

Sickle Cell Diary

Capstone 14 · HealthTech · Talodabi Academy

1 · Project overview

You are designing a **personal health log** for crises and triggers, plus a **PDF a doctor can read**. One-tap crisis mode is as important as the full log form.

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: Home · Log · Triggers · Summary
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

Nigeria bears one of the world's largest burdens of sickle cell disease. Patients experience painful crises that land them in hospital. They often cannot clearly explain their pain history to doctors, leading to incorrect treatment. Triggers like cold, dehydration, and stress go untracked and unmanaged. If you cite disease burden, **WHO** or a Nigerian health source is enough.

Primary user

"Amaka, a 24-year-old university student in Lagos with sickle cell disease who cannot explain her crisis history to doctors and never knows what triggered her last episode."

Geographic scope: National-level

3 · Goals

User goal: Log pain episodes, track what triggered them, and share a clear health summary with her doctor.

Business goal: Become the go-to health companion app for sickle cell patients in Nigeria and West Africa.

Success: In a quick test, someone logs **one crisis**, selects **triggers**, and finds **export / crisis button** without help.

4 · Market context

QUESTION	ANSWER
Who pays	Amaka will not pay subscription. Clinics, pharma, or sickle cell NGOs may fund (assumption).
Why not WhatsApp	Patients explain crises from memory in clinic. WhatsApp is not a structured pain log or PDF for doctors.
Design focus	Crisis button + trigger checklist + PDF export are the product. Keep medical tone calm, not clinical jargon.

Competitors to check:

- **My Sickle Care** (Android; pain log + community; Nigeria-linked)
- **Sikila** (sickle companion; symptom + hydration tracking)
- **SCD Warriors App** (SickleInAfrica; Play Store)
- **Paper diaries + WhatsApp support groups** (default)

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. Pain crisis log with severity level, body location, and date/time
2. Trigger tracker: log what the user was doing before each crisis (weather, stress, food, hydration)
3. Health summary export: a simple PDF the user can hand to a doctor

Out of scope

- Diagnosis or treatment plans
- Insurance or hospital booking
- Community social feed

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	Calm, clean logo. Warm purple or deep blue palette to feel medical but not cold.
2	Auth	Onboarding (2 screens)	Screen 1: 'Your health history, in your hands.' Screen 2: Enter patient name, age, and genotype (SS / SC / other).
3	Auth	Sign Up Screen	Name, phone number, date of birth, and genotype. PIN for login.
4	Auth	Sign In Screen	Phone number and PIN.
5	App shell	Home (tab)	Days since last crisis (large number). Quick-access 'Log Crisis' button. Summary: crises this month vs last month.
6	App shell	Log (tab)	Body diagram to tap the area of pain. Severity slider (1 to 10). Date/time (auto-filled). Optional notes field. Save button.
7	App shell	Triggers (tab)	After logging pain, show a checklist of common triggers to select: Cold weather, Stress, Not enough water, Skipped medication, Overexertion, Other.
8	App shell	Summary (tab)	List of all logged crises with dates, severity, and triggers. 'Export as PDF' button to generate a doctor-ready summary.

9	Core flow	Log pain · Saved	Body area, severity, time saved. Show bottom nav on post-sign-in screens.
10	Core flow	Trigger tags	Triggers selected after logging pain. Show bottom nav on post-sign-in screens.
11	Core flow	Summary · Export ready	PDF export preview for doctor visit. 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 → Log tab → Log pain → Triggers tab → Summary tab export

Core flow screens: Log pain · Saved · Trigger tags · Summary · Export ready

Flow 3 · Navigation

Link every nav tab so examiners can tap each bottom nav item. Tabs: Bottom navigation with 4 items: Home · Log · Triggers · Summary

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):

User is in severe pain and cannot type or navigate. Design a one-tap emergency button on the Home screen labelled 'I Am in Crisis'. Tapping it auto-logs a crisis and shows emergency steps.

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

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