

INVENTORY MANAGEMENT FOR RETAILERS

1. INTRODUCTION

1.1 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.

In practice, effective retail inventory management results in lower costs and a better understanding of sales patterns. Retail inventory management tools and methods give retailers more information on which to run their businesses. Applications have been developed to help retailers track and manage stocks related to their 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.

1.2 Purpose

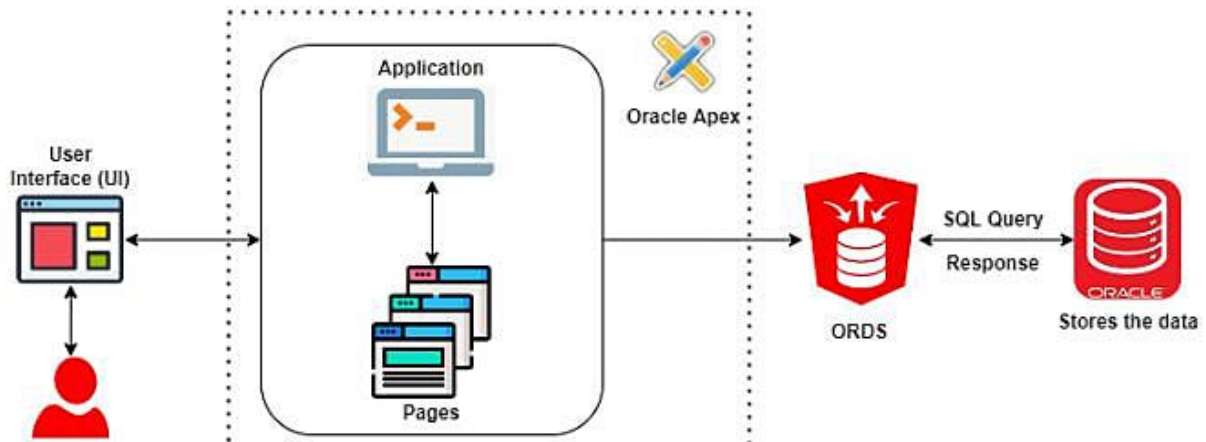
Retail inventory management is the process of ensuring you carry merchandise that shoppers want, with neither too little nor too much on hand. By managing inventory, retailers meet customer demand without running out of stock or carrying excess supply.

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2. THEORETICAL ANALYSIS

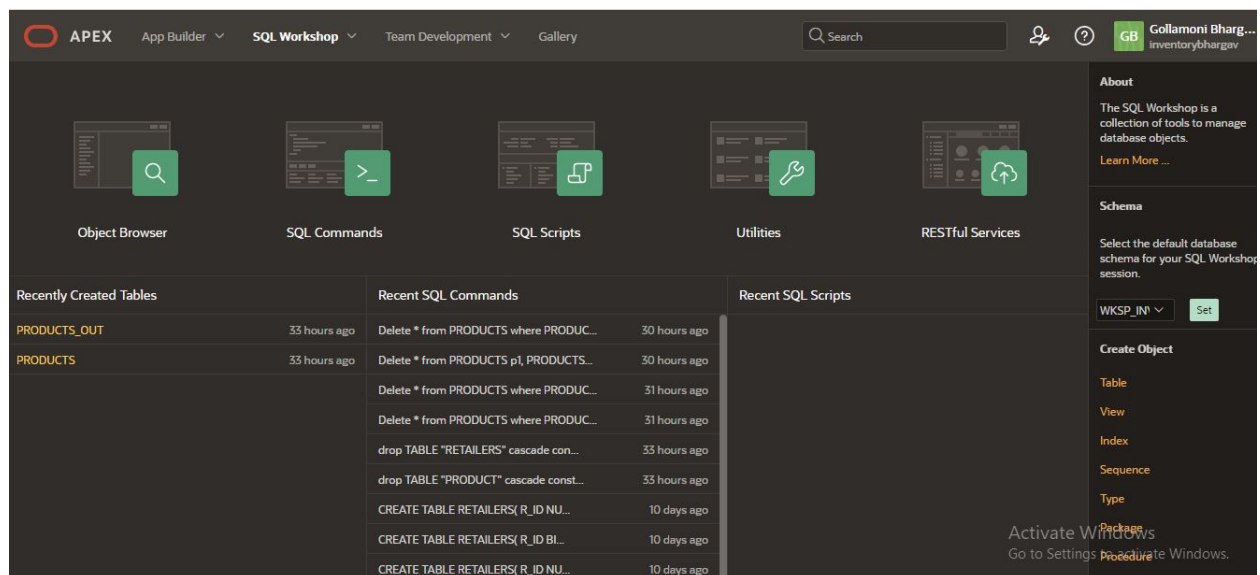
2.1 Block Diagram

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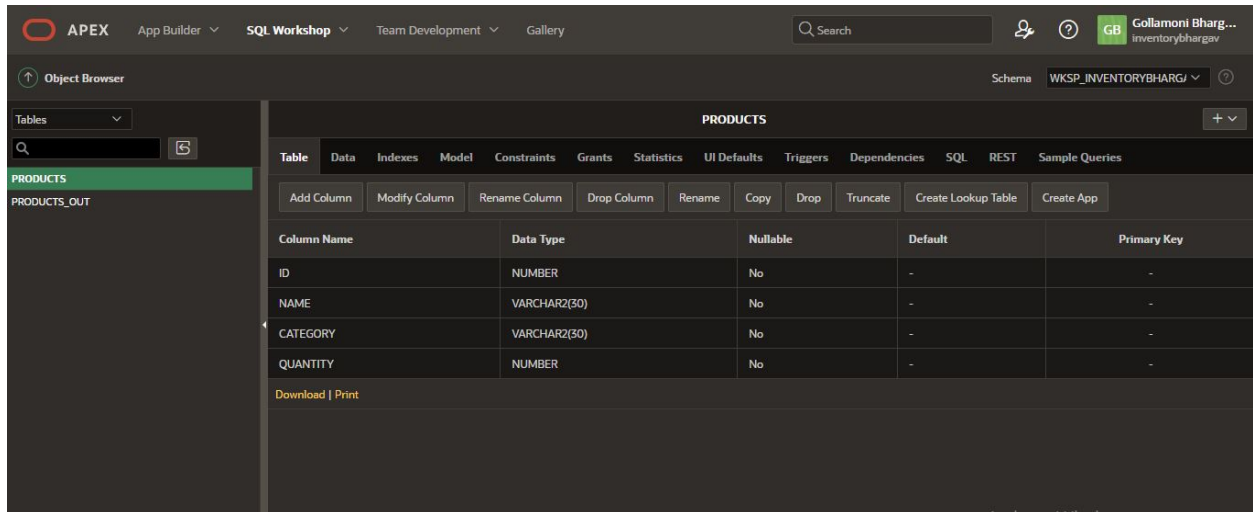
3. RESULT

3.1: Created a workspace and logged in and opened the Sql Workshop to create the tables.



3.2: Created a Products table with given fields.

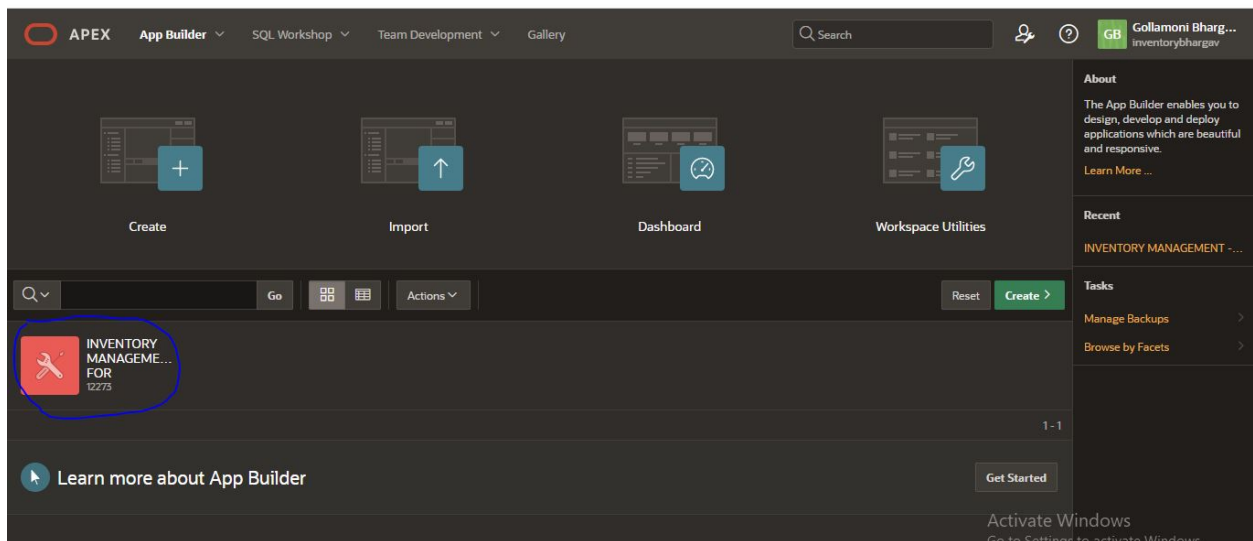
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The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'Gollamoni Bharg...' are on the right. The left sidebar shows the 'Object Browser' with 'PRODUCTS' selected. The main area displays the 'PRODUCTS' table structure with columns: ID, NAME, CATEGORY, and QUANTITY. The table has a primary key on 'ID'.

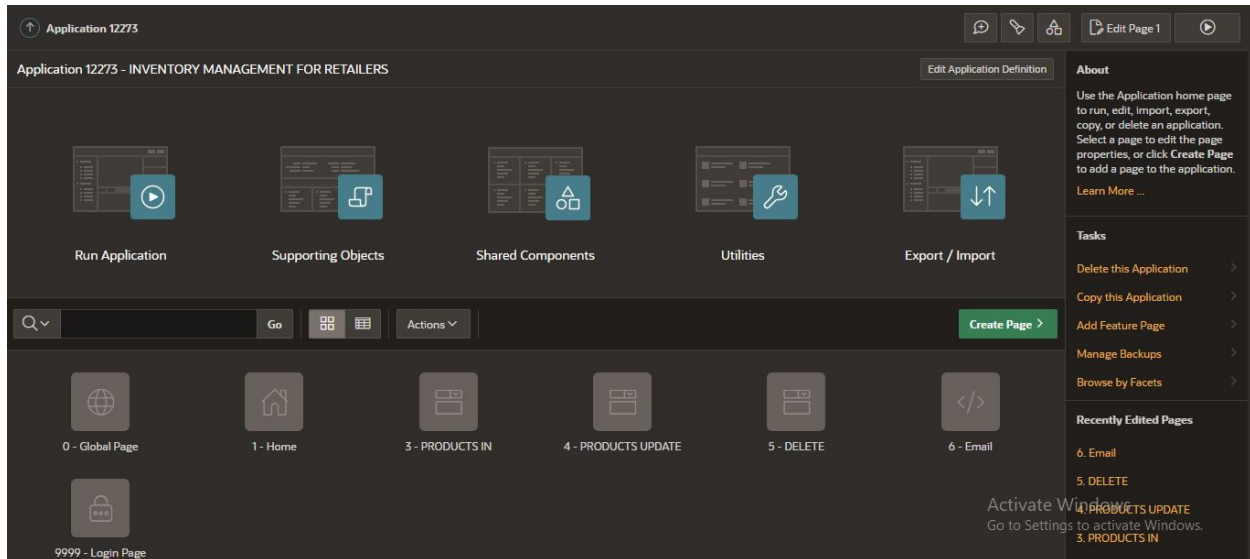
Table	Data	Indexes	Model	Constraints	Grants	Statistics	UI Defaults	Triggers	Dependencies	SQL	REST	Sample Queries
Add Column Modify Column Rename Column Drop Column Rename Copy Drop Truncate Create Lookup Table Create App												
Column Name	Data Type	Nullable	Default	Primary Key								
ID	NUMBER	No	-	-								
NAME	VARCHAR2(30)	No	-	-								
CATEGORY	VARCHAR2(30)	No	-	-								
QUANTITY	NUMBER	No	-	-								
Download Print												

3.3 Open App Builder and create an App called Inventory Management for Retailers.

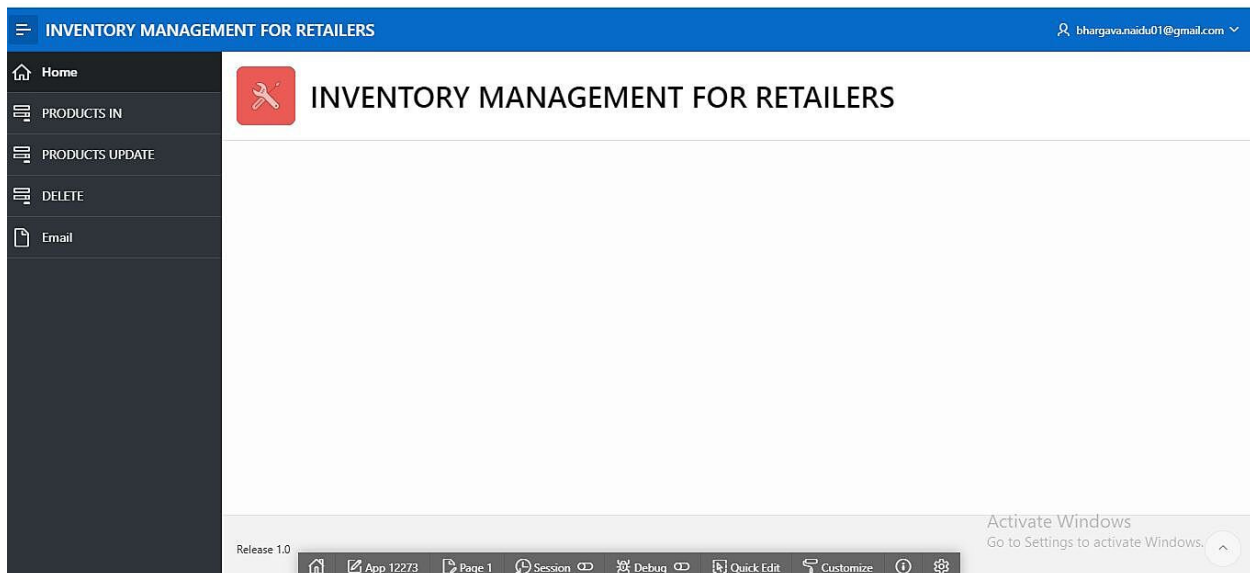


3.4 The below given forms are the required forms which i have created, Global Page , login page and home page are by default.

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3.5 After running the application. Choose product in form.



3.6 Filling the details the data get updated in database.

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Home

PRODUCTS IN

PRODUCTS UPDATE

DELETE

Email

PRODUCTS IN

ID: 1

Name: display

Category: Electronics

Quantity:

Cancel

Create

Release 1.0

App 12273

Page 3

Session

Debug

Quick Edit

Customize

Activate Windows

Go to Settings to activate Windows.

3.7 Data is added in database

APEX

App Builder

SQL Workshop

Team Development

Gallery

Search

GB Gollamoni Bharg...

InventoryBhargav

Object Browser

Tables

PRODUCTS

PRODUCTS_OUT

Schema: WKSP_INVENTORYBHARGAV

PRODUCTS

Table

Data

Indexes

Model

Constraints

Grants

Statistics

UI Defaults

Triggers

Dependencies

SQL

REST

Sample Queries

Query

Count Rows

Insert Row

Load Data

EDIT

ID

NAME

CATEGORY

QUANTITY

1

display

Electronics

5

Download

row(s) 1 - 1 of 1

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Oracle APEX 22.1.0

3.8 To add more data we can use Products update form to add the data of the products details. In this step we are adding the extra quantity. So this quantity will be added to previous data.

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Products Update

New: 1

Name: display

Category: Electronics

Quantity: 85

Cancel Create

3.9 Quantity got updated

PRODUCTS

Table	Data	Indexes	Model	Constraints	Grants	Statistics	UI Defaults	Triggers	Dependencies	SQL	REST	Sample
Query	Count Rows	Insert Row	Load Data									
EDIT	ID	NAME	CATEGORY									
	1	display	Electronics								85	
Download												

3.10 To delete products we can use Delete form.

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DELETE

DELETE

New 1

Name display

Category Electronics

Quantity 1

Cancel Create

Release 1.0

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3.11 Here we are deleting few quantity so below quantity is updated one.

APEX App Builder SQL Workshop Team Development Gallery

Object Browser

Tables

PRODUCTS

PRODUCTS_OUT

Schema WKSP_INVENTORYBHARGJ

PRODUCTS

Table Data Indexes Model Constraints Grants Statistics UI Defaults Triggers Dependencies SQL REST Sample Queries

Query Count Rows Insert Row Load Data

EDIT	ID	NAME	CATEGORY	QUANTITY
	1	display	Electronics	76

Download

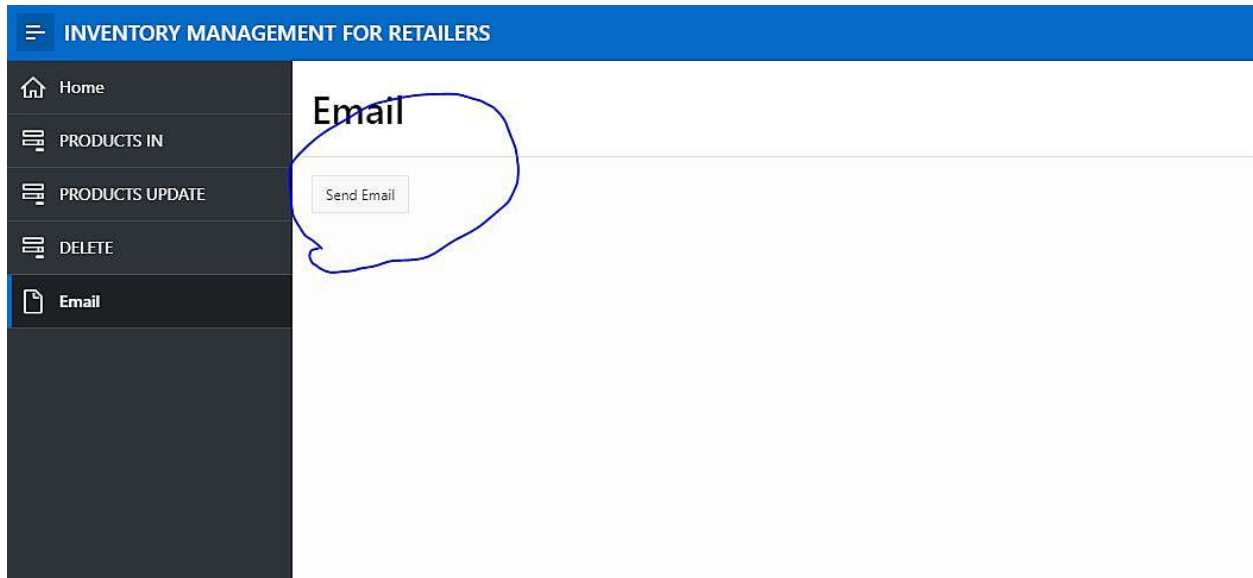
row(s) 1 -

Activate Windows
Go to Settings to activate Windows.

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3.12 If the products are less i.e if there is no stock, i created an automatic email This send email button will be clicked automatically when there is no stock.

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4. ADVANTAGES AND DISADVANTAGES

4.1 Advantages

1. It helps to maintain the right amount of stocks
2. It leads to a more organized warehouse
3. It saves time and money
4. Improves efficiency and productivity
5. A well-structured inventory management system leads to improved customer retention

4.2 Disadvantages

1. Bureaucracy
2. Impersonal touch
3. Production problem
4. Increased space is need to hold the inventory
5. Complexity

5. CONCLUSION

Effective inventory management requires a strategic approach to operate optimally. Inventory management systems are not only used by large companies but also small and medium-sized businesses. Choose the best stock system that suits your business. Integrating the Purchasing System with stock system will help you plan inventory costs, control the procurement of goods, and manage orders better.

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APPLICATION URL:

<https://apex.oracle.com/pls/apex/r/inventorybhargav/inventory-management-for-retailers1/login?session=9647190732541>

Workspace: **inventorybhargav**

Username: bhargava.naidu01@gmail.com

Password: **Bhargava@567**