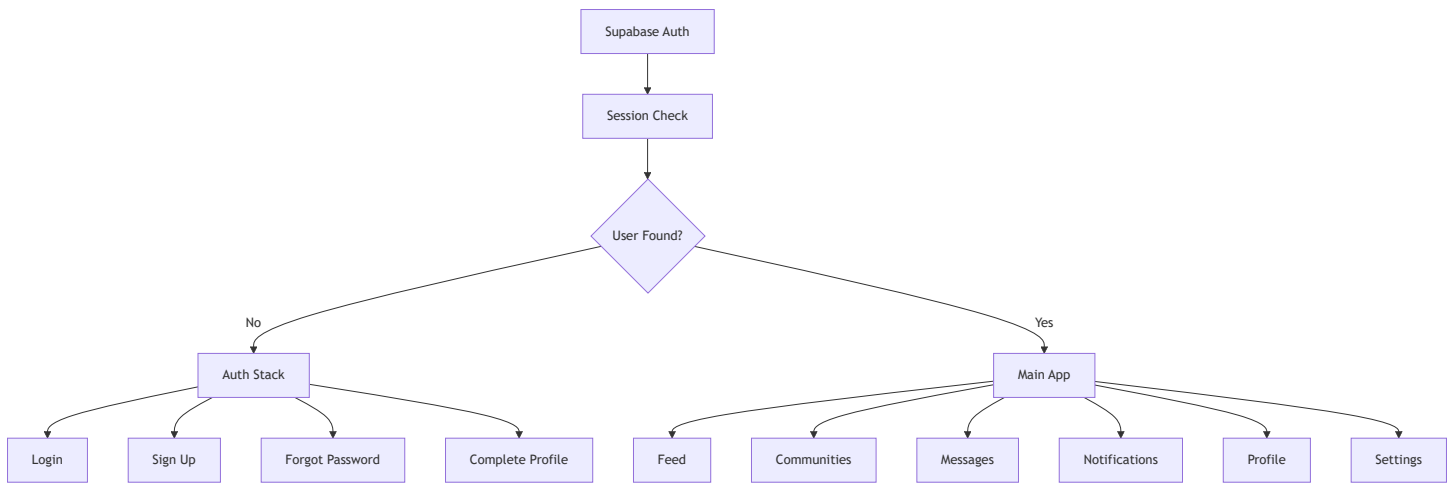


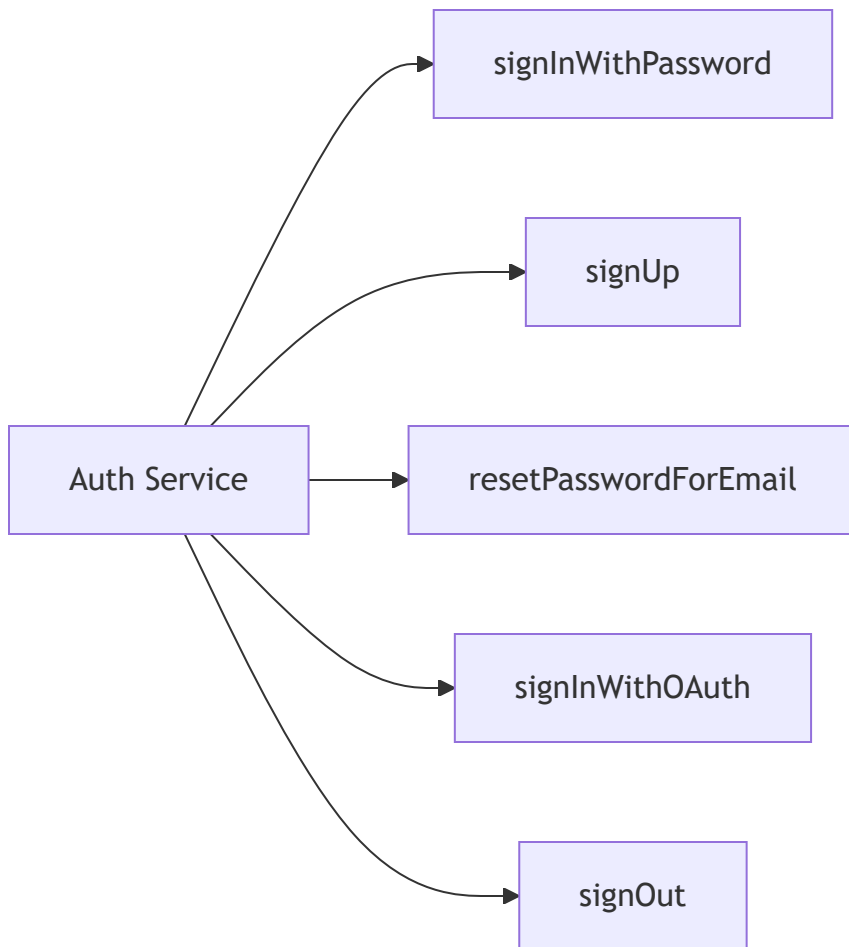
Connect-Sphere System Design

1. High-Level System Design

1.1 Authentication Flow

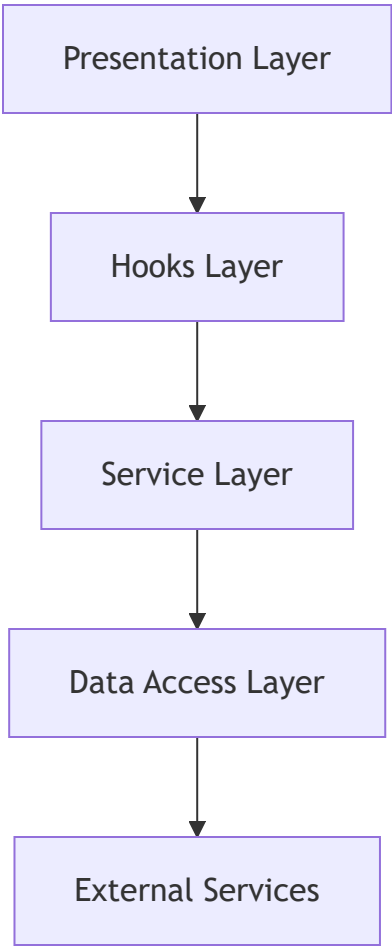


1.2 Auth Methods

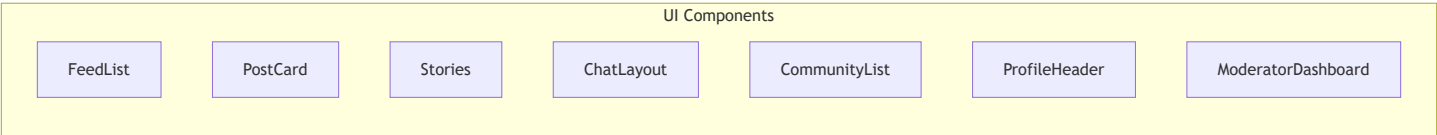


2. Component Architecture

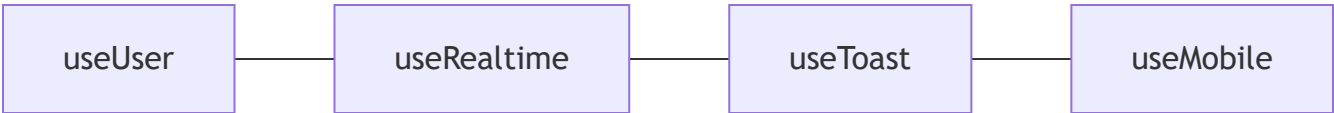
2.1 Application Layers



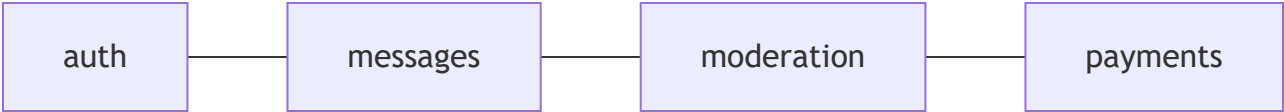
2.2 Presentation Layer Components



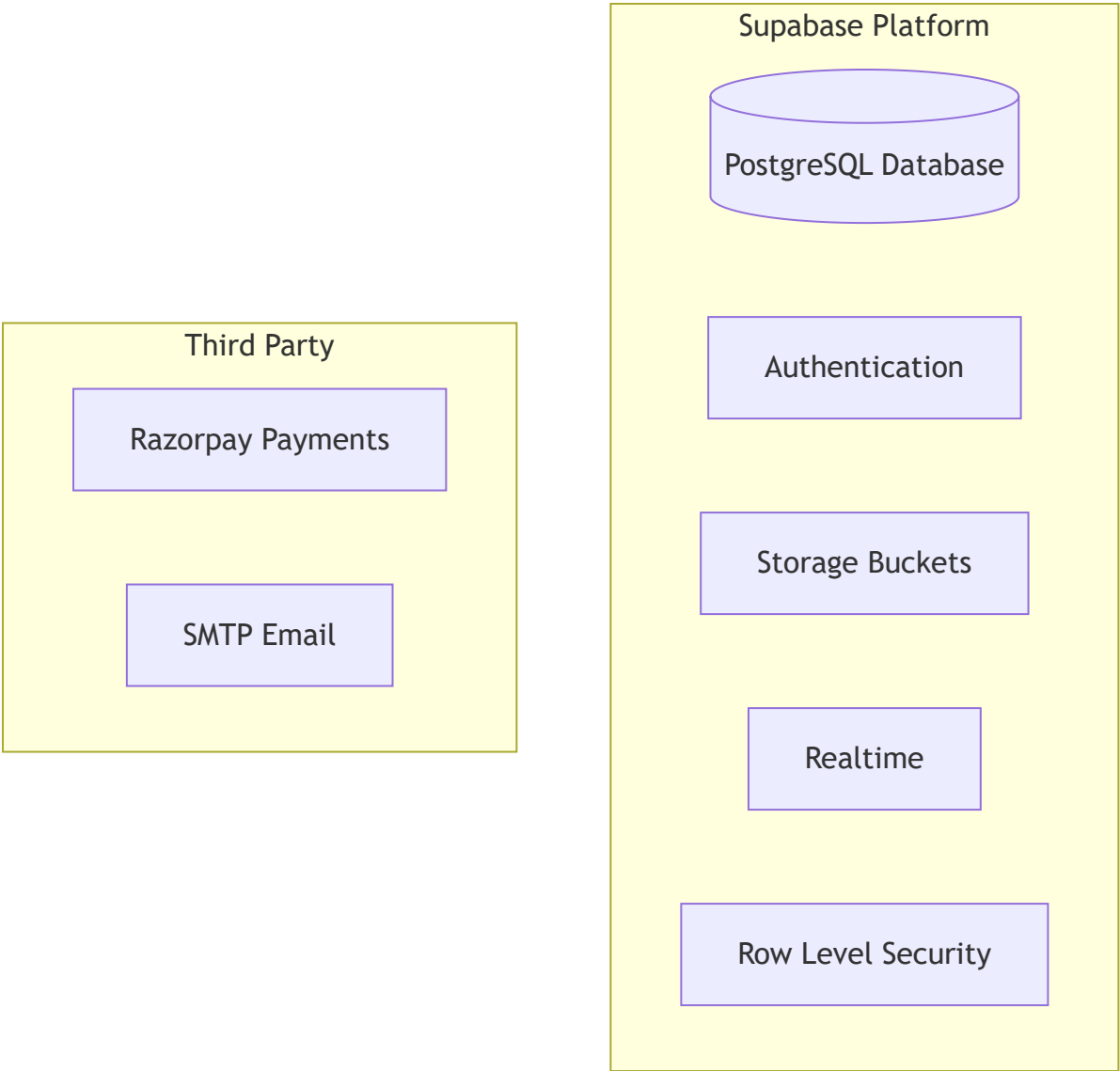
2.3 Hooks



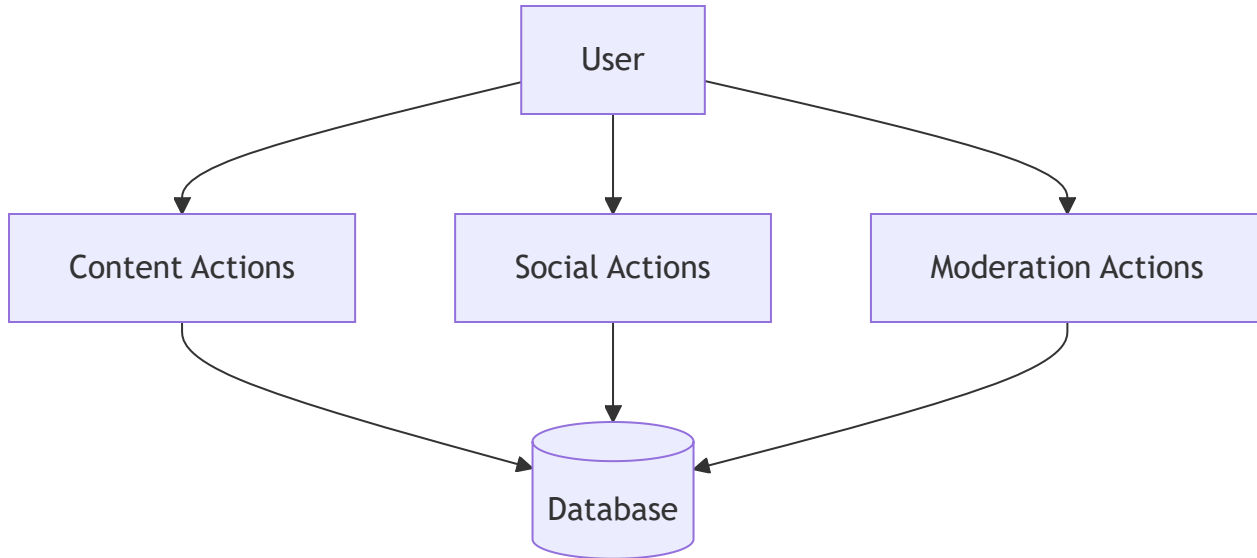
2.4 API Routes



3. External Services



4. Data Flow



Content Flow

- Create Post → posts table
- View Feed → posts table
- Create Story → stories table

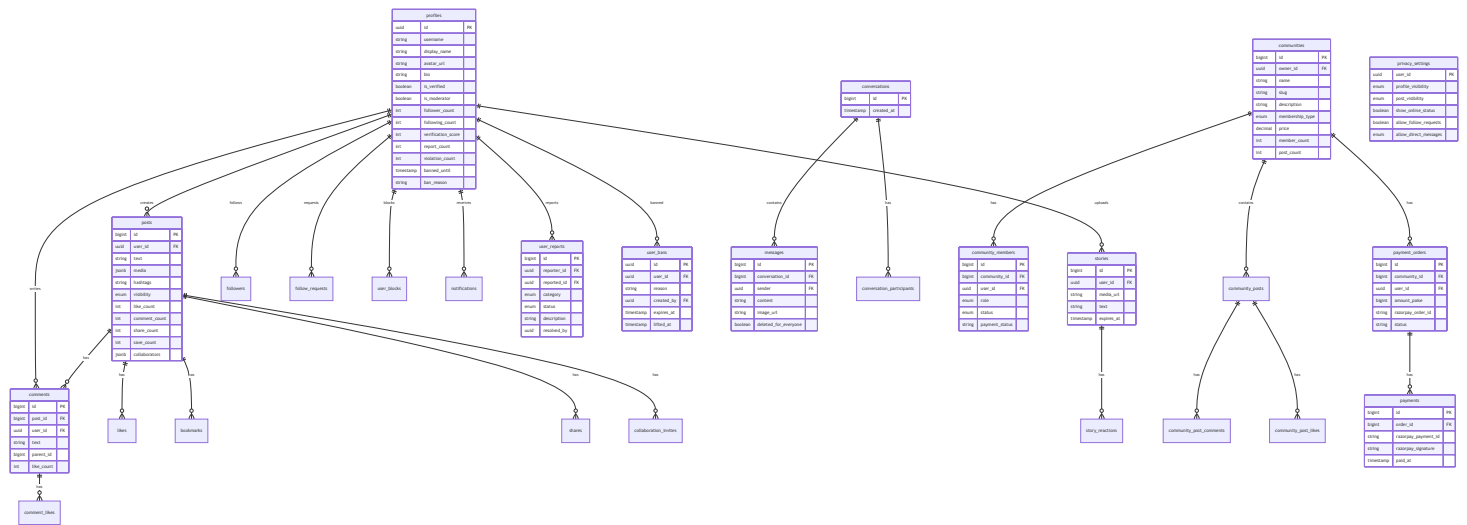
Social Flow

- Follow User → followers table
- Send Message → messages table
- Notifications → notifications table

Moderation Flow

- Report User → user_reports table
- Ban User → user_bans table
- Block User → user_blocks table

5. Database Schema



Database Enums

Enum	Values
privacy_level	public, private, followers
reaction_type	like, love, laugh, wow, sad, angry
collab_status	pending, accepted, declined
member_role	owner, admin, moderator, member, co_owner
membership_status	active, pending, suspended, left
membership_type	free, paid
report_category	harassment_or_bullying, hate_or_violence, sexual_or_graphic_content, fraud_or_scam, impersonation, spam, other
report_status	pending, under_review, action_taken, dismissed

Database Tables Summary

Category	Tables
User Management	profiles, privacy_settings, followers, follow_requests, user_blocks

Category	Tables
Content	posts, comments, comment_likes, likes, bookmarks, shares, stories, story_reactions
Collaboration	collaboration_invites, collaboration_notifications
Communities	communities, community_members, community_posts, community_post_comments, community_post_likes
Messaging	conversations, conversation_participants, messages
Notifications	notifications
Payments	payment_orders, payments
Moderation	user_reports, user_bans

6. Technology Stack

Frontend

Next.js

TypeScript

Tailwind CSS

Shadcn UI

React Hook Form

Zod



Backend

Supabase Auth

PostgreSQL 15

Supabase Realtime

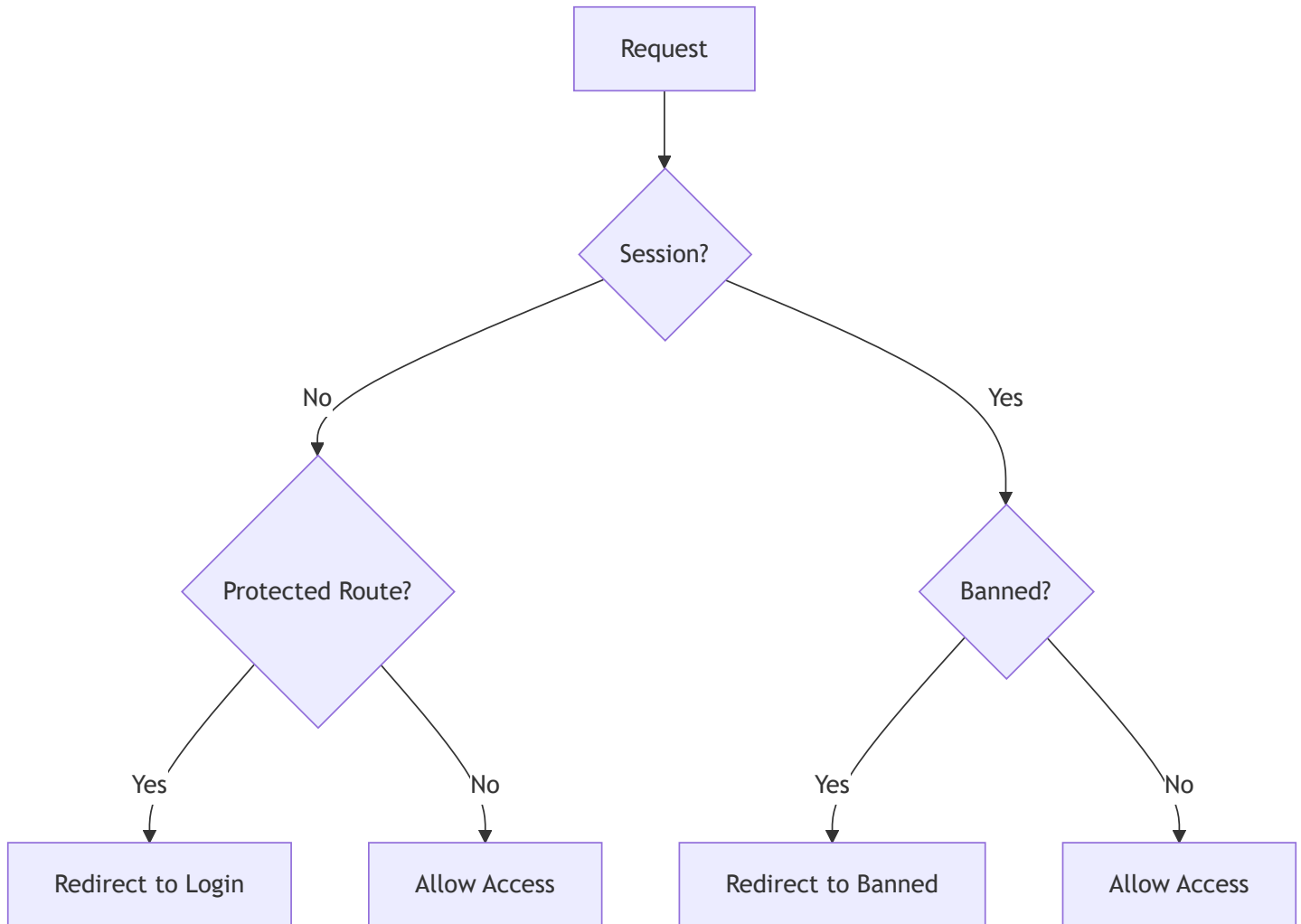


Supabase Storage

Razorpay

SMTP

7. Middleware Flow



Protected Routes

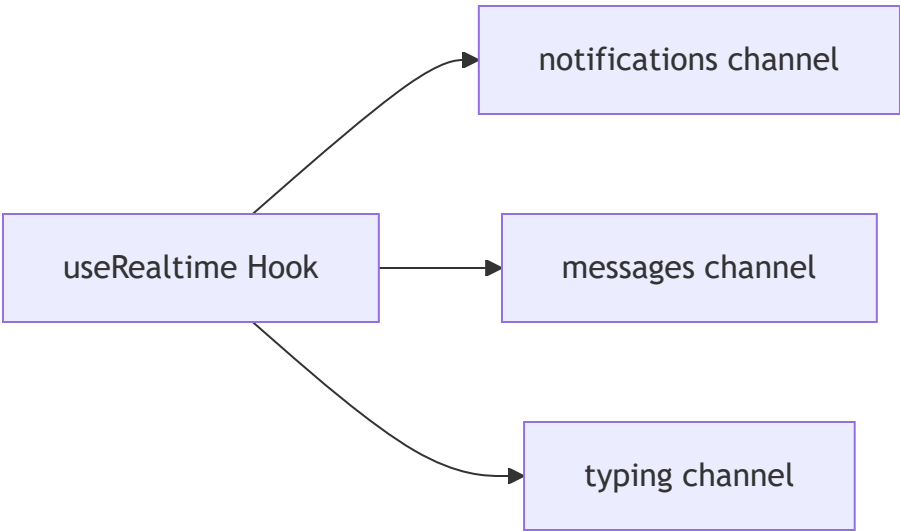
- /feed
- /messages
- /notifications
- /settings
- /profile
- /communities
- /moderation
- /analytics

Public Routes

- /
- /login

- /signup
- /forgot-password

8. Realtime Channels



Channel Details

Channel	Event	Purpose
notifications:user_id	INSERT	New notification
messages:conversation_id	INSERT/UPDATE	New message
typing:conversation_id	BROADCAST	Typing indicator

9. Storage Buckets

Bucket	Purpose
avatars	Profile pictures
stories	Story media
post_media	Post attachments

Bucket	Purpose
chat_images	Message images

10. Security

Row Level Security

Table	Policy
profiles	Public/Private visibility
posts	Filter by visibility
messages	Participants only
user_bans	Moderators only

Auth Methods

- Email/Password
- Google OAuth