

PROJECT REPORT
INVENTORY MANAGEMENT SYSTEM FOR
RETAILERS

HX8001

**Professional Readiness for Innovation,
Employability and Entrepreneurship**

PROJECT REPORT

Submitted by

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INTRODUCTION

ABSTRACT:

- Inventory management system which is helpful for the business operators ,where shopkeeper keep the records of purchase and sales.
- Mismanaged inventory means disappointed customers ,too much cash tied up in slower sale and warehouses.
- This inventory is eliminate paper work, human faults, manual delay and speed up process.
- This inventory management system will have the ability to track sales and available inventory ,tells a shopkeeper when its time to reorder and how much to purchase.
- Inventory management system is windows application developed for windows operating system which focused in the area of inventory control and generate.

Project overview

- Retail inventory management is the process of ensuring you carry merchandise 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.

Purpose

The main purpose of inventory management is to help businesses easily and efficiently manage the ordering, stocking, storing, and using of inventory.

LITERATURE SURVEY

Dave Piasecki .[1] (2001) He focused on various model of inventory to calculating optimum purchase quantity which used the EOQ method. He points out that many companies are not using EOQ model because of poor results resulted from inaccurate data input. He says that EOQ is an accounting formula which determines point at which combination of ordering costs and stock inventory costs are the least. He highlights that EOQ method would not conflict with the JIT approach. He further elaborates the EOQ model formula that includes parameters like yearly usage on unit, order cost and carrying cost. Finally, he proposes several steps to follow in implementing the EOQ model. Now this literature limitation is as it does not elaborate further association among EOQ and JIT. It does not associate stock turns with EOQ so fails for mention profit gain with associated stock is calculated.

Sambasiva Rao. K [2] (2002) According his investigation on Materials Managing in Public Sector Ship Building Industry evaluates. Output of materials managing and identifies some problems faced by materials managing in the heavy engineering industry. This investigation method involves the 68 documentary evidence and survey of expert opinion. He evaluates the existing purchase systems and lead time involved on procurement of stock item and advised the long lead time shall be reduced. His research points at additional stock in terms on months production cost in all the engineering units. He also highlights some of the problems in the area on materials managing such as delay in customer part on supplying own stock item, existence and disposal of surplus and non-moving items, excessive lead times and excessive dependence on imports. He claims that administrative and procurement lead times for organization are on the higher side according to peculiar nature of industry. He suggests liberalized purchase procedures, increased capital powers to the personnel, Opening up of liaison offices in various countries to reduce the lead time.

Gaur, Fisher and Raman [3] (2005) In their study examined firm-level inventory behavior among retailing companies. They took a sample on 311 public-listed retail firms for years 1987–2000 for investigate relationship on stock turnover about gross margin, capital intensity , sales surprise. All observed that stock aggregate turnover for retailing company was positively related to capital intensity with sales surprise while inversely related gross margins.

2.2 Reference

- [1] Sambasiva Rao K., Singh, Sukhdev. (2006). Inventory control practices in IFFCO. The Management Accountant.
- [2] Pradeep Singh(2008),” Inventory and Working Capital Management- An Empirical Analysis”, The ICFAI Journal of Accounting and Research.
- [3] Capkun, Vedran, Hameri, Ari-Pekka & Weiss, Lawrence A. (2009). On the relationship between inventory and financial performance in manufacturing. International Journal of Operations & Production Management.
- [4] Gaur, Jighyasu & Bhattacharya, Sourabh. (2011). The relationship of financial and inventory performance of manufacturing firms in Indian context. California Journal of Operations Management.
- [5] Krishnankutty, Raveesh. (2011). Panel data analysis on retail inventory productivity. The Economic Research Guardian.
- [6] Eneje, B. C., Nweze, A .U. & Udeh, A. (2012). Effect of Efficient Inventory Management on Profitability: Evidence from Selected Brewery Firms in Nigeria. International Journal of Current Research.
- [7] Nyabwanga, Robert Nyamao & Ojera, Patrick. (2012). Inventory management practices and business performance for small scale enterprises in Kenya. KCA Journal of Business Management.
- [8] Madishetti, Srinivas & Kibona, Deogratias. (2013). Impact of inventory management on the profitability of SMEs in Tanzania. International Commerce & Management.
- [9] Anichebe, N. A. & Agu, O. A. (2013). Effect of Inventory Management on Organizational Effectiveness. Information and Knowledge Management.
- [10] Panigrahi, Ashok K. (2013). Relationship between inventory management and profitability: An empirical analysis of Indian cement companies. Asia Pacific Journal of Marketing & Management Review.
- [11] Srinivasa Rao Kasisomayajula(2014) “An Analytical Study on Inventory Management in Commercial Vehicle Industry in India”, International Journal of Engineering Research.
- [12] Sanjiv Mittal, R.K. Mittal ,Gagandeep Singh, Sunil Gupta (2014).”Inventory Management in Fertiliser Industry of India: An Empirical Analysis” Asia-Pacific Journal of Management Research and Innovation.
- [13] Viplesh Shardeo(2015), “Impact of Inventory Management on the Financial Performance of the firm” IOSR Journal of Business and Management (IOSRJBM).

Problem Statement Definition

Customer Problem Statement:

Create a problem statement to understand your customer's point of view. The Customer Problem Statement template helps you focus on what matters to create experiences people will love.

A well-articulated customer problem statement allows you and your team to find the ideal solution for the challenges your customers face. Throughout the process, you'll also be able to empathize with your customers, which helps you better understand how they perceive your product or service.

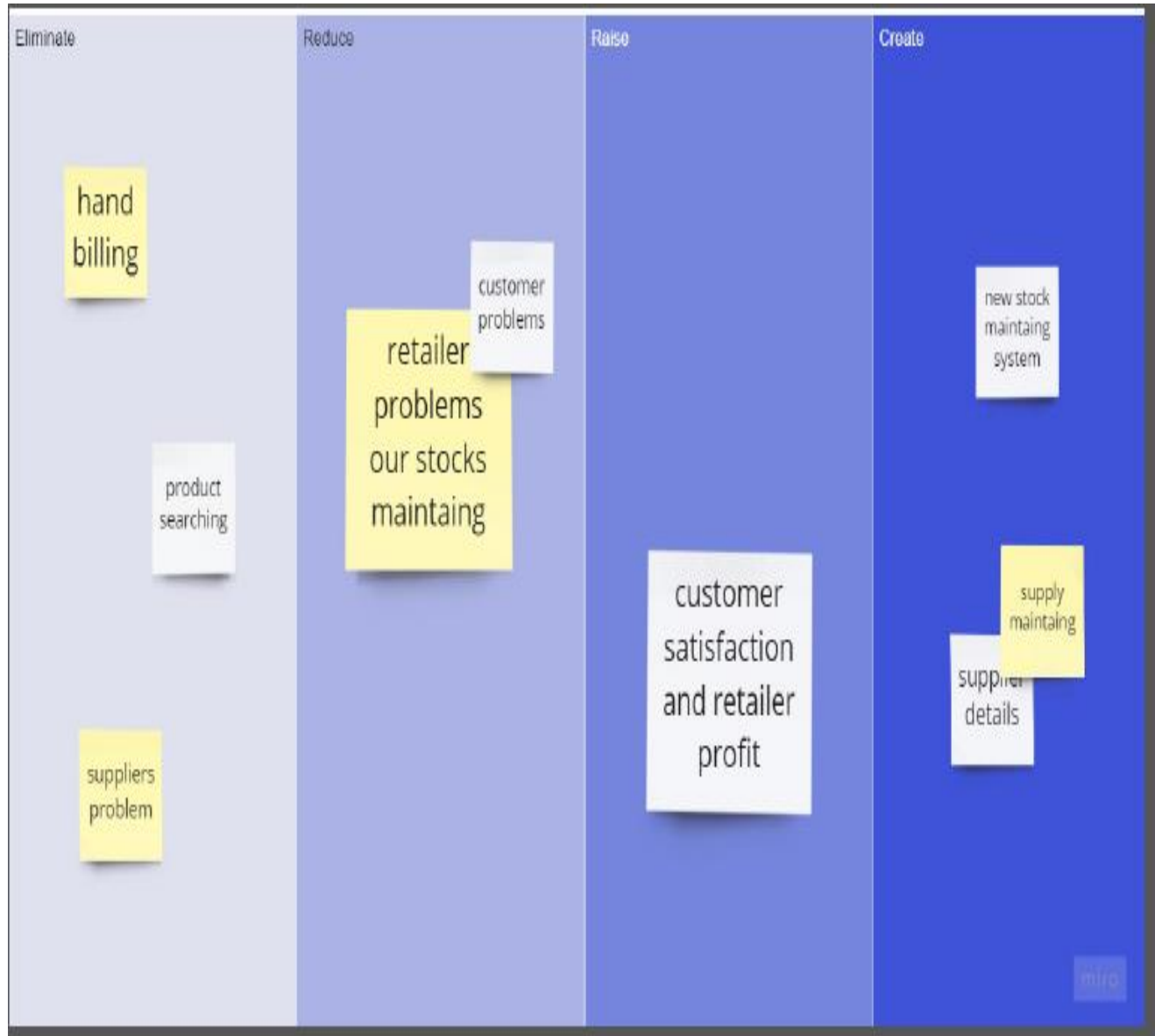
Problem Statement (PS)	I am (customer)	I'm trying to	But	Because	Which makes me feel
PS-1	xxxx	Get product on time	I can't receive it on time	Supply chain issues	frustrated
PS-2	xyxy	Get good quality product	I get expired product	Outdated products	irritated

3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas



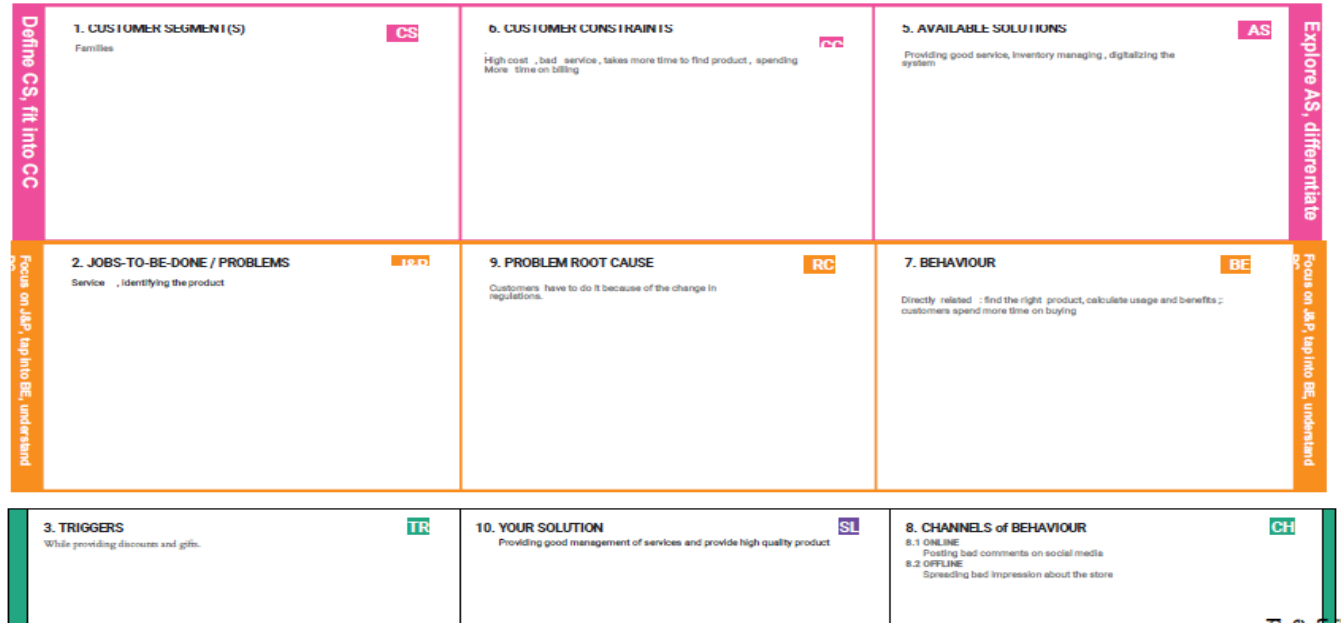
3.2 Ideation & Brainstorming



3.3 Proposed Solution

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	Getting outdated product
2.	Idea / Solution description	Keep a record of multiple product with a view of complete stock history and set notification for stock expiration
3.	Novelty / Uniqueness	Inventory tracking
4.	Social Impact / Customer Satisfaction	Customer get good product
5.	Business Model (Revenue Model)	Hybrid model
6.	Scalability of the Solution	cloud

3.4 Problem Solution Fit



4.REQUIREMENT ANALYSIS

4.1 Functional Requirement

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration by admin
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Stock ordering	Stock ordering by register location
FR-4	Product cost	Adding product cost to the database

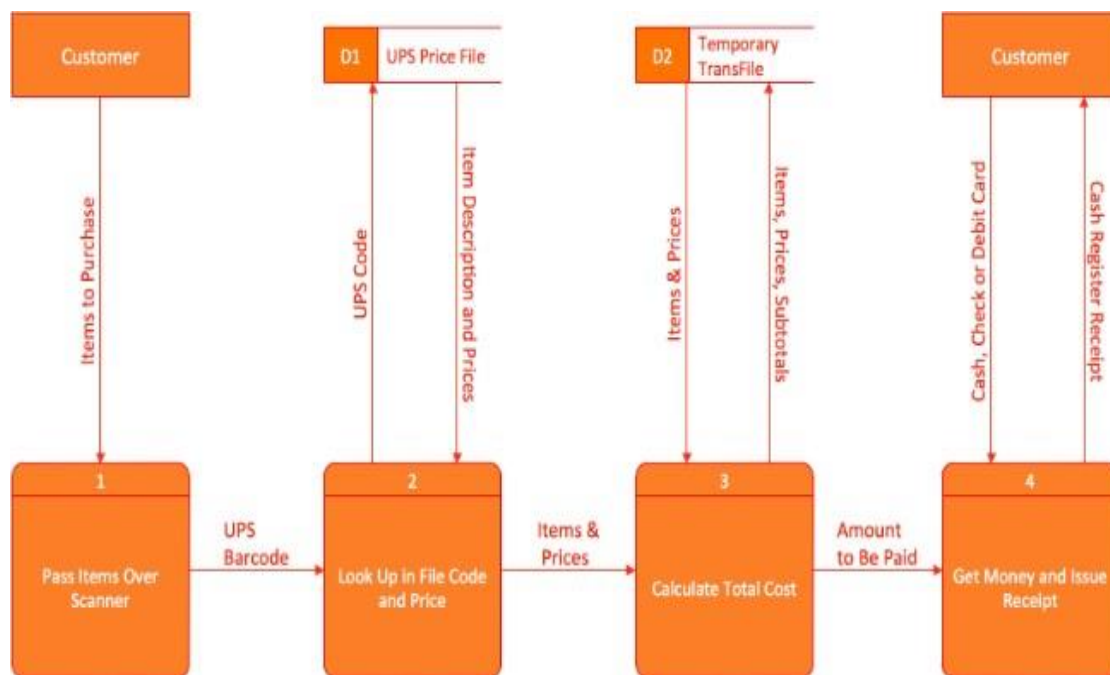
4.2 Non-Functional Requirement

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	User friendly
NFR-2	Security	High security
NFR-3	Reliability	It reduces the working progress
NFR-4	Performance	It increase the stock production
NFR-5	Availability	Retailer bases
NFR-6	Scalability	High

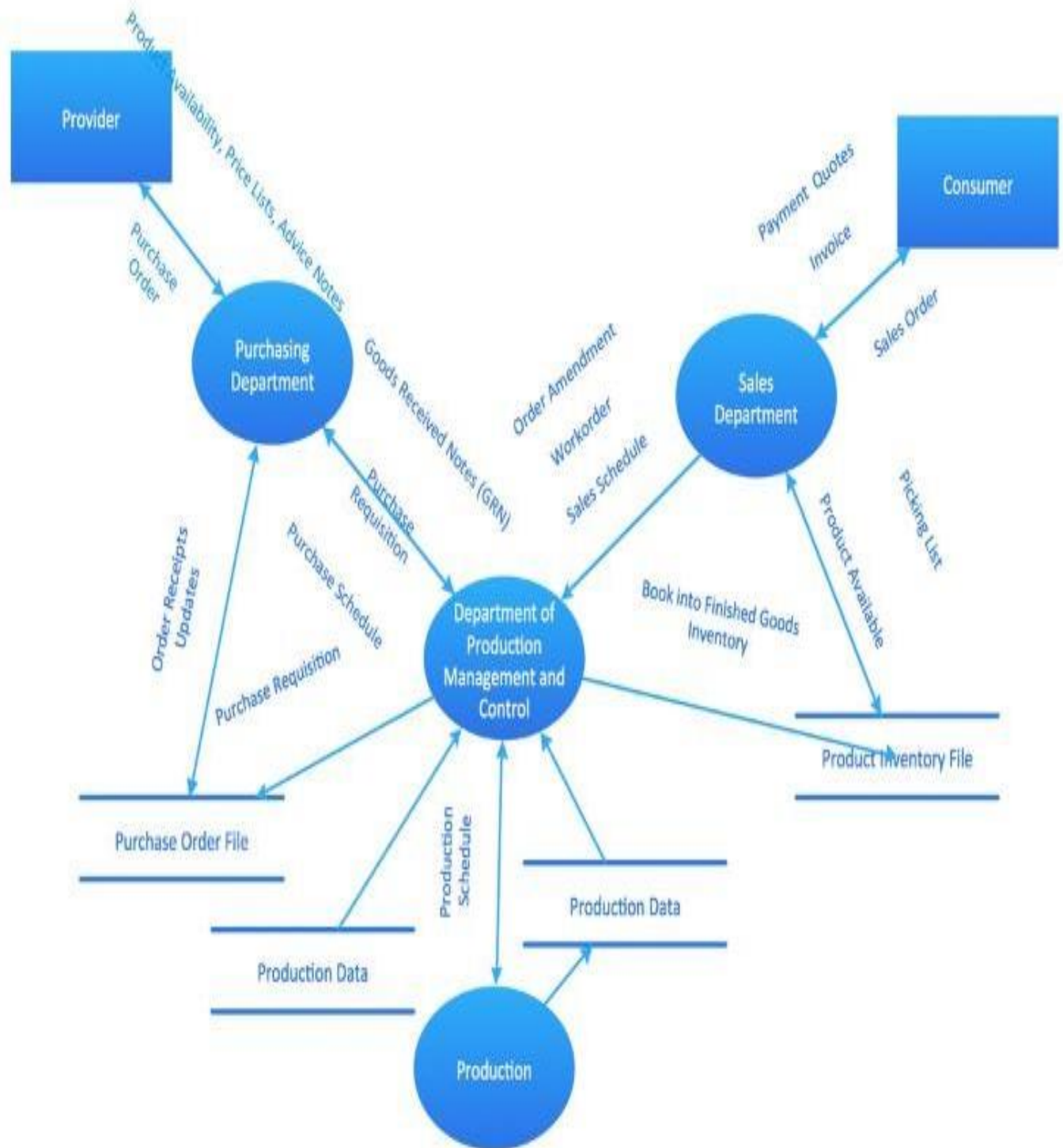
5. PROJECT DESIGN

5.1 Data Flow Diagrams

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. 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.



DFA Level 0 :

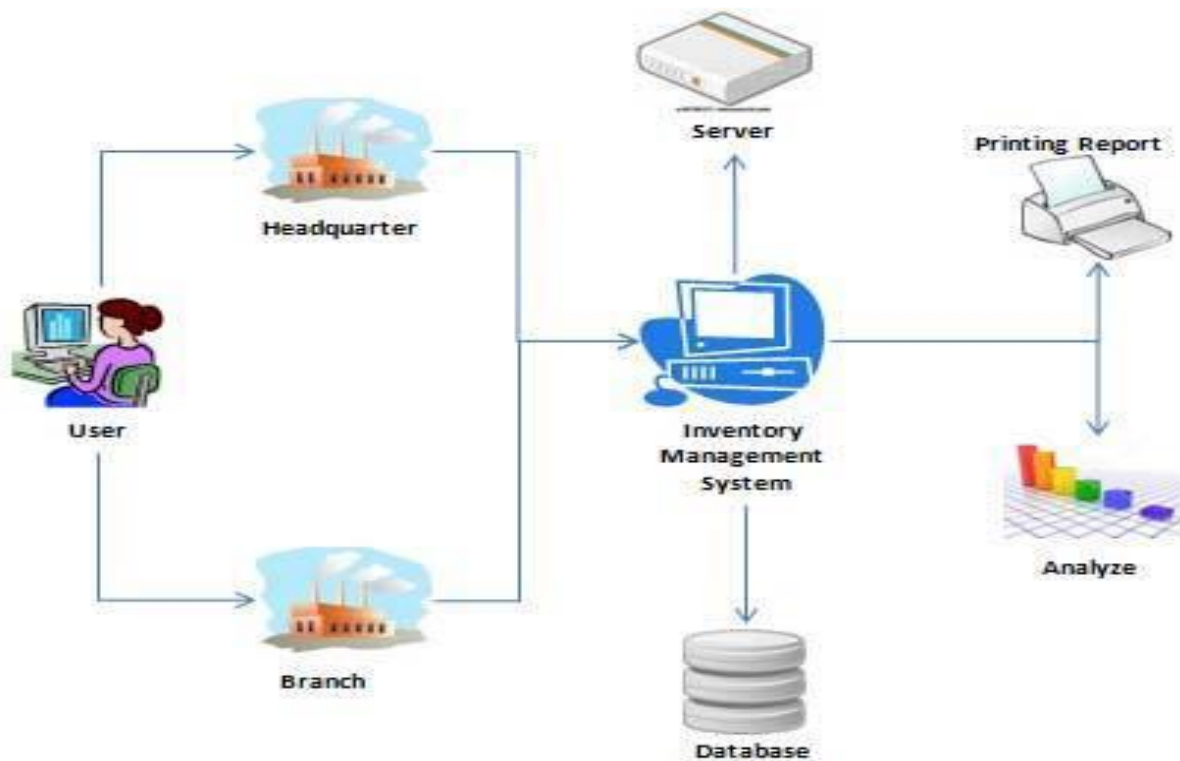


5.2 Solution & Technical Architecture

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

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

Solution Architecture Diagram



5.3 User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
retailer	Administration	USN-1	As a store manager, I want the available batch numbers and expiration dates that are currently valid for a product (are in use in the country) to auto-populate a drop-down list So I don't have to manually enter the batch number for each transaction	Populate Approved Batches & Expiry	High	Sprint-1
retailer	Administration	USN-2	As an administrator I want to set-up the stock card to specify which fields display on the stock card, and the order of the fields So that the stock card looks the same as the paper form used in country, without having to do software development	Configure Stock Card	High	Sprint-1
	Issue Stock	USN-3	As a store manager, I want my stock level to be automatically updated with stock that I receive via informed push So that my stock balance is accurate	Receive Stock via Informed Push	Low	Sprint-2
	Receive Stock	USN-4	As a store manager at any level, I want to receive an ad-hoc shipment (one that hasn't been recorded as shipped.	Ad-Hoc Receipt	Medium	Sprint-1

--	--	--	--	--	--	--

6. PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Login Page	USN-1	Creating .a Login page for the users	12	High	TL, M1
Sprint-1	Registration Page	USN-2	Creating a Register page for the new user for the Application that store thereid and the passwords it the Database	18	Moderate	M2,M3
Sprint-2	Creating Stock Manager	USN-3	Creatin g a stock manger to add, save, update, delete the Stock informa tion	10	High	TL,M2
Sprint-2	Creating Customer Manager	USN-4	Creating a Customer manager to add, save,update, delete the Customer	15	High	M1,M3

			information			
Sprint-3	Testing & Deployment Phase-I	USN-5	Testing the Inventory Management System performance, I can know the System performance level	20	High	M1,M2
Sprint-3		USN-6	Improving the model efficiency whenever needed/As a user, I can see new updated Application in Future days.	25	Moderate	T1,M3

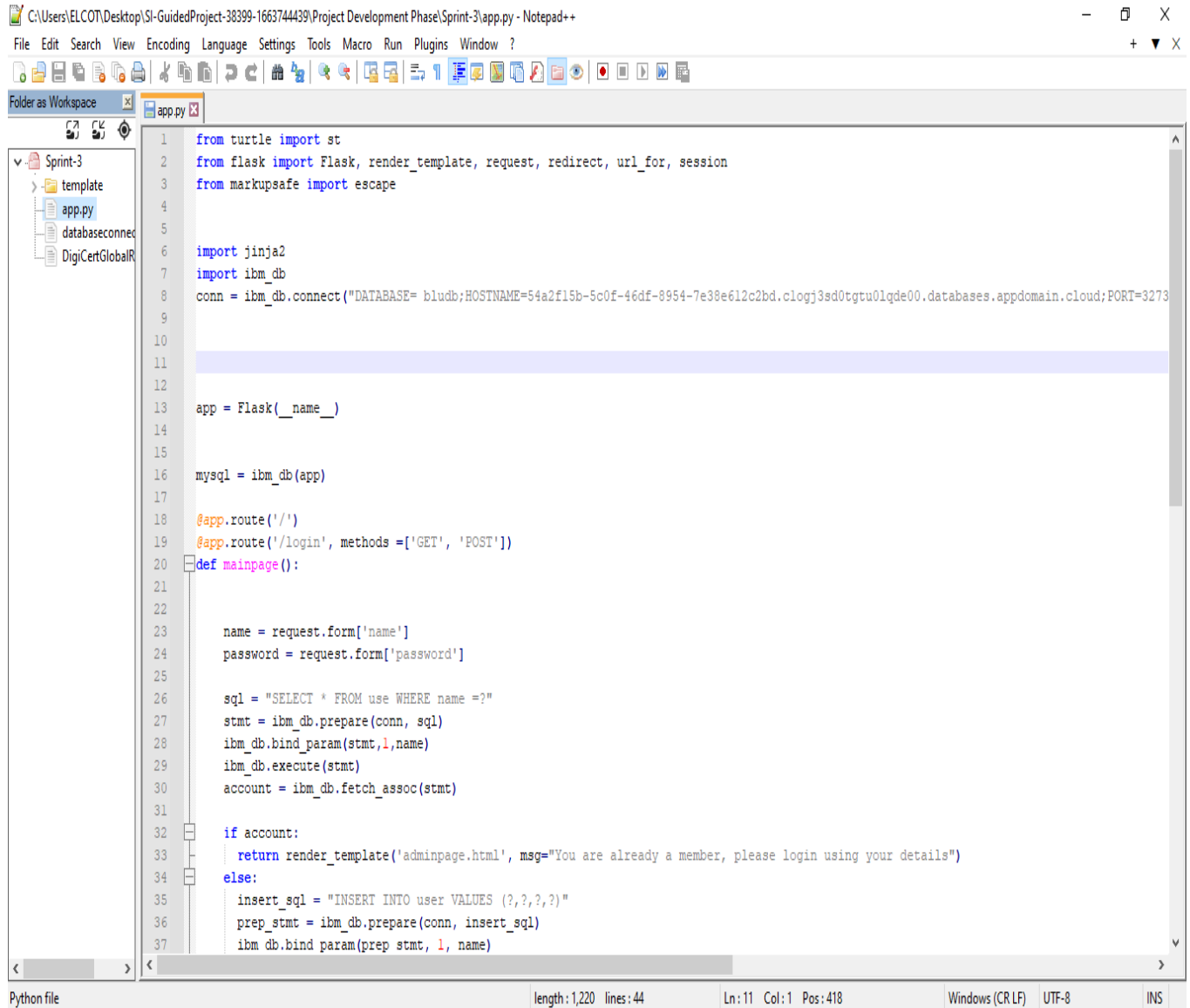
6.2 Sprint Delivery Schedule

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	30	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	30	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	40	12 Nov 2022

7.CODING & SOLUTIONING

CODE

Login Page:



```
1 from turtle import st
2 from flask import Flask, render_template, request, redirect, url_for, session
3 from markupsafe import escape
4
5
6 import Jinja2
7 import ibm_db
8 conn = ibm_db.connect("DATABASE= bludb;HOSTNAME=54a2f15b-5c0f-46df-8954-7e38e612c2bd.clogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=3273
9
10
11
12
13 app = Flask(__name__)
14
15
16 mysql = ibm_db(app)
17
18 @app.route('/')
19 @app.route('/login', methods=['GET', 'POST'])
20 def mainpage():
21
22
23     name = request.form['name']
24     password = request.form['password']
25
26     sql = "SELECT * FROM use WHERE name =?"
27     stmt = ibm_db.prepare(conn, sql)
28     ibm_db.bind_param(stmt, 1, name)
29     ibm_db.execute(stmt)
30     account = ibm_db.fetch_assoc(stmt)
31
32     if account:
33         return render_template('adminpage.html', msg="You are already a member, please login using your details")
34     else:
35         insert_sql = "INSERT INTO user VALUES (?, ?, ?, ?)"
36         prep_stmt = ibm_db.prepare(conn, insert_sql)
37         ibm_db.bind_param(prepare_stmt, 1, name)
```

Python file length: 1,220 lines: 44 Ln: 11 Col: 1 Pos: 418 Windows (CR LF) UTF-8 INS



Folder as Workspace

```

1 <!DOCTYPE html>
2
3 <html>
4
5
6 <head>
7
8 <link rel="stylesheet" type="text/css" href="nav2.css">
9
10 <title>
11 Admin Dashboard
12 </title>
13
14 </head>
15
16 <body>
17
18
19 <div class="sidenav">
20
21 <h2 style="font-family:Arial; color:white; text-align:center;"> SSD PHARMACY :) </h2>
22
23 <p style="margin-top:-20px;color:white;line-height:1;font-size:12px;text-align:center"><br><br><br></p>
24
25 <a href="adminmainpage.html">Dashboard</a>
26
27 <button class="dropdown-btn">Inventory
28 <i class="down"></i>
29 </button>
30
31 <div class="dropdown-container">
32
33 <a href="inventory-add.html">Add New Medicine</a>
34
35 <a href="inventory-view.html">Manage Inventory</a>
36
37 </div>
38

```

Hyper Text Markup Language file

length: 3,851 lines: 184

Ln: 1 Col: 1 Pos: 1

Unix (LF)

UTF-8

INS



Folder as Workspace

```

1 <!DOCTYPE html>
2 <html>
3
4 <head>
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <link rel="stylesheet" type="text/css" href="nav2.css">
7 <link rel="stylesheet" type="text/css" href="table1.css">
8 <title>
9 Reports
10 </title>
11 </head>
12
13 <body>
14
15 <div class="sidenav">
16 <h2 style="font-family:Arial; color:white; text-align:center;"> SSD PHARMACY :) </h2>
17 <p style="margin-top:-20px;color:white;line-height:1;font-size:12px;text-align:center"><br><br><br></p>
18 <a href="adminmainpage.html">Dashboard</a>
19 <button class="dropdown-btn">Inventory
20 <i class="down"></i>
21 </button>
22 <div class="dropdown-container">
23 <a href="inventory-add.html">Add New Medicine</a>
24 <a href="inventory-view.html">Manage Inventory</a>
25 </div>
26 <button class="dropdown-btn">Suppliers
27 <i class="down"></i>
28 </button>
29 <div class="dropdown-container">
30 <a href="supplier-add.html">Add New Supplier</a>
31 <a href="supplier-view.html">Manage Suppliers</a>
32 </div>
33 <button class="dropdown-btn">Stock Purchase
34 <i class="down"></i>
35 </button>
36 <div class="dropdown-container">
37 <a href="purchase-add.html">Add New Purchase</a>
38 <a href="purchase-view.html">Manage Purchases</a>

```

Hyper Text Markup Language file

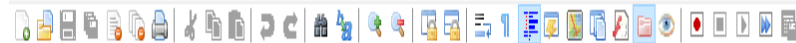
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Ln:1 Col:1 Pos:1

Unix (LF)

UTF-8

INS



Folder as Workspace

```

1 <!DOCTYPE html>
2 <html>
3
4 <head>
5 <link rel="stylesheet" type="text/css" href="table1.css">
6 <link rel="stylesheet" type="text/css" href="nav2.css">
7 <title>
8 Pharmacist Dashboard
9 </title>
10 </head>
11 <style>
12 body {font-family:Arial;}
13 </style>
14
15 <body>
16
17 <div class="sidenav">
18 <h2 style="font-family:Arial; color:white; text-align:center;"> SSD PHARMACY :) </h2>
19 <p style="margin-top:-20px;color:black;line-height:1;font-size:12px;text-align:center"><br><br><br></p>
20 <a href="pharmmainpage.html">Dashboard</a>
21
22 <a href="pharm-inventory.html">View Inventory</a>
23 <a href="pharm-pos1.html">Add New Sale</a>
24 <button class="dropdown-btn">Customers
25 <i class="down"></i>
26 </button>
27 <div class="dropdown-container">
28 <a href="pharm-customer.html">Add New Customer</a>
29 <a href="pharm-customer-view.html">View Customers</a>
30 </div>
31 </div>
32
33 <?html
34
35 include "config.html";
36 session_start();
37
38 $sql="SELECT E FNAME from EMPLOYEE WHERE E ID='$ SESSION[user]'"

```

Hyper Text Markup Language file

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Ln: 1 Col: 1 Pos: 1

Unix (LF)

UTF-8

INS



Folder as Workspace

```

1 <!DOCTYPE html>
2 <html>
3
4 <head>
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <link rel="stylesheet" type="text/css" href="nav2.css">
7 <link rel="stylesheet" type="text/css" href="table1.css">
8 <title>
9 Sales Invoice
10 </title>
11 </head>
12
13 <body>
14
15 <div class="sidenav">
16 <h2 style="font-family:Arial; color:white; text-align:center;"> SSD PHARMACY :) </h2>
17 <p style="margin-top:-20px;color:white;line-height:1;font-size:12px;text-align:center"><br><br><br></p>
18 <a href="adminmainpage.html">Dashboard</a>
19 <button class="dropdown-btn">Inventory
20 <i class="down"></i>
21 </button>
22 <div class="dropdown-container">
23 <a href="inventory-add.html">Add New Medicine</a>
24 <a href="inventory-view.html">Manage Inventory</a>
25 </div>
26 <button class="dropdown-btn">Suppliers
27 <i class="down"></i>
28 </button>
29 <div class="dropdown-container">
30 <a href="supplier-add.html">Add New Supplier</a>
31 <a href="supplier-view.html">Manage Suppliers</a>
32 </div>
33 <button class="dropdown-btn">Stock Purchase
34 <i class="down"></i>
35 </button>
36 <div class="dropdown-container">
37 <a href="purchase-add.html">Add New Purchase</a>
38 <a href="purchase-view.html">Manage Purchases</a>

```

Hyper Text Markup Language file

length: 3,347 lines: 129

Ln: 1 Col: 1 Pos: 1

Unix (LF)

UTF-8

INS



Folder as Workspace

```

1  <!DOCTYPE html>
2
3  <html>
4
5
6  <head>
7
8  <link rel="stylesheet" type="text/css" href="nav2.css">
9
10 <link rel="stylesheet" type="text/css" href="form4.css">
11
12 <title>
13 Purchases
14 </title>
15
16 </head>
17
18 <body>
19
20
21
22 <div class="sidenav">
23
24 <h2 style="font-family:Arial; color:white; text-align:center;"> SSD PHARMACY :) </h2>
25
26 <p style="margin-top:-20px;color:white;line-height:1;font-size:12px;text-align:center"><br><br><br></p>
27
28 <a href="adminmainpage.html">Dashboard</a>
29
30 <button class="dropdown-btn">Inventory
31
32 <i class="down"></i>
33
34 </button>
35
36 <div class="dropdown-container">
37
38 <a href="inventory-add.html">Add New Medicine</a>

```

Hyper Text Markup Language file

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Unix (LF)

UTF-8

INS

SOLUTION:



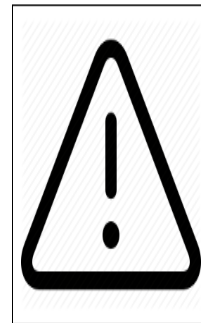
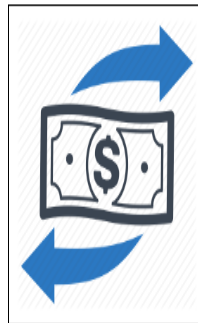
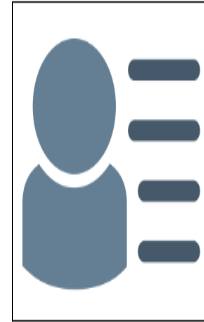
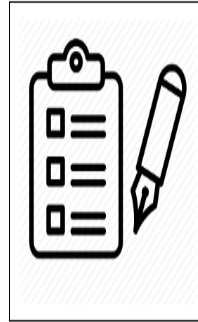
DAM PHARMACY

ALWAYS THERE TO CARE !!

Pharmacist Login

[Dashboard](#)[Inventory](#) ▾[Suppliers](#) ▾[Stock Purchase](#) ▾[Employees](#) ▾[Customers](#) ▾[View Sales Invoice
Details](#)[View Sold Products
Details](#)[Add New Sale](#)[Reports](#) ▾

ADMIN DASHBOARD



Dashboard

Inventory ▾

Suppliers ▾

Stock Purchase ▾

Employees ▾

Customers ▾

View Sales Invoice
DetailsView Sold Products
Details

Add New Sale

Reports ▾

STOCK PURCHASE LIST

Purchase ID	Supplier ID	Medicine ID	Medicine Name	Quantity	Cost of Purchase	Date of Purchase	Manufacturing Date	Expiry Date	Action
1001	136	123010	Concur 5 MG	200	1500.50	2020-03-01	2019-05-05	2021-05-10	Edit Delete
1002	123	123002	Panadol Cold & Flu	1000	3000.00	2020-02-01	2018-06-01	2020-12-05	Edit Delete
1003	145	123006	Benadryl 200 ML	20	800.00	2020-04-22	2017-02-05	2020-07-01	Edit Delete
1004	156	123004	Gelusil	250	1000.00	2020-04-02	2020-05-06	2023-05-06	Edit Delete
									Edit

Dashboard

Inventory ▾

Suppliers ▾

Stock Purchase ▾

Employees ▾

Customers ▾

View Sales Invoice
DetailsView Sold Products
Details

Add New Sale

Reports ▾

ADD PURCHASE DETAILS

Purchase ID:

Purchase Cost:

Supplier ID:

Date of Purchase:

Medicine ID:

Manufacturing Date:

Purchase Quantity:

Expiry Date:

Add Purchase

Dashboard

Inventory ▾

Suppliers ▾

Stock Purchase ▾

Employees ▾

Customers ▾

View Sales Invoice
DetailsView Sold Products
Details

Add New Sale

Reports ▾

POINT OF SALE

*Select Customer ID (only once for a customer's sales) ▾

Add to Proceed.

Select Medicine ▾

Search

Medicine ID:

Category:

Wami

Quantity Available:

Medicine Name:

Wami

Location:

Wami

Price of One Unit:

Quantity Required:

Add Medicine

[Dashboard](#)[Inventory](#) ▾[Suppliers](#) ▾[Stock Purchase](#) ▾[Employees](#) ▾[Customers](#) ▾[View Sales Invoice
Details](#)[View Sold Products
Details](#)[Add New Sale](#)[Reports](#) ▾

MEDICINES LOW ON STOCK(LESS THAN 50)

Medicine ID	Medicine Name	Quantity Available	Category	Price
8	para	18	Tablet	20.00
123003	Livogen	25	Capsule	5.00
123006	Benadryl 200 ML	35	Syrup	50.00
123007	Lopamide	15	Capsule	5.00
123009	Omeprazole	35	Capsule	4.00

Dashboard

Inventory ▾

Suppliers ▾

Stock Purchase ▾

Employees ▾

Customers ▾

View Sales Invoice
DetailsView Sold Products
Details

Add New Sale

Reports ▾

STOCK EXPIRING WITHIN 6 MONTHS

Purchase ID	Supplier ID	Medicine ID	Quantity	Cost of Purchase	Date of Purchase	Manufacturing Date	Expiry Date
1004	156	123004	250	1000.00	2020-04-02	2020-05-06	2023-05-06

Dashboard

Inventory ▾

Suppliers ▾

Stock Purchase ▾

Employees ▾

Customers ▾

View Sales Invoice
DetailsView Sold Products
Details

Add New Sale

Reports ▾

LIST OF PRODUCTS SOLD

Sale ID	Medicine ID	Medicine Name	Quantity Sold	Total Price
1	123001	Dolo 650 MG	20	20.00
1	123011	Augmentin 250 ML	2	160.00
2	123003	Livogen	75	225.00
2	123005	Cyclopam	60	360.00
3	123008	Vitamic C	40	120.00
4	123010	Concur 5 MG	250	875.00
4	123011	Augmentin 250 ML	1	80.00
5	123001	Dolo 650 MG	45	45.00
6	123006	Benadryl 200 ML	2	100.00
6	123009	Omeprazole	10	40.00
7	123001	Dolo 650 MG	100	100.00
7	123003	Livogen	50	250.00
8	123001	Dolo 650 MG	10	10.00
8	123002	Panadol Cold & Flu	10	25.00

Database Schema:

The screenshot shows a Notepad++ window with the title bar "C:\Users\ELCOT\Desktop\SI-GuidedProject-38399-1663744439\Project Development Phase\Sprint-3\databaseconnect.py - Notepad++". The menu bar includes File, Edit, Search, View, Encoding, Language, Settings, Tools, Macro, Run, Plugins, Window, and ?. The toolbar contains various icons for file operations and editing. The left sidebar shows the "Folder as Workspace" view with a tree structure: Sprint-3 (expanded), template, app.py, databaseconnect.py (selected), and DigiCertGlobalR. The main editor area displays the following Python code:

```
1 import ibm_db
2 conn = ibm_db.connect("DATABASE= bludb;HOSTNAME=54a2f15b-5c0f-46df-8954-7e38e612c2bd.clogj3sd0tgtu01qde00.databases.appdomain.cloud;PORT=3273
3
4
5 print(conn)
6 print("connection successful")
```

The status bar at the bottom indicates "Python file", "length: 311 lines: 6", "Ln: 1 Col: 1 Pos: 1", "Windows (CR LF)", "UTF-8", and "INS".

8.TESTING

Test Cases



Testing: 1. RPA testing:

It is an advanced software testing technique that allows bots to mimic human actions and automate tasks. By leveraging RPA testing, businesses can effectively test the functional and non-functional aspects of CLOUD APP.

2. Security testing:



Data security is a major concern for all enterprises. By leveraging security testing methods, businesses can test the security levels of chat bots. This testing method helps to remove security loopholes or vulnerability issues.

3. User Acceptance Testing (UAT):



User satisfaction matters a lot for businesses today. Therefore, to ensure the bots deliver a seamless CX, businesses must leverage user acceptance testing. By including end-users in the testing process, businesses get real-time feedback from users, which help to improve product quality and CX.

4. A/B testing:



It is an important software testing technique in which two different versions of the conversational bot are showcased to the user. The versions can vary in their UI, visual factors like color, text size, style, etc. User feedback is then collected to find out which version is more liked by the users. This form of testing ultimately helps businesses to release products that match the user's expectations

User Acceptance Test

1. Purpose of Document


The purpose of this document is to briefly explain the test coverage and open issues of the Inventory Management System for Retailers project at the time of the release to User Acceptance Testing (UAT).

2. Defect Analysis

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

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	7	4	5	2	18
Duplicate	1	0	6	0	7
External	2	4	0	1	7
Fixed	12	2	5	20	39
Not Reproduced	0	0	2	0	2
Skipped	0	0	2	1	3
Won't Fix	0	5	2	1	8
Totals	22	15	22	25	84

3. Test Case Analysis

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

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	7	0	0	7
Client Application	50	0	0	50
Security	7	0	0	7
Outsource Shipping	3	0	0	3
Exception Reporting	8	0	0	8
Final Report Output	6	0	0	6
Version Control	2	0	0	2



9.RESULTS

SSD PHARMACY :)

Logout

Dashboard

Inventory ▾

Suppliers ▾

Stock Purchase ▾

Employees ▾

Customers ▾

View Sales Invoice
Details

View Sold Products
Details

Add New Sale

Reports ▾

MEDICINES LOW ON STOCK(LESS THAN 50)

Medicine ID	Medicine Name	Quantity Available	Category	Price
8	para	18	Tablet	20.00
123003	Livogen	25	Capsule	5.00
123006	Benadryl 200 ML	35	Syrup	50.00
123007	Lopamide	15	Capsule	5.00
123009	Omeprazole	35	Capsule	4.00

Thus the project has been successfully implemented and executed.

10.ADVANTAGES & DISADVANTAGES

ADVANTAGE:

- Each material can be procured in the most economical quantity.
- Purchasing and inventory control people automatically gives their attention to those items which are required only when are needed.
- Positive control can easily be handled to maintain the inventory investment at the desired level only by calculating the predetermined maximum and minimum values.

DISADVANTAGES:

- Sometimes, the orders are placed at the irregular time periods which may not be convenient to the producers or the suppliers of the materials.
- The items cannot be grouped and ordered at a time since the reorder points occur irregularly.
- If there is a case when the order placement time is very high, there would be two to three orders pending with the supplier each time and there is likelihood that he may supply all orders at a time.
- EOQ may give an order quantity which is much lower than the supplier minimum and there is always a probability that the order placement level for a material has been reached but not noticed in which case a stock out may occur.
- The system assumes stable usage and definite lead time. When these change significantly, a new order quantity and a new order point should be fixed, which is quite cumbersome

11.CONCLUSION

The project inventory management for retailers has been successfully implemented by using python, flask, html, css , Java script and the database created by using IBM db2 and also successfully executed and implemented.

12.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. Measuring the change in inventory allows the company to determine the cost of inventory sold during the period. This allows the company to plan for future inventory needs.

GITHUB & PROJECT DEMO LINK:

GITHUB - <https://github.com/IBM-EPBL/SI-GuidedProject-38399-1663744439>

PROJECT DEMO LINK - <https://youtu.be/OssdZZtx42k>

