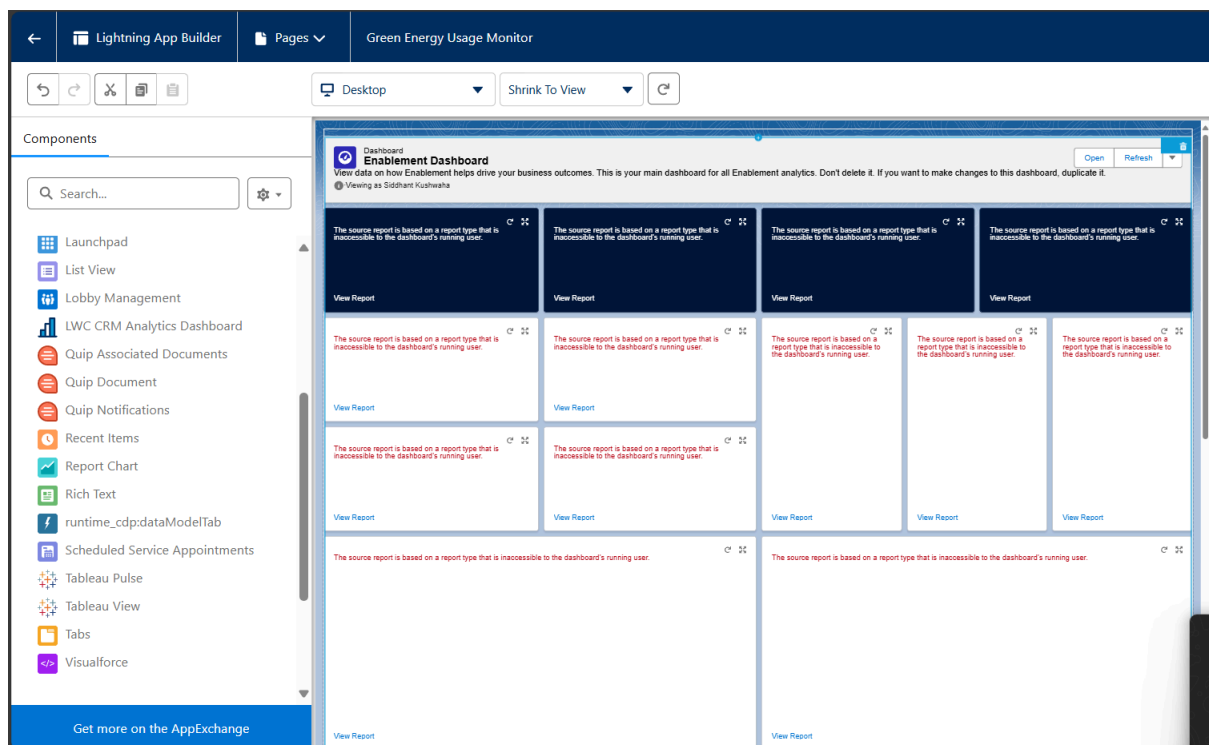# Phase 6 — User Interface Development

1. Set Up Lightning App Pages

- Create a **Lightning App** for the project.

- Add navigation tabs for **Energy Device, Energy Usage Record, Personnel, and Device Assignment**.

- Configure a **custom Home Page** with key metrics, dashboards, and quick navigation.

2. Configure Record Pages & Utility Bar

- Customize Lightning Record Pages for each object (add charts, related lists, actions).

- Convert to **Dynamic Forms** where useful.

- Add a **Utility Bar** with:

  - Quick Device Assignment

  - Energy Usage Entry

  - Contextual Help / Notifications

3. Build & Deploy Lightning Web Components (LWC)

- **deviceDashboard** → usage summaries, charts.

- **usageEntryForm** → submit usage quickly.

- **assignmentQuickAction** → assign devices.

- **liveUsageStream** → real-time updates with LMS / empApi.

- Use **Lightning Data Service** for CRUD and **Apex integration** for advanced logic

SETUP
Lightning App Builder

The Lightning App Builder provides an easy to use graphical interface for creating custom Lightning pages for Salesforce Lightning Experience and mobile app. Lightning pages are built using Lightning components—compact, configurable, and reusable elements that you can drag and drop into regions of the page in the Lightning App Builder.

View: All ▾   Create New View

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other | **All**

Lightning Pages   [New]

Action	Label ↑	Name	Namespace Prefix	Description	Type	Created By	Last Modified By
Edit | Clone | Del	Energy Device Dashboard	Energy_Device_Dashboard			App Page	cse, 9/26/2025, 3:21 AM	cse, 9/26/2025, 3:21 AM
Edit | Clone | Del	Energy Usage Dashboard	Energy_Usage_Dashboard			App Page	cse, 9/26/2025, 3:36 AM	cse, 9/26/2025, 3:36 AM
Edit | Clone | Del	Green Energy Usage Monitor	Green_Energy_Usage_Monitor			App Page	cse, 9/26/2025, 2:45 AM	cse, 9/26/2025, 2:45 AM
Edit | Clone | Del	Home Page Default	Home_Page_Default			Home Page	cse, 8/14/2025, 6:08 AM	cse, 8/14/2025, 6:08 AM
Edit | Clone | Del	Home Page Default	Home_Page_Default1			Home Page	cse, 8/14/2025, 6:21 AM	cse, 8/14/2025, 6:21 AM
Edit | Clone | Del	Home Page Default	Home_Page_Default2			Home Page	cse, 8/14/2025, 6:25 AM	cse, 8/14/2025, 6:25 AM
Edit | Clone | Del	Personnel Dashboard	Personnel_Dashboard			App Page	cse, 9/26/2025, 3:41 AM	cse, 9/26/2025, 3:41 AM

4. Integrate Apex for Advanced UI Logic

- Bulkify queries, apply FLS/CRUD checks, and secure outputs.

- Example logic: aggregate device totals, validate assignments.

5. Enhance Navigation & UX

- Use **NavigationMixin** in LWC for smooth page transitions.

- Apply **dynamic visibility filters** so Managers, Technicians, Solar Agents, and Customers see only relevant components.

- Add **inline help text, tooltips, and spinners** for a polished experience.

Activation: Device Assignment Dashboard

| **PAGE SETTINGS** | LIGHTNING EXPERIENCE | MOBILE NAVIGATION |

Give this app page a name, set the page visibility, and choose an icon.

Name

Enter a name for your page.

Device Assignment Dashboard

Icon

Choose an icon to represent your app in Lightning Experience and the mobile app.

Change...

Page Activation

When you activate this page, a custom tab is created for it. You can manage the tab's visibility in Setup.

- ⦿ Activate for all users
- ◯ Activate for system administrators only

To set further restrictions on who sees this page, use permission sets and profile assignments in Setup.

6. UI Testing & Activation

- Test all pages as different roles (Manager, Technician, Solar Agent, Customer).

- Validate **actions, component visibility, and security**.

- Activate Lightning pages and assign to apps, profiles, and record types.

- Deploy from sandbox to production via **Change Sets or SFDX**.