Inventory Management System for Retailers

ABSTRACT:

Inventory management systems control the process of managing all incoming and outgoing products in a retail store or online. An inventory management system reduces time on stock management tasks such as cycle counts, physical inventory, and manual refill calculations.

Retailers should use inventory management software to reduce their carrying costs by automatically collecting data, conducting calculations, and creating records. This not only results in time savings, cost savings, but also increases business efficiency. Inventory management software can help distributors, wholesalers, manufacturers and retailers optimize their warehouses.

PROJECT OBJECTIVES:

- Retailers able to watch the stocks available
- Retailers can manage the stocks in efficient manner
- Retailers can take manual decisions of stocks holding based on the sales
- Making two applications to communicate with database without creating any conflicts.
- Alerting the retailers about the stock informations.

USE CASES:

- Helps retailers to manage their database of stocks in user friendly fashion
- Help the users to update the stocks without continuous interaction with the help of email notification of the stocks
- Help the Retailers to understand about the sales of their products.

PROJECT FLOW:

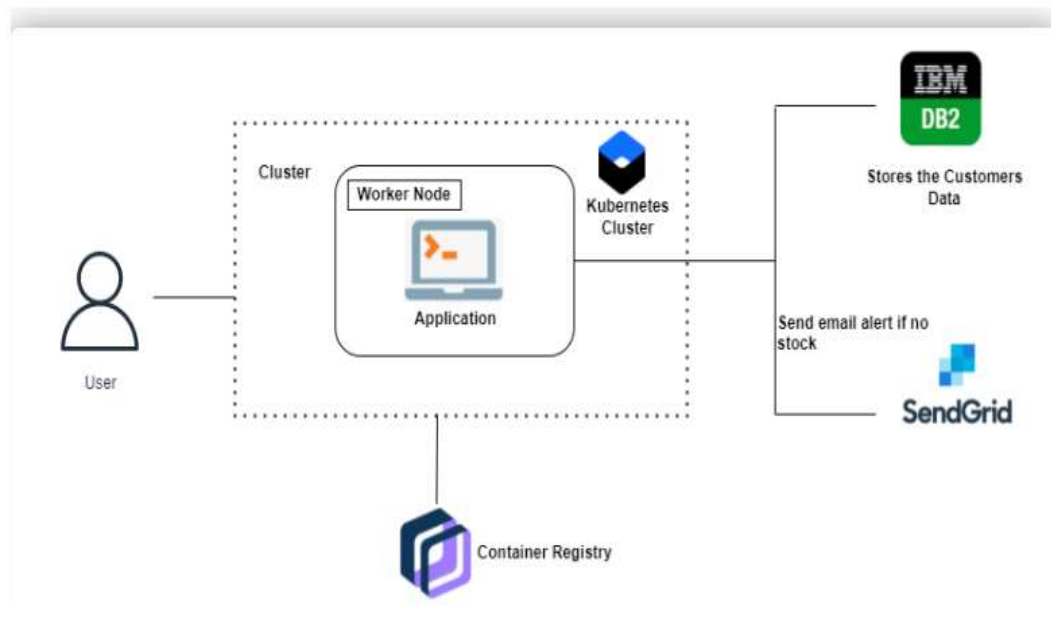A web application will be built in that

- Retailers can access their accounts by logging into the application.
- Once retailers successfully log in to the application they can update their inventory details
- 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.

A web application like online store is built for the retailer where user (buyers) can buy the product of the retailers. This web application (online store) fetch data from the database and update it based on the sales. Retailers on other hand can view their stocks and its sales by using the above application

To accomplish the above task following tasks should be performed

- An application for applications and online store for retailers should be built using flask
- Data of the user like inventory and log in has to be stored in the database (IBM DB 2).
- For sending mails in order to alert the retailer SMTP library / Send Grid has to be used to make the web application to send the mail.
- The data from database (IBM DB 2) has to be fetched and displayed on the retailers online store

SOFTWARE REQUIREMENTS:

- Python
- Flask
- Docker

LIBRARIES REQUIRED:

- SMTP/ Sendgrid
- Flask
- Redis
- qunicorn

FRAMEWORK REQUIRED:

- Flask

STEPS INVOLVED:

1.User Interface:

- Log in UI for user to log in to his/her account.
- Sign in UI for new user to create an account.
- Retailers Web page for customers to purchase product.
- Dashboard to view stocks in the inventory.
- UI for displaying the users contents like adding stocks and increasing or decreasing the stocks count.

2.SMTP / Send grid:

- If there is no stock in user account then using smtp / send grid the web application has to automatically send alert mail to the user.

By;

1905080 – Gokul Kumar S

1905090 – Kishore Kumar B

1905088 – Jeeva G

1905063 – Aakash G S