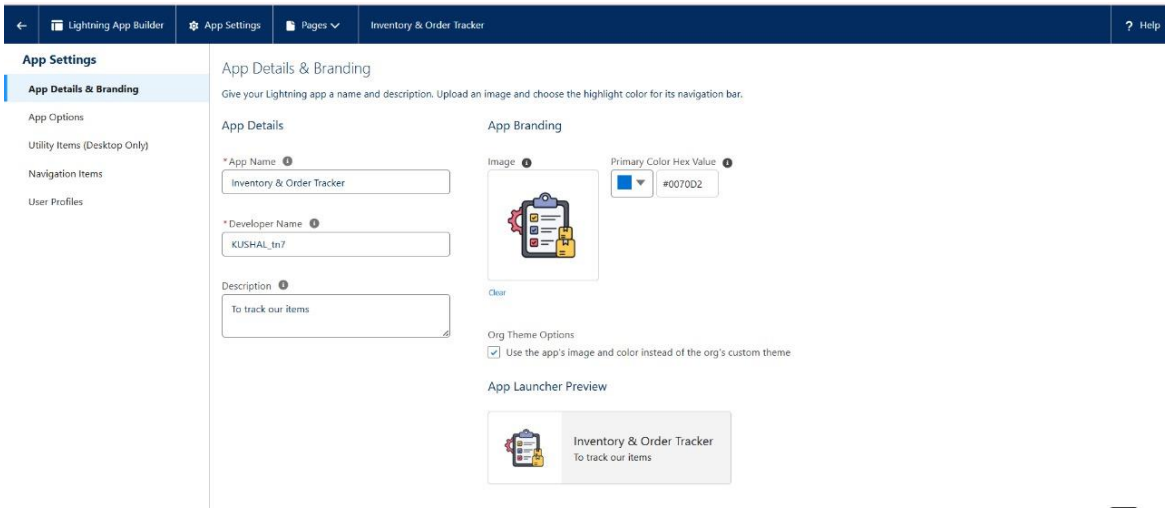
INVENTORY AND ORDER TRACKING DASHBOARD

Phase 6: User Interface Development

1. Lightning App Builder — create the app

What / Why: A Lightning app bundles navigation items (Products, Orders, Dashboards). Users will launch this app.

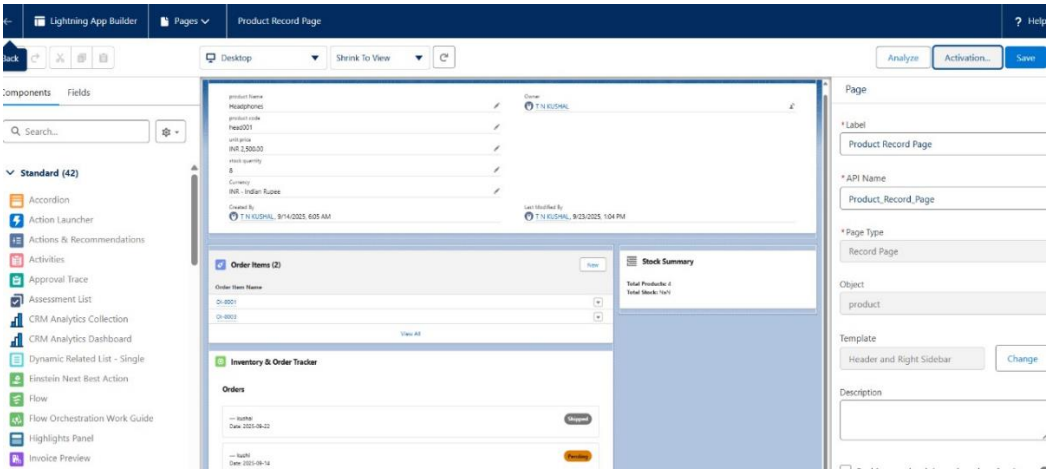
- Steps (Setup UI):
  i. In Salesforce: Setup → App Manager → New Lightning App.
  ii. Name: Inventory & Order Tracker.
  iii. Navigation: Standard
  iv. Add Navigation Items: Products, Orders, Reports, Dashboards

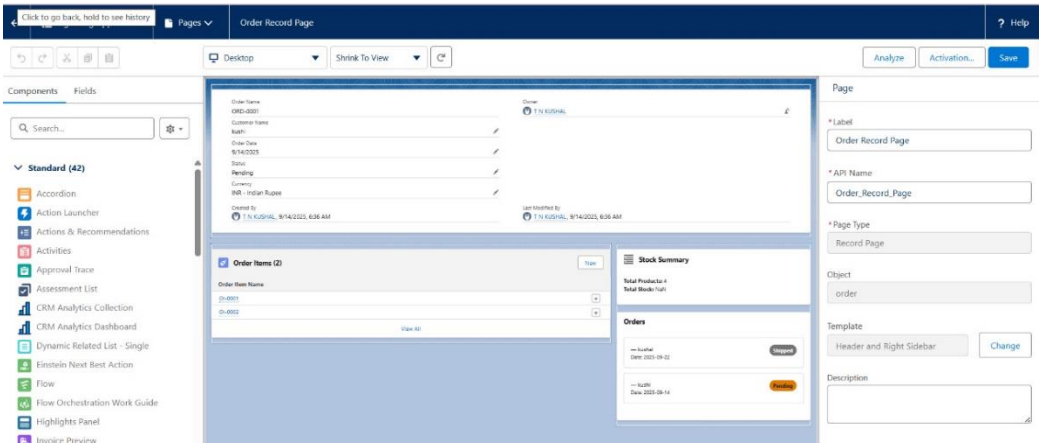


2. Record Pages — customize Product_c / Order_c record pages

What / Why: Control how each product or order record looks.

- Steps (Setup UI):
  i. Setup → Object Manager → Product__c → Lightning Record Pages → New.
  ii. Choose template (Header + 2 columns recommended).
- Drag components:
  - Record Details (standard)
  - Related Lists (order items, orders)
  - Custom LWCs (e.g., c-inventory-dashboard-product-details — optional)
  - Click Save → Activate and set as org default or app default (Inventory app).





3. Tabs — make LWC or object tabs available in your app

- What / Why: Users need easy navigation to key objects and components.
- Steps (Setup UI):

  Setup → Tabs → Object Tabs → New → choose Product c and create a tab.

- For LWC pages, create Lightning Page Tabs via App Page then add to app navigation:

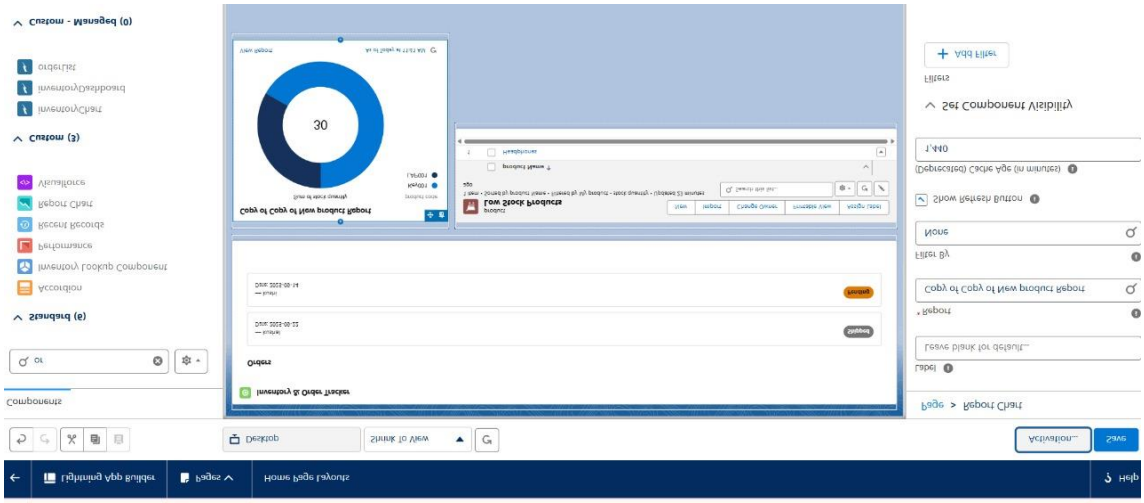
  Lightning App Builder → New → App Page → add your LWC → Save → Activate → add to App Manager nav items.

4. Home Page Layouts — a dashboard landing experience

- What / Why: A home page shows summary (stock alerts, top orders, charts).
- Steps (Setup UI):

Setup → Lightning App Builder → Home Page → New.

- Add components:
  - Report Chart (stock levels)
  - List View (Recently Updated Products)
  - Custom LWC (inventory Dashboard)
  - Save → Activate (assign to profiles or app).



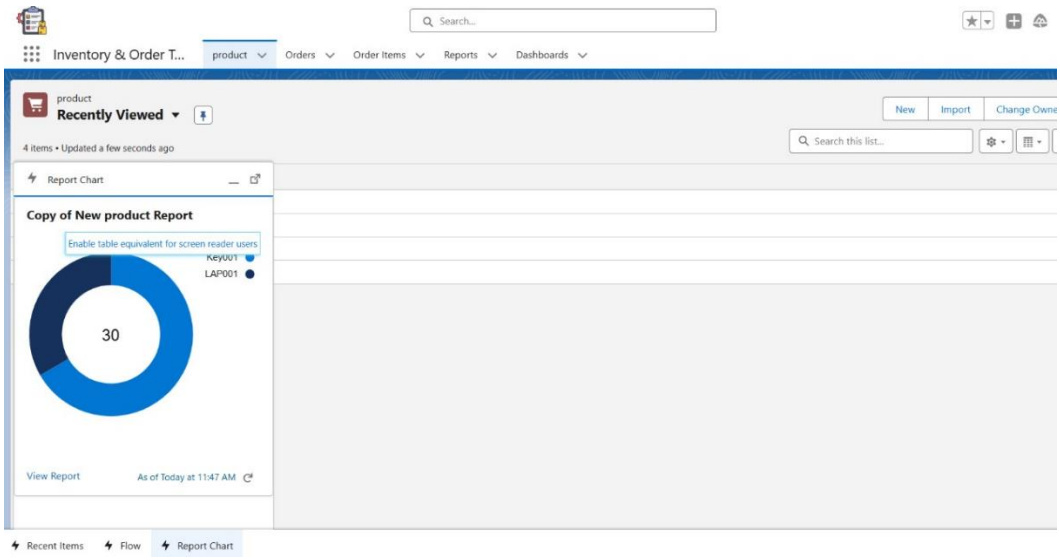
5. Utility Bar — quick tools available across the app

- What / Why: Quick access to frequently used actions: Quick Create Product, Recent Orders, Stock Alerts.
- Steps (Setup UI):

Setup → App Manager → find Inventory & Order Tracker → Edit → Utility Bar.

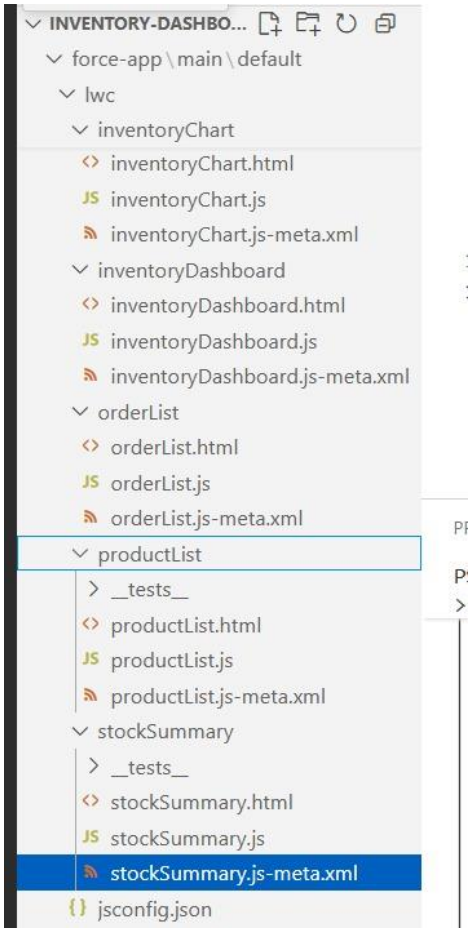
- Add items:

- Recent Items (built-in)
- Custom Lightning Component (for quick stock add)
- Flow or Report (Stock Alerts)
- Set icon, width, behavior → Save.



6. LWC (Lightning Web Components) — create the components

- What / Why: Build interactive UI pieces (product List, order List, inventory Dashboard, inventory Chart).



7. Apex with LWC — Server Methods

- What we used:
  - Apex class: InventoryController
- Server methods:
  - getProducts() → fetches all Product__c records
  - getOrders() → fetches all Order__c records
- Read methods: marked @AuraEnabled(cacheable=true) → allows caching and efficient read-only access from LWCs
- Imperative method (example for updates): updateStock() → manually called from a button to update product stock

- How it’s used in LWCs:
    - productList and orderList call getProducts() / getOrders() to display data
    - stockSummary calls getProducts() to calculate total stock and total number of products
- Why we use it:
    - Provides a secure server-side connection to Salesforce data
    - Lets LWCs work dynamically with real Salesforce records

8. Wire Adapters — Reactive Data Loading

- What we used:

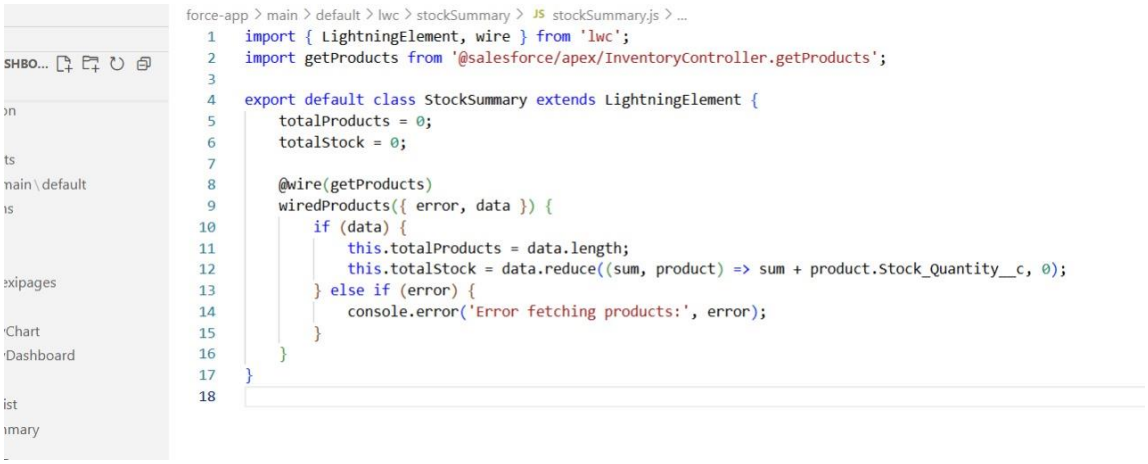
  @wire decorator in LWCs:

  ```
  @wire(getProducts)
  wiredProducts({ error, data }) {
    if (data) this.products = data;
    else if (error) this.error = error;
  }
  ```

- Which components use it:
    - productList → lists all products automatically when the page loads

- stockSummary → calculates total stock and total products
- orderList → lists all orders automatically

- Why it's used:
  - Automatically fetches server-side data from Apex
  - Reactive → updates component UI whenever underlying data changes
  - Reduces need for manual refreshes or calls



9. Imperative Apex Calls — On-demand Actions

- What / Why:
  - Call Apex methods manually from an LWC when you need a specific action triggered by the user (like a button click).
  - Useful for update, insert, or delete operations.
  - Unlike @wire, this does not load automatically — you control when it runs.

- Current Project Use:
  - Your project does not currently have any buttons or user-triggered actions that update Salesforce records.

- All your LWCs (productList, orderList, stockSummary) use wire adapters to load data automatically.
- Therefore, imperative Apex calls are optional for now.

10. Events in LWC — Child → Parent Communication

- What / Why:
  - Allows a child LWC to send data or trigger actions in a parent LWC.
  - Useful when components are nested: child → parent.
- Current Project Use:
  - You don't have nested LWCs yet — all your LWCs are independent (productList, orderList, stockSummary, inventoryDashboard).
  - Therefore, child → parent events are not needed in your current setup.

This can be added later if you split components into smaller pieces (e.g., a single product item child component emits an event when selected).