# **RETAIL STORE STOCK INVENTORY ANALYTICS (REPORT)**

TEAM ID: PNT2022TMID08214
DATA ANALYTICS

### **IBM REPORT**

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#### 1.INTRODUCTION

### 1.1) Project Overview:

Retail inventory management is the process of ensuring you carry products that 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.

They are more likely to have enough inventory to capture every possible sale while avoiding overstock because Too much inventory means working capital costs, operational costs, and a complex operation.

Based on the inventory management analysis we can manage how much inventory is required for selling the product based on which they can calculate the profit & losses.

### 1.2) Purpose:

The purpose of the Inventory Analytics is to discover trends, Predict the Outcomes, and make better Decisions.

It makes Retailers to get more insight into the performance of their Stores, Products, Customers, vendors, and Use insight to grow the Profits.

The main purpose of Retail Store Stock Analytics is to make the Retailer Profit and indicating without running out of Stock and making high variety products available for the demand of Customer's along with Satisfaction.

### 2. LITERATURE SURVEY

### 2.1) Existing Problem:

The Inventory existing problem is the general problem of what quantities of GOODS to Stock in anticipation of the future demand.

Some of the common Inventory Management Existing Problems are like

- 1. Lack of Inventory Visibility.
- 2. Identifying incorrectly Located materials.
- 3. Keeping up with Overstocks.
- 4. Managing Inventory Waste and Defects.
- 5. Lack of Expertise and Poor Communication.
- 6. Changing Demand and more...,

### a. References:

| JE 110 / A TITLE DESCRIPTION | SL NO | AUTHOR | TITLE | DESCRIPTION |
|------------------------------|-------|--------|-------|-------------|
|------------------------------|-------|--------|-------|-------------|

| 1  | ISRAA<br>MOHAMED   | Machine Learning Algorithms for COPD Patients Readmission | In this study,we aim at predicting the readmission of COPD (Chronic |
|--|--|---|---|
|  |  | Prediction:   | Obstructive Pulmonary Disease)                                      |
|  |  | A Data Analytics Approach                                 | patients through the deployment of                                  |
|  |  |   | machine learning algorithms. Area                                   |
|  |  |   | Under Curve (AUC) and   |
|  |  |   | ACCuracy (ACC) were considered as                                   |
|  |  |   | the main criteria for evaluating                                    |
|  |  |   | models' prediction power in each                                    |
|  |  |   | time frame.   |
|  |  |   | Then, the importance of the variables                               |
|  |  |   | for each outcome was explicitly                                     |
|  |  |   | identified, and defined important                                   |
|  |  |   | variables have then been  |
|  |  |   | differentiated.   |
|  |  |   | Our study could achieve the highest                                 |
|  |  |   | accuracy in predicting readmission with %91 ACC.                    |
|  |  |   |   |
| 2  | Jorge Andres   | Inventory record inaccuracy and store level performance   | Inventory management is one of the                                  |
|  | Espinoza Aguirre   | store level performance                                   | important business processes which                                  |
|  |  |   | ensure that the supply of raw                                       |
|  |  |   | materials and finished goods remain                                 |
|  |  |   | continuous throughout the business                                  |
|  |  |   | operations.   |
|  |  |   | It could be during manufacturing or                                 |
|  |  |   | production to ensure smooth   |
|  |  |   | operations and organization as it relates to purchases, sales and   |
|  |  |   | logistic activities .   |
|  |  |   | Inventory management systems has the                                |
|  |  |   | objective of ensuring smooth  |
|  |  |   | running of the production process,                                  |
|  |  |   | reduce the ordering cost of   |
|  |  |   | inventory, take advantage of  |
|  |  |   | quantity discount, and avoid  |
| The second secon | I control of the cont | I I   | opportunity loss on sales.  |

| 3 | Ariful Islam  | Analysis of Different Inventory  Control Techniques                         | A small saving in the inventory will mirror a crucial edge in benefit of the organisation.   |
|---|---------------|---|--|
|   |               |   | In Bangladesh, the retail shops generally face two types of inventory related problems which are either stock-out or overstock.  As a result, most of the shops fail to maintain their product availability with lowest possible inventory cost. Through proper inventory control techniques, probability of stock-out as well as overstock situations in the retail shops can be minimised. |
| 4 | Mirco Sturari | Retail surveying and inventory using visual and textual analysis            | The manpower cost for surveying and monitoring the shelves in retail stores are high, because of which these activities are not repeated frequently causing reduced customer satisfaction and loss of revenue.  Further, the accuracy of data collected may be improved by avoiding human related.   |
| 5 | Hien Vu       | Inventory management in retail industry - Application of big data analytics | rigorously competitive and narrowly profitable that retailers find themselves in a dilemma of neither excessive in- stock nor depleted outof-stock is negotiable.  The report finds the prospects of integrating BDA in the conventional inventory management techniques and promoting the viability and appropriateness of these models in the big data era                                 |

#### b. Problem Statement Definition:

The efficiency of a retail store is based on the retailer's ability to provide the right goods to the consumer, in the right quality, in the right quantity, at the right place and in right time.

The entire process of retailing depends on the efficient inventory management. Inventory management is one area that differentiates successful and unsuccessful retail stores.

Inventory control is not just a materials management or warehouse department issue.

The purchasing, receiving, engineering, displaying, and accounting departments all contribute to the accuracy of the inventory methods and records.

Inaccurate inventory management will contribute to dispatch delays, shortage in stores, purchasing of the wrong inventory and stocking too much inventory.

### 3. IDEATION AND PROPOSED SOLUTION

### 3.1) Empathy Map Canvas:

## 3.2) IDEATION AND BRAINSTORMING:

# 3.3) PROPOSED SOLUTION:

| SL NO | PARAMETER                                | DESCRIPTION   |
|-------|--|---|
| 1     | Problem Statement (Problem to be solved) | In order to maintain the regular Customers and to make the New Customers to buy any product at anytime they want, Retailers should maintain the Stock available for them.  Retailers can make them fulfil by analysis and visualization of stock data ,She/he can meet customer's demand without running out of stock or carrying excess supply . |
| 2     | Idea / Solution description              | To help the Retailer, There is a Cognos Analytic Tool ,Which is used for helping in the Stock maintenance by seeing his/her Stock's.  With the use of Stock Data analysis, he/she can also improve their Business with more profit than before  |
| 3     | Novelty / Uniqueness                     | When there is a lot of Data's to be maintained by the Retailer, He/She can get confused sometimes.  By making more efficient visualization using filters,like monthly wise, yearly wise, week wise, comparison, etc., ,He/She can uniquely maintain the Stock and do the enough needful to the Customers.   |
| 4     | Social Impact / Customer<br>Satisfaction | The Retailers's product details are stored in cloud, so the user can access and bill the products using any devices which the user can affordable.  At the same time, Retailer can check his/her remaining Stock.   |

| 5 | Business Model (Revenue<br>Model) | The Cloud provides enough services with its free subscription for the Retailers. When the Retailers wants to develop their Store with a huge Business, they can Subscribe to Premium Cloud, In order to make their Business rise in an easy and efficient manner. The required details is given to the Retailer, as per his/her request and they must be satisfied, as they using premium pack.  In order to make Business grow fast, Retailer can make Advertisement an Give offers and more while he/she need to improve their business through subscription. At the same time Cloud provides the inc/dec data and make analysis of Frequently ordered/purchased items and makes indication to maintain those Stock's regularly. |  |
|---|-----------------------------------|--|--|
| 6 | Scalability of the Solution       | The Cloud Cognos Analytics is not only for particular Members/Retailers. Retailers who holds Small/Big Store's are also getting satisfied with the Stock analysing process provided as per their needs.  |  |

# 3.4) PROPOSED SOLUTION FIT:

# 4. REQUIREMENT ANALYSIS

# 4.1) Functional Requirement:

Following are the functional requirements of the proposed solution:

| FR-1 | User Registration   | Registration through Form            |
|------|---------------------|--------------------------------------|
|      |                     | Registration through Linked IN       |
|      |                     | Registration through Website         |
|      |                     | Registration through G-mail          |
| FR-2 | User Confirmation   | Confirmation via Email               |
|      |                     | Confirmation via OTP                 |
| FR-3 | User Login          | Login with Username                  |
|      |                     | Login with Password                  |
|      |                     | Login with Email                     |
|      |                     | Login with Mobile Number             |
| FR-4 | Profile update      | Storing Customers details in         |
|      |                     | database                             |
|      |                     | Update the user credentials          |
|      |                     | Update the contact details           |
| FR-5 | Uploading Data      | Uploading the Retail store stock     |
|      |                     | inventory data set to the Cognos     |
|      |                     | analytics tool to visualize the data |
|      |                     | which helps to the predict the       |
|      |                     | available stock in the store.        |
| FR-6 | Ratings and Reviews | By noting customers valuable         |
|      |                     | feedback , we try to resolve the     |
|      |                     | problems that customers is facing    |
|      |                     | and make customers to feel happy     |

# 4.2) NON - FUNCTIONAL REQUIREMENTS :

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

| NFR NO | NON-FUNCTIONAL REQUIREMENT | DESCRIPTION  |
|--------|----------------------------|--|
| NFR-1  | Usability                  | They are more likely to have enough inventory to capture every possible sale while avoiding over stock and minimizing expenses.  This model can be supported on both desktop and |
|        |                            | mobile browsers.   |

| NFR-2 | Security     | If the person don't have any proper credentials   |
|-------|--------------|---|
|       |              | cannot be accessed our analysis.  The person who has been verified and created an account, can given access to visit our Business intelligence analysis.  |
| NFR-3 | Reliability  | Stocks can be balanced exactly without having any fluctuations in terms of excess flow or under flow of stocks.by which we can ensure accurate inventory evaluation.  |
| NFR-4 | Performance  | The system must be capable of handling multiple users to access at a time flexibly without causing any errors .   |
| NFR-5 | Availability | The model is suitable for all kind of retail stores. It can give retailers real-time visibility into stock levels,  |
|       |              | avoid stock outs, keeps inventory carrying costs low and help meet customer expectations.   |
| NFR-6 | Scalability  | More number of users can be accessed at the same time without facing issues is to be maintained regularly by maintenance. The system must support implementing new features and modules without disrupting existing processes |

### 5. PROJECT DESIGN

## 5.1) DATAFLOW

**DIAGRAMS: Data Flow** 

Diagrams:

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

### 5.2) Solution and Technical Architecture:

# 5.3) USER STORIES:

| User Type                    | Functional<br>Requirement | User<br>Story | User Story / Task   | Acceptance<br>criteria                    | Priority | Release  |
|------------------------------|---------------------------|---------------|---|---|----------|----------|
|                              | (Epic)                    | Number        |   |   |          |          |
| Customer<br>(Mobile<br>user) | Registration              | USN-1         | As a user, I can register for the application by entering my email, password, and confirming my password. | I can access<br>my account<br>/ dashboard | High     | Sprint-1 |
| -                            | Confirmation              | USN-2         | As a user, I will receive confirmation email once I have registered for the application.                  | I can receive<br>confirmati<br>on email & | High     | Sprint-1 |

|   | Various<br>Platforms To<br>Register | USN-3 | As a user, I can register for the application through       | click confirm  I can register & access the dashboard with          | Low    | Sprint-2 |
|---|-------------------------------------|-------|---|--|--------|----------|
| - |                                     |       | Facebook  | Facebook<br>Login  |        |          |
| - | Various<br>Platforms To<br>Register | USN-4 | As a user, I can register for the application through Gmail | I can register<br>& access the<br>dashboard<br>with Gmail<br>login | Medium | Sprint-1 |

| -                      | Login                                | USN-5  | As a user, I can log into<br>the application by<br>entering email &<br>password                                      | I can access<br>the<br>dashboard<br>by login into<br>the<br>application | High   | Sprint-1 |
|------------------------|--------------------------------------|--------|--|---|--------|----------|
| -                      | Dashboard                            | USN-6  | As a user, I can view the charts and graphs representation of the dataset and the information shown in the dashboard | I can<br>analyse the<br>stocks in my<br>retail store.                   | High   | Sprint-1 |
| Customer<br>(Web user) | Registration                         | USN-7  | As a user, I can register for the application by entering my email, password, and confirming my password.            | I can access<br>my account<br>/ dashboard                               | High   | Sprint-1 |
| -                      | Confirmation                         | USN-8  | As a user, I will receive confirmation email once I have registered for the application                              | I can receive<br>confirmati<br>on email &<br>click confirm              | High   | Sprint-1 |
| _                      | Various<br>Registration<br>Platforms | USN-9  | As a user, I can register for the web application through LinkedIn   | I can register<br>& access the<br>dashboard                             | Low    | Sprint-2 |
|                        |                                      |        |  | with<br>LinkedIn<br>Login   |        |          |
| -                      | Various<br>Registration<br>Platforms | USN-10 | As a user, I can register for the web application through Google account   | I can register<br>& access the<br>dashboard<br>with Gmail<br>login      | Medium | Sprint-1 |

| -                             | - | USN-11 | As a user, I can log into<br>the web application by<br>entering email &<br>password after installing<br>the application | I can access<br>the<br>dashboard<br>by login into<br>the<br>application   | High | Sprint-1 |
|-------------------------------|---|--------|---|---|------|----------|
| -                             | - | USN-12 | As a user, I can view the charts and graphs representation of the dataset and the information shown in the dashboard.   | I can<br>analyse the<br>stocks in my<br>retail store.   | High | Sprint-1 |
| Customer<br>Care<br>Executive | - | CCE    | As a customer care executive, I will always be available for the interaction with the customer to clarify the queries   | An executive will analyse the customer complaints and rectify their problems.   | High | Sprint-2 |
| Administrator                 | - | ADMIN  | -   | Administrat or can evaluate, design, review and implementi ng a data and they are also responsible for updating and maintaining the data. | High | Sprint-2 |

# 6. PROJECT PLANNING AND SCHEDULING

# **6.1) Sprint Planning and Estimation:**

| Sprint   | Functional<br>Requirement(Epic) | User Story / Task  | User<br>Story<br>Number | Story<br>Points | Priority |
|----------|---------------------------------|--|-------------------------|-----------------|----------|
| Sprint-1 | Data Collection                 | The dataset is collected and the understanding of dataset is done to present the analytics to the user.  | USN - 1                 | 2               | High     |
| Sprint-1 | Data Preparation                | As a user, I can view the accurate analytics of data by prepared data. The data preparation is done to restructure and clean the data                          | USN - 2                 | 3               | High     |
| Sprint-2 | Data Exploration                | As a user, I can view the visualized data to get the better understanding about the sales, stock, revenue and price  | USN - 3                 | 8               | High     |
| Sprint-3 | Dashboard Creation              | As a user, I can view the different visualization in the dashboard about the sales, stock, revenue and price.  | USN - 4                 | 8               | High     |
| Sprint-4 | Report creation                 | As a user, I can view the detailed report of the sales, stock, revenue and price. The user can get the report of the particular data                           | USN - 5                 | 8               | High     |
| Sprint-4 | Story creation                  | As a user, I can view the story to get<br>the better understanding of the sales,<br>stock,revenue and price. The user can<br>make decisions based on the story | USN - 6                 | 8               | High     |

# 6.2) Sprint Delivery Schedule:

| Sprint   | Total Story<br>Points | Duration | Sprint Start<br>Date | Sprint End<br>Date<br>(Planned) | Story Points  Completed (as onPlanned End Date) | Sprint<br>Release<br>Date<br>(Actual) |
|----------|-----------------------|----------|----------------------|---------------------------------|---|---------------------------------------|
| Sprint-1 | 5                     | 6 Days   | 24 Oct<br>2022       | 29 Oct 2022                     | 5   | 29 Oct 2022                           |

| Sprint-2 | 8  | 6 Days | 31 Oct<br>2022 | 05 Nov 2022 | 8  | 05 Nov 2022 |
|----------|----|--------|----------------|-------------|----|-------------|
| Sprint-3 | 8  | 6 Days | 07 Nov<br>2022 | 12 Nov 2022 | 8  | 12 Nov 2022 |
| Sprint-4 | 16 | 6 Days | 14 Nov<br>2022 | 19 Nov 2022 | 16 | 19 Nov 2022 |

## 6.3) Reports from JIRA:

Jira Project Planning:

### 7. PROJECT DEVELOPMENT SPRINTS

### 7.1) SPRINT - 1:

Uploading the Dataset and Preparing the Dataset of Inventory Management

# 7.2) SPRINT - 2:

Exploring the Dataset that have been Uploaded and Prepared

### 7.3) SPRINT - 3:

Creating an Interactive Dashboard using the Inventory Management Dataset

### 7.4) SPRINT - 4:

1. Creating an Interactive Report based on the Inventory Management Dataset

### 8. CODING AND SOLUTIONING

## 8.1) Source Code (index.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">
  <title>complete responsive coffee shop website design</title>
  <!-- font awesome cdn link -->
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/5.15.4/css/all.min.css"> <!-- custom css file link -->
  <link rel="stylesheet" href="css/style.css">
  <link rel="stylesheet" href="Styles.css">
</head>
<body>
<!-- header section starts
--> <header
class="header">
  <a href="#" class="logo">
    <img src="images/78.jpg"
alt=""> </a>
  <h1 style="color: white;">Retail store Stock inventory
analysis</h1> <nav class="navbar">
    <a href="index.html">home</a>
    <a href="About.html">about</a>
    <a href="Dashboard.html">Dashboard</a>
    <a href="Report.html">Report</a>
    <a href="StoryAnalysis.html">Story</a>
  </nav>
  <!-- <div class="icons">
    <div class="fas fa-search" id="search-btn"></div>
```

```
<div class="fas fa-shopping-cart" id="cart-btn"></div>
    <div class="fas fa-bars" id="menu-btn"></div>
  </div> -->
  <div class="search-form">
    <input type="search" id="search-box" placeholder="search here...">
    <label for="search-box" class="fas fa-search"></label>
  </div>
  </div>
</header>
<!-- header section ends -->
<!-- home section starts --><section class="home" id="home">
  <div class="content" id="indtext">
    <h3>Retail Store Stock Inventory Analytics</h3>
    <b> This app allows the user to view the responsive data info via
Dashboard</b>
                        <a href="#" class="btn">Get Started</a> </div>
</section>
<!-- home section ends -->
<!-- about section starts -->
<section class="about" id="about">
  <h1 class="heading"> <span>about</span> Project </h1>
  <div class="row">
    <div class="image">
      <img src="images/scott-graham.png.jpg" alt="">
    </div>
    <div class="content">
      <h3>what makes us special?</h3>
      Retail inventory management is the process of ensuring you
              products that shoppers want, with neither too little nor
carry
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
                    <br>
```

```
They are more likely to have enough inventory to capture every
          possible sale while avoiding overstock because Too much inventory
          means working capital costs, operational costs, and a
complex
                   operation.
        <br>
          >Based on the inventory management analysis we can manage how
            much inventory is required for selling the product based on
                        can calculate the profit & losses.
which they
      <a href="https://www.yourarticlelibrary.com/retailing/inventory-management-in-
retailstore/48143"class="btn">learn more</a>
    </div>
  </div>
</section>
<!-- about section ends -->
  </div>
</section>
<!-- menu section ends -->
<section class="products" id="products">
  <div class="rows">
<!-- <img src="images/pexels-andrea-png.jpg"
alt=""> --> </div>
  <h1 class="heading"> Inven <span>tory</span> </h1>
<div class="ic">
 The efficiency of a retail store is based on the retailer's ability to provide the right goods
to the consumer, in the right quality, in the right quantity, at the right place and in right time.
The entire process of retailing depends on the efficient inventory management.
<br>
Inventory management is one area that differentiates successful and unsuccessful retail
stores.
  Inventory control is not just a materials management or warehouse department
issue. <br>
```

The purchasing, receiving, engineering, displaying, and accounting departments all

```
Inaccurate inventory management will contribute to dispatch delays, shortage in stores,
   purchasing of the wrong inventory and stocking too much inventory.
</div>
</section>
<!-- review section starts -->
<section class="review" id="review">
  <h1 class="heading"> Reasons for <span>Holding Inventory</span>
</h1> <div class="Rhf">
Inventory management is a function of central importance in retail stores.
  Improving product-availability and reducing overall working capital investments,
  without jeopardizing the store performance is a tightrope that most inventory managers
  have to stroll and consequently it has to support the objectives of the retail stores as a
              <div class="image">
whole.
  <img src="images/business-team.jpg" alt="team" style=" float: right; border-</pre>
radius: 2em; width:25%;height:20%;margin-left:15px;" > </div>
<h1>Some Reasons are:</h1>
<div class="olp">

    To know how many units to order

allow flexibility in retail scheduling

    3.To maintain independence of operations

 4.To meet variation in product demand

    safeguard for variation in goods delivery time

    6.To take advantage of economic purchase order size

7.When to order/inform to senior retail executives that goods in stock will complete
soon.
</div>
  </div>
</section>
<!-- review section ends -->
<!-- contact section starts -->
<!-- <section class="contact" id="contact">
  <h1 class="heading"> <span>contact</span> us
```

contribute to the accuracy of the inventory methods and records.

```
</h1> <div class="row">
    <iframe class="map"
src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d30153.788252261566!2
d72.82321484
621745!3d19.141690214227783!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x3
be7b63aceef0
c69%3A0x2aa80cf2287dfa3b!2sJogeshwari%20West%2C%20Mumbai%2C%20Maharashtra%2
0400047!5 e0!3m2!1sen!2sin!4v1629452077891!5m2!1sen!2sin" allowfullscreen=""
loading="lazy"></iframe>
                           <form action="">
      <h3>get in touch</h3>
      <div class="inputBox">
        <span class="fas fa-user"></span>
        <input type="text" placeholder="name">
      </div>
      <div class="inputBox">
        <span class="fas fa-envelope"></span>
        <input type="email" placeholder="email">
      </div>
      <div class="inputBox">
        <span class="fas fa-phone"></span>
        <input type="number" placeholder="number">
      </div>
      <input type="submit" value="contact now"</pre>
class="btn">
                </form>
  </div>
</section> -->
<!-- contact section ends -->
<!-- blogs section starts -->
<!-- <section class="blogs" id="blogs">
  <h1 class="heading"> our <span>blogs</span> </h1>
  <div class="box-container">
    <div class="box">
      <div class="image">
        <img src="images/blog-1.jpeg" alt="">
```

```
</div>
      <div class="content">
        <a href="#" class="title">tasty and refreshing coffee</a>
        <span>by admin / 21st may, 2021</span>
        Lorem ipsum dolor sit amet consectetur adipisicing elit. Non,
                  <a href="#" class="btn">read more</a>
dicta.
      </div>
    </div>
    <div class="box">
      <div class="image">
        <img src="images/blog-2.jpeg" alt="">
      </div>
      <div class="content">
        <a href="#" class="title">tasty and refreshing coffee</a>
        <span>by admin / 21st may, 2021</span>
        Lorem ipsum dolor sit amet consectetur adipisicing elit. Non,
                  <a href="#" class="btn">read more</a>
dicta.
      </div>
    </div>
    <div class="box">
      <div class="image">
        <img src="images/blog-3.jpeg" alt="">
      </div>
      <div class="content">
        <a href="#" class="title">tasty and refreshing coffee</a>
        <span>by admin / 21st may, 2021</span>
        Lorem ipsum dolor sit amet consectetur adipisicing elit. Non,
                  <a href="#" class="btn">read more</a>
dicta.
      </div>
    </div>
  </div>
</section> -->
```

```
<!-- blogs section ends -->
<!-- footer section starts -->
<section class="footer">
  <div class="links">
    <a href="index.html">home</a>
    <a href="About.html">about</a>
    <a href="Dashboard.html">Dashboard</a>
    <a href="Report.html">Report</a>
    <a
href="StoryAnalysis.html">Story</a>
</div>
  <div class="credit">created by <span>Budding Developers</span> | all rights reserved</div>
</section>
<!-- footer section ends -->
<!-- custom js file link -->
<script src="js/script.js"></script>
</body>
</html>
8.2) SCREENSHOT AND WORK OF CODE:
LOGIN PAGE:
HOME PAGE:
```

8.2.1) Website embedded for Report:

# 8.2.3) Website embedded for Dashboard:

# 8.2.4) About the Retail Store Analytics:

# 9. TESTING

# 9.1) Test Cases:

| TEST CASE ID | FEATURE TYPE | COMPONENT     | TEST SCENARIO   |
|--------------|--------------|---------------|---|
| Testcase_1   | Functional   | Login Page    | Verifies whether the user can login if he/she was an registered user        |
| Testcase_2   | Functional   | Login Page    | Verifies whether an unregistered user cannot proceed with the login.        |
| Testcase_3   | Functional   | Register page | Verifies whether an unregistered user can successfully register as an user. |
| Testcase_4   | Functional   | Register page | Verifies whether an register user cannot register themself as an new user   |

| Testcase_5  | Functional | Login Page    | Verifies whether an alert message popsup when an unregistered user tries to login.  |
|-------------|------------|---------------|---|
| Testcase_6  | Functional | Register page | Verifies whether an alert<br>message popsup when<br>an registered user tries to<br>register again                           |
| Testcase_7  | Functional | Login Page    | Verifies whether an alert<br>message popsup when<br>an registered user enters<br>his/her username or<br>password incorrect. |
| Testcase_8  | Functional | Register page | Verifies whether an alert<br>message popsup when<br>an new user registers   |
| Testcase_9  | UI         | Home page     | Verifies whether all UI button(signup,loginnow,logout,repo rt,story,user dashboard) works efficiently                       |
| Testcase_10 | Functional | Home page     | Verifies whether username popsup on the welcome note  |

| PRE-REQUISITE   | STEPS TO EXECUTE   | TEST DATA                                       |
|---|--|---|
| Checks whether the logged in username is registered in backend.     | <ul><li>1.Enter your username</li><li>2.Enter your password</li><li>3.click Login now button</li></ul> | username: Prakash password:<br>prakash@12345678 |
| Checks whether the logged in username is not registered in backend. | <ul><li>1.Enter your username</li><li>2.Enter your password</li><li>3.click Login now button</li></ul> | username: Prakash password:<br>prakash@12345678 |

| The details given by the user is stored in backend   | <ul><li>1.Enter your username</li><li>2.Enter your email</li><li>3.Enter your password</li><li>4.Enter your confirm password</li><li>5.Click on signup button</li></ul> | Enter the Data                                  |
|--|---|---|
| checks whether the user name is present in the database.                                       | <ul><li>1.Enter your username</li><li>2.Enter your email</li><li>3.Enter your password</li><li>4.Enter your confirm password</li><li>5.Click on signup button</li></ul> | username: Prakash password:<br>prakash@12345678 |
| checks whether the user name is present in the database.                                       | <ul><li>1.Enter your username</li><li>2.Enter your password</li><li>3.click Login now button</li></ul>  | username: Suji<br>password:abcd                 |
| checks the username given by<br>the user against the username<br>and password in the database. | 1.Enter your username 2.Enter your email 3.Enter your password 4.Enter your confirm password 5.Click on signup button   | username: Prakash password:<br>prakash@12345678 |
| checks the username given by<br>the user against the username<br>and password in the database. | <ul><li>1.Enter your username</li><li>2.Enter your password</li><li>3.click Login now button</li></ul>  | username: Prakash<br>password12345              |

# 9.2) User Acceptance Testing:

### <u>Purpose of Document</u>:

The purpose of this document is to briefly explain the test coverage and open issues of the [ProductName] project at the time of the release to User Acceptance Testing (UAT).

# <u>Defect Analysis</u>:

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

| RESOLUTION     | SEVERITY 1 | SEVERITY 2 | SEVERITY 3 | SEVERITY 4 | SUBTOTAL |
|----------------|------------|------------|------------|------------|----------|
| By Design      | 7          | 4          | 2          | 3          | 17       |
| Duplicate      | 2          | 0          | 3          | 0          | 5        |
| External       | 3          | 3          | 0          | 1          | 7        |
| Fixed          | 11         | 2          | 4          | 20         | 37       |
| Not Reproduced | 0          | 0          | 1          | 0          | 1        |
| Skipped        | 0          | 0          | 1          | 1          | 2        |
| Won't Fix      | 0          | 5          | 2          | 1          | 8        |
| Totals         | 24         | 14         | 13         | 26         | 77       |

# <u>Test Case Analysis</u>:

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

| SECTION            | TOTAL CASES | NOT TESTED | FAIL | PASS |
|--------------------|-------------|------------|------|------|
| Print Engine       | 9           | 0          | 0    | 9    |
| Client Application | 55          | 0          | 0    | 55   |
| Security           | 7           | 0          | 0    | 7    |
| Outsource          | 8           | 0          | 0    | 8    |
| Shipping           |             |            |      |      |
| Exception          | 9           | 0          | 0    | 9    |
| Reporting          |             |            |      |      |
| Final Report       | 6           | 0          | 0    | 6    |
| Output             |             |            |      |      |
| Version Control    | 2           | 0          | 0    | 2    |

### 10. CONCLUSION:

For the Success of the program, the Managers of the Retail stores must formulate a modern way of managing the Inventory by analysing the Stocks using IBM Cognos Analytics 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 made when 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 and Profitable Business.

### 11. FUTURE SCOPE

The scope of an inventory system can cover many needs, including valuing the inventory,

Measuring the change in inventory and planning for future inventory levels. The value of the inventory at the end of each period provides a basis for financial reporting on the balance sheet

Worldwide retail sales are poised to grow 5% year-over-year (YoY)
The scope for retail in India is a growing industry, with an increasing demand for highend and luxury products

The Future Scope of Retail Store Stock Inventory is to make the Customer (
Retailers ) beneficial and Happier.

### 12. FINAL DELIVERABLES (APPENDIX)

### 12.1) Project DEMO Link:

https://drive.google.com/file/d/1x0mEgDeArtGpCmRXMpryXBrpuax\_dK Ky/view?usp=sharing

# 12.2) Project Github Link:

https://github.com/IBM-EPBL/IBM-Project-17820-1659676576