Backend

* Structure

com.cleanzcare

├── controller

│ ├── AuthController

│ ├── UserController

│ ├── AdminController

│ ├── BookingController

│ ├── ServiceProviderController

│ ├── ServiceController

│ ├── CategoryController

│ ├── PaymentController

│ ├── ReviewController

│ └── QuestionController

│

├── dto

│ ├── (Request/Response DTOs for all entities)

│ ├── QuestionDTO

│ ├── AskQuestionRequest

│ └── AnswerQuestionRequest

│

├── entity

│ ├── User

│ ├── Role (ENUM)

│ ├── Service

│ ├── ServiceCategory

│ ├── ServiceProviderProfile

│ ├── Booking

│ ├── Payment

│ ├── Review

│ └── Question

│

├── repository

│ ├── (JpaRepositories for each entity)

│ └── QuestionRepository

│

├── service

│ ├── UserService

│ ├── BookingService

│ ├── AdminService

│ ├── PaymentService

│ ├── ReviewService

│ ├── ServiceCategoryService

│ ├── ServiceService

│ └── QuestionService

│

├── security

├── config

* Entity-Relationship

| **Entity** | **Fields** | **Relations** |
| --- | --- | --- |
| **User** | id, name, email, password, role (ENUM) | OneToOne with ServiceProviderProfile (if role is provider) |
| **Role** (ENUM) | USER, ADMIN, SERVICE\_PROVIDER | Used in User.role |
| **ServiceCategory** | id, name, iconPath | OneToMany with Service |
| **Service** | id, title, description, price, imagePath, categoryId, providerId | ManyToOne with Category, ManyToOne with ServiceProvider |
| **ServiceProviderProfile** | id, userId, description, skills, experience | OneToOne with User |
| **Booking** | id, userId, serviceId, date, time, status | ManyToOne with User and Service |
| **Payment** | id, bookingId, amount, status, method | OneToOne with Booking |
| **Review** | id, bookingId, rating, comment | OneToOne with Booking |
| **Question** | id, userId, question, answer, createdAt | ManyToOne with User |

* Data tables

| **Table Name** | **Description** |
| --- | --- |
| users | All users (admin, providers, customers) |
| roles (ENUM in app) | Enum internally used in app, not table |
| service\_categories | List of categories like Salon, Cleaning |
| services | All services listed by providers |
| service\_provider\_profiles | Additional details for provider user |
| bookings | Customer bookings |
| payments | Payment info tied to bookings |
| reviews | User reviews for bookings |
| questions | User queries + admin answers |

* API Routes

| **Action** | **Endpoint** | **Method** |
| --- | --- | --- |
| Register/Login | /api/auth/register | POST |
| Get all services | /api/services | GET |
| Create a new service | /api/services | POST |
| Get categories | /api/categories | GET |
| Add question | /api/questions | POST |
| Admin answer question | /api/questions/{id}/answer | PUT |
| Book a service | /api/bookings | POST |
| Make payment | /api/payments | POST |
| Leave a review | /api/reviews | POST |