

# Database Schema & Technology Stack

## Online Sports & Facility Management System

### 1. Database Schema

#### USERS Table

Field	Type	Description
user_id (PK)	INT	Unique user identifier
full_name	VARCHAR(100)	User full name
address	TEXT	Residential address
phone_number	VARCHAR(15)	Contact number
aadhaar_number	VARCHAR(12)	Unique Aadhaar ID
category	ENUM	User category
photo_path	VARCHAR(255)	Uploaded photo
status	ENUM	Pending / Approved / Revoked
created_at	TIMESTAMP	Registration date

#### FACILITIES Table

Field	Type	Description
facility_id (PK)	INT	Facility identifier
facility_name	VARCHAR(50)	Name of facility
max_duration	INT	Maximum usage time
is_active	BOOLEAN	Availability status

#### TIME\_SLOTS Table

Field	Type	Description
slot_id (PK)	INT	Slot identifier
start_time	TIME	Start time
end_time	TIME	End time
session	ENUM	Morning / Evening

#### BOOKINGS Table

Field	Type	Description
booking_id (PK)	INT	Booking identifier
user_id (FK)	INT	References USERS
facility_id (FK)	INT	References FACILITIES
slot_id (FK)	INT	References TIME_SLOTS
booking_date	DATE	Booking date
status	ENUM	Active / Cancelled / Completed

## PAYMENTS Table

Field	Type	Description
payment_id (PK)	INT	Payment identifier
user_id (FK)	INT	References USERS
booking_id (FK)	INT	References BOOKINGS
amount	DECIMAL	Payment amount
payment_type	ENUM	Single Game / Membership
payment_status	ENUM	Success / Failed

## **2. Database Relationships**

USERS to BOOKINGS (One-to-Many), FACILITIES to BOOKINGS (One-to-Many), TIME\_SLOTS to BOOKINGS (One-to-Many), USERS to PAYMENTS (One-to-Many), USERS to MEMBERSHIPS (One-to-One), ADMIN to DISCIPLINE\_LOG (One-to-Many).

## **3. Technology Stack (Government-Level Deployment)**

**Frontend:** HTML5, CSS3, JavaScript, Bootstrap

**Backend:** Java (Spring Boot) / Python (Django)

**Database:** PostgreSQL

**Security:** JWT, BCrypt, HTTPS, Role-Based Access Control

**Hosting:** NIC Cloud / Government Data Center / Approved Cloud Services

**Other:** Logging, Audit Trails, Backup & Recovery

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