

Inventory Managment System for Retailers **(Cloud Application Development)**

Submitted by-

(Team ID - PNT2022TMID33078)

R.Mohnishkumar - 820419205037

K.Arunmani - 820419205008

B.Manikandan - 820419205033

B.Vijayaragavan - 820419205068

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1.Introduction

1.1 Project Overview

The project Inventory Management System is a complete desktop based application designed on React technology using Visual Studio Software. The main aim of the project is to develop Inventory Management System Model software in which all the information regarding the stock of the organization will be presented. It is an intranet based desktop application which has admin component to manage the inventory and maintenance of the inventory system.

This desktop application is based on the management of stock of an organization. The application contains general organization profile, sales details, Purchase details and the remaining stock that are presented in the organization. There is a provision of updating the inventory also. This application also provides the remaining balance of the stock as well as the details of the balance of transaction.

Each new stock is created and entitled with the named and the entry date of that stock and it can also be update any time when required as per the transaction or the sales is returned in case. Here the login page is created in order to protect the management of the stock of organization in order to prevent it from the threads and misuse of the inventory.

1.2 Purpose

The Inventory Management System is a real-time inventory database capable of connecting multiple stores. This can be used to track the inventory of a single store or to manage the delivery of stock between several branches of a larger franchise. However, the system merely records sales and restocking data and provides warning of low stock at any location through email at a specified interval.

The goal is to reduce the stress of tracking rather than to hold all store maintenance. Further features may consist of the ability to create reports of sales, but again the explanation is left to the management. In addition, since theft does occasionally occur, the system provides solutions for confirming the store inventory and for correcting stock quantities.

Production units use an inventory management system to reduce their transport costs. The system is used to track products and parts as they are transported from a seller to a storeroom, between storerooms, and finally to a retail location or directly to a customer.

The inventory management system is used for various purposes, including:

- Maintaining and recording the information between too much and too little inventory in the company.
- Keep track of inventories as it is transported between different locations.
- Recording product information in a warehouse or other location.
- Having a record of Picking, packing, and selling products from a warehouse.
- Reduction of product obsolescence and decay.
- Avoiding out-of-stock situations.

2.Literature Survey

2.1 Existing Problem

There is a number of Inventory Management System available in the market. After doing my research, I have come to know that most of them are limited to few products. Some others are lacking in good UI. Marketing points are not much focused on increasing sales.

Customer management system and Inventory Management system can't be linked due to different organization which leads to compromising the client satisfaction level. Most of them are not using the cloud computing concept but we are trying to develop such a system that is for everyone rather than for only big companies or for a small organization.

Most of them are expensive to use and their maintenance is generally not cheap. Our system is Pay-as-per-Use.

2.2 References

Software Reference

Swatik Accounting And Inventory Software High-tech Software, Kalimati
Inventory Management Software
Sagar International, Balkhu

Website

Visual Studio Official Site: <https://msdn.microsoft.com/en-us/library/dd492171.aspx>

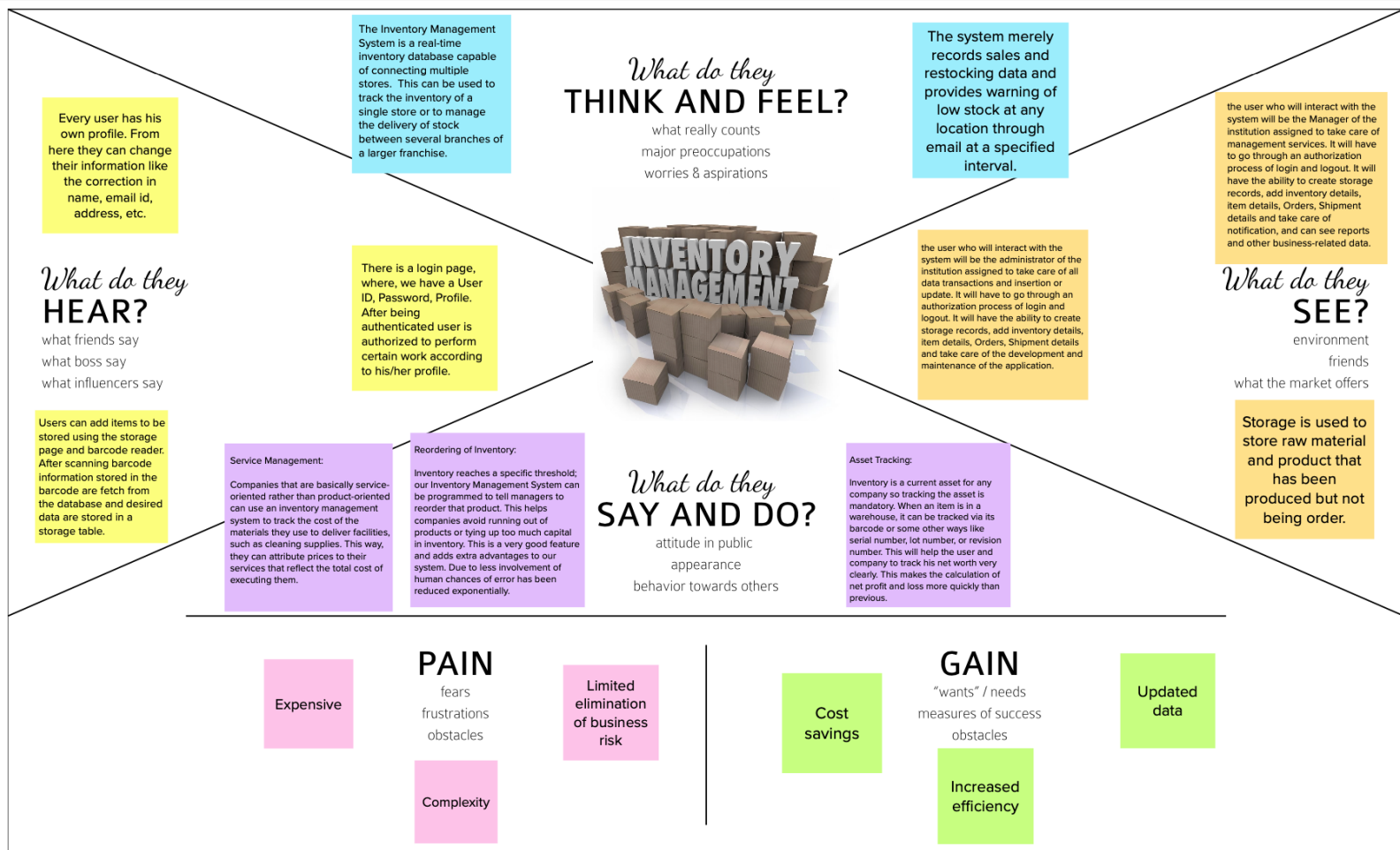
2.3 Problem Statement Definition

Common retailers who run their business with large scale or small scaled stocks are affected with the old IMS. It is crucial for an organization today to understand its inventory to achieve both efficient and fast operations, that too, at an affordable cost. Lack of the right inventory at the right time can mean back orders, excess inventory, etc. These drives up cost. Late delivery due to stock-outs is bound to give you a bad reputation. Inaccurate calculations of stock and price. These kind of issues occur duw to late planning, poor tracking which may lead to back orders. Overstocking of discounted products and neglecting the trends of seasonal sales may result in excess inventory. These issues are due to human error, Lack of interest and consciousness. Amount of data which is beyond the limits of human power to be calculated manually. Nearly 81% of consumers experienced an “out-of-stock” situation in the past 12 months, resulting in lost sales for retailers and lots of disappointment for in-store shoppers. Globally, retailers recorded losses of a whopping \$1.75 trillion due to mismanaged inventory. Therefore considering the economic crisis of the retailers and to reduce the manpower efficiently while handling data, it is very important to have a best inventory management system for retailers.

3.Ideation and Proposed Solution

3.1 Empathy Map Canvas

An empathy map is a collaborative tool teams can use to gain a deeper insight into their customers. Much like a user persona, an empathy map can represent a group of users, such as a customer segment. The empathy map was originally created by Dave Gray and has gained much popularity within the agile community.



3.2 Ideation and Brainstorming

Ideation is often closely related to the practice of brainstorming, a specific technique that is utilized to generate new ideas. A principal difference between ideation and brainstorming is that ideation is commonly more thought of as being an individual pursuit, while brainstorming is almost always a group activity.

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

It is crucial for an organization today to understand its inventory to achieve both efficient and fast operations, that too, at an affordable cost. Lack of the right inventory at the right time can mean back orders, excess inventory, etc. These drive up costs. Late delivery due to stock-outs is bound to give you a bad reputation. Inaccurate calculations of stock and price.

2

Brainstorm

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

🕒 10 minutes

R Mohnishkumar

Late deliveries can be avoided by planning appropriately.

Addition of images with product description in the inventory database can improve the purchasing, enhanced accuracy, etc.

By enhancing the tracking of the orders will reduce the risk of back orders.

K Arunmani

By demanding forecast tools the accounting and sales data may be predicted depending upon the trends.

Monitoring and tracking the supplier data like shipment error, damaged can fix the supply chain disruptions.

By measuring and reporting the warehouse performance metrics like turnover, customer satisfaction can overcome the inventory inefficiency.

B Vijayaragavan

Efficiency of inventory can be achieved by automating the process by going paperless.

Maintain safety stock to offset supply chain disruptions.

Frequent stock auditing processes like daily cycle counting, up-to-date inventory data for managing cash flow.

B Manikandan

Avoidance of Human errors, lack of interest may lead to accuracy of large number of stock and price details.

Usage of multi-location warehouse management (to track and control of expanding inventories will keep tabs on warehouse location and in-transit inventory.

Implement stock control system can manage the inventory problem like perishable stock or obsolete material.

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, 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

Implement stock control systems to manage product inventory, such as portable stock, freight equipment or automated replenishment. Perform regular preventive maintenance on machinery and equipment stock in storage to respond to the manufacturer. Collect data on product stock location, cost and quality to monitor shelf life and prevent waste.

Use inventory management systems with warehouse management features to optimize storage space and inventory flow. Categorize inventory storage down to shelf bin and compartment, and automate order picking, packing and shipping workflows.

Use inventory management software to set automatic reorder points for inventory based on preset stock levels and current availability to avoid overselling.

Create inventory classifications to manage changing trends, such as packaging initiatives to reduce plastic waste. Categorize stock by packaging type, dimensions and product. Use this information to control shipping costs and storage location better.

Consider outsourcing to an expert in inventory management. Conduct in-person training and provide online support to help employees follow best practices for working with technical inventory management software features.

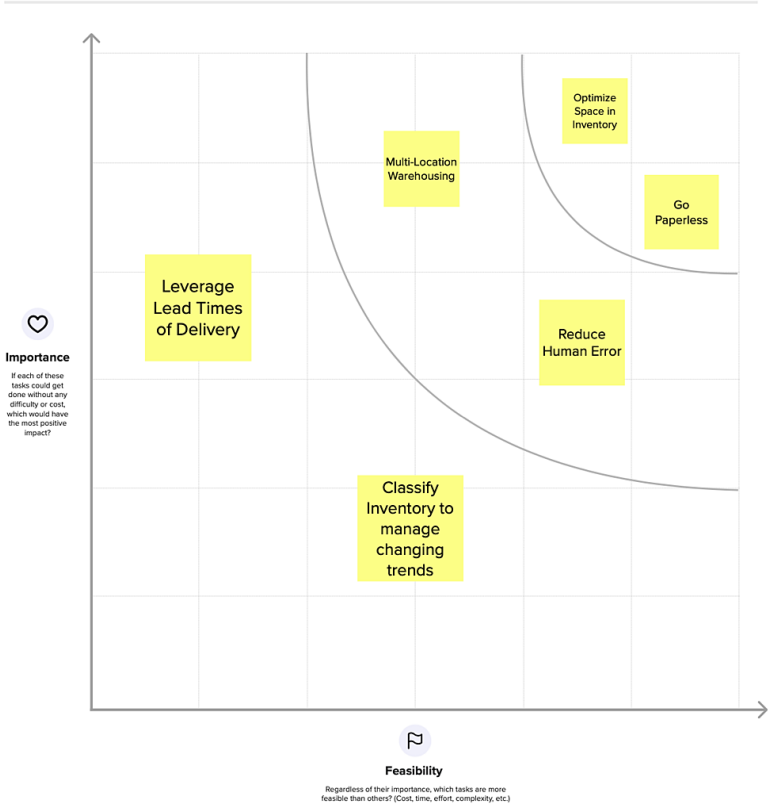
Adopt an integrated, cloud-based inventory management platform and leverage vendor expertise and training services at implementation.

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



3.3 Proposed Solution

S.No	Parameter	Description
------	-----------	-------------

1.	Problem Statement (Problem to be solved)	Retailers who run their business with large scale or small scale stocks.It is crucial for an organization today to understand its inventory to achieve both efficient and fast operations, that too, at an affordable cost. Lack of the right inventory at the right time can mean back orders, excess inventory, etc. These drive up costs. Late delivery due to stock-outs is bound to give you a bad reputation. Inaccurate calculations of stock and price. Late deliveries are due to late planning. Poor tracking may lead to back orders. Overstocking of discounted products and neglecting the trends of seasonal sales may result in excess inventory.Therefore considering the economic crisis of the retailers and to reduce the manpower efficiently while handling data, it is very important to have a best inventory management system for retailers.
2.	Idea / Solution description	Applications have been developed to help retailers track and manage stocks related to their own products. The System will ask retailers to create their accounts by providing essential details. Retailers can access their accounts by logging into the application. Once retailers successfully log in to the application they can update their inventory details, also users will be able to add new stock by submitting essential details related to the stock. They can view details of the current inventory. The System will automatically send an email alert to the retailers if there is no stock found in their accounts. So that they can order new stock.
3.	Novelty / Uniqueness	User can track the record of goods available using the application. Inventory tracking helps to improve inventory management and ensures that having optimal stock available to fulfill orders.Reduces manpower , cost and saves time. Emails will be sent automatically While stocks are not available.Makes the business process more efficient.Improves organizations performance.
4.	Social Impact / Customer Satisfaction	Customer satisfaction is the key for success of a business.The availability of product is just one way in which an inventory management system creates customer satisfaction. Inventory management systems are designed to monitor product availability, determine purchasing schedules for better customer interaction.

5.	Business Model (Revenue Model)	
6.	Scalability of the Solution	<p>Scalability is an aspect or rather a functional quality of a system, software or solution. This proposed system for inventory management system can accommodate expansion without restricting the existing workflow and ensure an increase in the output or efficiency of the process.</p>

3.4 Proposed Solution Fit

Problem-Solution fit canvas 2.0		Purpose / Vision: To help the retailers to have a track on their stock availability.	
1. CUSTOMER SEGMENT(S)	CS	6. CUSTOMER	CC
Our Proposed Model targets retailers to have a track on their stock availability.		Not having knowledge of the available and upcoming demands more over existing solutions are not so far good in intimating the retailer about the stock which is about to get over.	
		5. AVAILABLE SOLUTIONS	AS
		Data from different key performance metrics, which take into account several aspects of the inventory influencing the business and Methodology (such as AUD and MDP) to forecast revenue and discount on the products. Tools (such as RFID and barcodes) to maintain correct records across digital and physical databases.	

4. Requirement Analysis

4.1 Functional Requirements

The System aims at providing an efficient interface to the user for managing of inventory, it shall also provide the user varied options for managing the inventory through various functions at hand. The ingredient levels are continuously monitored based on their usage and are checked for the threshold levels in the

inventory and accordingly the user is alerted about low levels of certain ingredients. The design is such that the user does not have to manually update the inventory every time, the System does it for the user.

The System calculates and predicts the amount of usage for specific set days that are pre-set by the user(admin) , it also alerts the user of an impending action to order ingredients before the specific day set by the user. Therefore the user never has to worry about manually calculating the estimated usage of the ingredients as the System does it for the user.

The simple interface of the System has functions like adding a recipe, removing or updating the recipe. It also extends to functions such as adding a vendor for an ingredient,, removing the vendor, checking threshold levels, processing orders, altering processed orders etc.

4.2 Non-Functional Requirements

Usability

- o The system must be easy to use by both managers and chefs such that they do not need to read an extensive amount of manuals.
- o The system must be quickly accessible by both managers and chefs.
- o The system must be intuitive and simple in the way it displays all relevant data and relationships.
- o The menus of the system must be easily navigable by the users with buttons that are easy to understand.

Reliability

- o The System must give accurate inventory status to the user continuously. Any inaccuracies are taken care by the regular confirming of the actual levels with the levels displayed in the system.
- o The System must successfully add any recipe, ingredients, vendors or special occasions given by the user and provide estimations and inventory status in relevance with the newly updated entities.

- o The system must provide a password enabled login to the user to avoid any foreign entity changing the data in the system.
- o The system should provide the user updates on completion of requested processes and if the requested processes fail, it should provide the user the reason for the failure.
- o The system should not update the data in any database for any failed processes.

Performance

- o The system must not lag, because the workers using it don't have down-time to wait for it to complete an action.
- o The system must complete updating the databases, adding of recipe, ingredient, vendor and occasions successfully every time the user requests such a process.
- o All the functions of the system must be available to the user every time the system is turned on.
- o The calculations performed by the system must comply according to the norms set by the user and should not vary unless explicitly changed by the user.

Supportability

- o The software is designed such that it works even on systems having the minimum configuration.
- o The system is adaptable even if additional plugins or modules are added at a later point.
- o The data can be exported to the manager so as to make the system more portable.

Packaging

- o The system must be able to run on the Windows operating systems beginning with Windows XP, and must be able to run on future releases such as the upcoming Windows 12
- o The software must incorporate a license key authentication process.
- o The packaging must come with a manual that details the use of the system, and also the instructions on how to use the program. This manual may be included either in a booklet that comes with the software, or on the disc that the software

itself is on.

Implementation

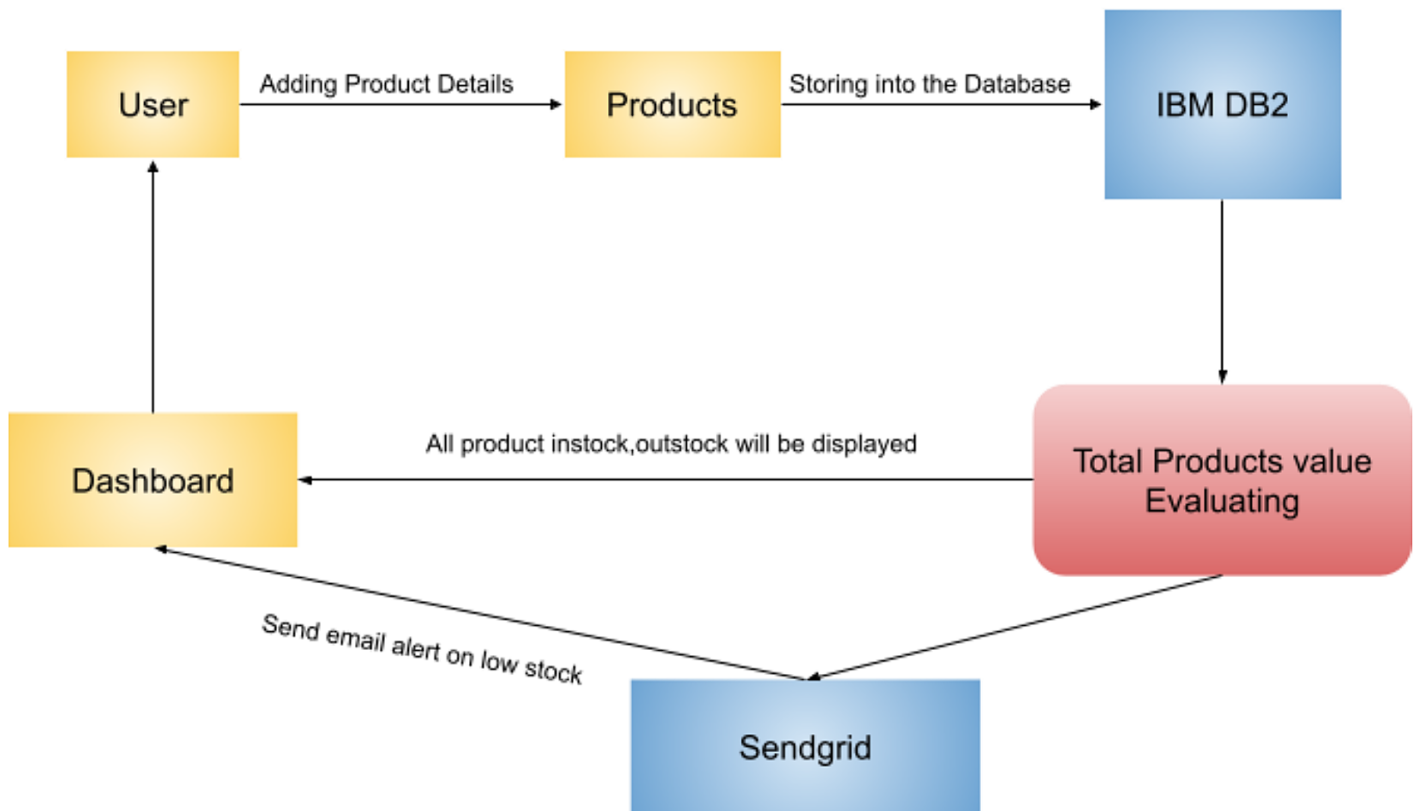
- o The System User Interface is built on Microsoft Visual Studio 2010.
- o The Programming is done in Microsoft Visual Studio 2010.
- o The Database is implemented on the Microsoft Access 2010.
- o The connection between the Database and the System is achieved using ODBC connection available at hand in Visual Studio 2010.

5. Project Design

5.1 Data Flow Diagram

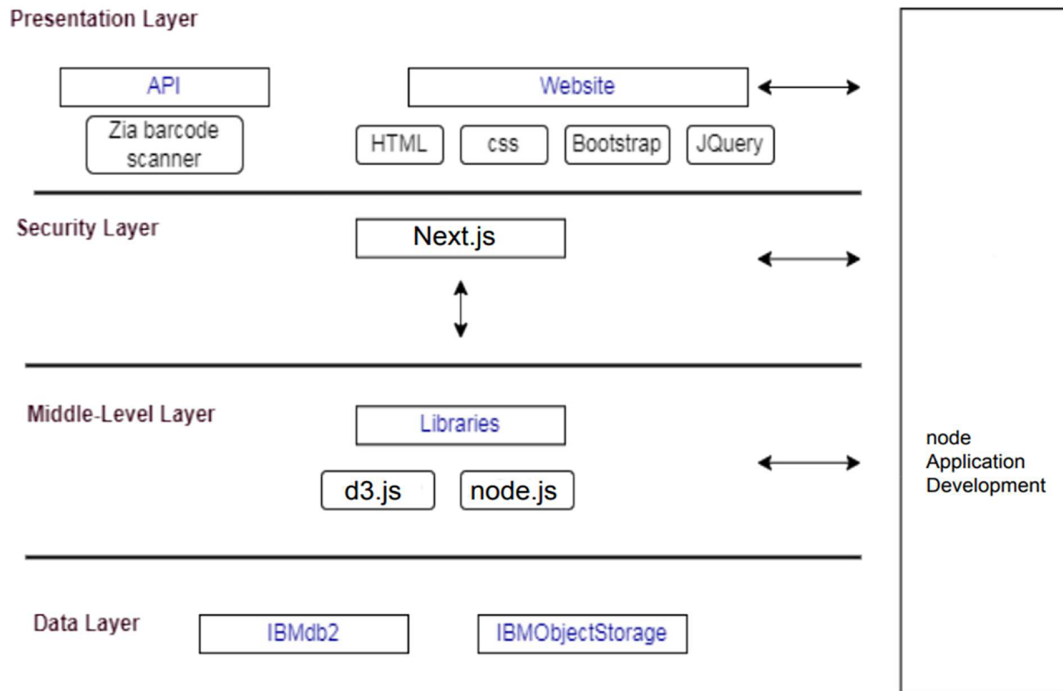
A data-flow diagram is a way of representing a flow of data through a process or a

system. The DFD also provides information about the outputs and inputs of each entity and the process itself. A data-flow diagram has no control flow there are no decision rules and no loops.



5.2 Solution and Technical Architecture

Technical Architecture:



5.3 User Stories

User Type	Functional Requirement(Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Retailer(Webuser)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I will be redirected to login page	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

6.Project Planning And Scheduling

6.1 Sprint Planning and Estimation

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Use the below template to create product backlog and sprint schedule

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 using my email & password and confirming my login credentials.	3	High	R Mohnishkumar K Arunmani B Manikandan B Vijayaragavan
Sprint-1		USN-2	As a user, I can login	3	Medium	R Mohnishkumar

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	11	6 Days	24 Oct 2022	29 Oct 2022	11	29 Oct 2022
Sprint-2	7	6 Days	31 Oct 2022	05 Nov 2022	7	05 Nov 2022
Sprint-3	6	6 Days	07 Nov 2022	12 Nov 2022	6	12 Nov 2022
Sprint-4	7	6 Days	14 Nov 2022	19 Nov 2022	7	19 Nov 2022

6.3 Reports from JIRA

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)

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

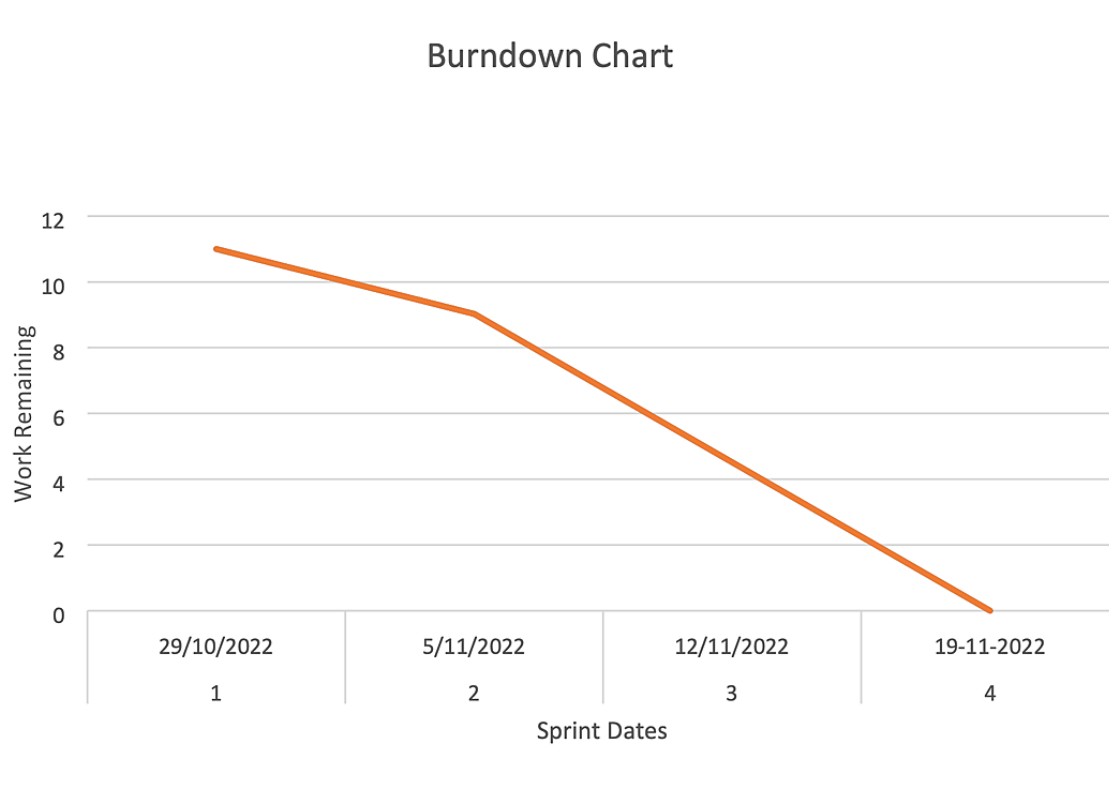
Our velocity should be:

$$AV = \frac{(11+7+6+7)}{24} = \frac{31}{24} = \mathbf{1.29}$$

BurndownChart:

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.



7.Coding and Solutioning

home.tsx

```
import React from "react";
import { Router, useRouter } from "next/router";
import Image from "next/image";

const HomeContainer = () => {
  const router = useRouter();

  return (
    <div className="container">
      <div className="page">
        <nav className="navbar">
          <a href="" className="brand">
            <Image
              width={30}
              height={30}
              src="https://external-
content.duckduckgo.com/iu/?u=https%3A%2F%2Fupload.wikimedia.org%2
Fwikipedia%2Fcommons%2Fthumb%2F8%2F84%2FApple_Computer_Logo
_rainbow.svg%2F1200px-
Apple_Computer_Logo_rainbow.svg.png&f=1&nofb=1"
              alt=""
            />
          </a>
          <ul>
            <li onClick={() => router.push("/chart")}>Login</li>
          </ul>
        </nav>
        <div className="left">
          <h1>Manage Your Inventory</h1>
```

```

    <p>Apple's remarkable new personal computer</p>
    <button>Login</button>
  </div>
  <div className="right">
    {/* <div class="img">
      
    </div> */}
    <ul>
      <li>Instagram</li>
      <li>-</li>
      <li>Facebook</li>
      <li>-</li>
      <li>Twitter</li>
    </ul>
  </div>
</div>
</div>
);
};

```

```
export default HomeContainer;
```

bar.tsx

```

import ResizableBox from "../ResizableBox";
import React from "react";

```



```
import { AxisOptions } from "react-charts";
import dynamic from "next/dynamic";
```

```
const Chart: any = dynamic(
  () => import("react-charts").then((mod) => mod.Chart),
  {
    ssr: false,
  }
);
```

```
export default function Bar() {
  let data = [
    {
      label: "Available Stocks",
      data: [
        {
          primary: "Toys",
          secondary: 32,
          radius: 1,
        },
        {
          primary: "Cloth",
          secondary: 46,
          radius: 1,
        },
        {
          primary: "Electronics",
          secondary: 70,
          radius: 1,
        },
        {
          primary: "Timber",
```

```

    secondary: 3,
    radius: 1,
  },
  {
    primary: "Food",
    secondary: 46,
    radius: 1,
  },
  {
    primary: "Drinks",
    secondary: 70,
    radius: 1,
  },
],
},
];

```

```

const primaryAxis = React.useMemo<
  AxisOptions<typeof data[number]["data"][number]>
>(
  () => ({
    getValue: (datum) => datum.primary,
  }),
  []
);

```

```

const secondaryAxes = React.useMemo<
  AxisOptions<typeof data[number]["data"][number]>[]
>(
  () => [
    {
      getValue: (datum) => datum.secondary,

```

```
    },  
  ],  
  []  
);
```

```
return (  
  <div  
    style={{  
      display: "flex",  
      width: "100%",  
      padding: "2%",  
      boxSizing: "border-box",  
    }}  
  >  
    <ResizableBox>  
      <Chart  
        options={{  
          data,  
          primaryAxis,  
          secondaryAxes,  
        }}  
      />  
    </ResizableBox>  
  
    <div  
      style={{  
        margin: "10px 0",  
        color: "#777",  
        lineHeight: "1.5",  
        marginLeft: "30px",  
        fontFamily: "monospace",  
      }}  
    </div>  
  </div>  
)
```

```

>
<p>
  Lorem ipsum, dolor sit amet consectetur adipisicing elit. Tenetur
  nesciunt accusamus accusantium repellat a! Neque inventore velit
ea?
  Unde quae porro ex commodi illum consequatur autem adipisci
obcaecati,
  praesentium quibusdam!
</p>
<div style={{ display: "flex", alignItems: "center" }}>
  <div
    style={{
      width: "15px",
      margin: "10px 0",
      height: "15px",
      borderRadius: "50%",
      backgroundColor: "#0f83ab",
    }}
  ></div>
  <p style={{ color: "#777", marginLeft: "5px" }}>Number of Stock</p>
</div>
</div>
);
}

```

Database Schema

User Schema

```
import mongoose from "mongoose";
```

```
const Schema = mongoose.Schema;

const userModel = new Schema(
{
  Email: { type: String, required: true },
  Name: { type: String, required: true },
  Password: { type: String, required: true },
  Timber: { type: Number },
  Cloth: { type: Number },
  Toys: { type: Number },
  Electronics: { type: Number },
  Drinks: { type: Number },
  Food: { type: Number },
  RequestedStocks: [
    {
      StockId: { type: String },
    },
  ],
  currentOrders: [
    {
      StockId: { type: String },
    },
  ],
  DateWiseDemand: [
    {
      date: Date,
      amount: {
        Timber: { type: Number },
        Cloth: { type: Number },
        Toys: { type: Number },
        Electronics: { type: Number },
        Drinks: { type: Number },
      },
    },
  ],
}
```

```
      Food: { type: Number },
    },
  },
],
  admin: { type: String, required: true },
},
{ timestamps: true }
);
```

```
module.exports = mongoose.models.User || mongoose.model("User",
userModel);
```

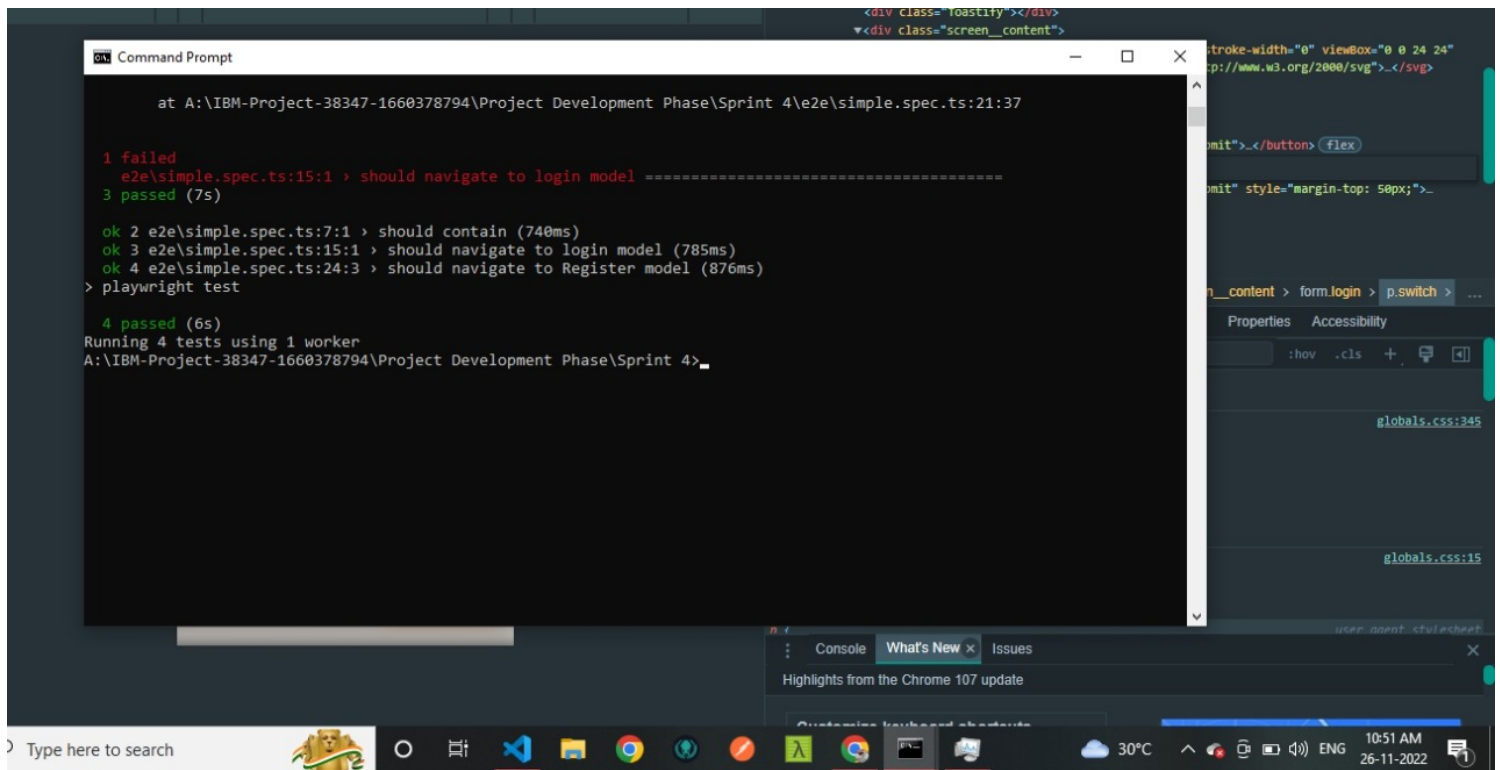
Stock Schema

```
import mongoose from "mongoose";
const Schema = mongoose.Schema;
```

```
const StockModel = new Schema(  
  {  
    Title: { type: String, required: true },  
    email: { type: String, required: true },  
    count: { type: Number, required: true },  
    type: { type: String, required: true },  
  },  
  { timestamps: true }  
);  
  
module.exports = mongoose.models.Stock || mongoose.model("Stock",  
StockModel);
```

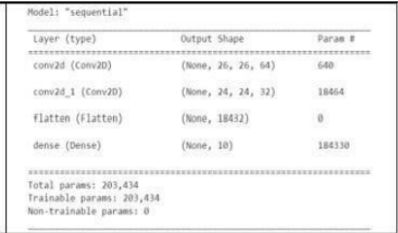
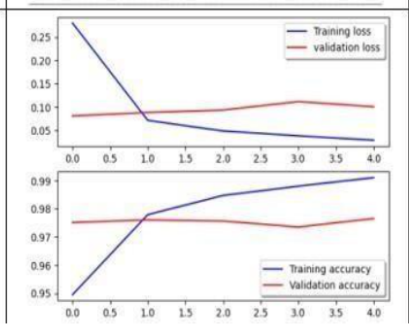
8. Testing

8.1 Test Cases



9. Results

9.1 Performance Metrics

S.No.	Parameter	Values	Screenshot
1.	Model Summary	-	 <pre> Model: "sequential" Layer (type) Output Shape Param # ----- conv2d (Conv2D) (None, 26, 26, 64) 640 conv2d_1 (Conv2D) (None, 24, 24, 32) 18464 flatten (Flatten) (None, 18432) 0 dense (Dense) (None, 10) 184330 ----- Total params: 203,434 Trainable params: 203,434 Non-trainable params: 0 </pre>
2.	Accuracy	Training Accuracy - 99% Validation Accuracy - 97%	 <p>The figure contains two line graphs. The top graph shows 'Training loss' (blue line) and 'validation loss' (red line) over 4.0 epochs. Training loss starts at approximately 0.25 and decreases to about 0.05. Validation loss starts at approximately 0.08 and fluctuates slightly, ending around 0.10. The bottom graph shows 'Training accuracy' (blue line) and 'Validation accuracy' (red line) over 4.0 epochs. Training accuracy starts at approximately 0.95 and increases to about 0.99. Validation accuracy starts at approximately 0.975 and fluctuates slightly, ending around 0.975.</p>
3.	Confidence Score (OnlyYolo Projects)	Class Detected - Confidence Score -	

10. Advantages and Disadvantages

Advantages

- **Cost savings:** In many cases companies inventory is one of the major investments along with its employees and locations. an inventory management system helps companies to cut expenses by minimizing the number of needless products and materials in storage. It also helps companies keep lost sales to a minimum by having enough stock to meet demand.
- **Increased efficiency:** The inventory management system allows for many automated inventory tasks for example the system can automatically collect data, calculate costs. This also reduces cost-saving and time-saving and thus subsequently leading to an increase in business proficiency.
- **Warehouse organization:** An inventory management system helps distributors, wholesalers, manufacturers, and retailers adjust their warehouses. If certain products are often sold together or are more popular than others, those products can be grouped together or placed near the delivery area to speed up the process of picking.
- **Updated data:** Provides up-to-date and real-time data on inventory levels is and benefit of the inventory management system. Company executives can usually access the software through their mobile devices, laptops for checking current inventory numbers this automatic updating of inventory allows the business to make informed decisions.
- **Data security:** By supplementary with the restricted user rights, company managers can allow many employees to contribute to inventory management. They can grant employees enough data access for tasks such as receiving products, making orders, transfer products, and perform other tasks without compromising company security. This can speed up the inventory management process and save managers time.

- **Insight into Trends:** This helps to track the products which are in stock and from which suppliers do they come from and the length of the time they are deposited is made possible with inventory management system by analyzing this data the company can improve their inventory levels and maximize the use of storeroom space. Additionally, firms are more prepared for the demands and supplies of the market, especially during special situations such as a peak season on a particular month.

Disadvantages

- **Increased space is need to hold the inventory:** in order to hold inventory, you will need to have space so unless the goods you deal in are really small in size, then you will need a warehouse to store it. In addition, you will also need to buy shelves and racks to store your goods, forklifts to move around the stock and of course staff. The optimum level of inventory for a business could still be a lot of goods and they will need space to be stored in and in some cases additional operational costs to manage the inventory. This will in turn increase cost and impact negatively on the amount of profit the business makes.
- **Complexity:** some methods and strategies of inventory management can be relatively complex and difficult to understand on the part of the staff. This may result in the need for employees to undergo training in order to grasp how the system works.
- Some inventory management systems such as the fixed order period system compels a periodic review of all items. This itself makes the system a bit inefficient.
- **High implementation costs:** some inventory management systems can come at a high price because the business needs to install specialized systems and software in order to use them. This can be problematic for large businesses which operate in difficult locations. Even after installing the costly system, it still needs to be maintained and upgraded on a regular basis,

thus incurring more costs.

- Even with an efficient inventory management method, you can control but not eliminate business risk.
- The control of inventory is complex because of the many functions it performs. It should thus be viewed as a shared responsibility.
- Holding inventory can result to a greater risk of loss to devaluation (changes in price).

11. Conclusion

To conclude, Inventory Management System is a simple desktop based application basically suitable for small organization. It has every basic items which are used for the small organization. Our team is successful in making the application where we can update, insert and delete the item as per the requirement. This application also provides a simple report on daily basis to know the daily sales and purchase details. This application matches for small organization where there small limited if godwoms.

Through it has some limitations, our team strongly believes that the implementation of this system will surely benefit the organization.

12. Future Scope

Since this project was started with very little knowledge about the Inventory Management System, we came to know about the enhancement capability during the 36 process of building it. Some of the scope we can increase for the betterment and effectiveness oar listed below:

- Interactive user interface design.
- Manage Stock Godown wise.
- Use of Oracle as its database.
- Online payment system can be added.
- Making the system flexible in any type.
- Sales and purchase return system will be added in order to make return ofvproducts.
- Lost and breakage

13. Appendix

Website Demo IP Address:-

<http://159.122.177.251:31090/>

Git Hub Link:-

<https://github.com/IBM-EPBL/IBM-Project-38347-1660378794>