

Names: Muhizi Aime Patrick

Student I.D: 21841

WEB-TECHNOLOGY FINAL PROJECT

Inventory Management System

[PART 1]

1. Describe key features of web application functional + non-functional requirements.
2. Web-UI with menu to access those key features (min 3 functional, and 2 non-functional).

Problem

Organizations use management systems to regularize their tasks. They can be simple or complex depending on the needs of the organization. An inventory management system (or inventory system) is the process by which you track your goods throughout your entire supply chain, from purchasing to production to end sales. It governs how you approach inventory management for your business.

The Web-based Inventory Management System will attempt to automate and replace the traditional paper based approach for inventory management and tracking which is being used in the Police Department. The paper based approach is quite tedious and it results in a lot of time wastage. Records would be created for each transaction and would serve as a central database where looking for a single record would take a few seconds. This paperless system of management would increase the efficiency, decrease the complexity and provide flexibility to the organization.

What Web application solution do I propose to this problem?

-he Web-based Inventory Management System will attempt to automate and replace the traditional paper based approach for inventory management and tracking which is being used in the Police Department.

-Records would be created for each transaction and would serve as a central database where looking for a single record would take a few seconds.

Functional Requirements

1. The system shall provide signup system for new former to register new accounts.
2. The system shall provide a login system for the admin where they shall add, delete, display internships to the database.

3. The system shall provide the admin the capacity to view all types of inventory management applications.
4. The system shall allow registered former to have flexibility to the organization
5. The system of management would increase efficiency to the organization.

Non-functional requirements

1. Security: former must have valid credentials to be authenticated.
2. Responsive UI: The web application is responsive to smaller screens and medium screens and can be used on different devices.
3. Portability – Web application shall be compatible with all modern browser who can load html and JavaScript and css.

Source code:

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <parent>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-parent</artifactId>
    <version>2.5.1</version>
    <relativePath /> <!-- lookup parent from repository -->
  </parent>
  <groupId>com.example</groupId>
  <artifactId>IMS-AP</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <name>IMS-AP</name>
  <description>Inventory Management System - AP Project</description>
  <properties>
    <java.version>11</java.version>
  </properties>
  <dependencies>
    <dependency>
      <groupId>org.springframework.boot</groupId>
      <artifactId>spring-boot-starter-data-jpa</artifactId>
    </dependency>
    <dependency>
      <groupId>org.springframework.boot</groupId>
      <artifactId>spring-boot-starter-thymeleaf</artifactId>
```

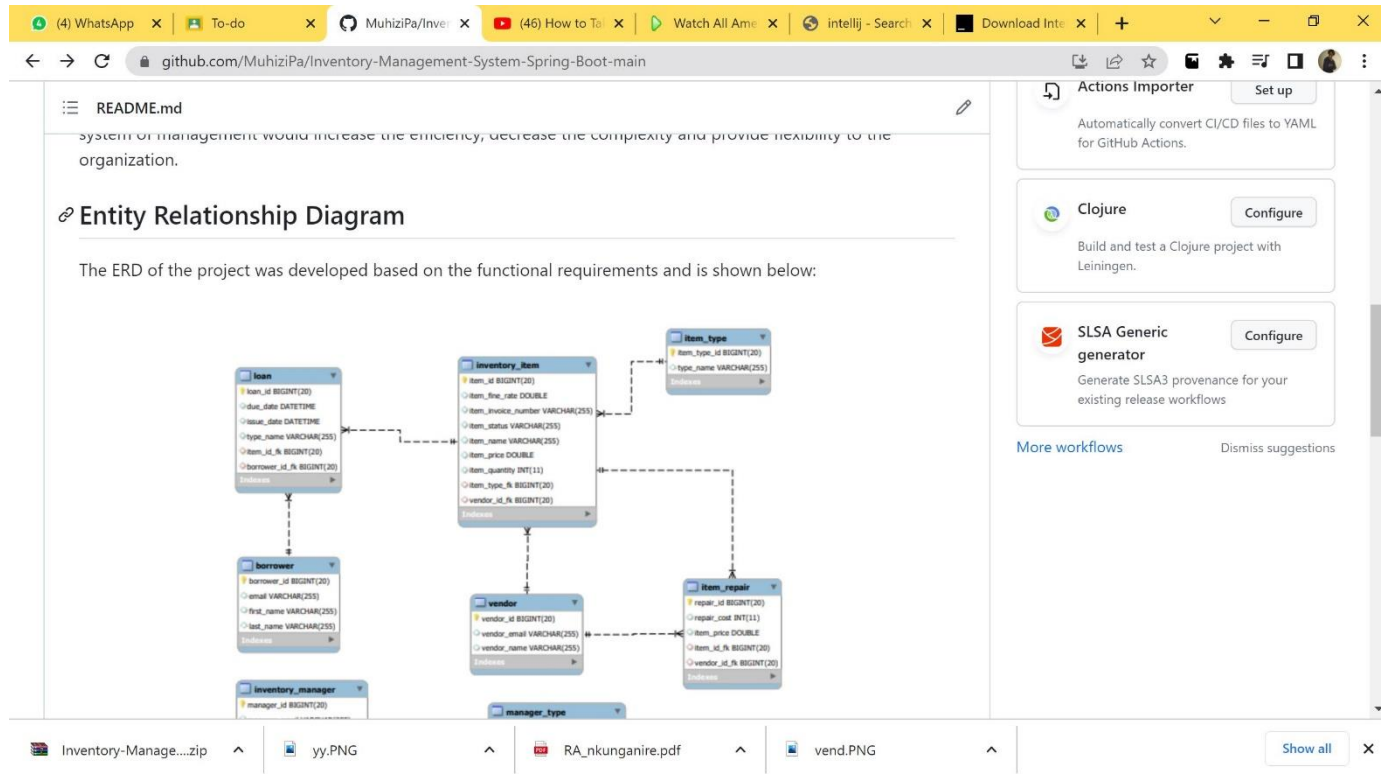
```
</dependency>
    <dependency>
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```

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    <optional>true</optional>
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<dependency>
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    <artifactId>mysql-connector-java</artifactId>
    <scope>runtime</scope>
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    <artifactId>spring-boot-starter-validation</artifactId>
</dependency>
</dependencies>

<build>
    <plugins>
        <plugin>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-maven-plugin</artifactId>
        </plugin>
    </plugins>
</build>

</project>
```

ERD entity relationship diagram



Screenshots/ workflow

1. The system shall provide signup system for new former to register new accounts.

Welcome! Search for...

Homepage

MODULES

Modules

Logged in as: Inventory Manager

Dashboard / Add Inventory Item

Add Inventory Item

Item Name

Item Price

Item Quantity

Fine Rate

Invoice Number

Vendor Name

Welcome!

Search for...

Homepage

MODULES

Modules

Logged in as:
Inventory Manager
localhost:8086

Item Price

0.0

Item Quantity

0

Fine Rate

0.0

Invoice Number

0

Vendor Name

Enter Vendor Number

Item Type

Reset

Issue Item

Welcome!

Search for...

Homepage

MODULES

Modules

Authentication

Item Management

Item Issuance

Item Return

Fine

Item Repairing

User Management

Logged in as:
Inventory Manager

Dashboard / Return Return

Return Item

Item ID

0

Borrower ID

0

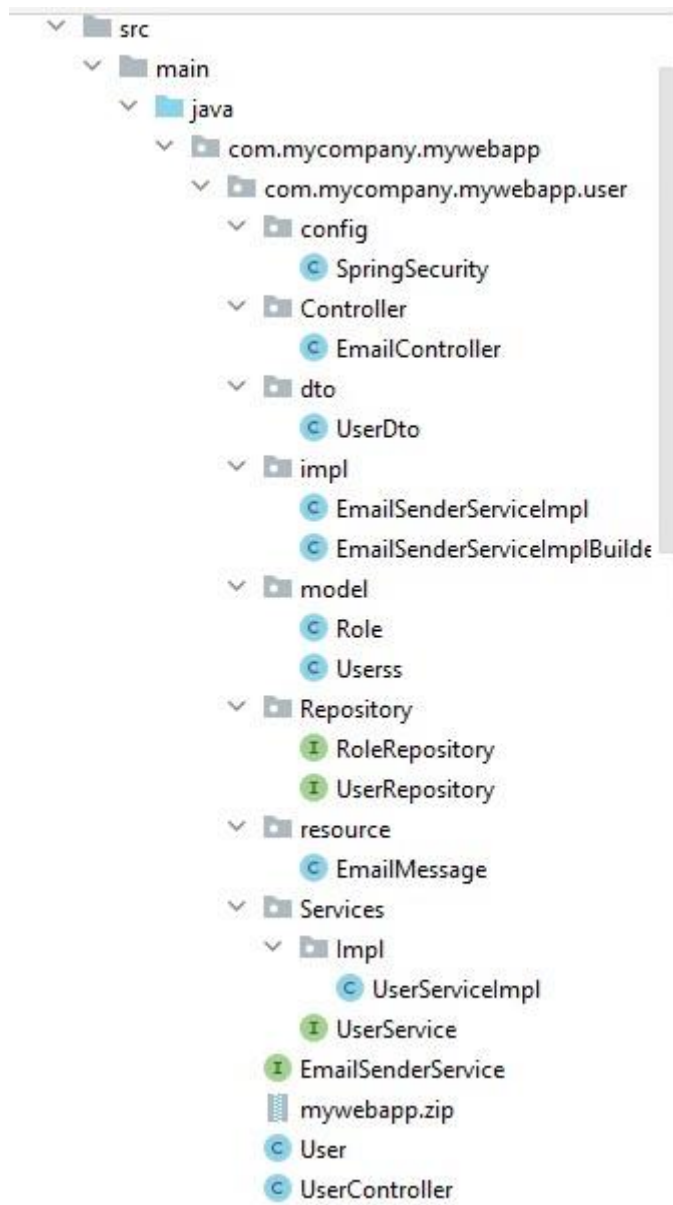
Reset

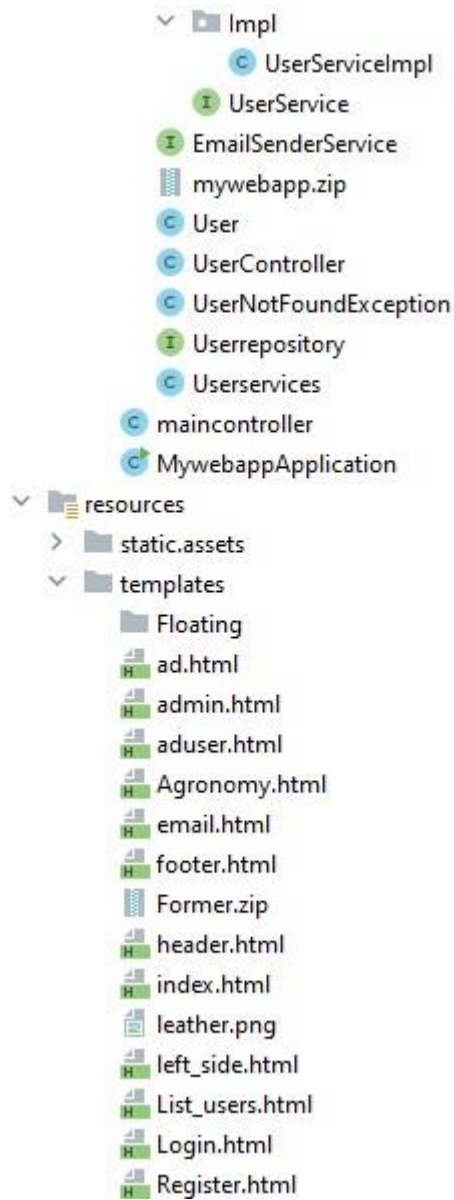
Submit

[PART 2]

Using MVC architecture implement each feature, and for each feature provide a screenshots demonstrating the implementation of Model, View and Controller components. Use Ajax at least in sending one request.

This project is using SPRING AND THERE IS IMPLEMENTATIONS OF MVC on all the above functional requirements





Technical documentation:

In this project I used the spring boot framework and spring initializr and Netbeans idea for programming part

<https://github.com/MuhiziPa/Inventory-Management-System-Spring-Boot-main>