

# BEAST FITNESS

-GYM MANAGEMENT DATABASE

## Group Members

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# INTRODUCTION

BEASTFIT IS A FITNESS CENTER THAT OFFERS VARIOUS WORKOUT PLANS, CLASSES, AND PERSONALIZED TRAINING. TO MANAGE ITS OPERATIONS EFFICIENTLY, WE DESIGNED A STRUCTURED RELATIONAL DATABASE USING POSTGRESQL.

## **This database helps:**

- Track member registrations and personal health notes
- Manage trainer specializations and availability
- Schedule fitness classes and monitor bookings
- Handle membership plans and payments
- Record class attendance and analyze engagement

# TABLES

- **Member** - the data of the members joining the gym
- **Trainer** - data of the Trainers in the gym
- **Trainer Availability**- on which days each of the trainers is available
- **Plan**- Details of the plans provided
- **Membership** - consists of the data after a customer takes membership in the gym
- **Class** - Details of the classes happening
- **Booking** - Details of the class a member has booked
- **Payment** - Details of the payments that are made

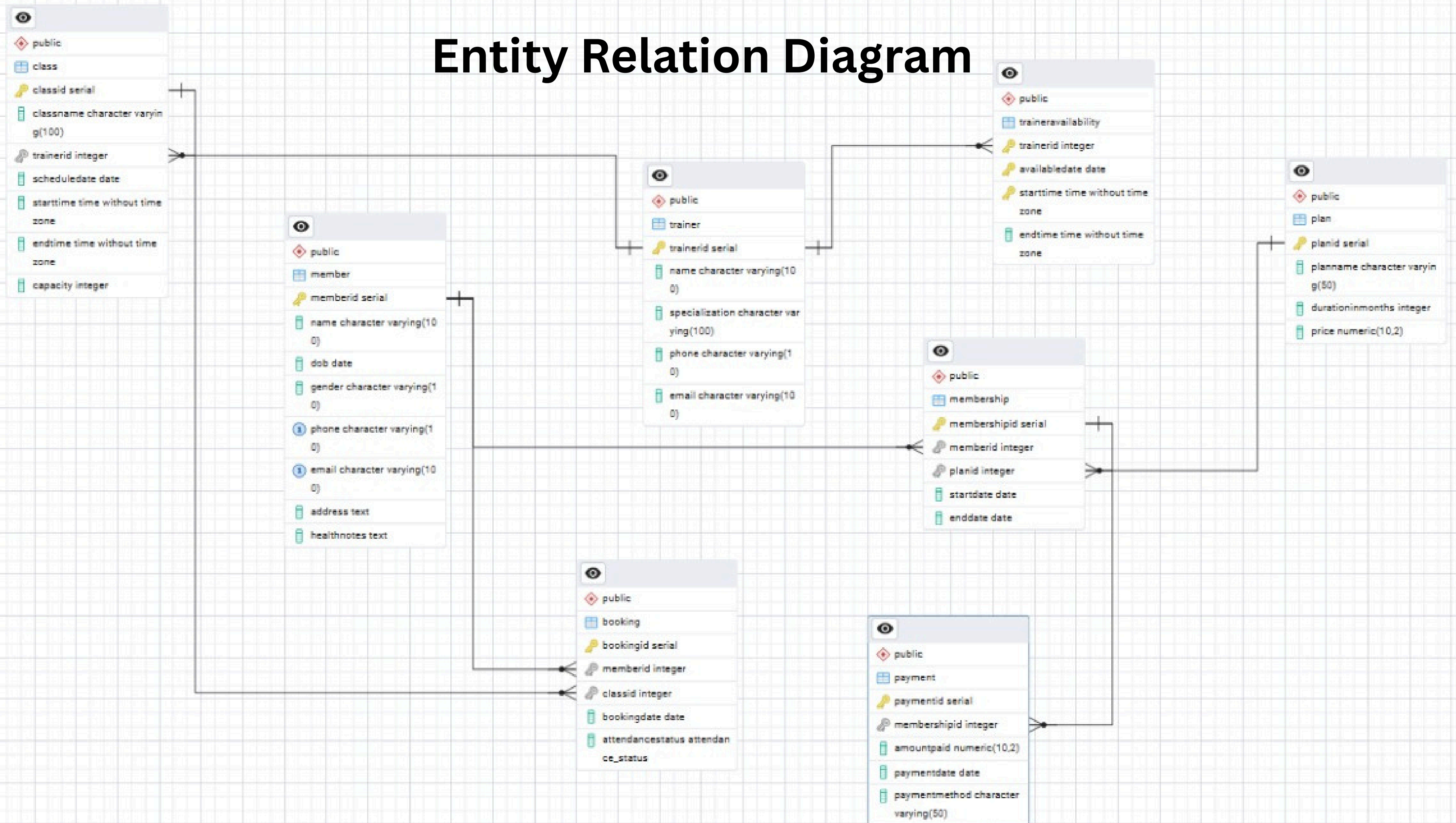
# TABLE DESIGN

- Strong use of PRIMARY and FOREIGN KEYS
- CHECK constraints for validation
- Domain for Attendance Status
- Unique fields for email, phone
- Cascading delete for Member & Membership

# TABLE RELATIONSHIPS

- Member ↔ Membership ↔ Plan
- Member ↔ Booking ↔ Class
- Class ↔ Trainer
- Trainer ↔ Availability
- Membership ↔ Payment

# Entity Relation Diagram



# SAMPLE OUTPUT

## MOST POPULAR PLANS (TOP-SELLING PLANS)

	planname character varying (50) 🔒	subscriptions bigint 🔒	totalrevenue numeric 🔒
1	Yearly Pro	17	322983.00
2	Quarterly Regular	16	87984.00
3	Monthly Basic	17	33983.00

## TOTAL REVENUE OVER TIME

	month timestamp with time zone 🔒	totalrevenue numeric 🔒
1	2025-06-01 00:00:00+05:30	264970.00
2	2025-07-01 00:00:00+05:30	179980.00

# MEMBERS WITH MEMBERSHIPS EXPIRING SOON

	<div>memberid</div> <div>integer</div>	<div>name</div> <div>character varying (100)</div>	<div>email</div> <div>character varying (100)</div>	<div>membershipid</div> <div>integer</div>	<div>enddate</div> <div>date</div>	<div>planname</div> <div>character varying (50)</div>
1	1	Rahul Sharma	rahul.sharma1@beastfit.in	1	2025-06-30	Monthly Basic
2	4	Sneha Rao	sneha.rao@beastfit.in	4	2025-07-03	Monthly Basic
3	7	Pooja R	pooja.r@beastfit.in	7	2025-07-06	Monthly Basic

# PEAK BOOKING TIMES

	<div>hourslot</div> <div>text</div>	<div>totalbookings</div> <div>bigint</div>
1	09:00	10
2	18:00	10
3	14:00	10
4	06:00	10
5	07:00	10



# Constraints and Domain usage

1. Domain: **attendance\_status** - prevent invalid values and ensure consistency
2. CHECK Constraints- used in the code to check whether the Phone numbers are exactly 10 digits, ensure the plan duration is valid, etc.
3. UNIQUE constraints- to prevent duplicate contact information.
4. FOREIGN KEY- To maintain referential integrity between tables.



THANK  
YOU