## **Entities:**

- Admin
- User
- Category
- Package
- AddPackage
- Booking
- Payment

## **Entity Descriptions**

Entity Description

tbladmin Stores admin credentials

tbluser Stores gym member details

tblcategory Category types for packages (e.g., Fitness, Weight Loss)

tblpackage Basic packages under a category

tbladdpackage Detailed packages including images, duration, price

tblbooking Records of users booking packages

tblpayment Payments made for bookings

#### **Relationships**

Relationship	Cardinality	Description
User → Booking	1:N	A user can have multiple bookings
Booking → Payment	1:1	A booking has one payment
Category → Package	1:N	A category can contain multiple packages
Package → AddPackage versions (addpackage)	1:N	A package can be enhanced with multiple detailed

#### **Business Rules (Detailed)**

A user must register before booking.

A booking must be tied to a package and a user.

Each booking must have one associated payment.

Packages must belong to a category.

Admin manages creation of categories, packages, and users.

Multiple add-on versions of a package may exist (detailed package info).

Each package has details like price, duration, type, and image.

#### **Primary and Foreign Keys**

Table	Primary Key	Foreign Keys
tbladmin	id	_
tbluser	id	_
tblcategory	id	_
tblpackage	id	cate_id → tblcategory(id) (assumed FK, not declared)
tbladdpackage	id	${\sf category} \to {\sf tblcategory.category\_name} \; ({\sf not} \; {\sf normalized})$
tblbooking	id	userid $\rightarrow$ tbluser(id), package_id $\rightarrow$ tbladdpackage(id) (assumed)
tblpayment	id	bookingID → tblbooking(id)

## **Attributes (Per Table)**

tbluser

fname, Iname, email, mobile, password, state, city, address

tbladmin

name, email, mobile, password

tblcategory

category\_name, status

tblpackage

cate\_id, PackageName

tbladdpackage

category, titlename, Package Type, Package Duratiobn, Price, upload photo, Description

tblbooking

package\_id, userid, booking\_date, payment, paymentType

tblpayment

bookingID, paymentType, payment, payment\_date

# **Strong & Weak Entities**

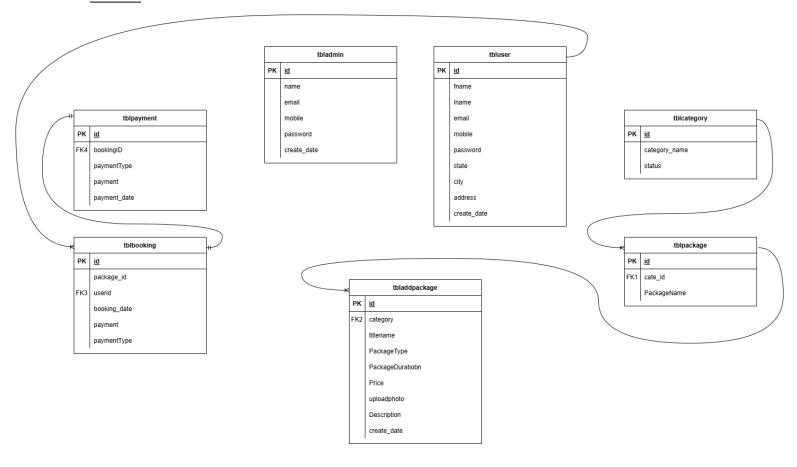
Type Entity Reason

Strong User, Admin, Category, Have independent primary keys

Package

Weak Payment Depends on Booking (should reference Booking ID)

#### **EERD**





# Revised fitness club.drawio

## **SQL Code:**

CREATE TABLE 'tbladdpackage' (

'id' int(11) NOT NULL AUTO\_INCREMENT,

`category` varchar(45) DEFAULT NULL,

`titlename` varchar(450) DEFAULT NULL,

```
`PackageType` varchar(45) DEFAULT NULL,
 'PackageDuratiobn' varchar(45) DEFAULT NULL,
 'Price' varchar(45) DEFAULT NULL,
 'uploadphoto' varchar(450) DEFAULT NULL,
 'Description' varchar(450) DEFAULT NULL,
 `create_date` timestamp NULL DEFAULT current_timestamp(),
PRIMARY KEY ('id')
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
CREATE TABLE 'tbladmin' (
 'id' int(11) NOT NULL AUTO_INCREMENT,
 'name' varchar(45) DEFAULT NULL,
 'email' varchar(45) DEFAULT NULL,
 'mobile' varchar(45) DEFAULT NULL,
 'password' varchar(100) DEFAULT NULL,
 `create_date` timestamp NULL DEFAULT current_timestamp(),
PRIMARY KEY ('id')
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
CREATE TABLE 'tblbooking' (
 'id' int(11) NOT NULL AUTO_INCREMENT,
 `package_id` varchar(45) DEFAULT NULL,
 `userid` varchar(45) DEFAULT NULL,
 `booking_date` timestamp NULL DEFAULT current_timestamp(),
 'payment' varchar(45) DEFAULT NULL,
 `paymentType` varchar(45) DEFAULT NULL,
PRIMARY KEY ('id')
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```

```
CREATE TABLE `tblcategory` (
 'id' int(11) NOT NULL AUTO_INCREMENT,
 `category_name` varchar(45) DEFAULT NULL,
 `status` varchar(45) DEFAULT '0',
PRIMARY KEY ('id')
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
CREATE TABLE 'tblpackage' (
 'id' int(11) NOT NULL AUTO_INCREMENT,
 `cate_id` varchar(45) DEFAULT NULL,
 `PackageName` varchar(45) DEFAULT NULL,
PRIMARY KEY ('id')
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
CREATE TABLE 'tblpayment' (
 'id' int(11) NOT NULL AUTO_INCREMENT,
 `bookingID` varchar(45) DEFAULT NULL,
 `paymentType` varchar(45) DEFAULT NULL,
 'payment' varchar(45) DEFAULT NULL,
 `payment_date` timestamp NULL DEFAULT current_timestamp(),
PRIMARY KEY ('id')
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
CREATE TABLE `tbluser` (
 'id' int(11) NOT NULL AUTO_INCREMENT,
 `fname` varchar(45) DEFAULT NULL,
 'Iname' varchar(45) DEFAULT NULL,
 `email` varchar(45) DEFAULT NULL,
 'mobile' varchar(45) DEFAULT NULL,
```

```
`password` varchar(100) DEFAULT NULL,

`state` varchar(45) DEFAULT NULL,

`city` varchar(45) DEFAULT NULL,

`address` varchar(200) DEFAULT NULL,

`create_date` timestamp NULL DEFAULT current_timestamp(),

PRIMARY KEY (`id`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```