Retail Store Stock Inventory Analytics

A PROJECT REPORT

Submitted by

SURIYA SIVANI.P (963319106113)

VIDYA DHARSHINI.M.R (963319106121)

NITHISHA.T (963319106066)

OSHIN AMIRTHANA.A (963319106067)

In partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

in

ELECTRONICS AND COMMUNICATION ENGINEERING

ROHINI COLLEGE OF ENGINEERING,

TAMIL NADU,PALKULAM-629 401

ANNA UNIVERSITY: CHENNAI 600 025

DECEMBER 2022

Project Report Format

1. **INTRODUCTION**
   - 1.1 Project Overview
   - 1.2 Purpose
2. **LITERATURE SURVEY**
   - 2.1 Existing problem
   - 2.2 References
   - 2.3 Problem Statement Definition
3. **IDEATION & PROPOSED SOLUTION**
   - 3.1 Empathy Map Canvas
   - 3.2 Ideation & Brainstorming
   - 3.3 Proposed Solution
   - 3.4 Problem Solution fit
4. **REQUIREMENT ANALYSIS**
   - 4.1 Functional requirement
   - 4.2 Non-Functional requirements
5. **PROJECT DESIGN**
   - 5.1 Data Flow Diagrams
   - 5.2 Solution & Technical Architecture
   - 5.3 User Stories
6. **PROJECT PLANNING & SCHEDULING**
   - 6.1 Sprint Planning & Estimation
   - 6.2 Sprint Delivery Schedule
   - 6.3 Reports from JIRA
7. **CODING & SOLUTIONING (Explain the features added in the project along with code)**
   - 7.1 Feature 1
   - 7.2 Feature 2
   - 7.3 Database Schema (if Applicable)
8. **TESTING**
   - 8.1 Test Cases
   - 8.2 User Acceptance Testing
9. **RESULTS**
   - 9.1 Performance Metrics
10. **ADVANTAGES & DISADVANTAGES**
11. **CONCLUSION**
12. **FUTURE SCOPE**
13. **APPENDIX**

    Source Code

    GitHub & Project Demo Link

ABSTRACT

Inventory Management System is important to ensure quality control in businesses that handle transactions revolving around consumer goods. Without proper inventory control, a large retail store may run out of stock on an important item and it's also easy to lose its possible customer if they do not have sufficient stocks in the store.

A good Inventory Management System will alert the retailer when it is time to reorder. Inventory Management System is also an important means of automatically tracking the stocks of their product. For example, if a business orders ten pairs of socks for retail resale, but only receives nine pairs, this will be obvious upon inspecting the contents of the package, and error is not likely. On the other hand, say a wholesaler orders 100,000 pairs of socks and 10,000 are missing. Manually counting each pair of socks is likely to result in error. An automated Inventory Management System helps to minimize the risk of error. In retail stores, an Inventory Management System also helps track theft of retail merchandise, providing valuable information about store profits and the need for theft-prevention systems.

The product quantity is updated by the store operator every time a productis bought/received. This information is then tracked by a central computersystem. The Inventory Management System can serve a variety of functions in this case. It can help in identifying the overstock and understock products prior. It also provides sales insights and stock reports in the form of graphs/ charts which will be useful for easier visualization. All of this data works in tandem to provide businesses with real-time inventory tracking information. Inventory Management Systems make it simple to locate and analyze inventory information in real-time with a simple database search.

1.INTRODUCTION

1.1 Project Overview

Analytics is the discovery and communication of meaningful patterns in data. As a topic, analytics has found its way from being discussed at the sidelines of industry and technology conferences, to the top of the corporateagenda. With the existing promise of delivering performance improvementsnot seen since the redesign of core processes in the 1990s, these tools are likely to change the competitive landscape in many industries in the years to come. This provides retail industry with entirely different perspectives of looking towards the datasetsavailable at their disposal.

1.2 Purpose

Retail inventory management is the process of ensuring you carry productsthat shoppers want, with neither too little nor too much on hand. By managing inventory, retailers meet customer demand without running out of stock or carrying excess supply. Inventory management is vital for retailers because the practice helps them increase profits.

Based on the inventory management analysis we can manage how muchinventory is required for selling the product based on which they can calculate the profit and losses.Our dataset contains a lot of historical sales data of a Brazilian top retailer

Basic Questions of every retailer: How much inventory should I carry? Too much inventory means working capital costs, operational costs and a complex operation, lack of inventory leads to lost sales, unhappy customersand a damaged brand. This is why short-term forecasting is so important in the retail andconsumer goods industry.

2.LITERATURE SURVEY

2.1 Existing problem

Irrespective of the size of the business, inventory management is one of the most challenging processes in the retail sector. In this industry, the efficiency of inventory management directly impacts customer satisfaction. As retail is a fast-paced, and customer-facing sector, customer satisfaction is core to its business growth.

The inventory process involves multiple intricate aspects that drive accurate product delivery. Even a single error in the process can have expensive and long-term consequences. This will eventually affect the company's growth and reputation. Thus, retail companies need to understand and analyze the risks involved in inventory management. Only then can companies find proactive solutions to the problems.

To-Increase's Anywhere for Retail employs automation to resolve critical issues of manual inventory management. Our software has helped many retail companies address their stock management challenges. we have observed that companies who can identify the problems of the retail inventory management can select a retail inventory management system that fits their processes best.

2.2 References

1. Brown, C 2003, 'Managing the next wave of enterprise systems: leveraging lessons from IS,' *MIS Quarterly Executive*, vol. 2 no.1, pp. 1.
2. Khosrow, M 2006, *Emerging trends and challenges in information technology management*, Idea Group Press, London.
3. King, W 2000, '*Ensuring HRIS implementation success'*, *Information Systems Management*, vol. 6 no. 2, pp. 3.

2.3 Problem Statement Definition

The two basic inventory decisions that managers face are:

- How much additional inventory to order or produce
- When to order or produce it

Although it is possible to consider these two decisions separately, they are so closely related that a simultaneous solution is usually necessary. Typically, the objective is to minimize total inventory costs. Total inventory costs typically include holding, ordering, shortage, and purchasing costs.

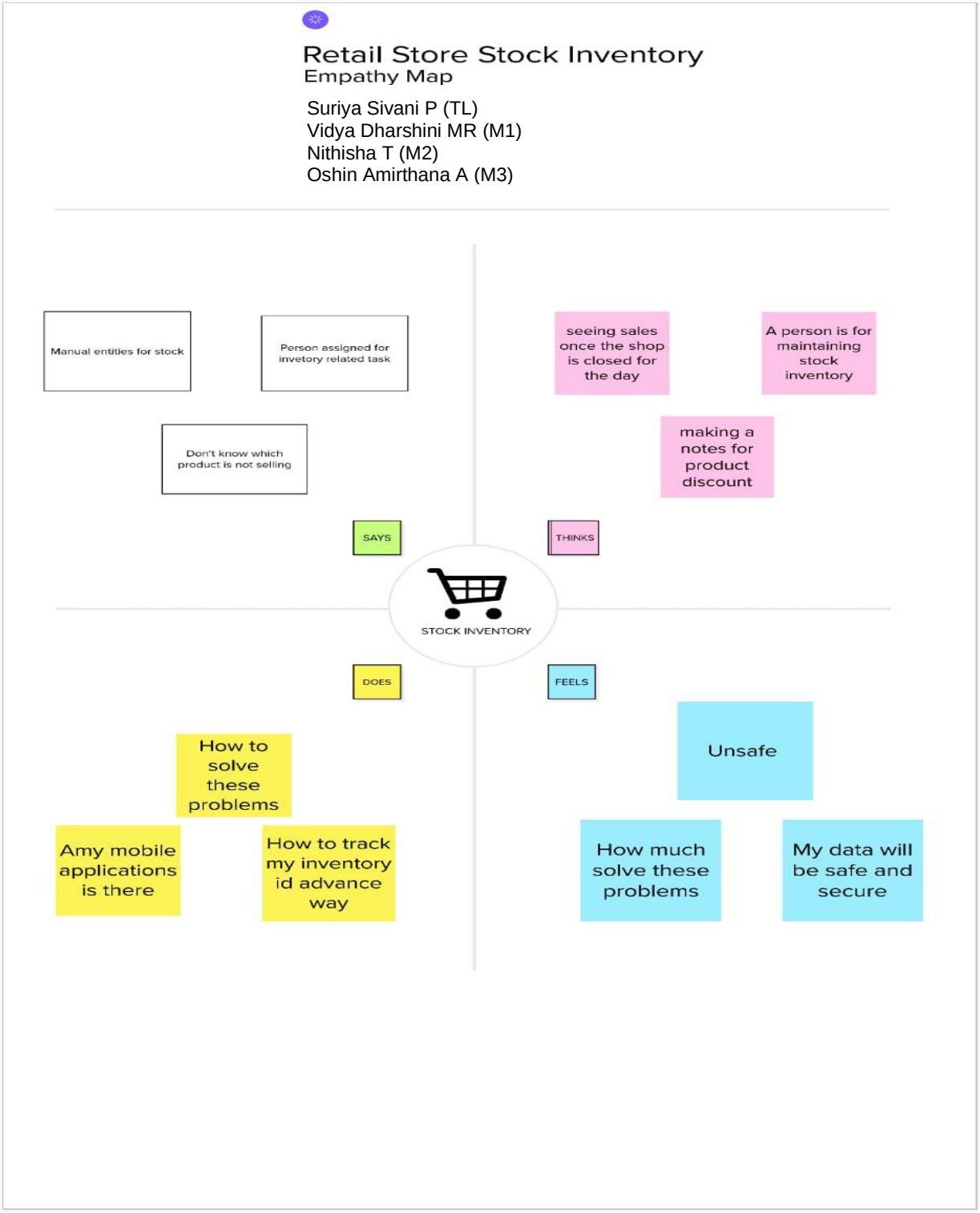
In a continuous review system, managers continuously monitor the inventory position. Whenever the inventory position falls at or below a level R, called the reorder point, the manager orders Q units, called the order quantity. (Notice that the reorder decision is based on the inventory position including orders and not the inventory level.

If managers used the inventory level, they would place orders continuously as the inventory level fell below R until they received the order.) When you receive the order after the lead-time, the inventory level jumps from zero to Q, and the cycle repeats.

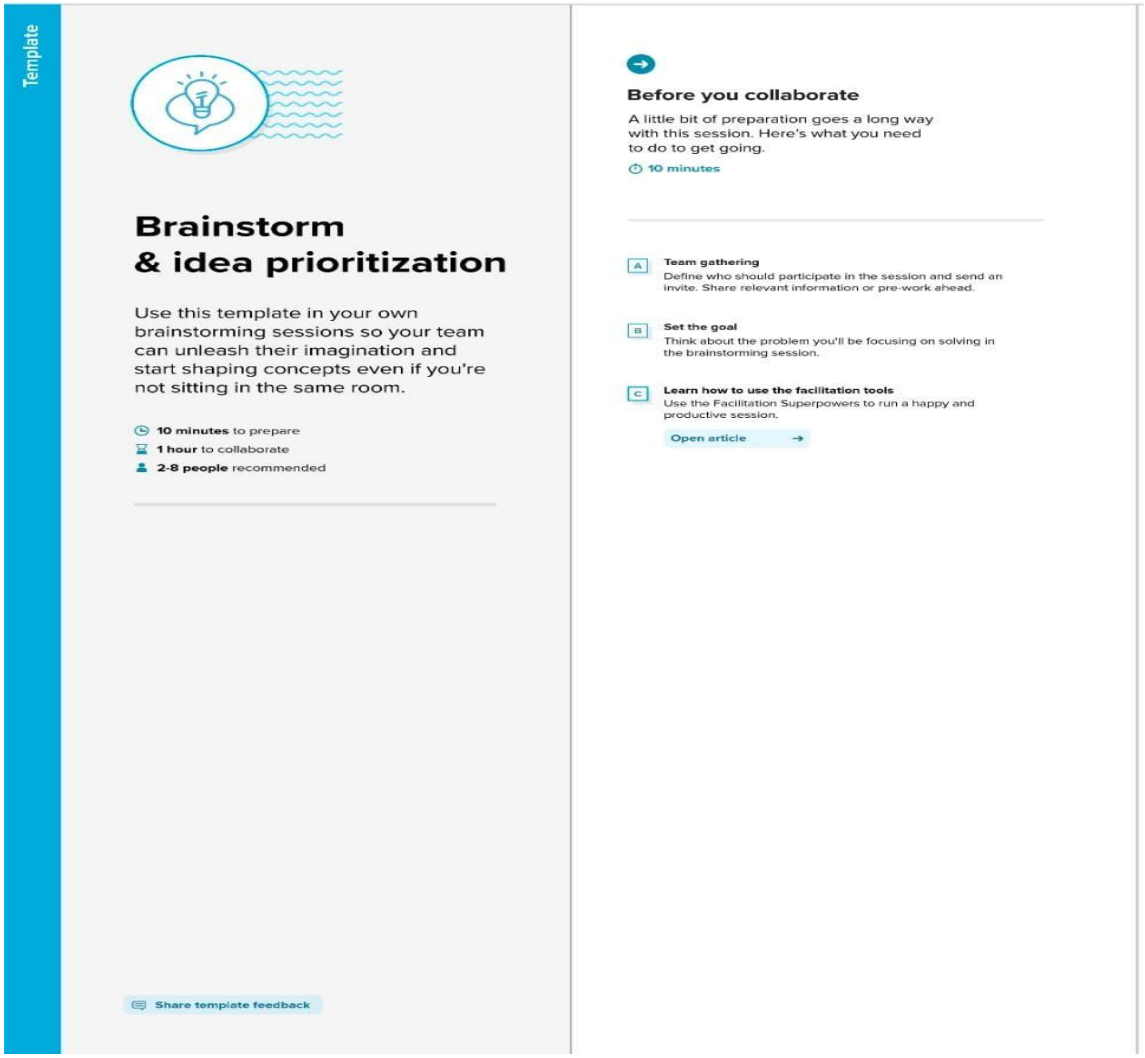
In inventory systems, demand is usually uncertain, and the lead-time can also vary. To avoid shortages, managers often maintain a safety stock. In such situations, it is not clear what order quantities and reorder points will minimize expected total inventory cost. Simulation models can address this question.

3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas



3.2 Ideation & Brainstorming



1

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⏱ 5 minutes

PROBLEM

Retailinventory is a method used in accounting to estimate the value of a **store** 's products.

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

⏱ 10 minutes

Mathava Naresh

- Implementing code
- visualize the dataset
- loading the dataset
- understand the dataset

Sanjai

- By making use of IBM cloud
- achieving a high security
- keeping up with current trends
- collecting the proper dataset

Raja

- making use of machine learning techniques
- utilising the exploration of data
- by using data mining techniques
- Knowing the project flow

Kavin Karthick

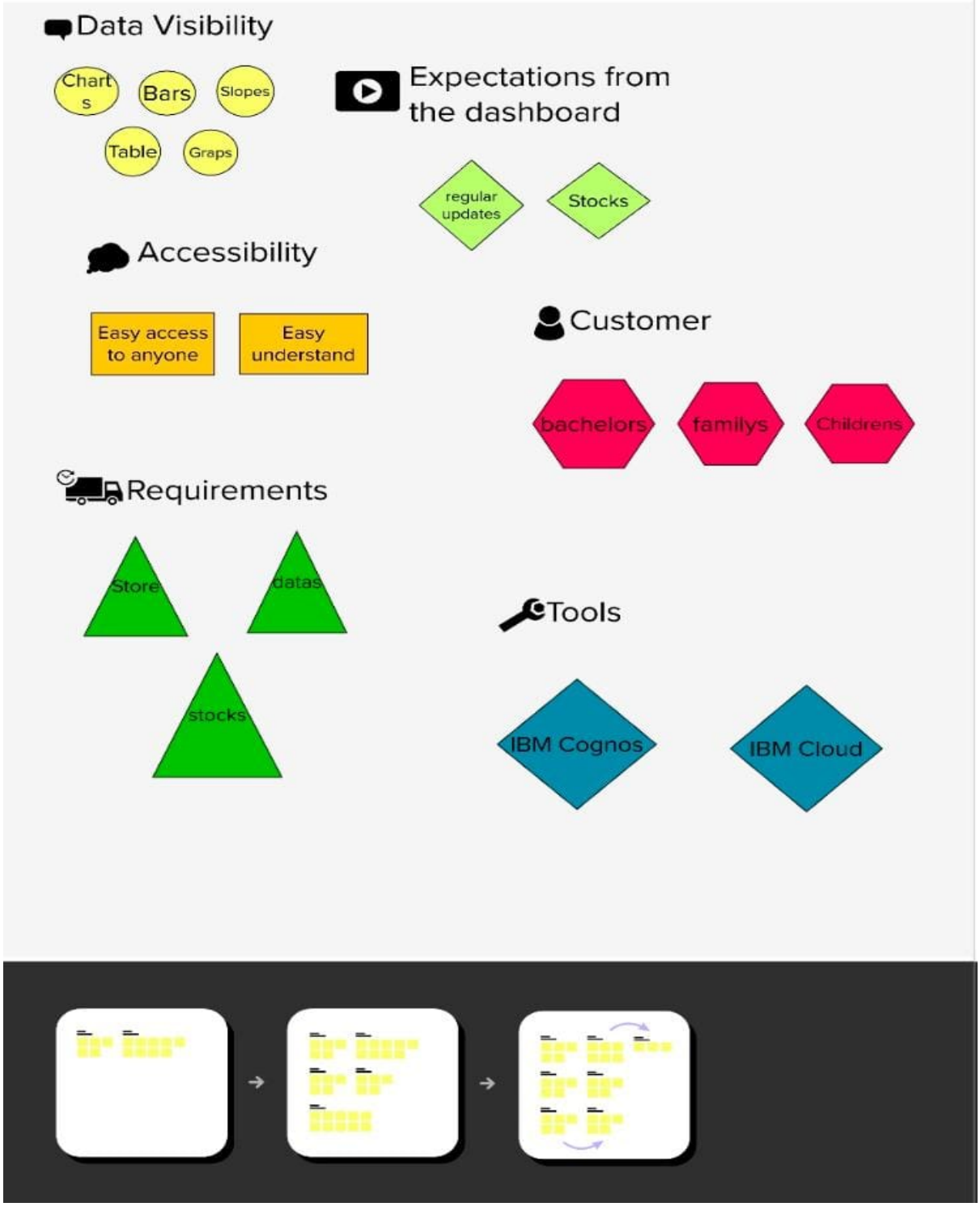
- Implementing data
- Assembling details
- Gathering data
- Using technical acticles

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

20 minutes

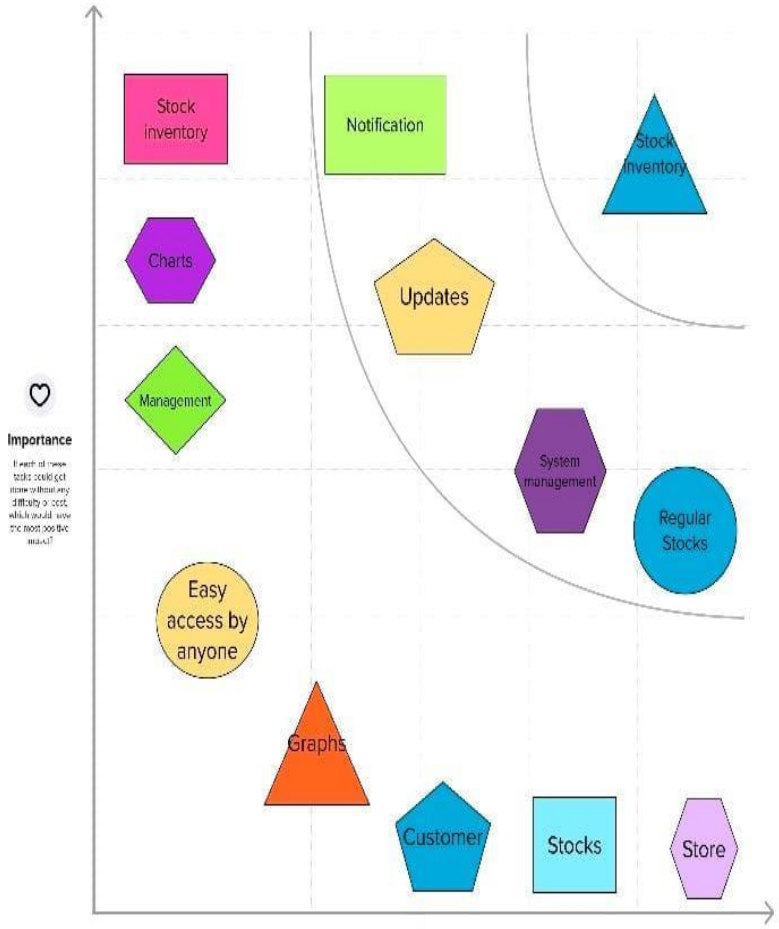


4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes



Importance

Feasibility

After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

A **Share the mural**
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.

B **Export the mural**
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

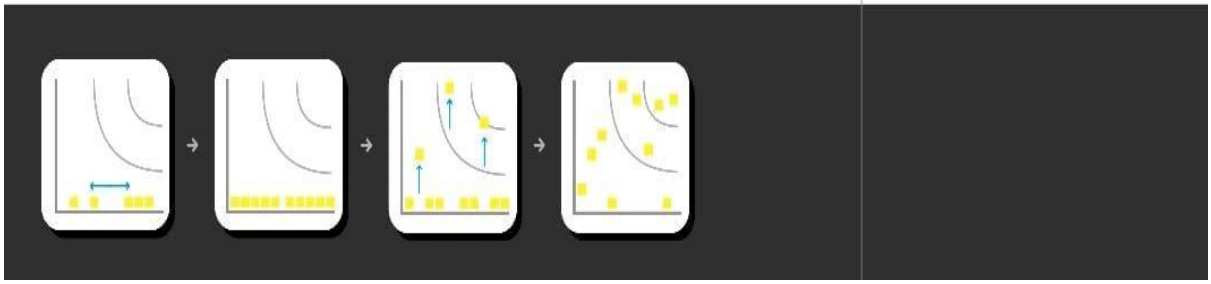
Keep moving forward

Strategy blueprint
Define the components of a new idea or strategy.
Open the template →

Customer experience journey map
Understand customer needs, motivations, and obstacles for an experience.
Open the template →

Strengths, weaknesses, opportunities & threats
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
Open the template →

Share template feedback



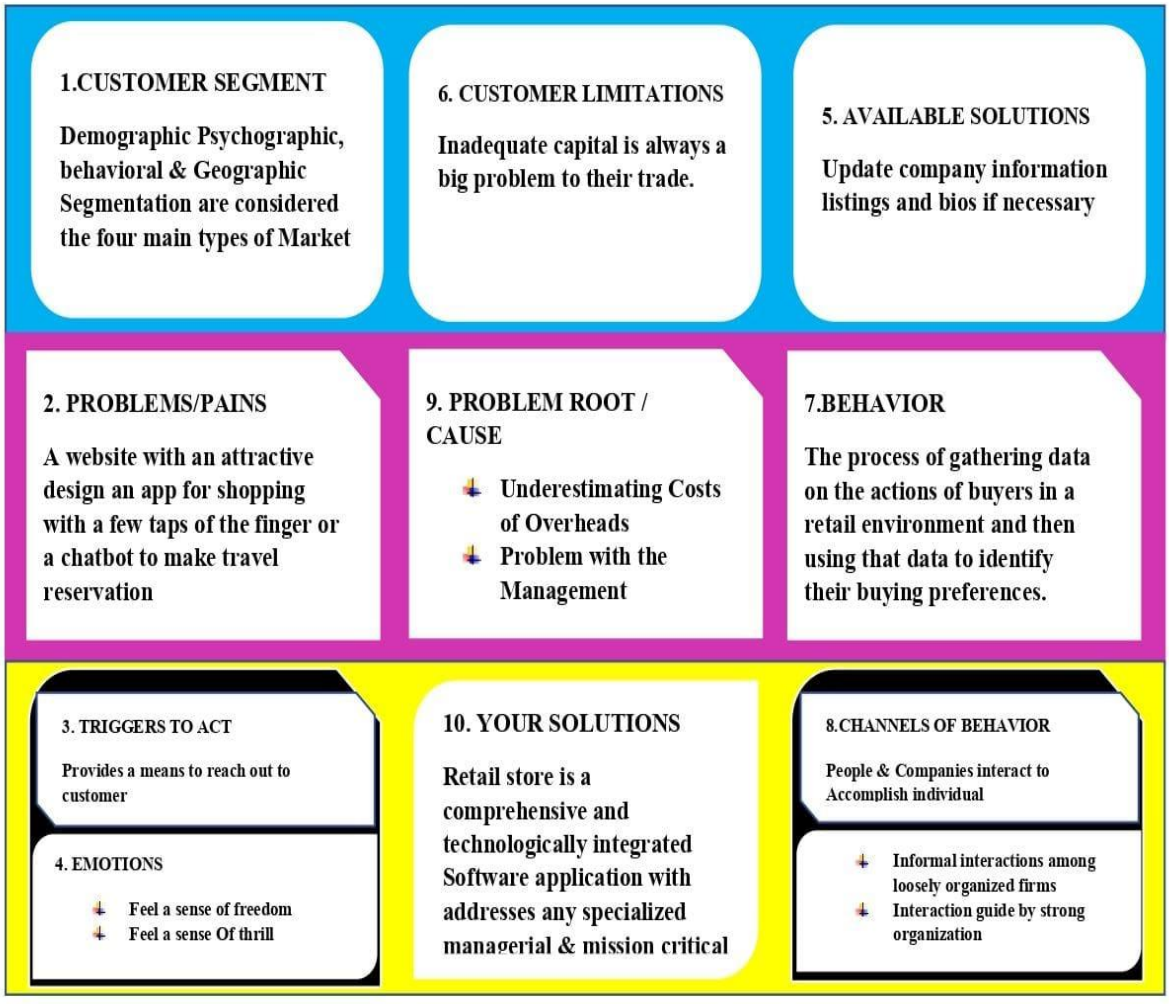
3.3 Proposed Solution

S .No	Parameter	Description
1.	Problem Statement	Naresh is a retailer facing problem on how much inventory should he carry, so that he could make happy customers and doesn't undergo capital costs due
2.	Solution description	We can simplify our accessibility issues with retail inventory management analytics. The analytics can efficiently manage the process and productivity of the team.access, which would, in turn, improve the quality of the process and productivity of the team
3.	Novelty / Uniqueness	The visualization charts can be filtered based on his requirement to get the overall sales view.
4.	Social Impact / CustomerSatisfaction	When customers get the products they want faster with fewer mistakes or out-of-stocks, it increases customer loyalty.
5.	Business Model	When the customer needs are satisfies, Retailers have generating financial income or revenue relatively. Retailers can identify which revenue source to pursue, how to price, and which kind of people going to purchase it.
6.	Scalability of the Solution	The visualization of sales data makes the retailer to estimate accurate inventory to be maintained.

3.4 Problem Solution fit

RETAIL STORE STOCK INVENTORY ANALYTICS

PROBLEM SOLUTION FIT



4. REQUIREMENT ANALYSIS

4.1 Functional requirement

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 Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Ordering	Ordering through WebsiteOrdering Through directly
FR-4	User Payment	Payment via Online Payment via offline

4.2 Non-Functional requirements

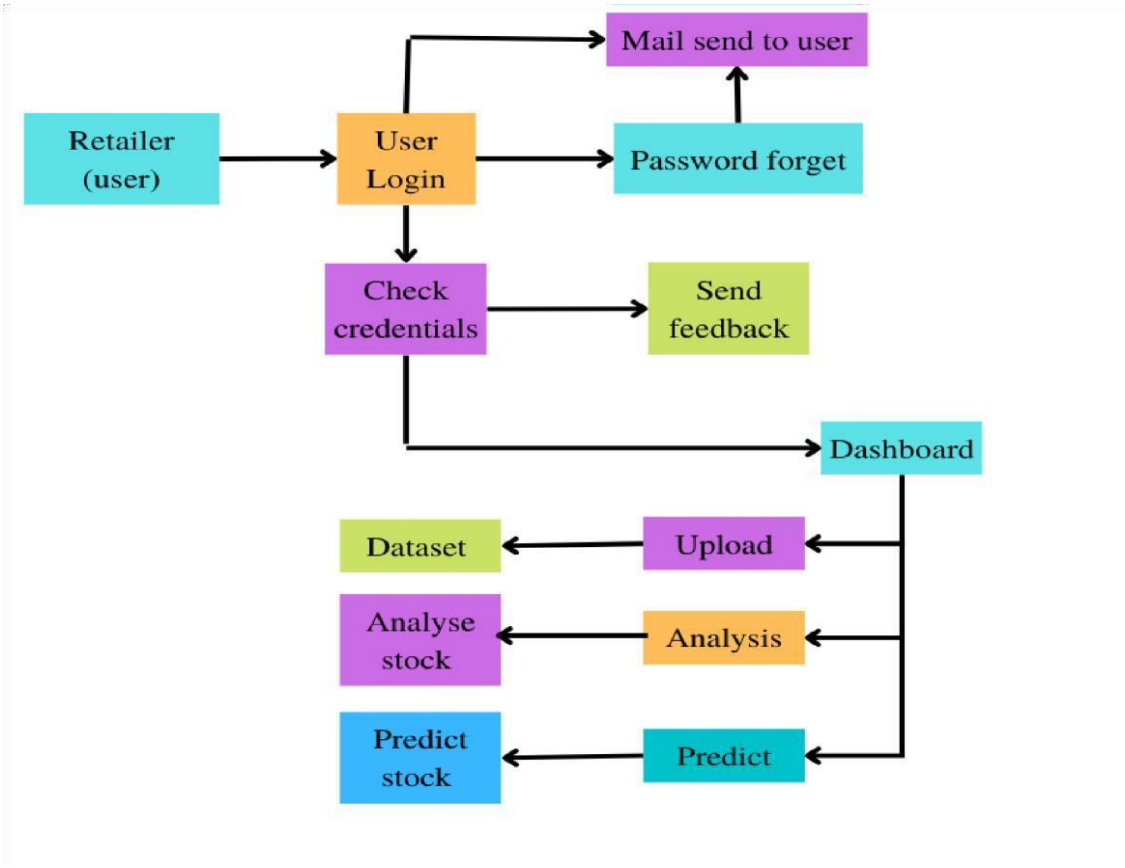
Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The customer decides where he shops and whether he uses the online store via the computer,the smartphone or a tablet. Good usability for every enddevice is essential for the shopping experience and in some cases makes the difference of whether apurchase takes place or not.
NFR-2	**Security**	The process of ensuring safety and optimum management control of stored goods.
NFR-3	**Reliability**	The understanding of customers well can drasticallyreduce churn and increase up-selling opportunities,thus increasing revenues for the company.
NFR-4	**Performance**	Inventory performance is a measure of how effectively and efficiently inventory is used andreplenished.
NFR-5	**Availability**	It represents the extent to which a company has enough inventory to fulfill customer orders

5. PROJECT DESIGN

5.1 Data Flow Diagrams

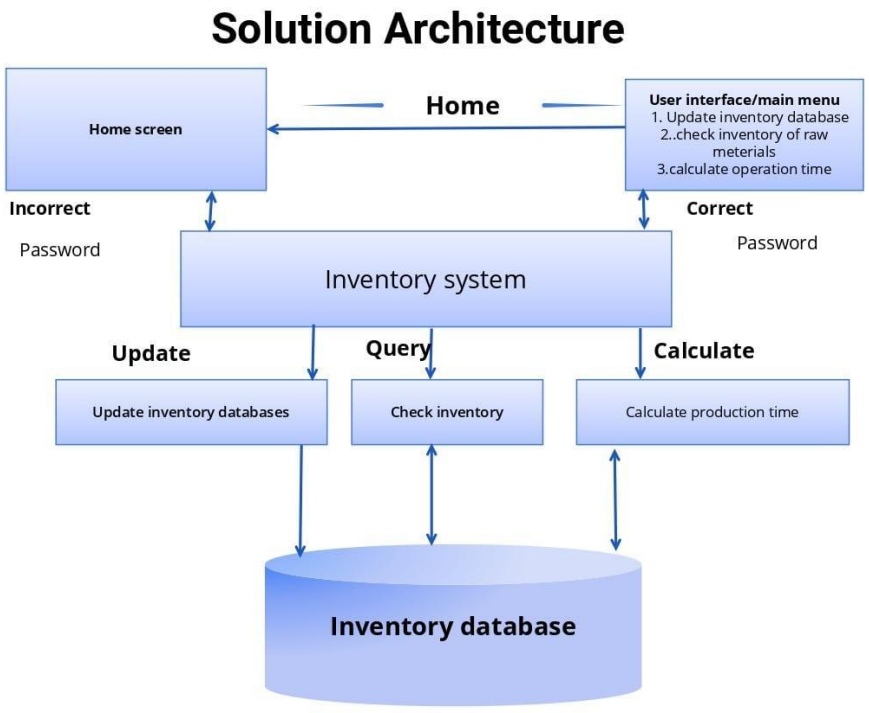
A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. Aneat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



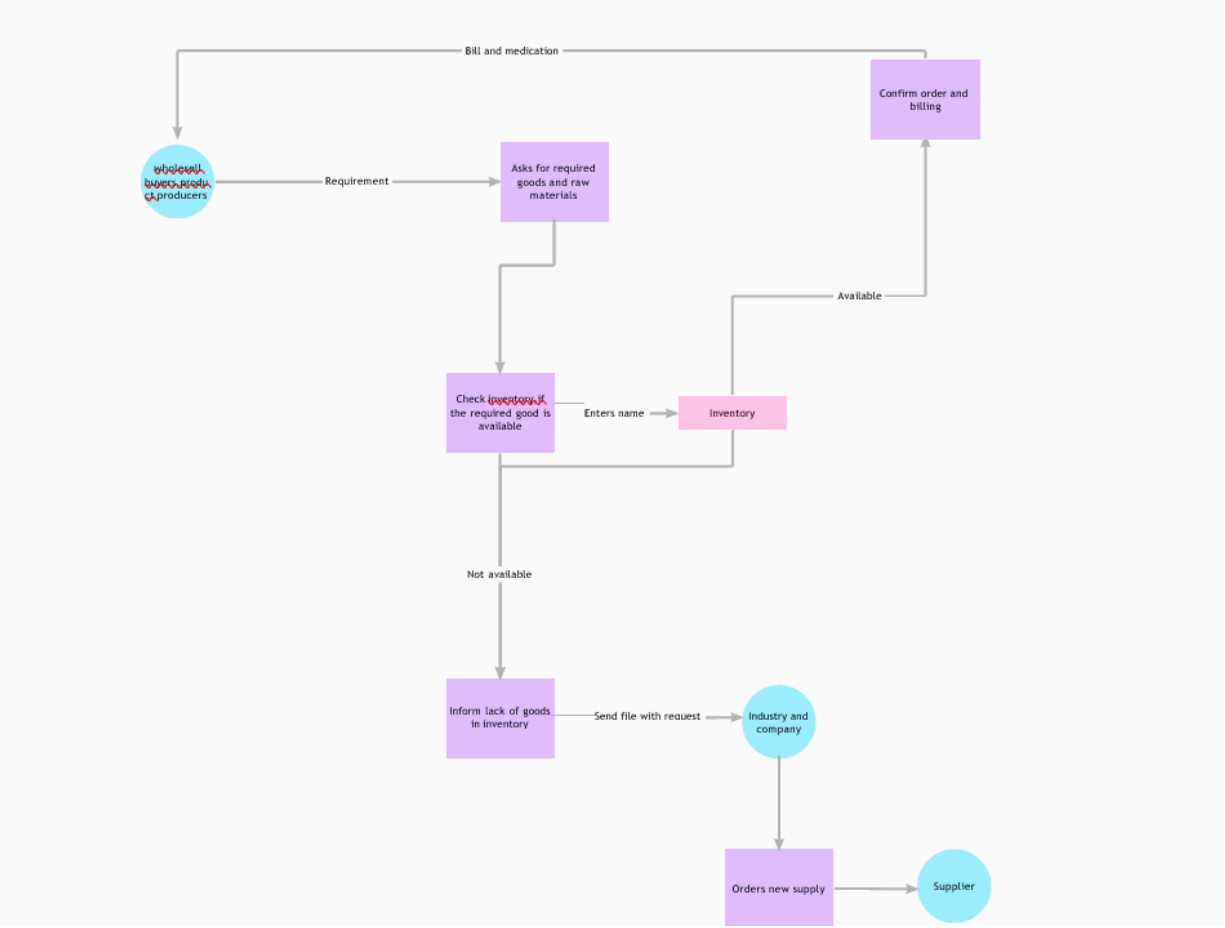
5.2 Solution & Technical Architecture

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

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software toproject stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, anddelivered.



5.3 User Stories



6. PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation

Steps to be done

Collection of data

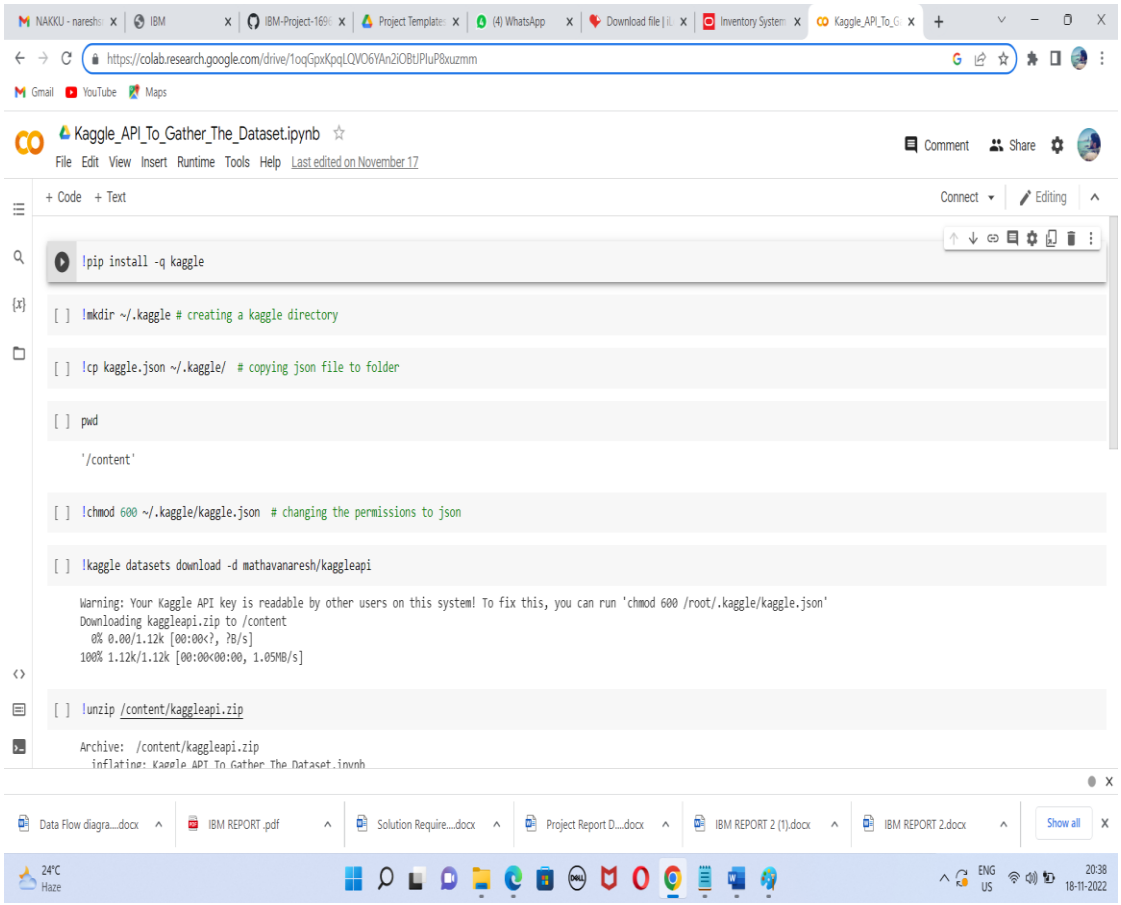
Data Processing

Upload the dataset

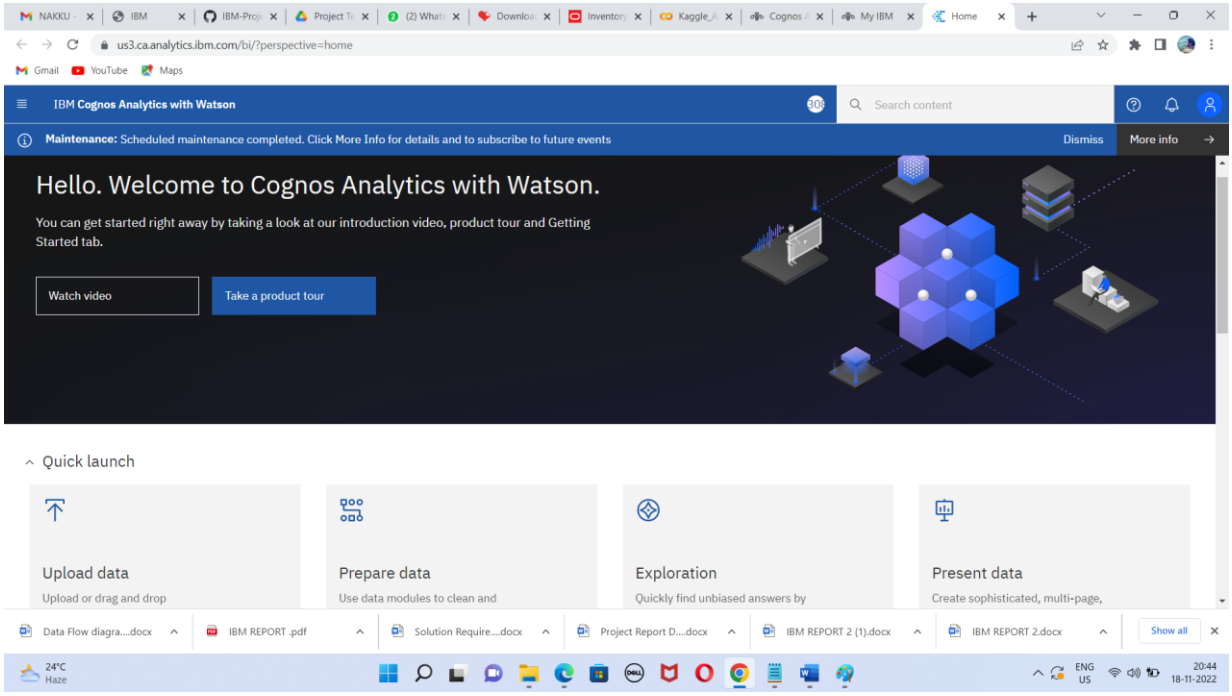
Collection of data :

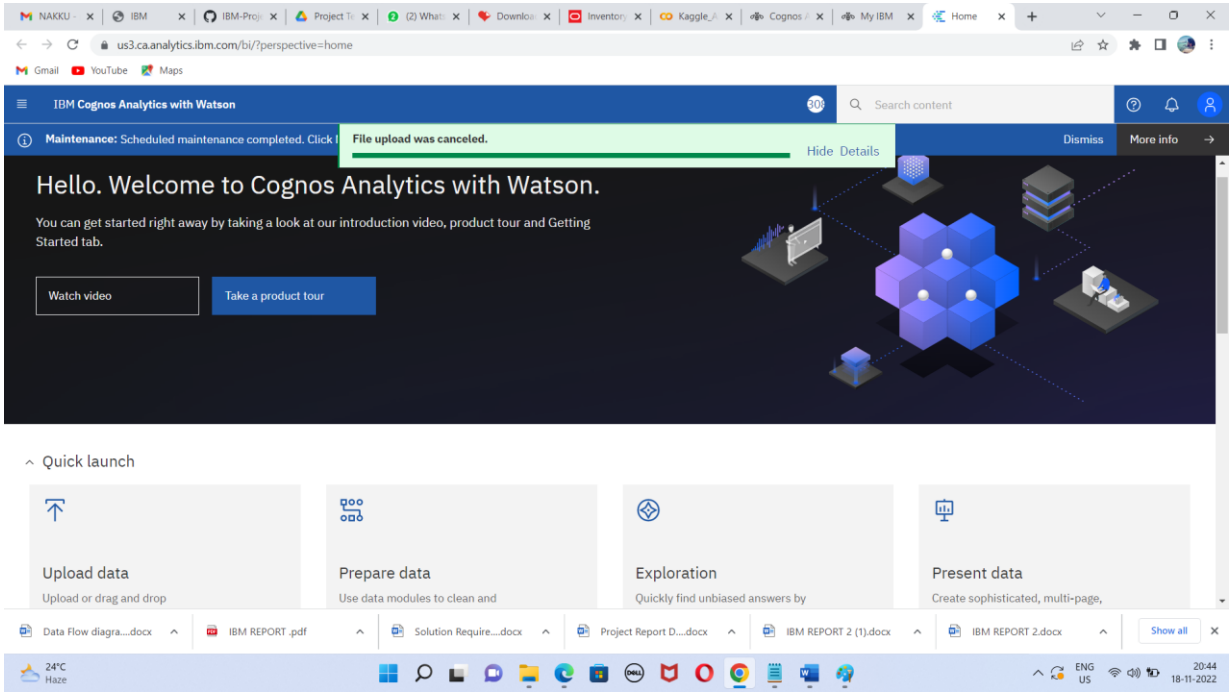
https://colab.research.google.com/drive/1oqGpxKpqLQVO6YAn2iOBtJPIuP8xuzmm

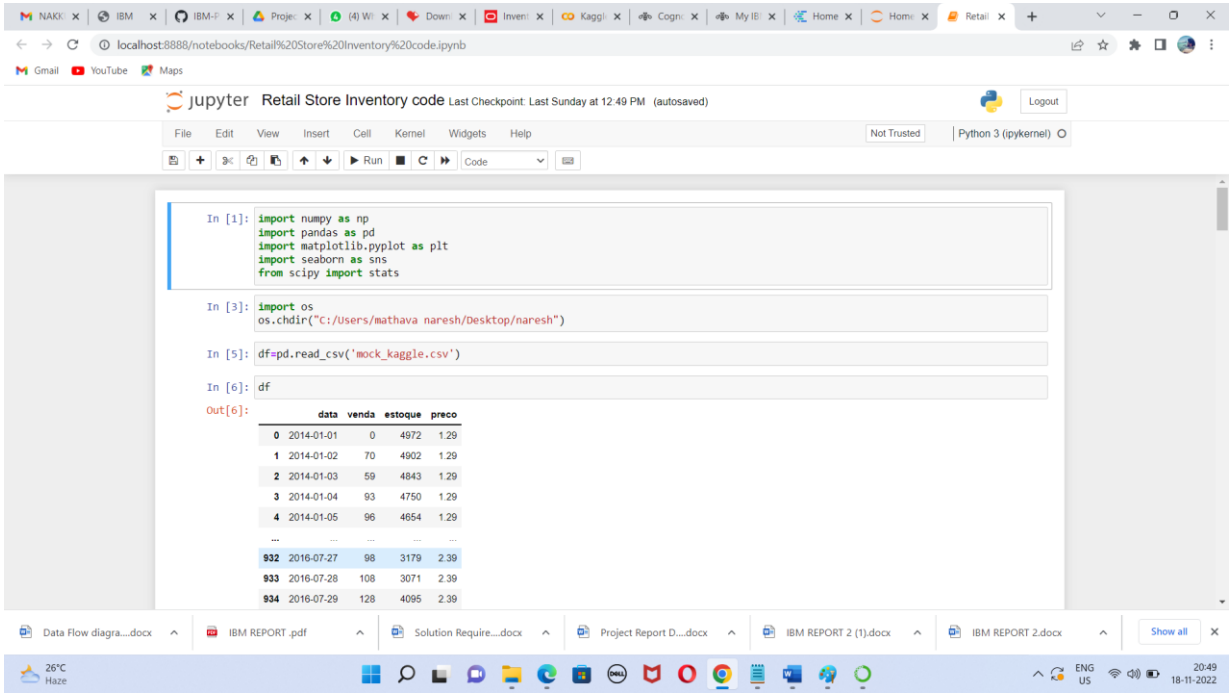
Data Processing :

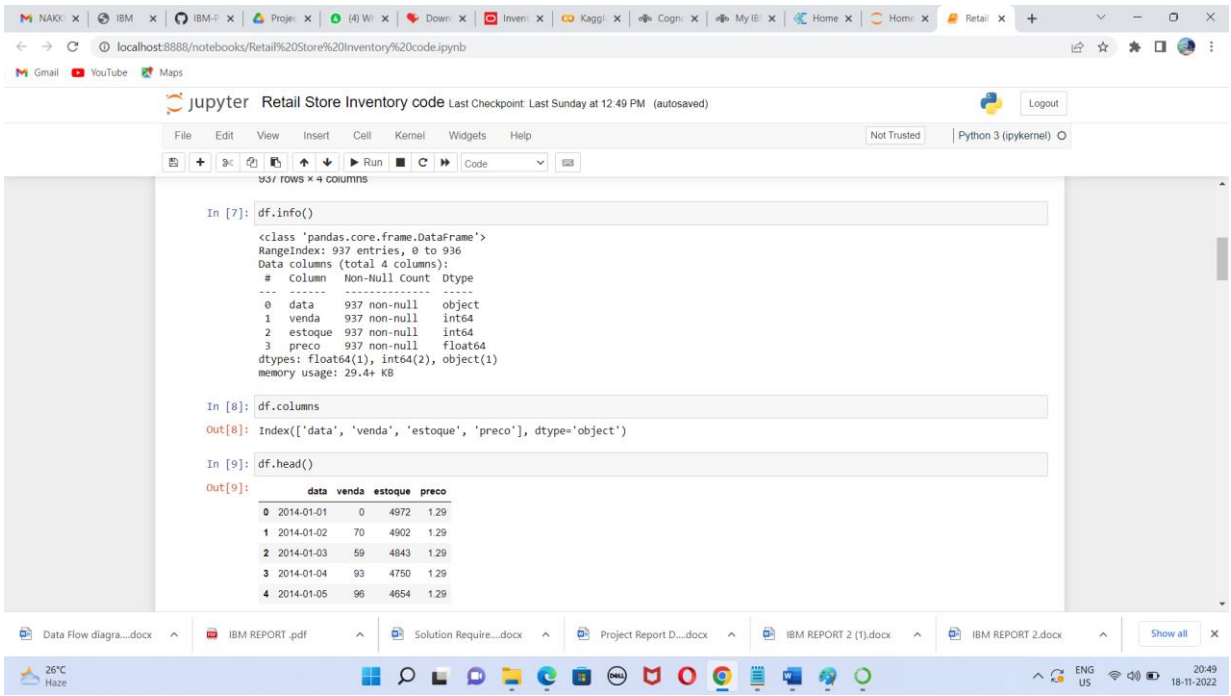


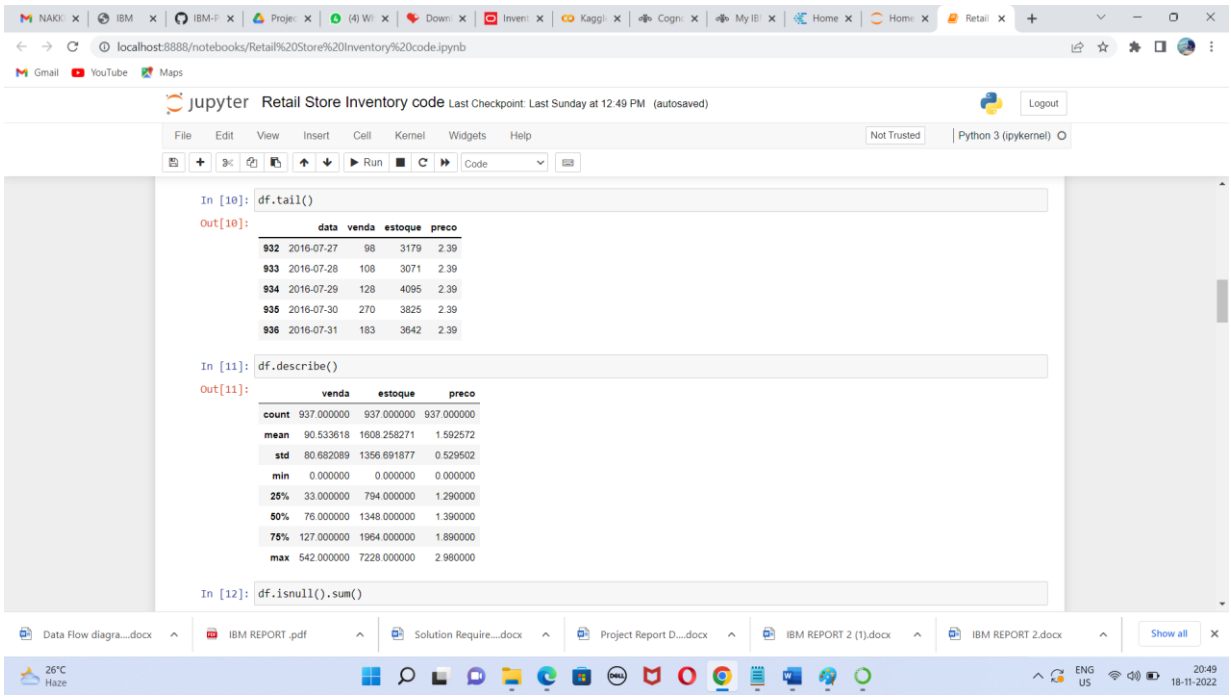
Upload the dataset :

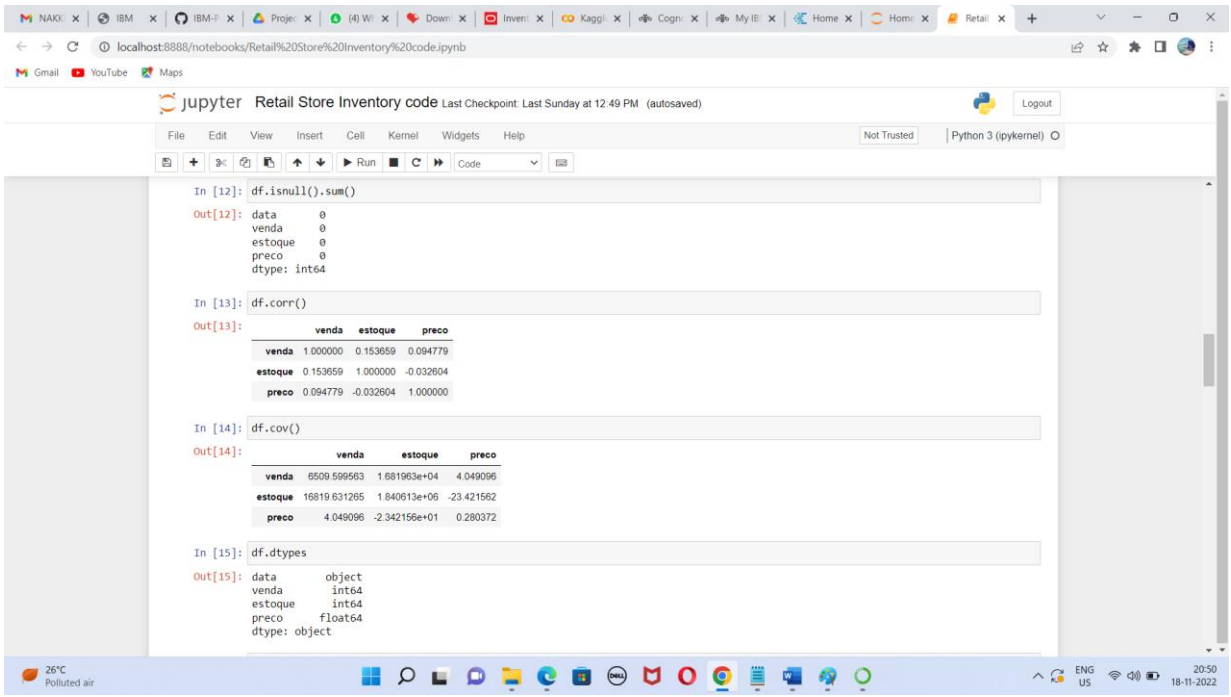


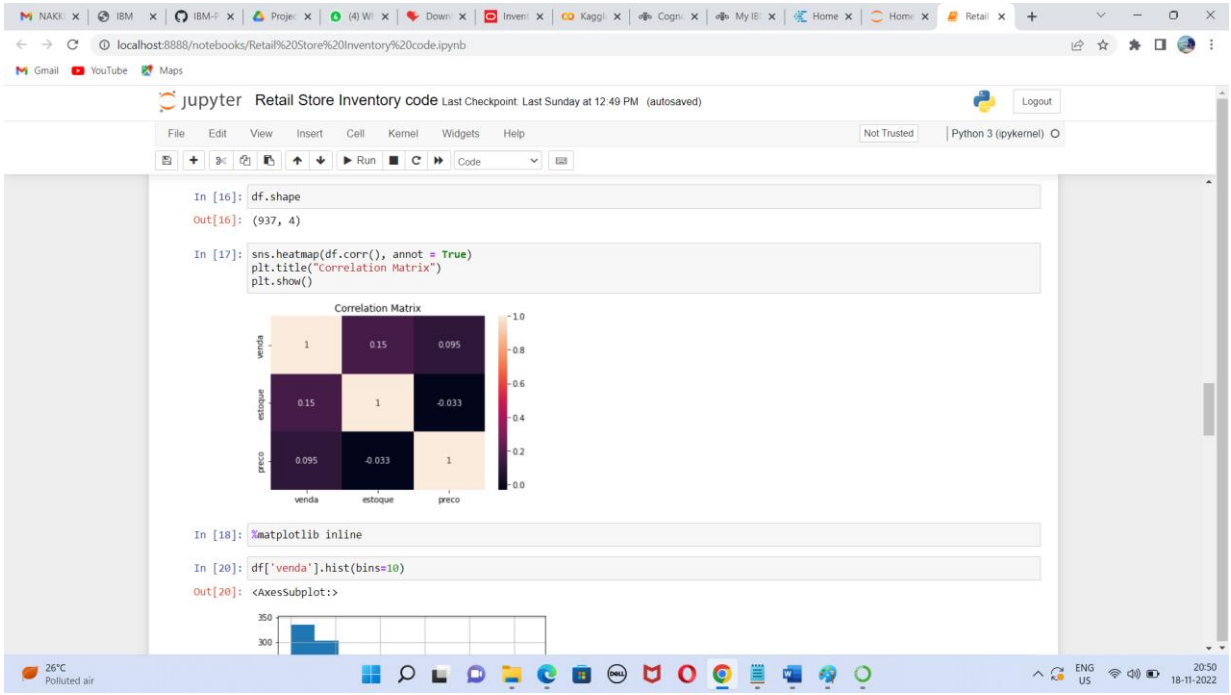


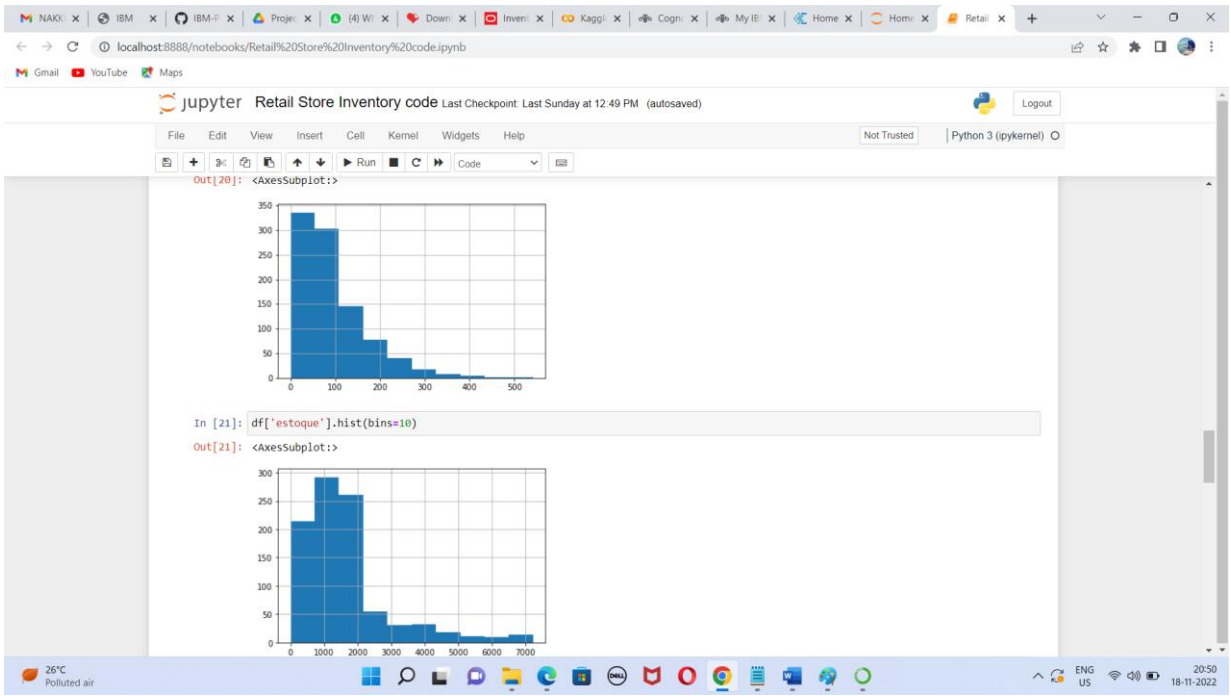

localhost:8888/notebooks/Retail%20Store%20Inventory%20code.ipynb
jupyter Retail Store Inventory code Last Checkpoint: Last Sunday at 12:49 PM (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
In [1]:
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from scipy import stats
In [3]:
import os
os.chdir("C:/Users/mathava naresh/Desktop/naresh")
In [5]:
df=pd.read_csv('mock_kaggle.csv')
In [6]:
df
Out[6]:
data venda estoque preco
0 2014-01-01 0 4972 1.29
1 2014-01-02 70 4902 1.29
2 2014-01-03 59 4843 1.29
3 2014-01-04 93 4750 1.29
4 2014-01-05 96 4654 1.29
... ...
932 2016-07-27 98 3179 2.39
933 2016-07-28 108 3071 2.39
934 2016-07-29 128 4095 2.39
Data Flow diagra....docx
IBM REPORT .pdf
Solution Require....docx
Project Report D....docx
IBM REPORT 2 (1).docx
IBM REPORT 2.docx
Show all
26°C Haze
ENG US
20:49 18-11-2022

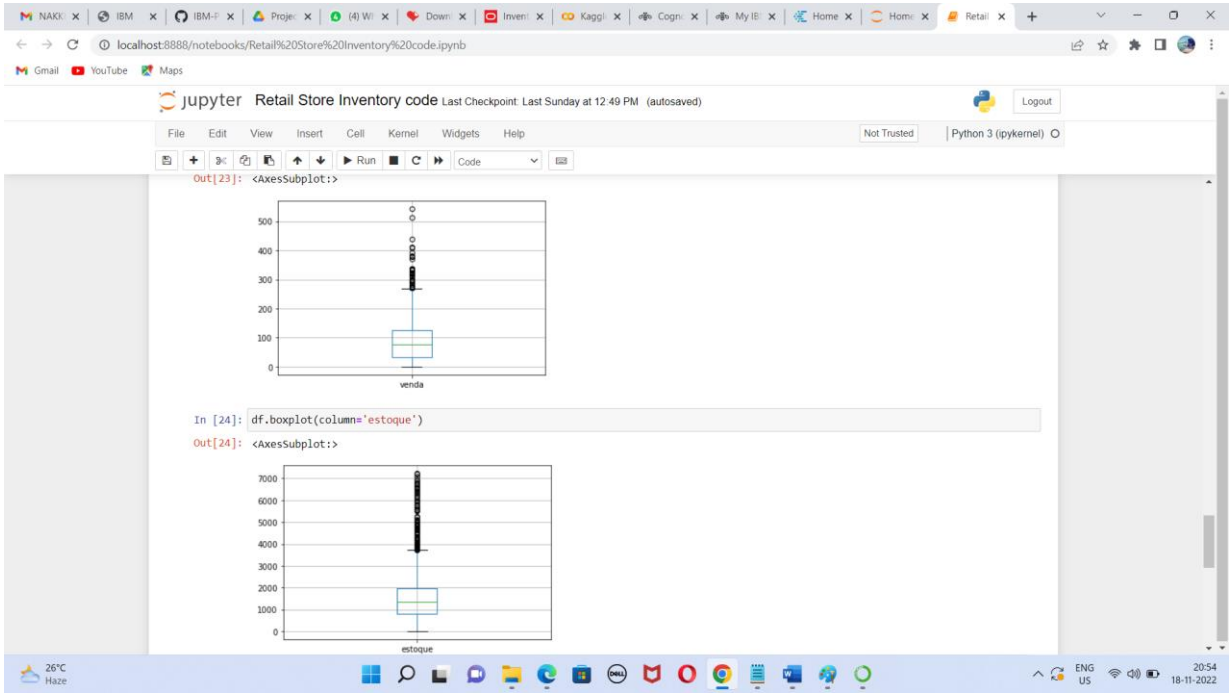

localhost:8888/notebooks/Retail%20Store%20Inventory%20code.ipynb
jupyter Retail Store Inventory code Last Checkpoint: Last Sunday at 12:49 PM (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
937 rows × 4 columns
In [7]:
df.info()
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 937 entries, 0 to 936
Data columns (total 4 columns):
Column Non-Null Count Dtype
--- ------ -------------- -----
0 data 937 non-null object
1 venda 937 non-null int64
2 estoque 937 non-null int64
3 preco 937 non-null float64
dtypes: float64(1), int64(2), object(1)
memory usage: 29.4+ KB
In [8]:
df.columns
Out[8]:
Index(['data', 'venda', 'estoque', 'preco'], dtype='object')
In [9]:
df.head()
Out[9]:
data venda estoque preco
0 2014-01-01 0 4972 1.29
1 2014-01-02 70 4902 1.29
2 2014-01-03 59 4843 1.29
3 2014-01-04 93 4750 1.29
4 2014-01-05 96 4654 1.29
Data Flow diagra....docx
IBM REPORT .pdf
Solution Require....docx
Project Report D....docx
IBM REPORT 2 (1).docx
IBM REPORT 2.docx
Show all
26°C Haze
ENG US
20:49 18-11-2022

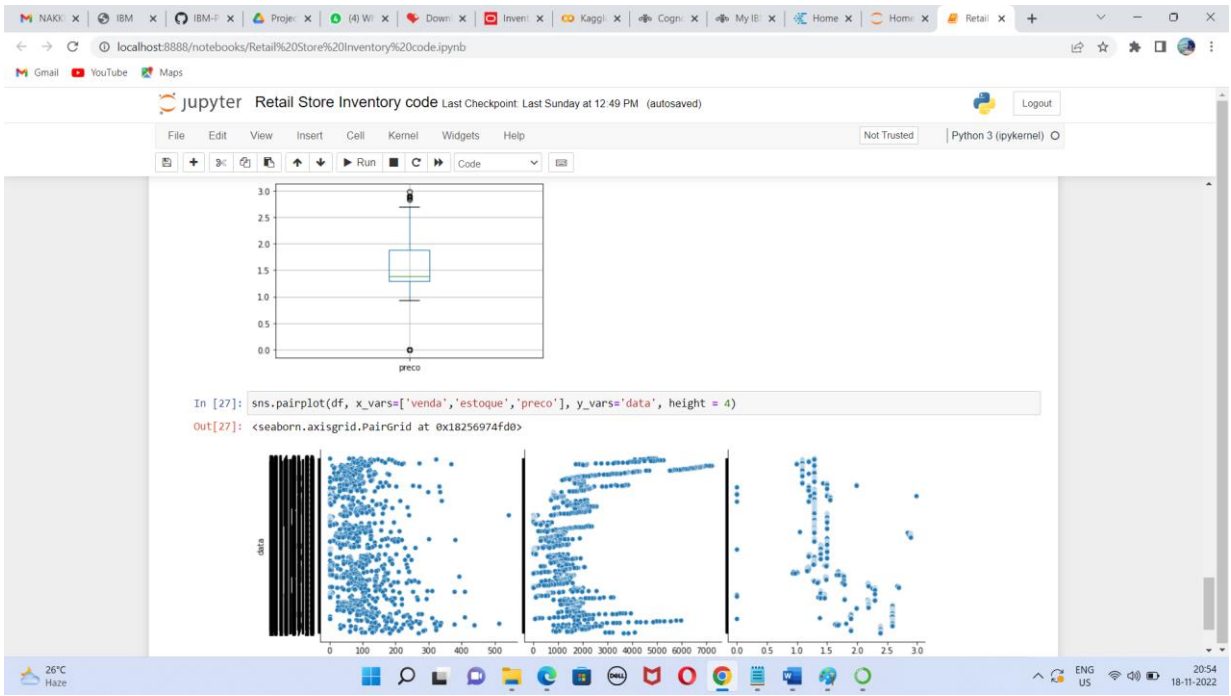

localhost:8888/notebooks/Retail%20Store%20Inventory%20code.ipynb
jupyter Retail Store Inventory code Last Checkpoint: Last Sunday at 12:49 PM (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
In [10]: df.tail()
Out[10]:
data venda estoque preco
932 2016-07-27 98 3179 2.39
933 2016-07-28 108 3071 2.39
934 2016-07-29 128 4095 2.39
935 2016-07-30 270 3825 2.39
936 2016-07-31 183 3642 2.39
In [11]: df.describe()
Out[11]:
venda estoque preco
count 937.000000 937.000000 937.000000
mean 90.533618 1608.258271 1.592572
std 80.682089 1356.691877 0.529502
min 0.000000 0.000000 0.000000
25% 33.000000 794.000000 1.290000
50% 76.000000 1348.000000 1.390000
75% 127.000000 1964.000000 1.890000
max 542.000000 7228.000000 2.980000
In [12]: df.isnull().sum()
Data Flow diagra....docx
IBM REPORT .pdf
Solution Require....docx
Project Report D....docx
IBM REPORT 2 (1).docx
IBM REPORT 2.docx
Show all
26°C Haze
ENG US
20:49 18-11-2022


localhost:8888/notebooks/Retail%20Store%20Inventory%20code.ipynb
jupyter Retail Store Inventory code Last Checkpoint: Last Sunday at 12:49 PM (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
In [12]: df.isnull().sum()
Out[12]:
data 0
venda 0
estoque 0
preco 0
dtype: int64
In [13]: df.corr()
Out[13]:
venda estoque preco
venda 1.000000 0.153659 0.094779
estoque 0.153659 1.000000 -0.032604
preco 0.094779 -0.032604 1.000000
In [14]: df.cov()
Out[14]:
venda estoque preco
venda 6509.599563 1.681963e+04 4.049096
estoque 16819.631265 1.840613e+06 -23.421562
preco 4.049096 -2.342156e+01 0.280372
In [15]: df.dtypes
Out[15]:
data object
venda int64
estoque int64
preco float64
dtype: object
26°C Polluted air
ENG US
20:50 18-11-2022


localhost:8888/notebooks/Retail%20Store%20Inventory%20code.ipynb
jupyter Retail Store Inventory code Last Checkpoint: Last Sunday at 12:49 PM (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
In [16]: df.shape
Out[16]: (937, 4)
In [17]: sns.heatmap(df.corr(), annot = True)
plt.title("Correlation Matrix")
plt.show()
Correlation Matrix
venda
estoque
preco
1
0.15
0.095
0.15
1
-0.033
0.095
-0.033
1
1.0
0.8
0.6
0.4
0.2
0.0
In [18]: %matplotlib inline
In [20]: df['venda'].hist(bins=10)
Out[20]: <AxesSubplot:>
350
300
26°C
Polluted air
ENG
US
20:50
18-11-2022

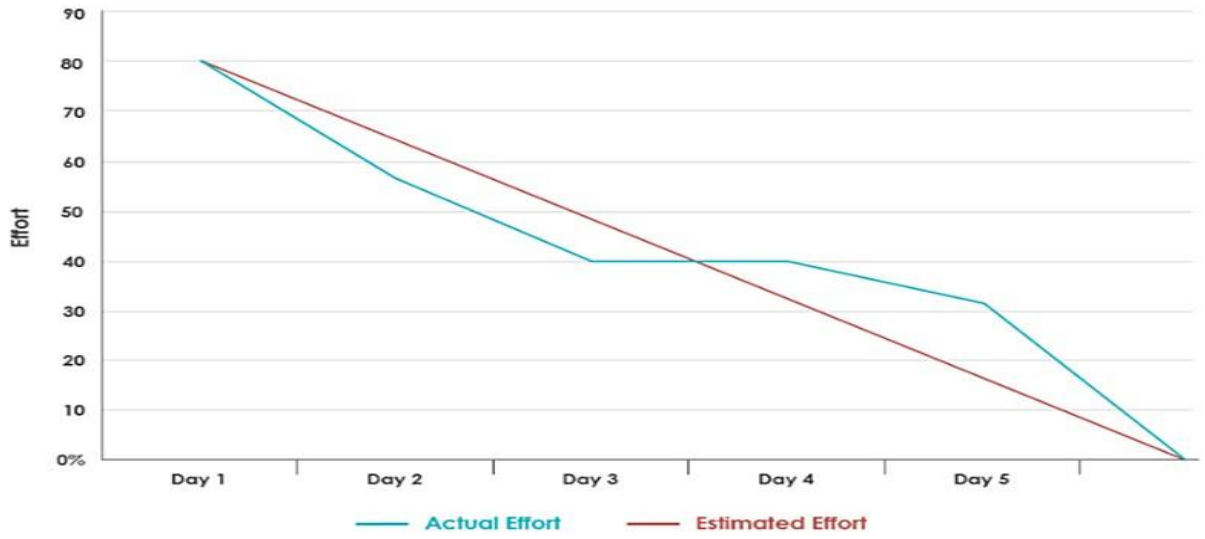

localhost:8888/notebooks/Retail%20Store%20Inventory%20code.ipynb
jupyter Retail Store Inventory code Last Checkpoint: Last Sunday at 12:49 PM (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
Out[20]: <AxesSubplot:>
350
300
250
200
150
100
50
0
0
100
200
300
400
500
In [21]: df['estoque'].hist(bins=10)
Out[21]: <AxesSubplot:>
300
250
200
150
100
50
0
0
1000
2000
3000
4000
5000
6000
7000
26°C
Polluted air
ENG
US
20:50
18-11-2022


localhost:8888/notebooks/Retail%20Store%20Inventory%20code.ipynb
jupyter Retail Store Inventory code Last Checkpoint: Last Sunday at 12:49 PM (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
Out[23]: <AxesSubplot:>
venda
In [24]: df.boxplot(column='estoque')
Out[24]: <AxesSubplot:>
estoque


localhost:8888/notebooks/Retail%20Store%20Inventory%20code.ipynb
jupyter Retail Store Inventory code Last Checkpoint: Last Sunday at 12:49 PM (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
preco
In [27]: sns.pairplot(df, x_vars=['venda','estoque','preco'], y_vars='data', height = 4)
Out[27]: <seaborn.axisgrid.PairGrid at 0x18256974fd0>
data

6.2 Sprint Delivery Schedule

In Agile product development, a sprint is a set period of time during which specific work has to be completed and made ready for review.Each sprint begins with a planning meeting. During the meeting, the product owner (the person requesting the work) and the development team agree upon exactly what work will be accomplished during the sprint. The development team has the final say when it comes to determining how much work can realistically be accomplished during the sprint, and the product owner has the final say on what criteria need to be met for the work to be approved and accepted.The duration of a sprint is determined by the scrum master, the team's facilitator and manager of the Scrum framework. Once the team reaches aconsensus for how many days a sprint should last, all future sprints should be the same. Traditionally, a sprint lasts 30 days.After a sprint begins, the product owner must step back and let the team do their workThe project owner may not make requests for changes during a sprint and only the scrum master or project manager has the power tointerrupt or stop the sprint.



6.3 Reports from JIRA

The Jira is very useful for creating milestones which shows the project sprint timelines clearly; the sprints are planned and completed within the given time limit.

7. CODING & SOLUTIONING

7.1 Feature 1

Dataset from External API are uploaded and DB is created using IBM cloud.Then Dashboard, Story, Report is created using the external API imported dataset and the IBMDB2 cloud database is used to create the dashboard, story, report.

7.2 Feature 2

Embedded Dashboard, Story, Report is created using the external API imported dataset and the IBMDB2 cloud database is used to create the embedded dashboard, story, report.

7.3 Database Schema

The database schema is for retailDB2 connection of the data server.

8. TESTING

8.1 Test Cases

The test case is to download the dataset from an external API and connect DB2 connectivity.Create a dashboard,report and story.Embed the dashboard, report and story to a simple html.Create an web app and embed the dashboard,report and story which you have created.

8.2 User Acceptance Testing

The test case report and UAT Execution & Report Submission are created.The test case report consists of feature type, component, test scenario, prerequisite, steps to execute, test data,expected result, actual result, status, comments, TC for automation, bug ID and executed by columns.UAT Execution &Report Submission consists of purpose of document, defect analysis and test case analysis.

9. RESULTS

9.1 Performance Metrics

The Performance testing consists of dashboard design, data responsiveness, amount of data to be rendered from the utilisation of data filters, effective user story and descriptivereport.

Test Case Analysis

Section	Test Cases	Not Tested	Fail	Pass
Dataset	5	0	0	5
Dashboard	8	0	0	8
Report	2	0	0	2
Story	5	0	0	5
Embed dashboard, report and story in simple .html file	15	0	0	15
Embed dashboard, report and story in web app	25	0	0	25

10. ADVANTAGES & DISADVANTAGES

Advantages

Easy access to market - in many ways the access to market for entrepreneurs has never been easier. Online marketplaces suchas eBay and Amazon allow anyone to set up a simple online shop and sell products within minutes. See selling through online marketplaces.Reduced overheads - selling online can remove the need for expensive retail premises and customer- facing staff, allowing you to invest in better marketing and customer experience on your e-

commerce site.

Potential for rapid growth - selling on the internet means traditional constraints to retail growth - eg finding and payingfor larger - are not major factors.. Widen your market / export - one major advantage over premises-based retailers is the ability to expand your market beyond local customers very quickly.

Disadvantages

Legal issues – getting to grips with e-commerce and the law can be a challenge and you'll need to be aware of, and plan to cope with, the additional customer rights which are attached to online sales. See the law and selling online.Advertising costs – while online marketing can be a very efficient way of getting the right customers to your products, it demands a generous budget. This is especially true if you are competing in a crowded sector or for popular keywords. See pay-per-click and paid search advertising.Customer trust – it can be difficult to establish a trusted brand name, especially without a physical business witha track record and face-to-face interaction between customers and sales staff. You need to consider the costs of setting up a good customer service system as part of your online offering. See manage your customer service.

11. CONCLUSION

For the success of the program, the managers of the retail stores must formulate a modern way of managing the inventory by instituting electronic systems to take care of the resources of the company. This ensures that they can be accounted for and there are proper records available all the time for reference to be madewhen the need arises. Besides, the retail management system is necessary for ensuring that there is accountability in the way the company handles its stock. It helps in saving time. Retail companies have acquired

significant importance within several countries due to their high economic contribution. Therefore, the need to analyse their KPIs becomes highly significant, as well astheir different systems, methodologies, and tools used within inventory management and optimization. From the aspects mentioned above, the main trends in inventory management.

12.FUTURE SCOPE

The enhanced version of the web application is created using theupdated dashboard, report and story using the updated dataset and with better DB connectivity.

13. APPENDIX

Source Code

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">

  <title>Retail Store Stock Inventory Analytics - Index</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 -->
  <link
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,6
00i,700,700i|Jost:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:300,300i
,400,400i,500,500i,600,600i,700,700i" rel="stylesheet">
```

```
  <!-- Vendor CSS Files -->
  <link href="assets/vendor/aos/aos.css" rel="stylesheet">
  <link href="assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
  <link href="assets/vendor/bootstrap-icons/bootstrap-icons.css"
rel="stylesheet">
  <link href="assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">
  <link href="assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">
  <link href="assets/vendor/remixicon/remixicon.css" rel="stylesheet">
  <link href="assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">

  <!-- Template Main CSS File -->
  <link href="assets/css/style.css" rel="stylesheet">

  <!-- =======================================================

  ======================================================= -->
</head>

<body>

  <!-- ======= Header ======= -->
  <header id="header" class="fixed-top ">
    <div class="container d-flex align-items-center">

      <h1 class="logo me-auto"><a href="index.html">Retail Store Stock
Inventory Analytics</a></h1>
      <!-- Uncomment below if you prefer to use an image logo -->
      <!-- <a href="index.html" class="logo me-auto"><img
src="assets/img/logo.png" alt="" class="img-fluid"></a>-->

      <nav id="navbar" class="navbar">
        <ul>
          <li><a class="nav-link scrollto active" href="#hero">Home</a></li>
          <li><a class="nav-link scrollto" href="#about">About</a></li>
          <li><a class="nav-link scrollto" href="#services">Dashboard</a></li>
          <li><a class="nav-link   scrollto" href="#portfolio">Report</a></li>
          <li><a class="nav-link scrollto" href="#team">Story</a></li>

          <li><a class="nav-link scrollto" href="#contact">Contact</a></li>
          <li><a class="getstarted scrollto" href="#about">Get Started</a></li>
        </ul>
        <i class="bi bi-list mobile-nav-toggle"></i>
      </nav><!-- .navbar -->

    </div>
  </header><!-- End Header -->

  <!-- ======= Hero Section ======= -->
```

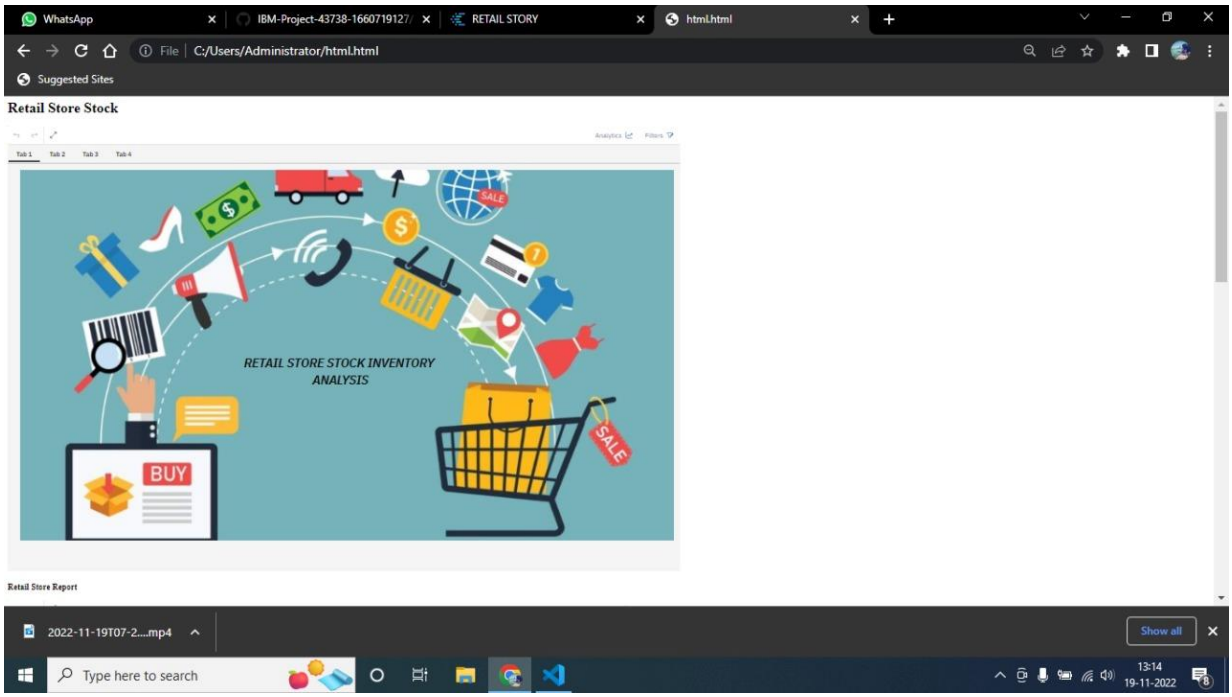
```
  <section id="hero" class="d-flex align-items-center">

    <div class="container">
      <div class="row">
        <div class="col-lg-6 d-flex flex-column justify-content-center pt-4 pt-
lg-0 order-2 order-lg-1" data-aos="fade-up" data-aos-delay="200">
          <h1>Better Analytics of your Retail Inventory</h1>
          <h2>Overview of your Stock</h2>
          <div class="d-flex justify-content-center justify-content-lg-start">
            <a href="#about" class="btn-get-started scrollto">Get Started</a>
          </div>
        </div>
        <div class="col-lg-6 order-1 order-lg-2 hero-img" data-aos="zoom-in"
data-aos-delay="200">
          <img src="assets/img/hero-img.png" class="img-fluid animated" alt="">
        </div>
      </div>
    </div>

  </section><!-- End Hero -->

  <main id="main">

    <!-- ======= Clients Section ======= -->
    <section id="clients" class="clients section-bg">
      <div class="container">



      </div>
    </section><!-- End Cliens Section -->

    <!-- ======= About Us Section ======= -->
    <section id="about" class="about">
      <div class="container" data-aos="fade-up">

        <div class="section-title">
          <h2>About Us</h2>
        </div>

        <div class="row content">
          <div class="col-lg-6">
            <p>
              Here you can find the sales, stock, year and price of the
products you handle and can Analytics their sales
              by
              </p>
              <ul>
```

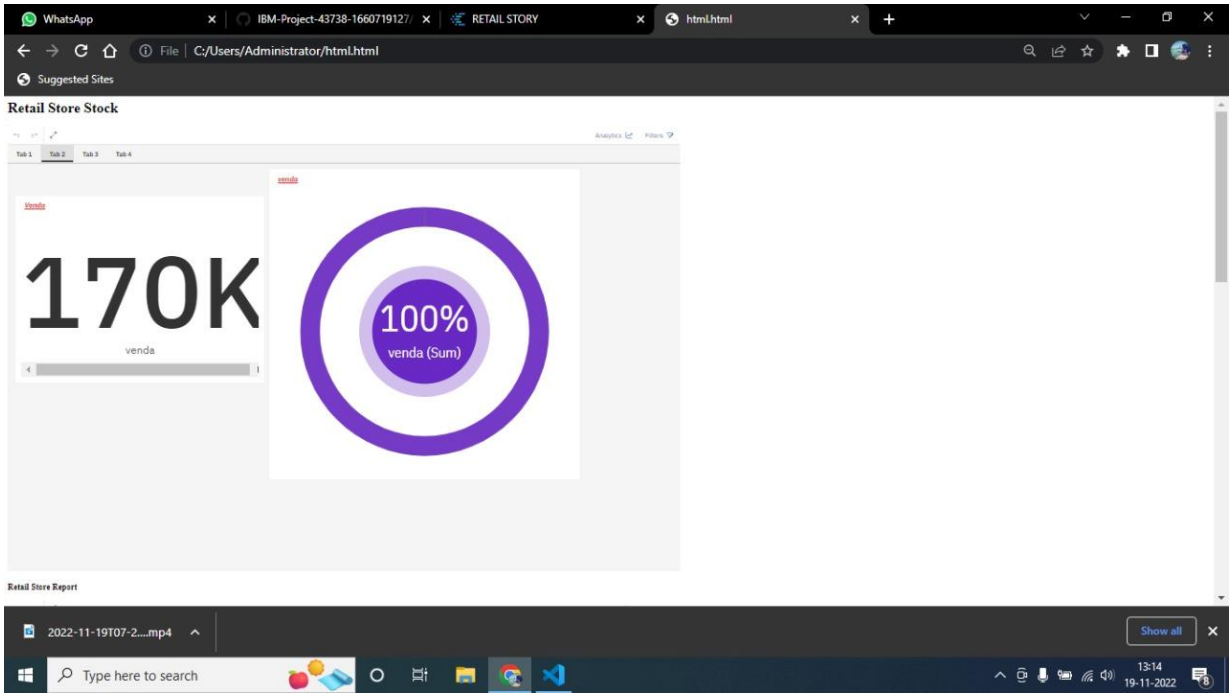
```
              <li><i class="ri-check-double-line"></i>Dashboard which shows the
overview, sales and the price </li>
              <li><i class="ri-check-double-line"></i>Report which shows the
sales result and the sales greater than 350</li>
              <li><i class="ri-check-double-line"></i>Story shows the overview
and the Sales</li>
            </ul>
          </div>
          <div class="col-lg-6 pt-4 pt-lg-0">
            <p>
              Dashboard which shows the overview, sales and the price.Report
which shows the sales result and the sales greater than 350.
              Story shows the overview and the Sales are shown below
            </p>

          </div>
        </div>

      </div>
    </section><!-- End About Us Section -->


    <!-- ======= Dashboard Section ======= -->
    <section id="services" class="services section-bg">
      <div class="container" data-aos="fade-up">

        <div class="section-title">
          <h2>Dashboard</h2>
        </div>
        <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pathRef=.my
_folders%2FAMAAIBMDB2&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui
_navbar=false&amp;shareMode=embedded&amp;action=view&amp;mode=dashboard&amp;sub
View=model000001848e49fda5_00000000" width="1500" height="1000" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>



      </div>
    </section><!-- End Dashboard Section -->

    <!-- ======= Team Members Section ======= -->
    <section id="cta" class="cta">
      <div class="container" data-aos="zoom-in">

        <div class="row">
          <div class="col-lg-9 text-center text-lg-start">
            <h3>Team Members
              <ul>
```

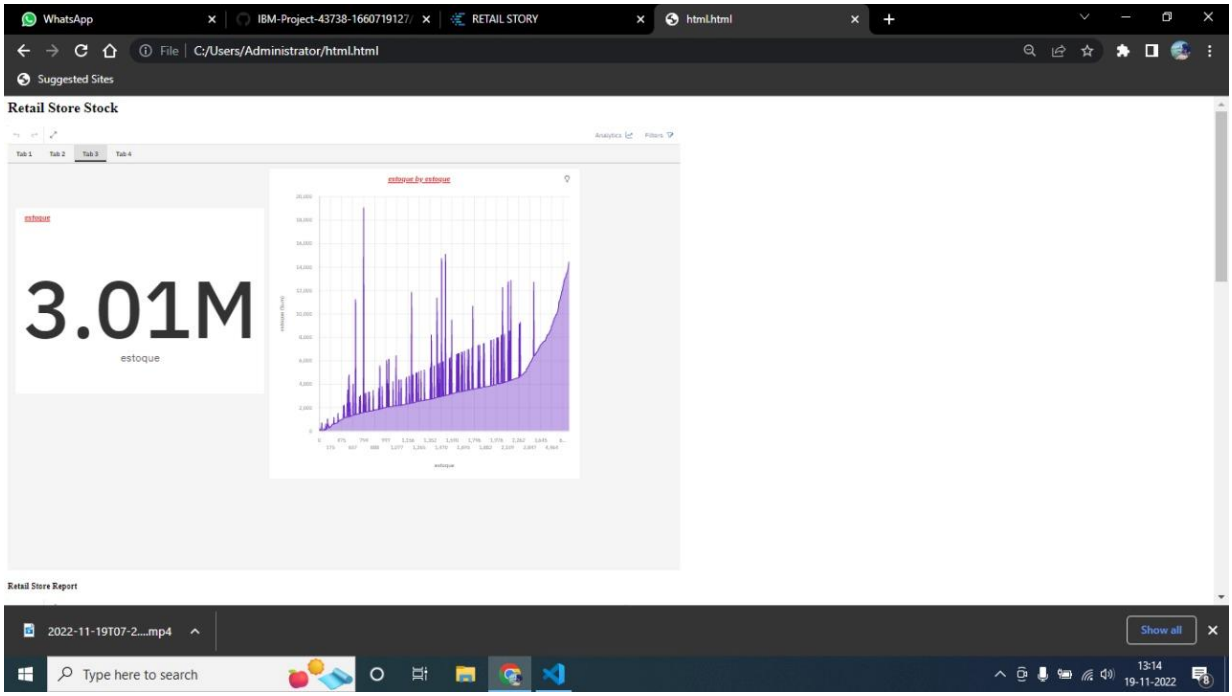
```
                <li>Mathava Naresh</li>
                <li>Sanjai</li>
                <li>Raja</li>
                <li>Kavin Karthick</li>
              </ul>
            </h3>

          </div>

        </div>

      </div>
    </section><!-- Team Members Section -->

    <!-- ======= Report Section ======= -->
    <section id="portfolio" class="portfolio">
      <div class="container" data-aos="fade-up">

        <div class="section-title">
          <h2>Report</h2>
        </div>
        <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pathRef=.my
_folders%2FRETAIL%2BSTORE%2BREPORT&amp;closeWindowOnLastView=true&amp;ui_appbar
=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;mode=dash
board&amp;subView=model000001848e564a1a_00000000" width="1500" height="1000"
frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>

      </div>
    </section><!-- End ReportSection -->

    <!-- ======= Story Section ======= -->
    <section id="team" class="team section-bg">
      <div class="container" data-aos="fade-up">

        <div class="section-title">
          <h2>Story</h2>
        </div>
        <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.my_fol
ders%2FRETAIL%2BSTORY&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui
_navbar=false&amp;shareMode=embedded&amp;action=view&amp;sceneId=model000001848
e7b3e44_00000000&amp;sceneTime=0" width="1500" height="1000" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
      </div>
    </section><!-- End Story Section -->

    <!-- ======= Pricing Section ======= -->
```

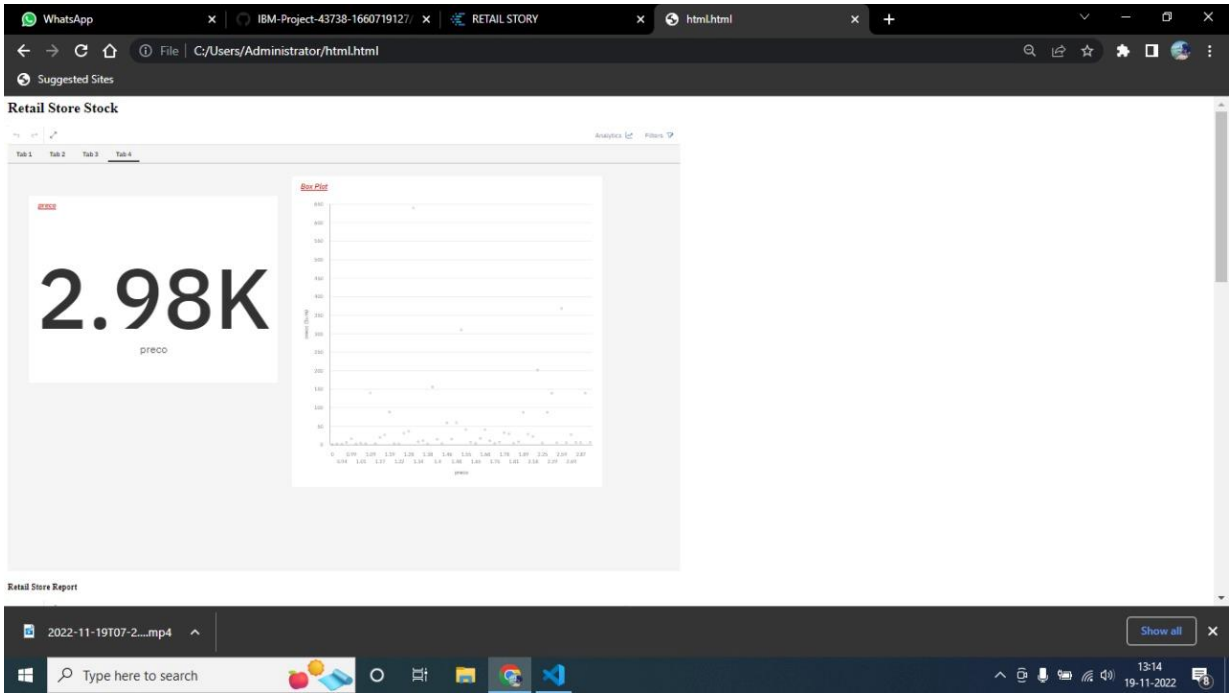
```
    <!-- ======= Frequently Asked Questions Section ======= -->
    <section id="faq" class="faq section-bg">
      <div class="container" data-aos="fade-up">

        <div class="section-title">
          <h2>Frequently Asked Questions</h2>
        </div>

        <div class="faq-list">
          <ul>
            <li data-aos="fade-up" data-aos-delay="100">
              <i class="bx bx-help-circle icon-help"></i> <a data-bs-
toggle="collapse" class="collapse" data-bs-target="#faq-list-1">Is the
dashboard only show the sales and price?<i class="bx bx-chevron-down icon-
show"></i><i class="bx bx-chevron-up icon-close"></i></a>
              <div id="faq-list-1" class="collapse show" data-bs-parent=".faq-
list">
                <p>
                  The Dashboard can the entire detail about the sales and the
price
                </p>
              </div>
            </li>

            <li data-aos="fade-up" data-aos-delay="200">
              <i class="bx bx-help-circle icon-help"></i> <a data-bs-
toggle="collapse" data-bs-target="#faq-list-2" class="collapsed">Is the report
only display the data? <i class="bx bx-chevron-down icon-show"></i><i class="bx
bx-chevron-up icon-close"></i></a>
              <div id="faq-list-2" class="collapse" data-bs-parent=".faq-list">
                <p>
                  The Report gives the entire analytics of the data
                </p>
              </div>
            </li>

            <li data-aos="fade-up" data-aos-delay="300">
              <i class="bx bx-help-circle icon-help"></i> <a data-bs-
toggle="collapse" data-bs-target="#faq-list-3" class="collapsed">Is the Story
only just display the content? <i class="bx bx-chevron-down icon-show"></i><i
class="bx bx-chevron-up icon-close"></i></a>
              <div id="faq-list-3" class="collapse" data-bs-parent=".faq-list">
                <p>
                  The Story gives the overview of the Inventory
                </p>
              </div>
```

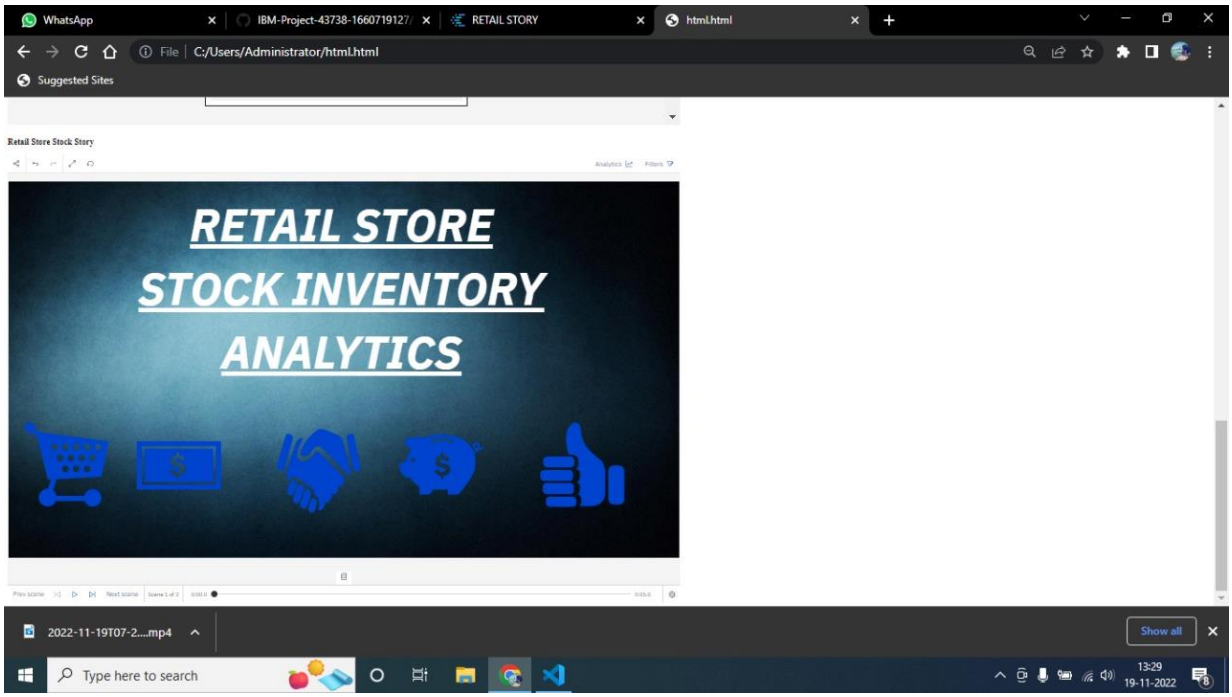
```
          </ul>
        </div>

      </div>
    </section><!-- End Frequently Asked Questions Section -->

    <!-- ======= Contact Section ======= -->
    <section id="contact" class="contact">
      <div class="container" data-aos="fade-up">

        <div class="section-title">
          <h2>Contact Us</h2>

          <a href="https://github.com/IBM-EPBL/IBM-Project-43738-
1660719127">Github</a>

        </div>



      </div>
    </section><!-- End Contact Section -->

  </main><!-- End #main -->

  <!-- ======= Footer ======= -->


  <div id="preloader"></div>
  <a href="#" class="back-to-top d-flex align-items-center justify-content-
center"><i class="bi bi-arrow-up-short"></i></a>

  <!-- Vendor JS Files -->
  <script src="assets/vendor/aos/aos.js"></script>
  <script src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
  <script src="assets/vendor/glightbox/js/glightbox.min.js"></script>
  <script src="assets/vendor/isotope-layout/isotope.pkgd.min.js"></script>
  <script src="assets/vendor/swiper/swiper-bundle.min.js"></script>
  <script src="assets/vendor/waypoints/noframework.waypoints.js"></script>
  <script src="assets/vendor/php-email-form/validate.js"></script>

  <!-- Template Main JS File -->
  <script src="assets/js/main.js"></script>

</body>

</html>
```

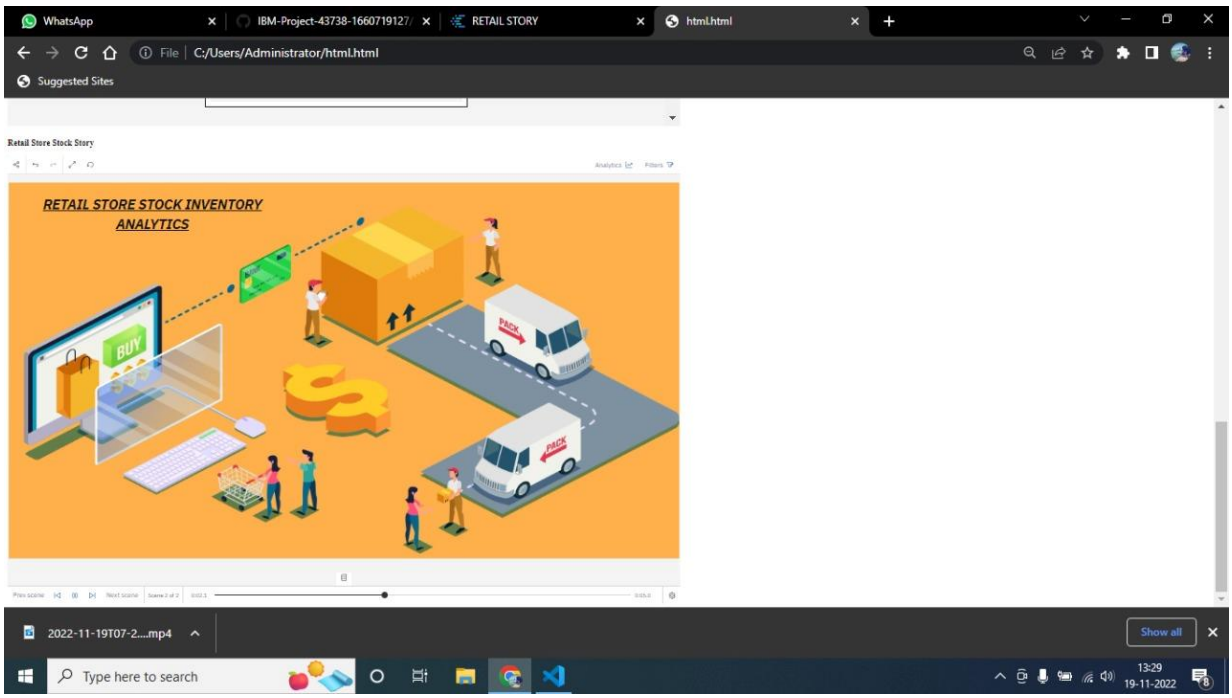

WhatsApp
IBM-Project-43738-1660719127
RETAIL STORY
html.html
File | C:/Users/Administrator/html.html
Suggested Sites
Retail Store Stock
RETAIL STORE STOCK INVENTORY ANALYSIS
BUY
SALE
SALE
Retail Store Report
2022-11-19T07-2....mp4
Show all
Type here to search
13:14
19-11-2022

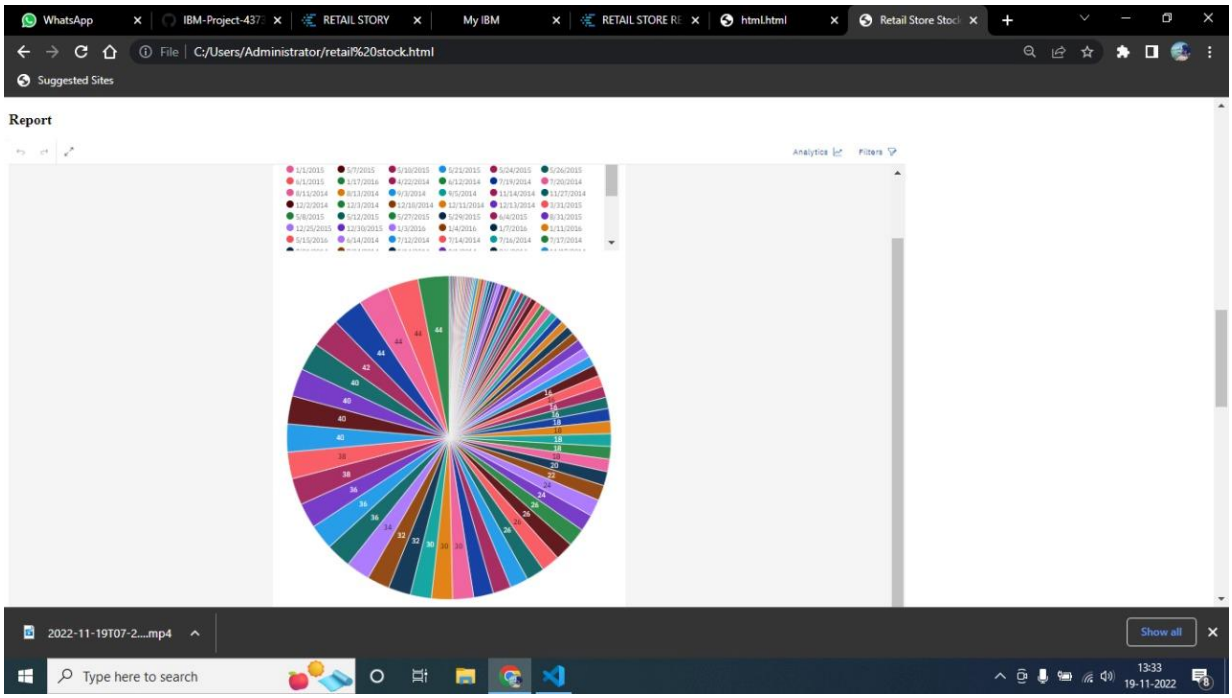

WhatsApp
IBM-Project-43738-1660719127
RETAIL STORY
html.html
File | C:/Users/Administrator/html.html
Suggested Sites
Retail Store Stock
Tab 1
Tab 2
Tab 3
Tab 4
Venda
170K
venda
venda
100%
venda (Sum)
Retail Store Report
2022-11-19T07-2....mp4
Show all
Type here to search
13:14
19-11-2022


WhatsApp
IBM-Project-43738-1660719127
RETAIL STORY
html.html
File | C:/Users/Administrator/html.html
Suggested Sites
Retail Store Stock
estoque
3.01M
estoque
estoque by estoque
Retail Store Report
2022-11-19T07-2....mp4
Show all
Type here to search
13:14
19-11-2022


WhatsApp
IBM-Project-43738-1660719127
RETAIL STORY
html.html
File | C:/Users/Administrator/html.html
Suggested Sites
Retail Store Stock
preco
2.98K
preco
Box Plot
Retail Store Report
2022-11-19T07-2....mp4
Show all
Type here to search
13:14
19-11-2022


WhatsApp
IBM-Project-43738-1660719127
RETAIL STORY
html.html
File | C:/Users/Administrator/html.html
Suggested Sites
Retail Store Stock Story
RETAIL STORE
STOCK INVENTORY
ANALYTICS
2022-11-19T07-2....mp4
Show all
Type here to search
13:29
19-11-2022


WhatsApp
IBM-Project-43738-1660719127
RETAIL STORY
html.html
File | C:/Users/Administrator/html.html
Suggested Sites
Retail Store Stock Story
RETAIL STORE STOCK INVENTORY
ANALYTICS
BUY
PACK
PACK
2022-11-19T07-2....mp4
Show all
Type here to search
13:29
19-11-2022



GitHub &Project Demo Link

GitHub Link

https://github.com/IBM-EPBL/IBM-Project-33050-1660214115

Project Demo Link

https://drive.google.com/file/d/1A8ctHjMCkC1LL1AArMOV_CyZcqwE3P4/view?usp=drivesdk