

Drug Verify

Capstone 18 · MedTech · Talodabi Academy

1 · Project overview

You are designing **scan or type NAFDAC code** → **clear GENUINE or SUSPECT**. Big results for older users. You are not a pharmacy; registry match is the story (label API as assumption).

Deliverable	Full mobile MVP in Figma (not code)
Platform	Mobile app · Android-first · portrait
Screens	11 screens + 1 unhappy path (12 frames)
Features	3 core features
Bottom navigation	Bottom navigation with 4 items: Scan · History · Report · Profile
Prototype	4 linked flows

Build order: Auth (screens 1–4) → nav tabs (5–8) → core flow (9–11) → unhappy path → link prototypes.

2 · Problem & primary user

Counterfeit and substandard drugs remain a serious risk in Nigeria. NAFDAC and public health sources report significant falsified medicine in circulation (verify any % you cite in your case study). Patients buy from roadside sellers and small chemists with no way to verify authenticity. Fake blood pressure drugs, antimalarials, and antibiotics put patients at serious harm. If you cite counterfeit medicine stats, name **NAFDAC**, WHO, or another source you can defend.

Primary user

"Mrs. Obi, a 60-year-old hypertensive woman in Onitsha who buys blood pressure medication from her local chemist every month and has no way to know if what she is taking is genuine."

Geographic scope: National-level

3 · Goals

User goal: Quickly verify that the drug she just bought is genuine and NAFDAC-approved.

Business goal: Partner with NAFDAC and pharmaceutical companies to power a national drug verification database.

Success: In a quick test, someone gets a **clear verify result** and can use **manual code entry** when scan fails.

4 • Market context

QUESTION	ANSWER
Who pays	Mrs. Obi will not pay. NAFDAC, pharma, or pharmacies fund verification infrastructure (assumption).
Why not WhatsApp	Chemist says "this one na original." WhatsApp cannot scan NAFDAC code or show GENUINE vs SUSPECT with registry data.
Design focus	Design for elderly user: big result, manual code entry when scan fails (in brief). No medical claims beyond registry match.

Competitors to check:

- **NAFDAC Greenbook** (official app: search approved medicines by name or NAFDAC number)
- **NAFDAC MAS** (scratch panel + SMS PIN on pack; default for many antimalarials)
- **Chemist trust + packaging inspection** (default behaviour)
- **Chekkkit / QR on some brands** (check if still on packs you photograph for case study)

5 • Validate before you design

Interview 3–5 people who match your primary user. Update this brief if interviews contradict it. Do not start hi-fi until you complete the confirmation below.

FIELD	YOUR ANSWER
Validated user (name, age, city)	
Problem in one sentence	
One interview quote	
Success metric for your test	
Primary colour and tone	
One competitor you checked	

Interview prompts

- "Walk me through the last time this happened."
- "What did you use instead? WhatsApp, paper, or nothing?"
- "What would make you trust this on a cheap Android phone?"

- "What would stop you from using this every week?"

6 • Features & scope

v1 • three features

1. Scan the drug's barcode or NAFDAC number to verify authenticity
2. Show drug details: manufacturer, expiry date, and approval status
3. Report a suspected fake drug directly to NAFDAC from the app

Out of scope

- Prescriptions or dosage advice
- Online drug sales
- Replacing NAFDAC enforcement

7 • Screens

Design every row in wireframe, high-fidelity UI, and prototype (where the flow applies).

#	LAYER	SCREEN	WHAT TO SHOW
1	Auth	Splash Screen	Clean medical feel. NAFDAC-green colour palette. App name and tagline.
2	Auth	Onboarding (1 screen)	Explain how the app works: Scan → Verify → Stay Safe. One 'Start Verifying' button.
3	Auth	Sign Up Screen	Name, phone number, state, and PIN. Simple, no medical background required.
4	Auth	Sign In Screen	Phone number and PIN.
5	App shell	Scan (tab)	Large camera viewfinder for scanning. 'Enter NAFDAC number manually' link below for when scanning fails. Recent verifications listed at the bottom.
6	App shell	History (tab)	Crystal clear result: GENUINE (green, large tick) or SUSPECT (red, warning icon). No ambiguity. Drug name and manufacturer shown below.
7	App shell	Report (tab)	Full drug information: NAFDAC number, manufacturer, country of origin, approval date, expiry date, and a list of known counterfeits to watch for.
8	App shell	Profile (tab)	Form to report a suspected fake: drug name, where purchased (market/chemist name and location), and an option to attach a photo. 'Submit Report' button.

9	Core flow	Scan · Processing	Camera viewfinder or manual NAFDAC entry. Show bottom nav on post-sign-in screens.
10	Core flow	Verification result	GENUINE or SUSPECT with drug name. Show bottom nav on post-sign-in screens.
11	Core flow	Report submitted	Fake drug report sent confirmation. Show bottom nav on post-sign-in screens.

Layers: Auth = 1–4 · App shell = 5–8 · Core flow = 9–11

8 · Prototype flows

Link these in Figma. Examiners should click through without your voice-over.

Flow 1 · App entry

Splash → Onboarding → Sign Up or Sign In → first main tab

Flow 2 · Core task (all three features)

Sign In → Scan tab → Scan → Result → Report tab → Submitted

Core flow screens: Scan · Processing · Verification result · Report submitted

Flow 3 · Navigation

Link every nav tab so examiners can tap each bottom nav item. Tabs: Bottom navigation with 4 items: Scan · History · Report · Profile

Flow 4 · Unhappy path

Trigger the unhappy path edge case and link to that screen.

9 · Unhappy path

Design this as its own screen state (frame 12):

Barcode scan fails due to poor lighting or a damaged label. Automatically show: 'Scan failed. Enter the NAFDAC number printed on the packaging instead.' Display a clear input field.

Link in **Flow 4**.

10 · Design system

RULE	DETAIL
Colour	You choose. Keep it simple and readable.
Type	You choose. Keep body text easy to read on a phone.
Tone	Design for your user, not for a tech audience.

Reuse on every screen:

- Primary button (active and disabled states)
- Input field (empty, filled, and error states)
- Card or list item used across the app
- Navigation bar with correct labels and icons
- Empty state: what the screen looks like with no data

11 • Submit & defense

Deliverables

#	DELIVERABLE	WHAT GOOD LOOKS LIKE
1	Wireframes	Every screen in this brief, plus the unhappy path. Layout and labels clear.
2	High-fidelity UI	Same frames polished. You choose colour and type. Bottom nav on every post-sign-in screen.
3	Prototype	Four linked flows (entry, core task, navigation, unhappy path). Examiners can use the app without your voice-over.
4	AI prototype	Figma Make: at least 2 screens. Share link.
5	Case study (1 page)	Problem · User · Who pays · Competitors · Solution · One design decision
6	Presentation (6–8 slides)	Name · Problem · User · Solution · Key screens · Flow demo · One decision

Before you present

- ☐ Every screen designed in wireframe and hi-fi
- ☐ Unhappy path screen designed and linked in the prototype
- ☐ Four prototype flows linked end to end
- ☐ At least one empty state on a list tab
- ☐ Shared components reused: button, input, card or row, bottom nav
- ☐ Case study names who pays and one competitor you checked
- ☐ You can explain one design decision in critique (why, not what)

- ☐ Completed 5 user interviews or 1 usability test
- ☐ Checked at least one competitor listed under Market context

© Talodabi Academy · For enrolled students · Not for redistribution

