Synopsis for Agile Software Requirements Specification (SRS) for Inventory Management System (IMS) for Kirana Stores

Project Title: Inventory Management System (IMS) for Kirana Stores

Objective:

The objective of this project is to develop a user-friendly, efficient, and scalable Inventory Management System (IMS) specifically designed for Kirana stores. The system aims to replace traditional manual inventory management practices with an automated solution that integrates seamlessly into the daily operations of a Kirana store. The IMS will facilitate the efficient management of inventory, track stock levels, monitor product expiry dates, manage sales, and provide analytics, thereby helping store owners make informed business decisions and optimize store performance.

Methodology:

The IMS will be developed using the Agile development model, following the Scrum framework. This approach emphasizes iterative development, customer collaboration, and responsiveness to change, ensuring that the final product is closely aligned with the needs of Kirana store owners and staff. The project will be divided into several sprints, each lasting 2-4 weeks, with continuous feedback from stakeholders to refine and improve the system incrementally.

Key Features and User Stories:

1. **Product Management**
    - Manage product details including name, SKU, price, category, stock level, and expiry date.
    - User Story: "As a store owner, I want to manage product records so that I can keep inventory data up-to-date."
2. **Stock Monitoring**
    - Real-time tracking of inventory levels with automatic updates based on sales and replenishments.
    - User Story: "As a store manager, I want to monitor stock levels in real-time so that I can restock products before they run out."
3. **Sales Management**
    - Record and process sales transactions, update inventory, and generate sales reports.
    - User Story: "As a cashier, I want to record sales transactions quickly so that customer wait times are minimized."
4. **Expiry Date Tracking**
    - Monitor product expiry dates and provide alerts for soon-to-expire items.
    - User Story: "As a store owner, I want to track product expiry dates so that I can avoid selling expired goods."
5. **Supplier Management**

    - Maintain supplier information and automate purchase orders based on stock levels.
    - User Story: "As a supplier, I want to receive automated purchase orders so that I can fulfill restocking needs efficiently."

6. **User Management**
    - Implement role-based access control and secure user authentication.
    - User Story: "As an admin, I want to manage user roles and access so that sensitive information is protected."

7. **Reporting and Analytics**
    - Generate detailed reports on sales, stock levels, and inventory turnover rates.
    - User Story: "As a store owner, I want to see reports on sales and stock levels so that I can make informed business decisions."

Non-Functional Requirements:

- **Performance:** The system should respond to user inputs within 1 second and handle multiple concurrent users.
- **Security:** Data transmission must be encrypted using HTTPS, and role-based access control should be implemented.
- **Usability:** The interface should be intuitive and accessible on both desktop and mobile devices.
- **Reliability:** The system should have an uptime of 99.9% and include error-handling mechanisms.
- **Scalability:** The system must support multiple stores under the same owner and scale according to business needs.

Development Plan:

The development process will be divided into multiple sprints:

- **Sprint 1:** Set up the development environment, implement the product management module, and integrate user authentication.
- **Sprint 2:** Develop stock monitoring, expiry date tracking, and sales management modules.
- **Sprint 3:** Enhance reporting and analytics, integrate supplier management, and refine the user interface based on feedback.

Conclusion:

The Agile SRS for the Inventory Management System (IMS) outlines a comprehensive and flexible approach to developing a modern inventory management solution tailored to the needs of Kirana stores. By leveraging the Agile methodology, the project ensures continuous improvement and adaptation based on user feedback, resulting in a robust, efficient, and user-centric system that enhances store management and operational efficiency.