Inventory Management System

Project Proposal

# Introduction

This Inventory Management System aims to be a web-based internal stock management application delivering efficient and smart inventory management services to retail, manufacturing or ecommerce businesses. It will allow users from different departments, like manager, sales, warehouse and finance, to easily monitor and update inventory data. It will also integrate some handy functions, such as order management, invoice management and client management.

# Features

* CRUD inventory data and item details
* Import/export inventory data as .csv files
* Manage orders
* Apply different discount to different client groups
* Create invoices and email them to clients
* Analyse sales data, such as cost, best sale and most profitable items
* User authorisation management

# Data Structure

## Items

* Code
* Name
* Description
* Image
* Brand
* Manufacturer
* Cost Price
* Sales Price
* Tax Rate
* Active

## Inventory

* Item Code
* Quantity

## Brands

* ID
* Name
* Region

## Manufacturers

* ID
* Name
* Region
* Email
* Phone

## Orders

* ID
* Items
* Type (options:

In,

Out)

* Status (options:

Arrived,

Locked,

Confirmed,

Paid,

Picked)

* Date
* Value
* Tax
* Client
* Sales Person
* Remark

## Invoices

* ID
* Date
* Order

## Users

* ID
* Name
* Title
* Gender
* Email
* Phone
* Address
* User Group
* Avatar

## User Groups

* ID
* Role (options:

Super Admin,

Line Manager,

Sales Person,

Warehouse Operator,

Finance Person)

* Authorisation

## Clients

* ID
* Name
* Email
* Phone
* Region
* Client Group

## Client Groups

* ID
* Name
* Discount Rate

# Users Authorisation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Super Admin | Line Manager | Sales Person | Finance Person | Warehouse Operator |
| View Inventory | √ | √ | √ | √ | √ |
| Edit Inventory | √ | √ | √ |  | √ |
| View Items | √ | √ | √ | √ | √ |
| Edit Items | √ | √ | √ |  |  |
| View Orders | √ | √ | √ | √ | √ |
| Update Orders Status | √ | √ | √ | √ | √ |
| Add Orders | √ | √ | √ |  |  |
| Edit Invoices | √ | √ | √ | √ |  |
| Edit Clients | √ | √ | √ |  |  |
| Edit Client Groups | √ | √ |  |  |  |
| Edit User Groups | √ |  |  |  |  |

# App Structure

## Dashboard

Welcome message

Data analysis

Statistics

## Inventory

Table of items in stock

Search

Filter

Number of items displayed on one page

Pages

Import

Export

Edit Item

Add Item

E Foxglove Studios 
Dashboard 
Inventory 
+ New Item 
Accounts 
Payroll 
Item Name 
Reports 
Advisor 
Contacts 
o 
O 
O 
O 
O 
O 
Item Code 
300K 
PM-BR 
Support-M 
Train-MS 
TSL • Black 
TSM • Black 
TSS • Black 
Fish out of Water: Finding Your Brand 
Project management & implementation - branding 
Desktop/network support via email & phone 
Half day training - Microsoft Office 
T-Shirt Large Black 
T-Shirt Medium Black 
T-Shirt Small Black 
Settings 
cost Price 
15.95 
0.00 
0.00 
0.00 
20.00 
20.00 
20.00 
Import • 
sale Price 
19.95 
250.00 
541.25 
500.00 
40.00 
40.00 
40.00 
Matt Oldfield 
Quantity 
5.00 
4.oo 
7.00 

Figure 1 Inventory Page. Source: xero.com

## Add/Edit Item

* Edit item details
* Select from existing brand, manufacturer, ect.

New Item 
Item Code 
FSArtEye 
o 
I track this item 
Item Name 
Book • Art Is In The Eye 
This treats your item as a tracked inventory asset, Xero will the quantity 
hand and prevent you selling below a quantity 01 zero, 
Note: this option can not be changed once you have recorded transactions against 
Find out if tracked inventory is right for you. 
I purchase this item 
I sell this item 
unit Price 
Purchases Account 
Purchases Description 
(tor my suppliers) 
• Art Is In The Eye 
unit price 
Sales Account 
Tax Rate 
Tax Rate 
Sales Description 
(for my customers) 
Book Art Is In The Eye 

Figure 2 Add Item. Source: xero.com

## Order Management

* Table of orders
* Search
* Filter
* Edit order
* Add order

## Edit/Add Order

* Select items
* Select client
* Select sales person
* Export pdf
* Create invoice
* Sales staff can only see their own orders
* Orders can affect inventory quantities
* Cannot place order if there are not enough item in stock

## Client Management

List of clients

Edit client

Add client

## Edit/Add Client

## Site Management

Edit users

Edit user groups authorisation

## Log In/Out

# Tech Stack

Front-end: React

Back-end: Java Spring Boot

Database: PostgreSQL

Version control: GitHub