

# 1. Problem Statement, Description, Mission, and Vision

## Problem Statement

Finding quality dance and music classes in metro cities is a time-consuming and unstructured process. Existing platforms either lack detailed insights into studios, instructors, and events or are fragmented across different social media and offline networks. There is no centralized system tailored to the needs of dancers and musicians looking for classes, studios, and performance opportunities.

## Description

Qalira is a digital platform designed to simplify the search for dance and music classes. It connects users with nearby studios, instructors, and performance events while providing a seamless experience for bookings, reviews, and networking. The platform caters to both learners and professionals, offering class listings, job postings, and event discovery features.

## Mission

To organize and structure the dance and music education sector by creating a comprehensive, user-friendly platform that helps students, professionals, and institutions connect and thrive.

## Vision

To be the leading platform for dance and music enthusiasts, making learning and networking more accessible, structured, and engaging.

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## 2. Tech Stack Required

- **Frontend:** React (for a scalable, maintainable UI)
- **State Management:** Redux Toolkit (for managing global state efficiently)
- **Styling:** Material UI (for a consistent, responsive UI framework)
- **Backend:** Supabase (for database management and authentication)
- **Database:** PostgreSQL (for relational data storage with scalability)
- **Authentication:** Supabase Auth (email/password, OAuth support)
- **Payment Processing:** Razorpay (for secure and reliable transactions)
- **Cloud Storage:** Supabase Storage (for media files and class resources)

- **API:** RESTful API (for structured communication between frontend and backend)
  - **Hosting:** Vercel (for frontend deployment) & Supabase (for backend hosting)
  - **Version Control:** GitHub (for collaborative development and code management)
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## 3. System Design, User Flow, Pages, Assets Required

### System Design Overview

Qalira follows a **client-server** architecture where the frontend communicates with the backend via REST APIs. The backend manages user authentication, class listings, payments, and data storage, while the frontend provides an intuitive and interactive user experience.

#### Key Components:

##### Frontend (React + TypeScript)

- **Landing Page:** Search for classes, highlight studios
- **User Authentication:** Sign-up/Login (Email/OAuth)
- **User Dashboard:** Bookings, saved classes, recommendations
- **Class Listings & Detail Pages:** Filters, reviews, schedules
- **Instructor/Studio Dashboard:** Manage listings, earnings
- **Job & Event Listings:** Apply or post opportunities
- **Admin Panel:** Manage users, classes, and transactions

##### Backend

- **Authentication** (Supabase)
  - Supabase Auth (OAuth, Email/Password)
- **Database (PostgreSQL)**
  - Users (students, instructors, admins)
  - Classes (name, style, schedule, price, instructor ID)
  - Reviews & Ratings
  - Job Listings
  - Event Listings
  - Payments & Bookings
- **Storage**
  - Class images, videos, event posters
- **Payments**
  - Razorpay for transactions

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## User Flow

1. **User Onboarding**
  - Sign up/Login with Email or OAuth
  - Set preferences (Dance/Music, styles, location)
- **Discovering Classes & Events**
  - Search by style, location, rating
  - View class details (instructor bio, pricing, schedule)
  - Explore jobs & performance events
- **Booking & Payments**
  - Select a class, pay via Razorpay
  - Receive confirmation & calendar reminder
- **Networking & Engagement**
  - Follow instructors, save classes
  - Leave reviews, get recommendations
- **Studio & Instructor Management**
  - Add/Edit/Delete class listings
  - Track bookings and earnings
  - Engage with students
- **Job & Event Listings**
  - Post dance/music jobs
  - Browse and apply for opportunities
  - RSVP for upcoming performances

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## Database Schema

### Users Table

id	name	email	role (student/instructor/admin)	preferences	created_at
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### Classes Table

id	name	instructor_id	style	location	price	schedule	rating
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## Bookings Table

id	user_id	class_id	payment_status	created_at
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## Payments Table

id	user_id	booking_id	amount	status	transaction_id
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## Events Table

id	name	location	date	description	created_at
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## API EndPoints

- **Auth**
  - POST /signup → Create account
  - POST /login → Authenticate user
- **Classes**
  - GET /classes → Fetch class listings
  - GET /class/:id → Fetch class details
  - POST /class → Create new class (Instructor only)
- **Bookings**
  - POST /book → Book a class
  - GET /bookings → View user bookings
- **Payments**
  - POST /pay → Process payment via Razorpay
- **Reviews**
  - POST /review → Add a review
  - GET /reviews/:class\_id → Get class reviews

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## Pages & Features

1. **Landing Page**
    - Hero section with CTA ("Find Your Perfect Class")
    - Search bar for classes/studios
    - Highlighted featured studios and events
  2. **Login & Signup**
    - Email/password authentication
    - Social login options (Google, Facebook)
  3. **User Dashboard**
    - Personalized recommendations
    - Upcoming bookings and saved classes
  4. **Class Listings Page**
    - Filters: Dance/Music, Style, Price, Ratings, Location
    - Grid/List view of classes
  5. **Class Detail Page**
    - Description, schedule, instructor details, pricing
    - "Book Now" button with payment gateway integration
    - Reviews & ratings
  6. **Instructor/Studio Dashboard**
    - Add/Edit/Delete class listings
    - Track bookings and earnings
  7. **Job Listings Page**
    - List of dance/music job opportunities
    - Apply or post new openings
  8. **Event Discovery Page**
    - Browse performances, underground battles, and auditions
    - RSVP and get event reminders
  9. **Profile Page** (User & Instructor)
    - User: Update preferences, saved classes, booking history
    - Instructor: Manage profile, reviews, and follower engagement
  10. **Admin Panel** (For Qalira team)
    - Manage users, listings, transactions, and reports
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## Assets Required

- **Images:** Studio photos, instructor headshots, event posters

- **Icons & Illustrations:** Custom UI assets for branding
  - **Fonts:** Clean, modern typography for readability
  - **Videos:** Instructor intros, sample class clips
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## Conclusion

Qalira aims to revolutionize how dance and music enthusiasts find and engage with classes, instructors, and events. With a structured approach to class discovery, seamless payments, and a networking ecosystem, it bridges the gap between learners and professionals, creating a thriving community.