**Project Design Phase-II**

**Data Flow Diagram & User Stories**

| **Phase** | **Experience / Description** |
| --- | --- |
| **SCENARIO** | Tracking, ordering, managing, and reviewing medical inventory in a hospital or clinic using a digital inventory system. |
| **ENTICE** | Staff receives a low-stock alert from the system or identifies shortage manually. |
| **ENTER** | Staff logs into the inventory system to check stock status, expiry, and reorder needs. |
| **BROWSE** | User searches for specific medical items, views availability, expiry dates, and reorder thresholds. |
| **VIEW ITEM DETAILS** | Clicks on an item to view quantity, expiry, vendor details, previous usage, etc. |
| **START PURCHASE** | User adds item(s) to a reorder cart, selects vendor, and sends a request for approval. |
| **COMPLETE PAYMENT** | Admin/finance team reviews and processes payment to supplier. |
| **CONFIRM ORDER** | Order is confirmed in the system and delivery details are scheduled. |
| **EMAIL CONFIRMATION** | A system-generated confirmation is sent with invoice and delivery details. |
| **EMAIL REMINDER** | A reminder is sent before delivery to prepare for receipt. |
| **ARRIVE AT LOCATION** | Supplier delivers items; staff receives and verifies products (quantity, expiry). |
| **MEET STAFF** | Pharmacist or store manager acknowledges delivery and updates inventory records. |
| **EXPERIENCE SYSTEM** | New inventory is updated in real-time and made available for medical use. |
| **LEAVE DELIVERY STAGE** | Staff resumes duties; system starts usage tracking. |
| **PROMPT FOR REVIEW** | System prompts the user to rate supplier and delivery experience. |
| **SUBMIT REVIEW** | Staff fills in a review/report about delivery, quality, timeliness, etc. |
| **INVENTORY UPDATE** | Dashboard shows real-time updated stock levels, expiry forecasts, and usage rates. |
| **PERSONALIZED SUGGESTIONS** | System recommends restocking based on past usage trends. |
| **AUTOMATED ALERTS** | The system triggers new alerts for expiry, low stock, or slow-moving inventory. |

**✅ Key Highlights**

| **Category** | **Details** |
| --- | --- |
| **Positive Moments** | - Timely low-stock alerts- Easy reordering- Barcode scanning saves time- Accurate real-time inventory dashboard |
| **Negative Moments** | - Delays in approval- Mismatch in delivery- Manual data entry errors- Poor vendor communication |
| **Goals & Motivations** | - Avoid shortages- Ensure safe and non-expired stock- Streamline ordering and delivery- Prepare for compliance audits |
| **Areas of Opportunity** | - Auto-reorder for key items- Vendor scoring and feedback- Expiry alerts via SMS- Mobile stock update app- AI-based predictions |

**Example:**

