Day-4 Task

Create requirement for your application:

Project Name: Construction Material Management Software

Project Description:

→ The Construction Material Management Software helps businesses that sell construction materials by making their operations easier and more efficient.
→ It is designed for different types of users: Owners, Managers, Workers, and Customers.
→ The software makes everything run smoothly for everyone involved, from managing orders and inventory to handling finances and customer interactions.

Objective:

The primary objective of the software is to simplify the management of orders, inventory, and financial transactions for the business owner.

It also aims to enhance the customer experience by providing a convenient platform for order placement, payment, and tracking

Features and Functionality (Roles):

1. User Roles and Permissions: (epic)

❖ **Owner: (story)**
→ Manage purchase and selling of materials (Invoices).
→ Handle Worker account, worker salaries and customer accounts.
→ Monitor daily sales and purchases.
→ Track due bills and customer debt.
→ Set reminders for pending tasks and due payments.
→ View and track order details, including live GPS tracking for orders.
→ Manage banking works via software
→ Moniter over CCTV Recording
→ Track vehicle GPS

❖ **Manager:**

→ View and manage (CURD) orders.

→ Handles inventory and order fulfilment.

→ Set reminders and alerts for order processing and inventory levels.

→ Review and approve leave requests from workers.

→ Manage worker accounts

→ Track vehicle GPS

❖ **Worker:**

→ View assigned orders and tasks.

→ Track their own salary and work hours.

→ Apply for extra leave and view leave balance.

→ Receive notifications and reminders related to tasks and orders.

❖ **Customer:**

→ Place orders online or in-store.

→ View and manage their bills.

→ Pay previous bills through the software.

→ Track live status and GPS location of their orders.

→ Add additional items to their order.

→ Feedback to service

→ Refers

2. Inventory Management:

→ Comprehensive listing of construction materials including sand, crusher, gravel, AAC blocks, steel, frames, angles, channels, water tanks, waterproofing solutions, and various types of cement (PPC cement).

→ Hardware tools such as sinks, PVC pipes, taps, showers, and bathtubs.

→ Real-time inventory tracking and updates.

→ Updating Inventory according to needs

→ Manage price according to GST and Non-GST

3. Order Management:

→ Facilitate order placement and processing for both in-store and online purchases.

→ Track order status and provide real-time GPS updates.

→ Manage order history and details.

4. Financial Management:

→ Monitor and manage daily sales and purchases and sales.

→ Track due bills and customer debts.

→ Generate financial reports and reminders for due payments.

5. Customer Experience:

→ Online portal for easy order placement and bill management.

→ Integration of payment gateways for bill payments.

→ Real-time order tracking and status updates.

6. Notifications and Reminders:

→ Automated reminders for due bills, pending tasks, Inventory and order status updates.

→ Customizable alerts for various user roles to ensure timely action.

7. Invoice:

→ Includes all data related billing like customer details, order details, shipment details, GST/ Non-GST bills, payment options etc.

→ Three types of invoices before billing, after billing and second copy

→ Invoice management like sort according to daily, monthly, yearly basis and also sort via paid, non-paid, partially paid, paid cred, etc.

8. **Login and Sign Up: (user management)**

→ **Sign Up:** Allow new users to create an account with their details (Owner, Manager, Worker, or Customer) and select the appropriate role.

→ **Login:** Enable registered users to log in securely to access their respective dashboards and functionalities.

→ **Password Recovery:** Provide options for users to recover or reset their passwords in case they forget them.

→ **Role-Based Access:** Ensure users are directed to the appropriate interface and features based on their assigned role.

Scrum vs Kanban

Scrum:

What is scrum:

- Scrum is a project management method that allows teams to use strict periods of time to focus on specific tasks.
- A Scrum is further gets divided into sprints that last anywhere from a day to four weeks, depending on their scope.
- Scrum is designed to keep work moving quickly and efficiently with set start and end dates.
- Teams work in short, focused periods called sprints.
- This approach helps teams break down big tasks into smaller, manageable steps, allowing them to stay productive and adapt to changes easily.

1. **Sprint Planning**: A meeting where the team decides what work will be done during the next sprint.

2. **Daily Scrum**: A short, daily meeting (usually 15 minutes) where team members discuss what they did yesterday, what they'll do today, and any obstacles they face.

3. **Sprint Review**: A meeting at the end of the sprint where the team shows what they've accomplished to stakeholders.

4. **Sprint Retrospective**: A meeting after the sprint review where the team reflects on what went well, what didn't, and how they can improve in the next sprint.

5. **Release**: Delivering the completed work to users or stakeholders.

6. **Task Backlog**: A prioritized list of tasks that need to be completed.

Why We Use It:

- **Adaptability:** Allows teams to quickly adjust to changes and new requirements.
- **Focus:** Ensures work is organized into manageable chunks with clear goals.
- **Continuous Improvement:** Regular reviews help identify and address issues promptly.

Where and When to Use:

- **Where:** In software development, product design, and other complex projects.
- **When:** When projects require frequent updates, feedback, and adjustments.

Kanban:

What is Kanban:

- Kanban is a visual management method that uses boards with columns to represent the flow of work.
- It focuses on continuous delivery by managing work in progress (WIP) and ensuring a smooth flow of tasks from start to finish.

Why We Use It:

- **Visualization:** Provides a clear view of work status and flow.
- **Efficiency:** Helps identify and resolve workflow bottlenecks.
- **Flexibility:** Adapts to ongoing work without fixed iterations.

Difference between Scrum and Kanban:

Aspect	Scrum	Kanban
Structure	Uses fixed-length iterations called sprints (typically 2-4 weeks)	Uses a continuous flow with no fixed iterations
Work Management	Work is planned and committed to at the start of each sprint	Work is managed based on ongoing priorities and capacity
Roles	Defined roles such as Scrum Master, Product Owner, and Development Team	No specific roles are required; focus is on managing flow
Flexibility	Changes are generally made at the end of sprints during review and planning	Allows for continuous updates and changes as work progresses