



# SkillsSphere

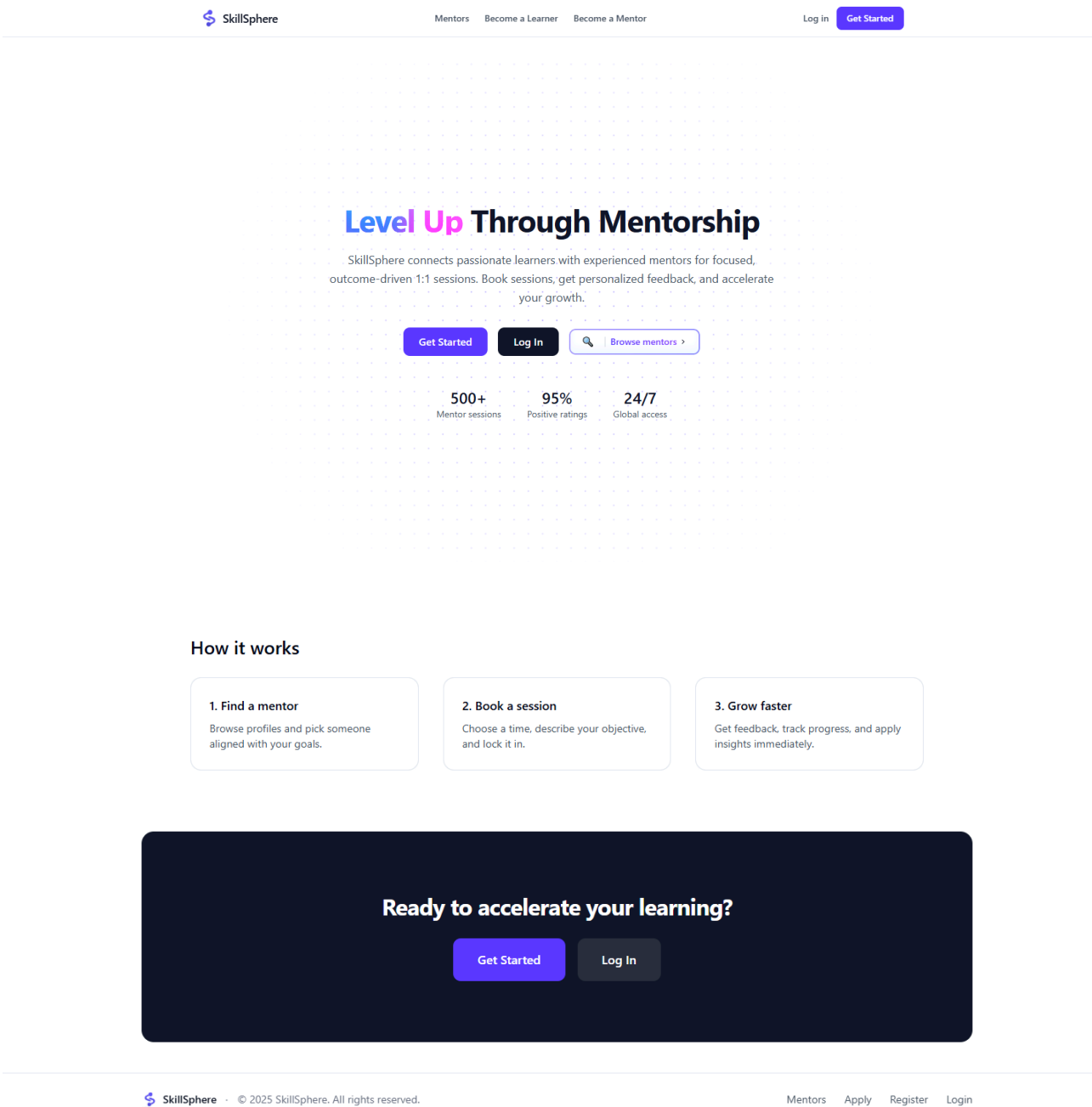
Real-Time Microlearning & Mentorship Platform

By Azeem Sarwar

<https://skillsphere-education.vercel.app>

# 1) Executive Summary

**SkillSphere** is a SvelteKit (v4) app that connects learners with mentors for short, focused 1-on-1 sessions. It includes secure authentication, role-based access, mentor discovery, quick booking from weekly availability, a realtime chat with image sharing, and an **AI-powered session summary** generated when a mentor ends a session. Admins approve mentor applications. The solution focuses on a lean but production-shaped architecture with Supabase (Auth, Postgres, Realtime, Storage) and clean, responsive UI using Tailwind + shadcn-svelte (Bits UI).



## 2) Tech Stack & Architecture

### Frontend

- **SvelteKit v4**, TypeScript
- **TailwindCSS + shadcn-svelte (Bits UI) + lucide-svelte**
- **svelte-sonner** for toasts



### Backend / Infra

- **Supabase**: Auth, Postgres, RLS, Realtime, Storage
- Realtime channels for **session\_messages** and **sessions** table updates
- **OpenAI** (gpt-4o-mini) for session summaries



## 3) What's Implemented (Feature Checklist)

### Core functionality

- Email/password auth (Supabase)
- Role-based access (Learner, Mentor, Admin)
- Mentor application flow (approve/reject in Admin)
- Mentor discovery/search with name/bio/skills/tags and ratings surface
- Mentor Weekly availability management
- Mentor profile page with availability highlight and simple booking
- Realtime chat per session (**text + image uploads**)
- End Session (mentor-only) → generates **AI summary** (OpenAI)
- **Realtime session end notice** to learner; feedback dialog appears instantly in realtime
- Role dashboards: **Learner**, **Mentor**, and **Admin approvals** page

### Non-functional

- Responsive UI (mobile/desktop)
- Form validation for mentor availability times
- Basic RLS policies for messaging + storage bucket (MVP-safe)
- DB indexes on hot paths (sessions, feedback, weekly availability)

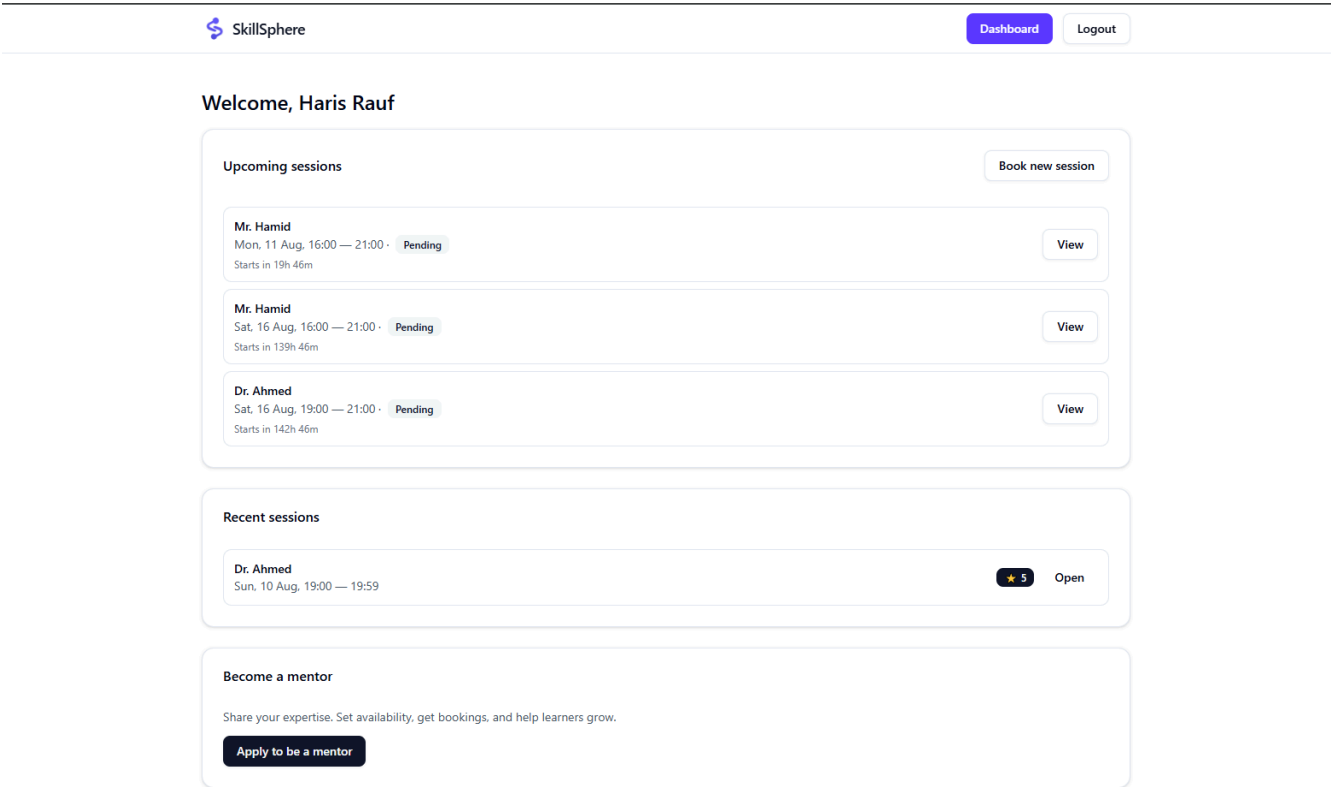
### AI (Innovation)

- AI-generated session summary (concise recap + next steps), persisted on session row
- Summary visible in session view and learner's past sessions list

# 4) User Journeys & Screens (with placeholders)

## A) Learner

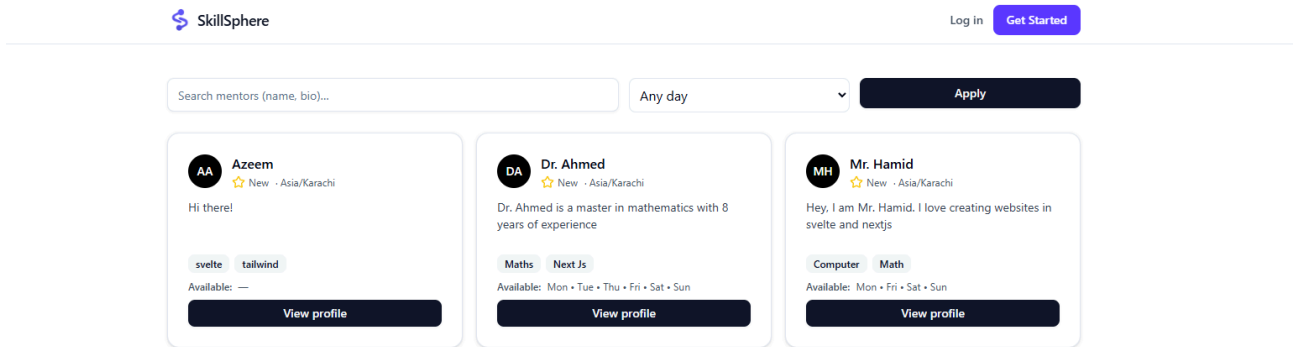
- **Auth → Dashboard**
  - Sees **Upcoming Sessions** (Join window indicator), **Recent Sessions** with **AI summaries**.
  - Can **apply to be a mentor** if desired.



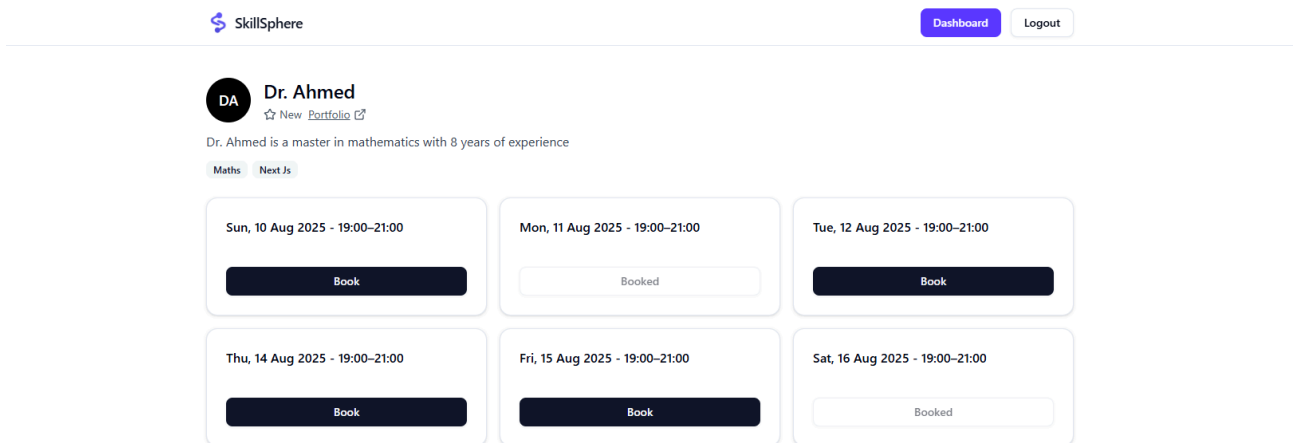
- **Mentor Directory & Profile**

- Search mentors by name/bio/skills.
- Open mentor profile; see **weekly availability** visualization and **next 7-day cards**.
- Book a day (disabled when already booked).

Mentor Listing:



Mentor Profile & Booking:



- **Live Session**

- Realtime chat (text + images), Enter to send, optimistic UI.
- When mentor ends session: Learner immediately sees **feedback dialog** and **AI**

SkillSphere

DashboardLogout

Session with Haris RaufSun, 10 Aug, 19:00 — 21:00

End Session

H

Haris Rauf19:07

BASIC OF ALGEBRA

$$3x^2 - 2xy + c$$

Me no understand this. Help me

H

Haris Rauf19:41

Please help

You19:42

Sure, give me a second loser

🗨️

Type a message...

Send

SkillSphere

DashboardLogout

Session with Dr. AhmedSun, 10 Aug, 19:00 — 19:59 - completed

AI summary

In today's 1:1 learning session, we focused on the fundamentals of algebra, emphasizing the equation  $2x = 2$  and solving for  $x$ . You demonstrated understanding by engaging with the material and asking for clarification on a challenging concept related to Tesla, which shows your willingness to learn and seek help when needed.

Next steps:

1. Review the basic principles of algebra, particularly focusing on the equation  $2x = 2$ .
2. Practice additional algebra problems to reinforce your understanding.
3. Revisit the Tesla-related material and try to identify the concept being discussed.
4. Schedule a follow-up session to address any lingering questions.

Rate your mentor

✕

Your rating

Okay (3/5)

★

★

★

☆

☆

He was a great teacher. The session was very helpful!!!

You rated 3/5 - Okay

55/500

Reset

Submit

You19:07

$$2xy + c$$

Me no understand this. Help me

You19:41

Please help

D

Dr. Ahmed19:42

Sure, give me a second loser

## B) Mentor

- **Mentor Dashboard**

- Manage weekly availability (Mon–Sun + start/end time); calendar highlights green (available) & red (booked).
- See **Live** and **Upcoming** sessions; quick “Join/Open”.
- **Recent Feedback** list with learner names, rating, comments, and “Open chat”

### Mentor Dashboard

#### Weekly availability

Mon

Tue

Wed

Thu

Fri

Sat

Sun

Start time

19:00

End time

21:00

Save pattern

<

October 2025

>

M	T	W	T	F	S	S
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Available

Booked

#### Live sessions

No live sessions.

#### Upcoming sessions

Haris Rauf

Mon, 11 Aug, 19:00 – 21:00 · pending

Open

Haris Rauf

Sat, 16 Aug, 19:00 – 21:00 · pending

Open

#### Recent feedback

Haris Rauf

Sun, 10 Aug, 19:00 · ★ 5

Open chat

I loved it

- **End Session**

- Mentor clicks **End session** → AI summary is generated and saved; learner gets realtime prompt.

### Session with Dr. Ahmed

Sun, 10 Aug, 19:00 — 19:59 · completed

#### AI summary

In today's 1:1 learning session, we focused on the fundamentals of algebra, emphasizing the equation  $2x = 2$  and solving for  $x$ . You demonstrated understanding by engaging with the material and asking for clarification on a challenging concept related to Tesla, which shows your willingness to learn and seek help when needed.

#### Next steps:

1. Review the basic principles of algebra, particularly solving linear equations.
2. Practice additional algebra problems to reinforce your understanding.
3. Revisit the Tesla-related material and try to identify specific areas of confusion for further discussion.
4. Schedule a follow-up session to address any lingering questions and deepen your understanding.


You 14:47

Thats good

Dr. Ahmed 14:48

Shall we continue?

Dr. Ahmed 15:36



Tesla

You 19:07

BASIC OF ALGEBRA



## C) Admin

- **Admin Approval**
  - Approve/reject mentor applications; on approve, merge subjects/bio into profile and set role=mentor.

### Pending mentor applications

**Dr. Jawad Shafi**

Subjects: Sveltekit, English

<http://localhost:5173/mentor/apply>

Hey there! I am using whatsapp

Approve

Reject

**Ayesha Haris**

Subjects: Nextjs, Reddit, AI

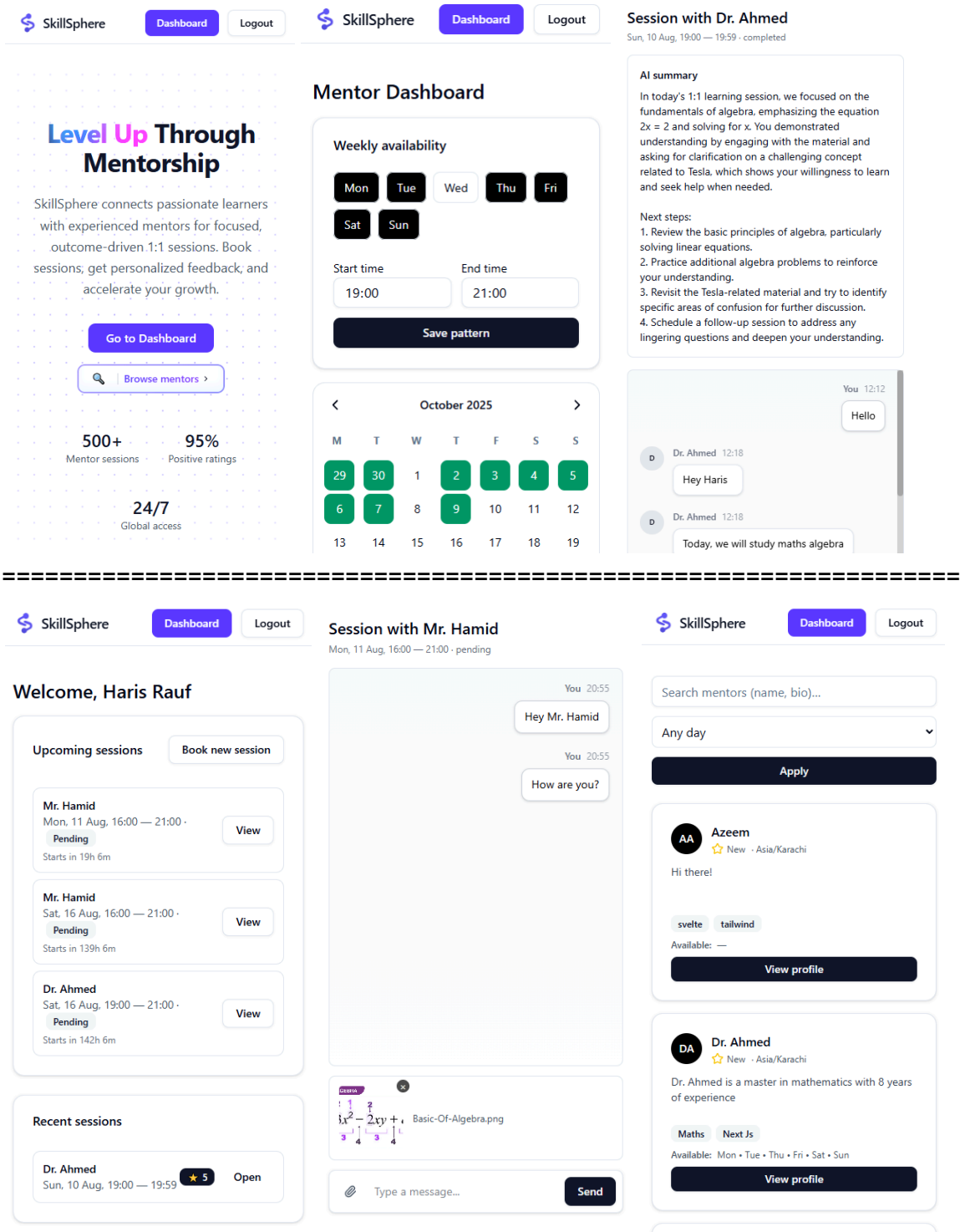
<http://localhost:5173/mentor/apply>

Hey there! I am a teacher

Approve

Reject

## 4) Responsive screenshots



## 5) Evaluation Mapping

### Functionality (30%)

- Booking from mentor weekly availability (next-7-days), mentor discovery/search, admin approvals, realtime session chat, feedback, AI session summary. Robust learner/mentor dashboards with live/upcoming sections and recent feedback.

### Code Quality (20%)

- SvelteKit v4 + TypeScript, componentized UI, server-side loads/actions, DB triggers, RPC only where needed, clear separation of concerns. Tailwind utility patterns with shadcn components.

### Innovation—AI Use (15%)

- Mentor-triggered summary with actionable next steps (persisted per session); minimal credit consumption (one summary per session end).

### Scalability & DB (10%)

- Normalized tables; targeted indexes; realtime channels scoped per session; storage bucket partitioning per session id path.

### UI/UX (25%)

- Clean dashboards per role, availability calendar, accessible forms, responsive layouts, helpful empty states, and intuitive booking/ending/feedback flows.