Get Your Data

Step 3: Explore and Clean Your Data

Step 4: Enrich Your Datasets

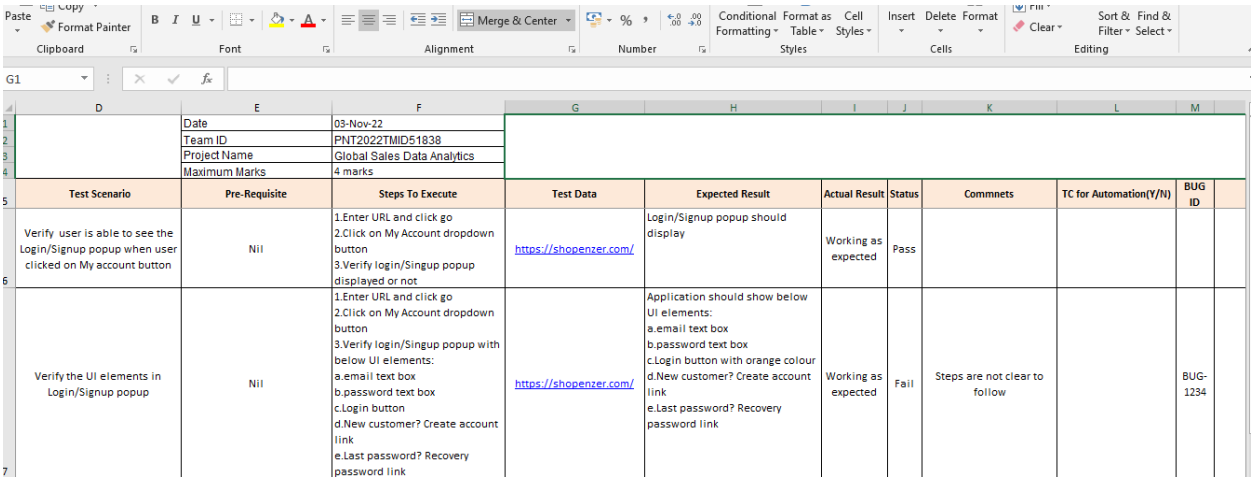


8.Testing :

8.1 Test cases:

8.2 USER ACCEPTANCE TESTING

Copying and pasting screenshots of test results into Word or Excel



Date	03-Nov-22	
Team ID	PNT2022TMID51838	
Project Name	Global Sales Data Analytics	
Maximum Marks	4 marks	

Test Scenario	Pre-Requisite	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Commnets	TC for Automation(Y/N)	BUG ID
Verify user is able to see the Login/Signup popup when user clicked on My account button	Nil	1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Singup popup displayed or not	https://shopenzer.com/	Login/Signup popup should display	Working as expected	Pass			
Verify the UI elements in Login/Signup popup	Nil	1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Singup popup with below UI elements: a.email text box b.password text box c.Login button d.New customer? Create account link e.Last password? Recovery password link	https://shopenzer.com/	Application should show below UI elements: a.email text box b.password text box c.Login button with orange colour d.New customer? Create account link e.Last password? Recovery password link	Working as expected	Fail	Steps are not clear to follow		BUG-1234

9.RESULTS

9.1 PERFORMANCE Metrics:

The analysis covered the period from 2001-2004, the glocal sales of super stores. Some results:

• The US was the country with the highest profit.

• The country that presented the biggest loss in sales was Turkey.

• There was greater demand for Superstore products to be shipped via the standard mode

• The Technology Category presented better results in Profit and Sales.

• The Retail segment performed better for all the years evaluated.

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Screenshot / Values
1.	Dashboard design	No of Visulizations / Graphs - 7-8 visualization/6-7 graphs
2.	Data Responsiveness	Users and Analyst or Developers
3.	Amount Data to Rendered (DB2 Metrics)	5 counrties
4.	Utilization of Data Filters	Sales ,profit, products, market rate and order id filtration
5.	Effective User Story	No of Scene Added - 30 user stories
6.	Descriptive Reports	No of Visulizations / Graphs - 4 visualizations/6 graph

ADVANTAGES AND DISADVANTAGES

8 .1 ADVANTAGES

1. Cost efficiency
2. Receive full-scale services
3. Maximize presentation
4. Save time
5. Marketing teams and sales representatives can review each stage of the process and its success individually.
6. Using sales analytics helps to optimize the sales funnel and make improvements to the sales process, which leads to efficiency.
7. Sales trends can help predict revenue and inform marketing departments of which t

echniques are effective among certain demographics in the business's target a udience.

8.Product sales analysis reviews all the products a business has on the market. It's i mportant to track each product and focus on the products that are performing best.

9.This is an intuitive analytic and can be a great resource for representatives by providing data on prospects and customers to help make and repeat sales.

8 .2

DISADVANTAGES

1. Risk of choosing the wrong provider
2. Lack of on-site support
3. Less control
4. Data security
5. This may breach privacy of the customers as their information such as purchases, online transactions, subscriptions are visible to their parent companies. The companies may exchange these useful customer databases for their mutual benefits.

6.The cost of data analytics tools varies based on applications and features s upported. Moreover, some of the data analytics tools are complex to use and r equire training. This increases cost to the company willing to adopt data analytics t ools or software.

7.The information obtained using data analytics can also be misused against group o f people of certain country or community or caste.

8.It is very difficult to select the right data analytics tools. This is due to the fact that i t requires knowledge of the tools and their accuracy in analyzing the relevant data a s per applications. This increases time and cost to the company

11.CONCLUSION

It is concluded that brief study on data visualization, it is clear that the field is rich in p otential applications in diverse disciplines, at the same time we need to be aware of its p ractical and ethical complexities. In the previous chapters, this project presents some important theoretical and practical principles to keep in mind when designing a data visualization. We have also discussed and critiqued several examples of data visualizations, learning common pitfalls and helpful tricks along the way. As we have seen, developing an effective and ethical data visualization is a complex process. In this chapter we will touch upon the future of data visualization and additional resources for data visualizers. With the right data, sales success is far more achievable and, importantly, measurable. 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 salesBy implementing this analytics solution, the company brought their competitive and sales data reporting in-house, cut costs and increased the accuracy of their reporting and analysis. As the company moves forward with this new solution, their sales reporting costs will most likely be reduced by 50 to 70%. They are now able to analyze raw data themselves, respond more quickly to changes in market trends and perform root cause analysis to determine those shifts in the market. By securing quicker access to their data with the new solution, the company was also able to reduce the risk associated with delayed responses to changes in their markets.With the new solution, the company can now process sales reports faster than the outsourced solution, reducing turnaround time between 50% to 60%. The reporting needs of the company have been streamlined, consolidating over 10reports into the centralized dashboard solution. The company's competitive analysis group is also able to more quickly respond to internal data requests given they have the ability to pull the information themselves. With this quicker response, the company is better able to react to changes in the market and predict opportunities for its sales force.

12.FUTURE SCOPE

Sales analytics refers to the use of technology to collect and use sales data to derive actionable insights. It is used to identify, optimize, and forecast sales. It uses different metrics and KPIs to plan an efficient sales model that generates higher revenue for the business.Data analytics has a bright future ahead as it has more potential, which everyone can explore. There is no shortage of opportunities for those who want to explore this field and move forward with their career in this competitive market world. Today, data analytics is being used in many fields such as healthcare, retail, transportation, manufacturing, and many others. However, there are certain areas where it can be used more effectively. Data a nalytics is expected to radically change the way we live and do business in the future. A lready today we use the analytics in our technology devices, for many decisions in our l ives. Changing technological landscape and newer business challenges compel c ompanies today to look for strategies that ensure higher business returns as well as reduced operational expenses. Companies may have large measures of data in every s ingle area of research, showcasing, deals, creation customer service and so on. They need to standardize data storage and security arrangements, to align their operational s tructure with industry requirements. The future of Data Analytics looks bright as a career and a subject for research.

13.APPENDIX

SOURCE CODE :

```
connection = ibm_db.connect(dsn, "", "")
print(dsn)
# query = "SELECT username FROM USER1 WHERE username=?"
# stmt = ibm_db.prepare(connection, query)
# ibm_db.bind_param(stmt, 1, username)
# ibm_db.execute(stmt)
# username = ibm_db.fetch_assoc(stmt)
# print(username)
```

```
try:
    conn = ibm_db.connect(dsn,"", "")
    print("connected to database")
except:
    print("unable to connect")
server = ibm_db.server_info(conn)
print("DBSNAME: ", server.DBMS_NAME)
print("DBMS_VER: ", server.DBMS_VER)
print("DBNAME: ", server.DB_NAME)
app.secret_key = 'a'
@app.route('/', methods=['GET', 'POST'])
@app.route('/register', methods=['GET', 'POST'])
def register():



    msg = " "
    if request.method == 'POST':
        username = request.form['username']
        email_id = request.form['email_id']
        phone_no = request.form['phone_no']
        password = request.form['password']
        query = "SELECT * FROM USER1 WHERE username=?;"
        stmt = ibm_db.prepare(connection, query)
        ibm_db.bind_param(stmt, 1, username)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)
        if (account):
            msg = "Account already exists!"
            return render_template('register.html', msg=msg)
        # elif not re.match(r'[^@]+@[^@]+\.[^@]+', email_id):
        #     msg = "Invalid email addres"
        # elif not re.match(r'[A-Za-z0-9+', username):
        #     msg = "Name must contain only characters and numbers"
```

```
        else:
            query = "INSERT INTO USER1 values(?,?,?,?)"
            stmt = ibm_db.prepare(connection, query)
            ibm_db.bind_param(stmt, 1, username)



            ibm_db.bind_param(stmt, 2, email_id)
            ibm_db.bind_param(stmt, 3, phone_no)
            ibm_db.bind_param(stmt, 4, password)
            ibm_db.execute(stmt)
            msg = 'You have successfully Logged In!!'
            return render_template('login.html', msg=msg)
    else:
        msg = 'PLEASE FILL OUT OF THE FORM'
        return render_template('register.html', msg=msg)
@app.route('/login', methods=['GET', 'POST'])
def login():
    global userid
    msg = ' '
    if request.method == "POST":
        username = request.form['username']
        password = request.form['password']
        query = "select * from user1 where username=? and password=?"
        stmt = ibm_db.prepare(connection, query)
        ibm_db.bind_param(stmt, 1, username)
        ibm_db.bind_param(stmt, 2, password)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)



        print(account)
        if account:
            session['Loggedin'] = True
```

```
            session['id'] = account['USERNAME']
            session['username'] = account['USERNAME']
            msg = 'Logged in Successfully'
            return render_template('welcome.html', msg=msg, username=str.upper(username))
        else:
            msg = 'Incorrect Username or Password'
            return render_template('login.html', msg=msg)
    else:
        msg = 'PLEASE FILL OUT OF THE FORM'
        return render_template('login.html', msg=msg)
@app.route('/welcome', methods=['GET', 'POST'])
def welcome():
    if request.method == 'POST':
        username = request.form['username']
        print(username)
        return render_template('welcome.html', username=username)
    else:
        return render_template('welcome.html', username=username)




if "main" == _name_:
app.run()
```

LOGIN PAGE:

```
 <!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<title> Login Page </title>
<style>
Body {
```

```
  font-family: Calibri, Helvetica, sans-serif;
  background-color:white;
  background-image: url('https://2h2fxj2oochv47z6ig3v0sve-wpengine.netdnassl.com/wp-content/uploads/2021/07/man-in-a-suit-standing-behind-a-hologramof-data-analytics-1030x579.jpg');"
}
button {
      background-color:#c3e3dc;
      width: 100%;
       color: purple;



       padding: 15px;
       margin: 10px 0px;
       border: none;
       cursor: pointer;
        }
form {
       border: 3px solid #f156189;
   }
input[type=text], input[type=password] {
       width: 100%;
       margin: 8px 0;
       padding: 12px 20px;
       display: inline-block;
       border: 2px white;
       box-sizing: border-box;
   }
button:hover {
       opacity: 0.7;
   }
  .cancelbtn {
       width: auto;
       padding: 10px 18px;
```

```
        margin: 20px;



        background-color: skyblue;
        border-radius: 5px;
        font-weight: bold;
        color: black;
    }
.content {
    margin: 0px 20%;
    color: white;
}
.container {
        padding: 25px;
    }
.loginbtn {
        background-color: skyblue;
        text-decoration: none;
        color: black;
        margin-left: 30%;
        padding: 10px 20px;
        font-weight: bold;
        border-radius: 5px;
        margin-right: 20px;
    }



.forgotbtn {
        background-color: skyblue;
        text-decoration: none;
        color: black;
        padding: 10px 20px;
        font-weight: bold;
```

```
        border-radius: 5px;
    }
.aboutbtn {
        background-color: skyblue;
        text-decoration: none;
        color: black;
        padding: 10px 20px;
        font-weight: bold;
        border-radius: 5px;
        margin-right: 20px;
    }
.dashboardbtn {
        background-color: skyblue;
        text-decoration: none;
        color: black;
        padding: 10px 20px;
        font-weight: bold;



        border-radius: 5px;
    }
.Datasetbtn{
  background-color:skyblue;
  color:black;
  padding:10px 20px;
  font-weight:bold;
  border-radius:5px;
  }
</style>
</head>
<body>
    <center> <h1 style="background-color:white">Login Form</h1> </center>
    <form>
```

```
      <div class="container content">
         <label style="color: white; font-weight: bold;">Username : </label>
         <input type="text" placeholder="Enter Username" name="username">
         <label style="color: white; font-weight: bold; ">Password : </label>
         <input type="password" placeholder="Enter Password" name="password"><br><br>
         <a href="https://www.ibm.com/in-en/products/cognos-analytics"
class="loginbtn">Login</a>
         <a href="about.html" class="aboutbtn">About</a>



         <a href="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.publi
c_folders%2FDatavisulaization%2FData%2Bvisulaization&action=view&mode=d
ashboard&subView=model000001846c063c4b_00000000"
class="dashboardbtn">Dashboard</a>  <a
href="https://www.kaggle.com/datasets/apoorvaappz/global-super-store-dataset"
class="Datasetbtn">Dataset</a><br><br><br>
         <input type="checkbox" checked="checked" style="margin-left: 25%;">Remember me
         <a href="#" class="cancelbtn">Cancel</a>
         <a href="#" class="forgotbtn">Forgot password?</a>
      </div>
   </form>
</body>
          </html>
<!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">
  <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.1/dist/css/bootstrap.min.css">



  <script src="https://cdn.jsdelivr.net/npm/jquery@3.6.0/dist/jquery.slim.min.js"></script>
```

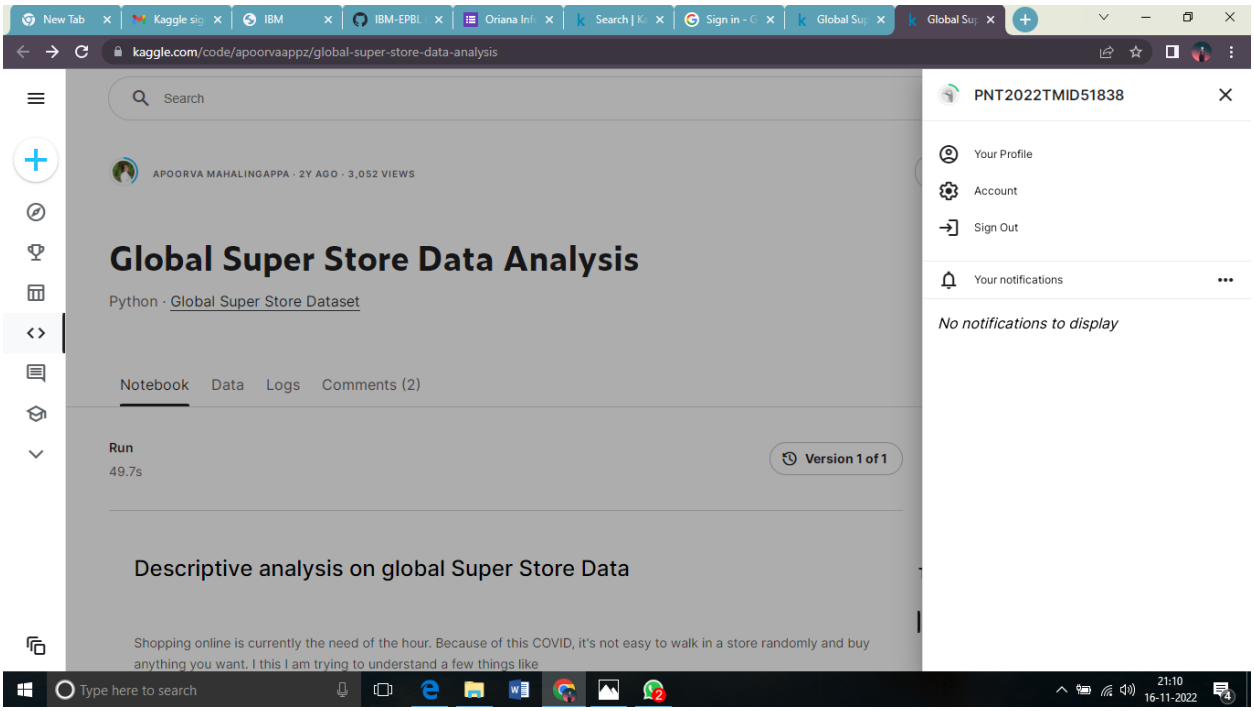
```
 <script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"></scri pt>
 <script src="https://cdn.jsdelivr.net/npm/bootstrap@4.6.1/dist/js/bootstrap.bundle.min.js">
</script>
 <title>About</title>
 <style>
  *{
   margin:0px;
   box-sizing: border-box;
  }
  body{
   font-family: Arial, Helvetica, sans-serif;
   margin: 0;
   background: #8e9eab;  /* fallback for old browsers */
   background: -webkit-linear-gradient(to right, #eef2f3, #8e9eab);  /* Chrome 10-25, Safari 5.1-
6 */
   background: linear-gradient(to right, #eef2f3, #8e9eab); /* W3C, IE 10+/ Edge, Firefox 16+,
Chrome 26+, Opera 12+, Safari 7+ */
  }
  #about{
   margin-top: 50px;



  }
  h1{
   font-size: 60px;
  }
  p{
   font-size: 20px;
  }
  #cards{
   padding: 30px
  }
  .column{
   padding: 30px;
```

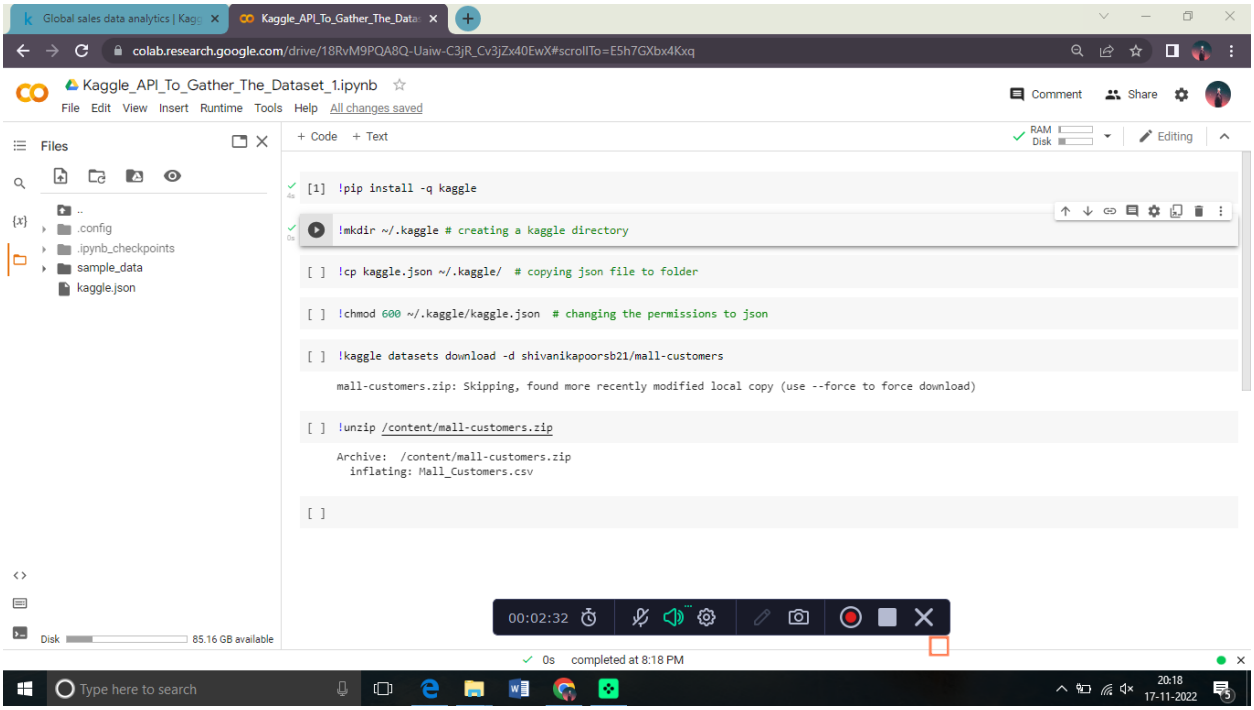
```
    }
    .card{
      border: none;
      box-shadow: rgba(0, 0, 0, 0.24) 0px 3px 8px;
    }
    button{
      margin-left: 100px;
      margin-top: 50px;
    }
    #home-btn{
      margin-top: 50px;



      margin-left: 100px;
      padding:10px 30px;
      font-size: 30px;
    }
  </style>
</head>
<body>
  <a href="index.html" class="btn btn-dark stretched-link" id="homebtn">Home</a>
<div class="container-fluid" id="about">
    <h1>ABOUT US </h1>
    <p>Who are we and what we do.</p>
    <p>Resize the browser window to see that this page is responsive by the way.</p>
  </div>
  <h2 style="text-align:center">Our Team</h2>
  <div class="container-fluid" id="cards">
  <div class="row">
    <div class="column">
      <div class="card" style="width:400px;">
        <img class="card-img-top" src="{{url_for('static', filename='avatar2.jpg')}}"  alt="Card image"
style="width:100%"/>
```

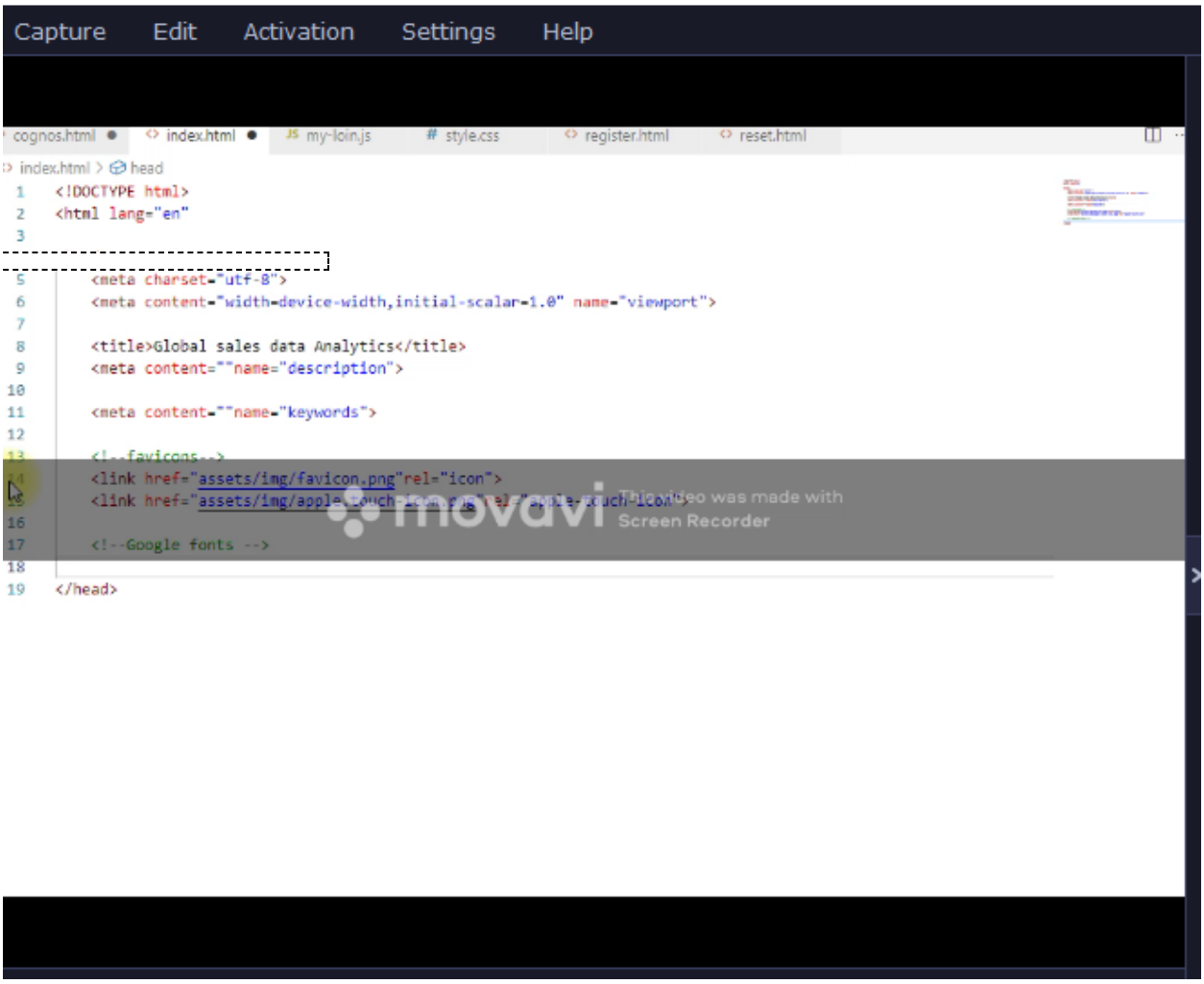
```
      <div class="card-body">
        <h4 class="card-title">K.Venkadanathan</h4>
        <h5 class="title">Team Leader</h5><br>
        <p class="card-text">ECE Engineer<br>Assigns tasks to members and manages the server.<br></p><br>
        <p>venkadanathank2000@gmail.com</p><br>
        <a href="#" class="btn btn-primary stretched-link">See Profile</a>
      </div>
    </div>
  </div>
  <div class="column">
    <div class="card" style="width:400px">
      <img class="card-img-top" src="{{url_for('static', filename='avatar2.jpg')}}" alt="Card image" style="width:100%"/>
      <div class="card-body">
        <h4 class="card-title">V.Gowtham</h4>
        <h5 class="title">Team Member 1</h5><br>
        <p class="card-text">ECE Engineer<br>Does data visulaizations.<br></p><br>
        <p>gowthamvg278@gmail.com</p><br>
        <a href="#" class="btn btn-primary stretched-link">See Profile</a>
      </div>
    </div>
  </div>




  <div class="column">
    <div class="card" style="width:400px">
      <img class="card-img-top" src="{{url_for('static', filename='avatar2.jpg')}}" alt="Card image" style="width:100%">
```

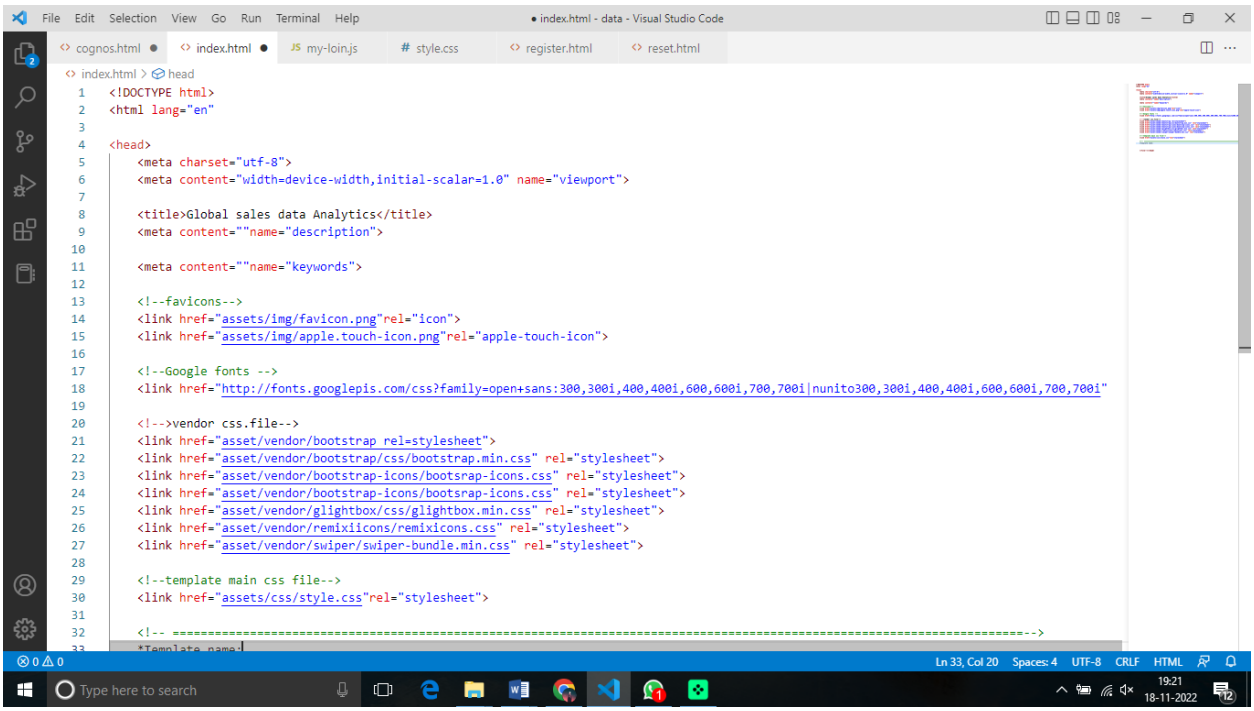
```
      <div class="card-body">
        <h4 class="card-title">V.Nandhini</h4>
        <h5 class="title">Team Member 2</h5><br>
        <p class="card-text">ECE Engineer.<br>Does back end tasks.<br></p><br>
        <p>nandhini.v@nandhatech.org</p><br>
        <a href="#" class="btn btn-primary stretched-link">See Profile</a>
      </div>
    </div>
  </div>
 <div class="column">
  <div class="card" style="width:400px">
    <img class="card-img-top" src="{{url_for('static', filename='avatar2.jpg')}}" alt="Card image"
style="width:100%">
    <div class="card-body">
      <h4 class="card-title">A.Vignesh</h4>
      <h5 class="title">Team Member 3</h5><br>



      <p class="card-text">ECE Engineer.<br>Manages storage and data.</p><br>
      <p>vignesh.v@nandhatech.org</p><br>
      <a href="#" class="btn btn-primary stretched-link">See Profile</a>
    </div>
  </div>
</div>
</div>
</body>
</html>
```

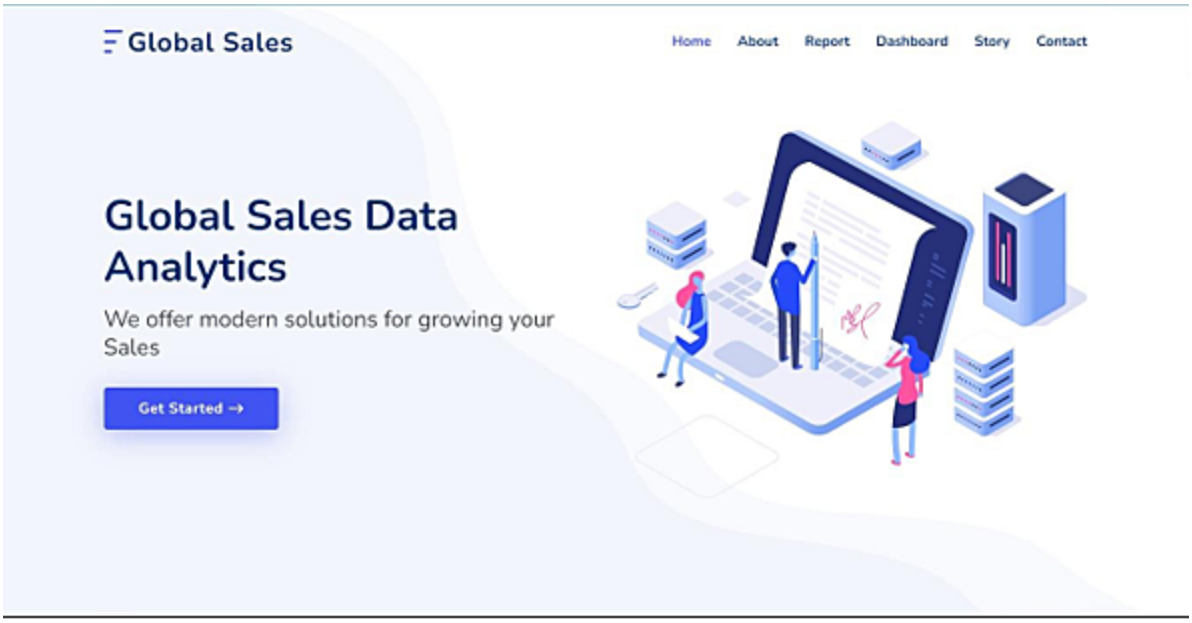
DATASET DOWNLOAD FROM KAGGLE

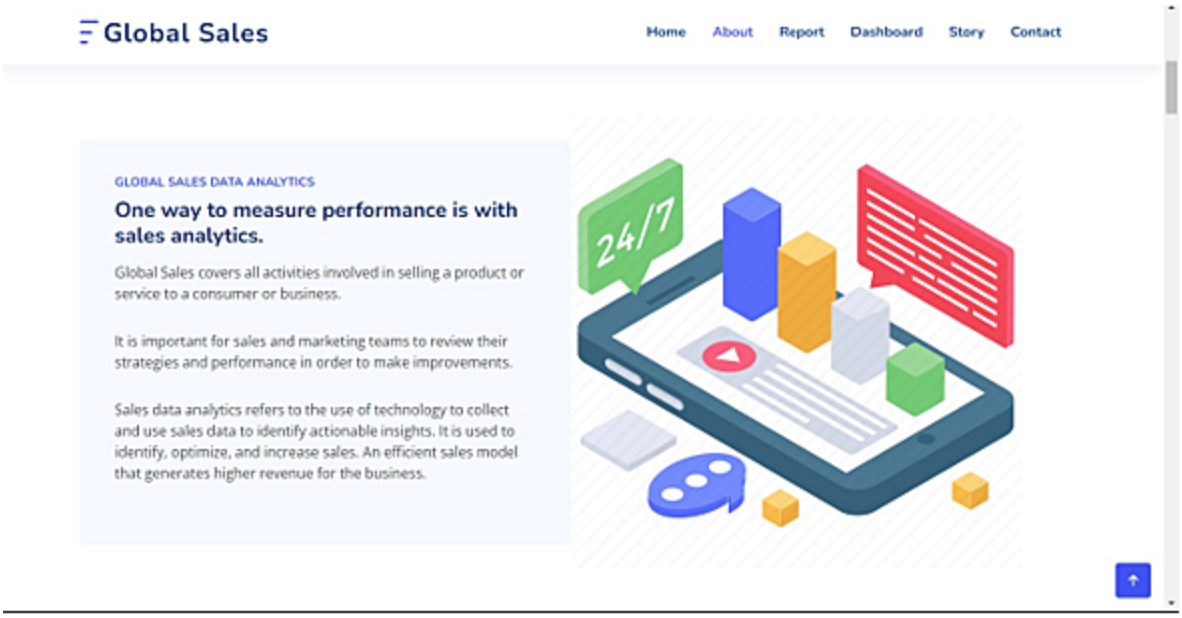


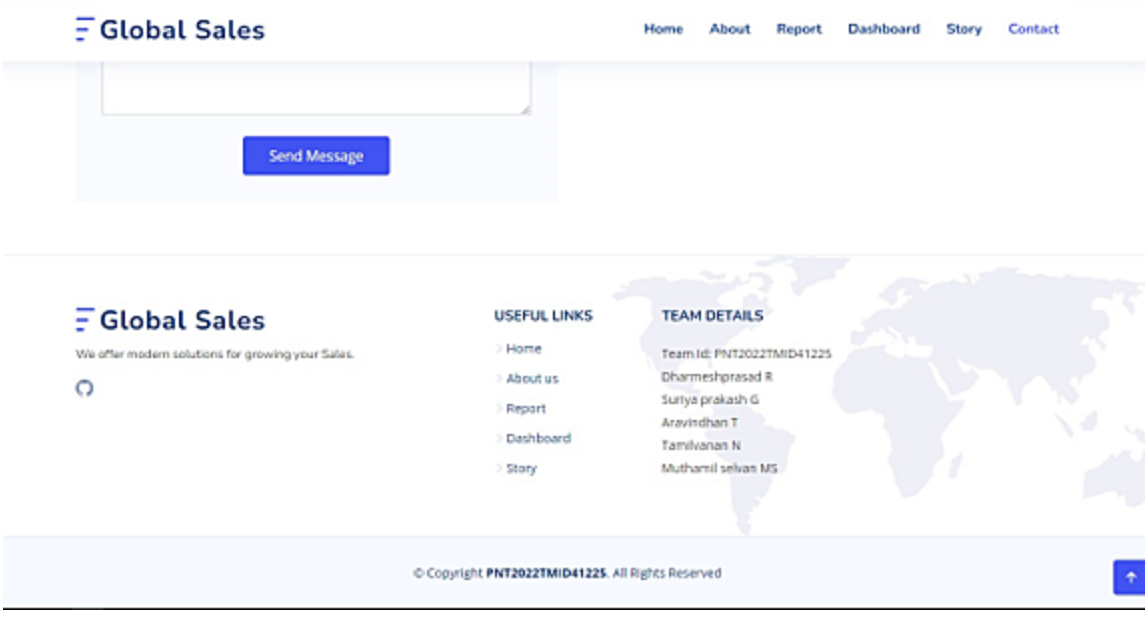

Global sales data analytics | Kagg
Kaggle_API_To_Gather_The_Data
colab.research.google.com/drive/18RvM9PQA8Q-Uaiw-C3jR_Cv3jZx40EwX#scrollTo=E5h7GXbx4Kxq
Kaggle_API_To_Gather_The_Dataset_1.ipynb
File Edit View Insert Runtime Tools Help All changes saved
Comment
Share
Files
+ Code
+ Text
RAM
Disk
Editing
.config
.ipynb_checkpoints
sample_data
kaggle.json
[1] !pip install -q kaggle
!mkdir ~/.kaggle # creating a kaggle directory
[ ] !cp kaggle.json ~/.kaggle/ # copying json file to folder
[ ] !chmod 600 ~/.kaggle/kaggle.json # changing the permissions to json
[ ] !kaggle datasets download -d shivanikapoorsb21/mall-customers
mall-customers.zip: Skipping, found more recently modified local copy (use --force to force download)
[ ] !unzip /content/mall-customers.zip
Archive: /content/mall-customers.zip
inflating: Mall_Customers.csv
[ ]
00:02:32
Disk
85.16 GB available
0s completed at 8:18 PM
Type here to search
20:18
17-11-2022

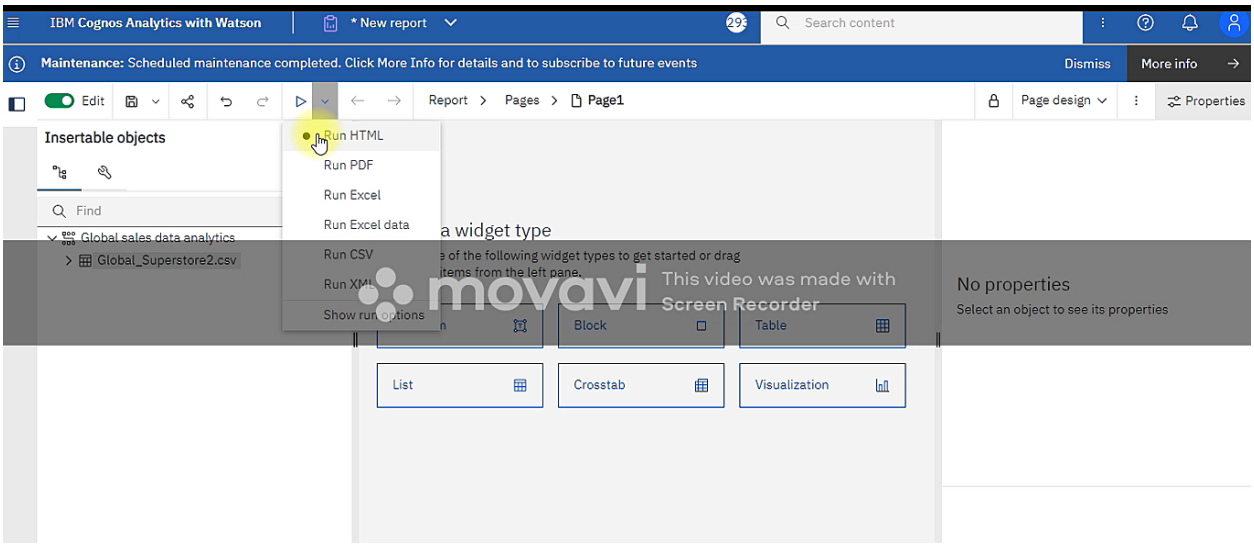

Capture
Edit
Activation
Settings
Help
cognos.html
index.html
my-loin.js
style.css
register.html
reset.html
index.html > head
<!DOCTYPE html>
<html lang="en"
<meta charset="utf-8">
<meta content="width=device-width,initial-scalar=1.0" name="viewport">
<title>Global sales data Analytics</title>
<meta content="" name="description">
<meta content="" name="keywords">
<!--favicons-->
<link href="assets/img/favicon.png" rel="icon">
<link href="assets/img/apple-touch-icon.png" rel="apple-touch-icon">
<!--Google fonts -->
</head>
This video was made with
Screen Recorder

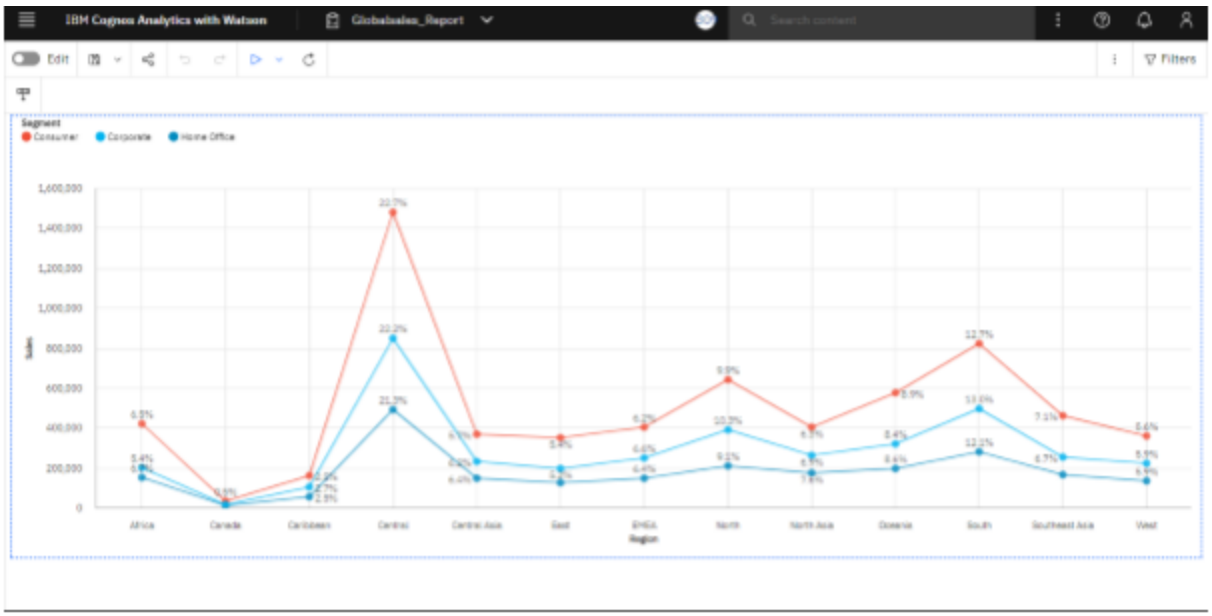

File Edit Selection View Go Run Terminal Help
• index.html - data - Visual Studio Code
cognos.html
index.html
my-loin.js
style.css
register.html
reset.html
index.html > head
1 <!DOCTYPE html>
2 <html lang="en"
3
4 <head>
5 <meta charset="utf-8">
6 <meta content="width=device-width,initial-scalar=1.0" name="viewport">
7
8 <title>Global sales data Analytics</title>
9 <meta content=""name="description">
10
11 <meta content=""name="keywords">
12
13 <!--favicons-->
14 <link href="assets/img/favicon.png"rel="icon">
15 <link href="assets/img/apple.touch-icon.png"rel="apple-touch-icon">
16
17 <!--Google fonts -->
18 <link href="http://fonts.googlepis.com/css?family=open+sans:300,300i,400,400i,600,600i,700,700i|nunito300,300i,400,400i,600,600i,700,700i"
19
20 <!-->vendor css.file-->
21 <link href="asset/vendor/bootstrap rel=stylesheet">
22 <link href="asset/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
23 <link href="asset/vendor/bootstrap-icons/bootsrap-icons.css" rel="stylesheet">
24 <link href="asset/vendor/bootstrap-icons/bootsrap-icons.css" rel="stylesheet">
25 <link href="asset/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">
26 <link href="asset/vendor/remixiicons/remixicons.css" rel="stylesheet">
27 <link href="asset/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">
28
29 <!--template main css file-->
30 <link href="assets/css/style.css"rel="stylesheet">
31
32 <!-- ==========
33 *Template name:
Ln 33, Col 20 Spaces: 4 UTF-8 CRLF HTML
Type here to search
19:21
18-11-2022

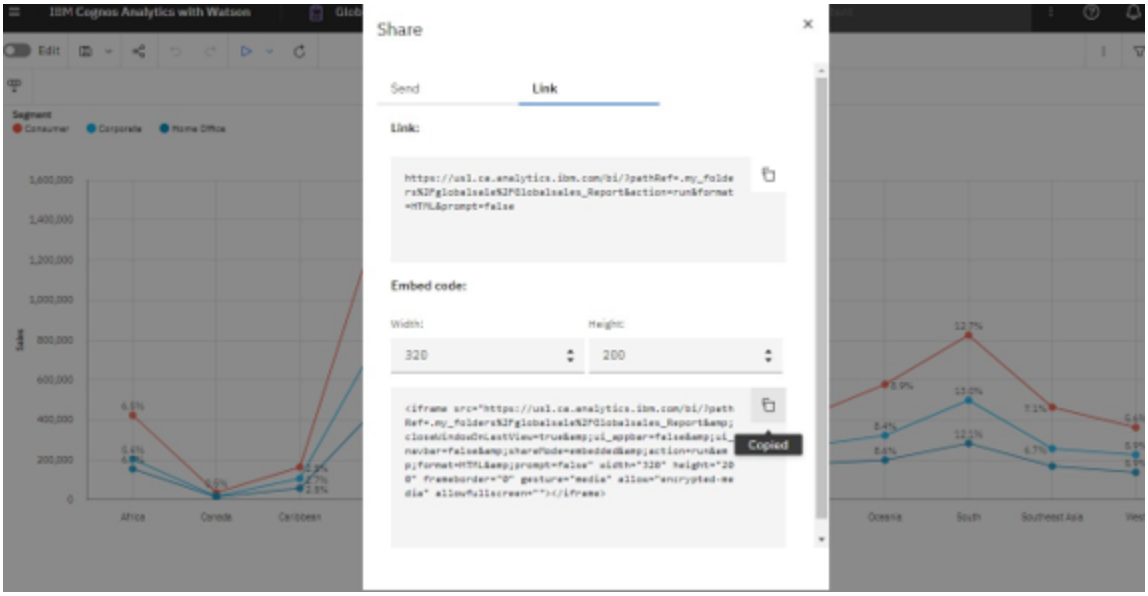

Global Sales
Home
About
Report
Dashboard
Story
Contact
Global Sales Data Analytics
We offer modern solutions for growing your Sales
Get Started →


Global Sales
Home
About
Report
Dashboard
Story
Contact
GLOBAL SALES DATA ANALYTICS
One way to measure performance is with sales analytics.
Global Sales covers all activities involved in selling a product or service to a consumer or business.
It is important for sales and marketing teams to review their strategies and performance in order to make improvements.
Sales data analytics refers to the use of technology to collect and use sales data to identify actionable insights. It is used to identify, optimize, and increase sales. An efficient sales model that generates higher revenue for the business.
24/7


Global Sales
Home
About
Report
Dashboard
Story
Contact
Send Message
Global Sales
We offer modern solutions for growing your Sales.
USEFUL LINKS
Home
About us
Report
Dashboard
Story
TEAM DETAILS
Team Id: PNT2022TMID41225
Dharmeshprasad R
Suriya prakash G
Aravindhan T
Tamilvanan N
Muthamil selvan MS
© Copyright PNT2022TMID41225. All Rights Reserved


IBM Cognos Analytics with Watson
* New report
Search content
Maintenance: Scheduled maintenance completed. Click More Info for details and to subscribe to future events
Dismiss
More info
Edit
Report
Pages
Page1
Page design
Properties
Insertable objects
Find
Global sales data analytics
Global_Superstore2.csv
Run HTML
Run PDF
Run Excel
Run Excel data
Run CSV
Run XML
Show run options
a widget type
of the following widget types to get started or drag
items from the left pane.
Block
Table
List
Crosstab
Visualization
No properties
Select an object to see its properties
movavi
This video was made with
Screen Recorder


IBM Cognos Analytics with Watson
Edit
Filters
Segment
Consumer
Corporate
Home Office
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
Africa
Canada
Caribbean
Central
Central Asia
East
EMEA
North
North Asia
Oceania
South
Southeast Asia
West
Region


IBM Cognos Analytics with Watson
Edit
Share
Send
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Link:
Embed code:
Width:
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320
200
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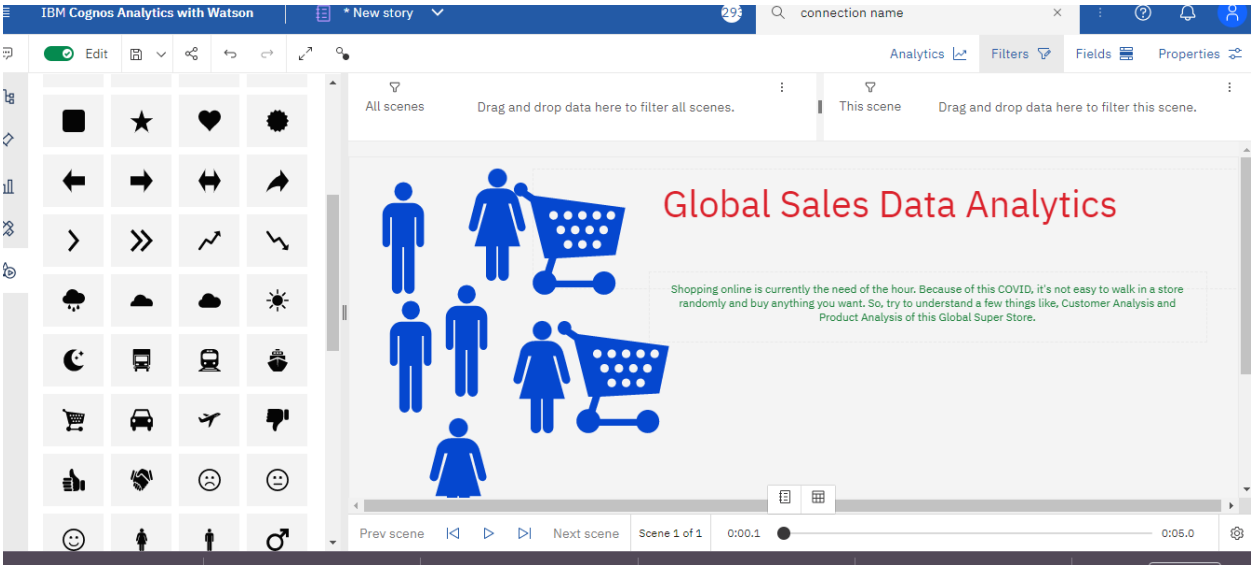
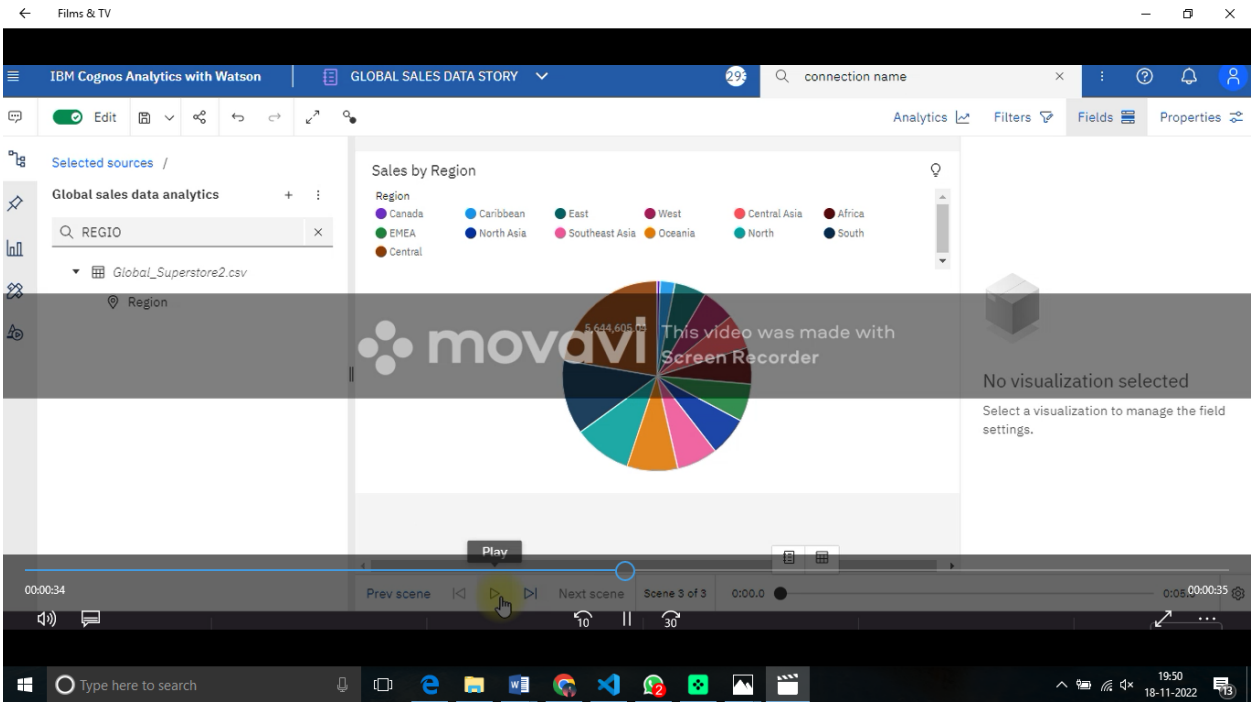
Africa
Canada
Caribbean
Oceana
South
Southeast Asia


IBM Cognos Analytics with Watson
* New story
connection name
Edit
Analytics
Filters
Fields
Properties
All scenes
Drag and drop data here to filter all scenes.
This scene
Drag and drop data here to filter this scene.
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.
Prev scene
Next scene
Scene 1 of 1
0:00.1
0:05.0



GITHUB LINK :https://github.com/IBM-EPBL/IBM-Project-53023-1661256891

https://github.com/IBM-EPBL/IBM-Project-53023-1661256891

DEMO LINK: https://youtu.be/JCLDho5DuuI

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