SETUP INSTRUCTIONS
FILE

Project Overview

The **Book Inventory Management and Sales Transactions System** addresses common inefficiencies in manual inventory management. The current manual system often leads to issues like human error in tracking book details and sales transactions, which can result in financial losses and order management problems. Manual data tracking also limits accessibility, making it challenging to retrieve sales information when needed.

By automating these operations, the system streamlines processes, enhances data accuracy, improves user experience, and reduces the risk of human error, ultimately allowing for efficient service and smoother management of the inventory.

System Requirements

- **Operating System:** Windows 10 or higher, macOS, or Linux

- **Java Development Kit (JDK):** Version 22

- **NetBeans IDE:** Version 23

- **Database Management:** XAMPP v3.3.0 with MySQL

- **Reporting Tool:** Jaspersoft Studio v6.21.3

Installation Steps

1. **Install Java JDK**

   o Download JDK 22 from the official Oracle website.

   o Install it and set up the environment variable JAVA_HOME.

2. **Install NetBeans**

   o Download NetBeans 23 from the Apache NetBeans website.

   o Install and configure NetBeans to recognize the JDK 22 installation.

3. **Install XAMPP**

   o Download XAMPP v3.3.0 from the Apache Friends website.

- Install and start the MySQL service through the XAMPP control panel.

4. **Set Up the Database**

    - Open phpMyAdmin through XAMPP (http://localhost/phpmyadmin).

    - Create a new database named bookdb.

    - Execute the following SQL statements to create tables:

Books Table

```
CREATE TABLE books (
    Book_ID INT(11) NOT NULL AUTO_INCREMENT,
    Book_Title VARCHAR(255) NOT NULL,
    Author VARCHAR(255) NOT NULL,
    Price DECIMAL(10, 2) NOT NULL,
    Genre VARCHAR(50) NOT NULL,
    PRIMARY KEY (Book_ID)
);
```

Users Table

```
CREATE TABLE users (
    username VARCHAR(10) DEFAULT NULL,
    password CHAR(6) DEFAULT NULL
);
```

Sales Transaction Table

```
CREATE TABLE salestransaction (
    TransactionID INT(11) NOT NULL AUTO_INCREMENT,
    BookID INT(11) DEFAULT NULL,
    QuantitySold INT(11) NOT NULL,
    UnitPrice DECIMAL(10, 2) DEFAULT NULL,
    TotalAmount DECIMAL(10, 2) AS (QuantitySold * UnitPrice) STORED,
    SaleDate DATE DEFAULT CURDATE(),
```

PaymentMethod ENUM('Cash', 'Credit Card', 'Online') DEFAULT NULL,

InvoiceNo INT(11) DEFAULT NULL,

PRIMARY KEY (TransactionID),

FOREIGN KEY (BookID) REFERENCES books(Book_ID)

);

5. **Configure Jaspersoft Studio**

   o Download Jaspersoft Studio 6.21.3 from the TIBCO website.

   o Install and configure report templates as needed.

6. **Clone/Download Project Files**

   o Clone or download the project files to your machine.

   o Open the project in NetBeans and configure the database connection strings to match your local MySQL setup.

Running the Application

1. Launch XAMPP and start the MySQL service.

2. Open NetBeans and run the project.

3. Log in using a valid username and password.

Troubleshooting Tips

- **Database Connection Errors:** Ensure XAMPP is running, and the database configuration in the code matches the local settings (localhost, port 3306, and correct database credentials).

- **Report Generation Issues:** Verify Jaspersoft Studio installation and ensure the .jasper files are accessible.

Use this link to download JAR files to execute the project:

https://drive.google.com/drive/folders/1v77e1G_gDeneCbMopp6x6qj5hdSRcrpn?usp=sharing