

Phase 6: User Interface Development

Phase 5: Apex Programming (Developer)

For the SmartBasket project, a decision was made to leverage the powerful capabilities of Salesforce's declarative automation tools, primarily

Flow Builder, to meet all defined business requirements. As a result, Apex programming was not necessary for this project's implementation.

This approach aligns with Salesforce best practices, prioritizing a low-code/no-code solution to ensure:

- Faster Development: Declarative tools allow for quicker build times and easier iteration compared to writing code.
- Simplified Maintenance: The flows built are easier for future administrators to understand and modify without requiring a developer.
- Scalability: The declarative automation scales effectively to handle the project's data and process volumes.

Had the project required more complex, custom logic—such as intricate integrations, large-scale data processing that exceeded flow limits, or highly specific asynchronous operations—then the following Apex concepts would have been explored:

- Classes & Objects: To define custom logic and data structures.
- Apex Triggers: To perform actions based on database events (e.g., before or after a record is saved).
- Asynchronous Processing: Using Batch Apex, Queueable Apex, or Future Methods for long-running operations to avoid hitting governor limits.
- Test Classes: To ensure the quality and functionality of the custom code with sufficient code coverage.

Phase 6: User Interface Development:

This phase focused on improving the usability and accessibility of the SmartBasket application by configuring Lightning App Builder components and customizing record pages for end users.

1. Lightning App Builder

- Created SmartBasket Lightning App for inventory and order management.
- Navigation style: Standard Navigation.
- Assigned the app to all users.

2. Tabs

- Added key objects as navigation items: Products, Price Books, Orders, Accounts, Contracts, Locations, Inventory Balances.
- Provided quick access to frequently used records.

3. Record Pages

- Order Record Page: Highlights Panel (Status, Fulfillment Location, Inventory Verified), Related Lists (Order Products, Fulfillment Location), and Quick Action for Validate Inventory Flow.

The screenshot shows the Order Record Page for Order 00000100. The top navigation bar includes links for SmartBasket, Home, Accounts, Contacts, Products, Orders, Inventories, Contracts, Locations, Price Books, and Inventory Balances. The main content area displays the following sections:

- Order Details:** Shows the order number 00000100 and a message indicating no past activity.
- Change History:** A table showing recent changes made to the order by Sreekanth Komaravolu on various dates, such as activating the order and changing its status to Draft.
- Notes & Attachments:** A section for notes and attachments, with a button to upload files.
- SB_Validate_Inventory_Flow:** A panel displaying a shortage detail for the order, mentioning a shortage at location 00000100.
- Order Products:** A related list showing one item: & BR0 & GenWatt Propane 1500kW & — Ordered: " & TEXT(3) & ", Available: " & TEXT(If Is Null , 0 ,))".
- Bottom Navigation:** Includes links for History and Recent Items.

- Inventory Balance Record Page: Displays Product, Location, Quantity On Hand, Available to Sell, Reorder Level, plus Report Charts for low-stock visualization.

Sample Flow Report: Screen Flows

Flow API Name: SB_Validate_Inventory_Flow

Record Count: 6

Interview Status: Completed

View Report As of Today at 1:49 AM CDT

Related Details

Inventory Balance Number Owner

javascript:void(0)

History Recent Items

- Product Record Page: Enhanced with Inventory Balances related list.

Product Laptop Model gen5

Product Code: LAPTX100 Product Family: APTX

Related Details

Price Books (2)

| Price Book Name | List Price | Use Standard Price | Active |
|---------------------|------------|--------------------------|-------------------------------------|
| Standard Price Book | ₹50,000.00 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Standard Price Book | ₹50,000.00 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

[View All](#)

Inventories (1)

| Inventory Name |
|----------------|
| Laptops |

[New](#)

javascript:void(0)

History Recent Items

4. Home Page Layouts

- Customized SmartBasket Home Page to show a dashboard-style layout with:
 - Report Charts (Low Stock, Top Products).
 - Recent Orders List.
 - Welcome Rich Text message.

The screenshot shows the SmartBasket home page. At the top, there's a navigation bar with tabs like Home, Accounts, Contacts, Products, Orders, Inventories, Contracts, Locations, Price Books, and Inventory Balances. A search bar is at the top right. Below the navigation is a banner with the text "Welcome to SmartBasket – Inventory & Order Management". To the left, there's a "Quarterly Performance" chart showing revenue trends from August to December. To the right, there's an "Assistant" section with a small illustration of a landscape and the message "Nothing needs your attention right now. Check back later.".

5. Utility Bar

- Added utility items for quick access: History, Recent Items.

The screenshot shows the SmartBasket Contracts page. The top navigation bar includes a "Recently Viewed" dropdown and a "Standard.RecentItems (0)" link. At the bottom, there are "History" and "Recent Items" links. The main content area displays a table of contracts with columns for Contract Number, Account Name, Status, and Contract Start Date. Two items are listed:

| | Contract Number | Account Name | Status | Contract Start Date |
|---|-----------------|-----------------------|-----------|---------------------|
| 1 | 00000101 | Demo Customer Pvt Ltd | Activated | 9/25/2025 |
| 2 | 00000100 | Test Account 001 | Activated | 9/16/2025 |

✓ Phase 6 Outcome

- End users can navigate SmartBasket easily with dedicated tabs.
- Record pages show relevant order, product, and stock information at a glance.
- Utility bar and home page streamline productivity.
- No coding (LWC, Apex) was required for this project scope.

Phase 7: Integration & External Access

This phase was skipped because the project's scope did not require any connections to external systems or real-time data from outside the Salesforce platform.

- Reason for Skipping: The SmartBasket project is a self-contained internal CRM solution focused solely on managing inventory and orders within Salesforce.
- What Would Be Used If Needed:
 - Named Credentials would be used for secure authentication with an external e-commerce platform.
 - Web Services (REST/SOAP) would be implemented to pull live order data from the website or send shipping information to a third-party logistics provider.
 - Platform Events or

Change Data Capture could be used for a more advanced, real-time sync of data between Salesforce and other systems