Phase 3: Project Design Phase

Technical Architecture & Data Model Design

Field	Details
Date	9 November 2025
Team ID	NM2025TMID02588
Project Name	Medical Inventory Management
Maximum Marks	2 Marks

Technical Architecture & Data Model Design

This step defines the technical structure of the solution, focusing on scalability and performance within the Salesforce platform.

- **Data Model Design:** Creating the detailed entity relationship diagram (ERD).
    - *Key Decisions:* Whether to use **Salesforce Field Service's standard inventory objects** (Product, Product Item, Inventory Location) or a custom object model, and how to link inventory records to existing Salesforce records (e.g., Health Cloud Accounts/Facilities, Cases, or Orders).
- **Platform Decisions:** Determining the balance between out-of-the-box (OOTB) functionality, configuration (Flows, Validation Rules), and custom development (Apex, Lightning Web Components - LWC).
    - *Example:* Using **Salesforce Flow** for automated Reorder Point calculations vs. custom Apex code for complex demand forecasting.
- **Integration Strategy:** Finalizing the architecture for connecting Salesforce to external systems.
    - *Key Integrations:* **ERP/Finance system** (for pricing and GL posting), **External Warehouse Management System (WMS)**, and potentially a **third-party barcode/RFID scanning solution**.
    - *Design:* Specifying the integration method (MuleSoft, third-party connector, custom API) and the **data transformation logic** for each endpoint.