The Racquet Ritz

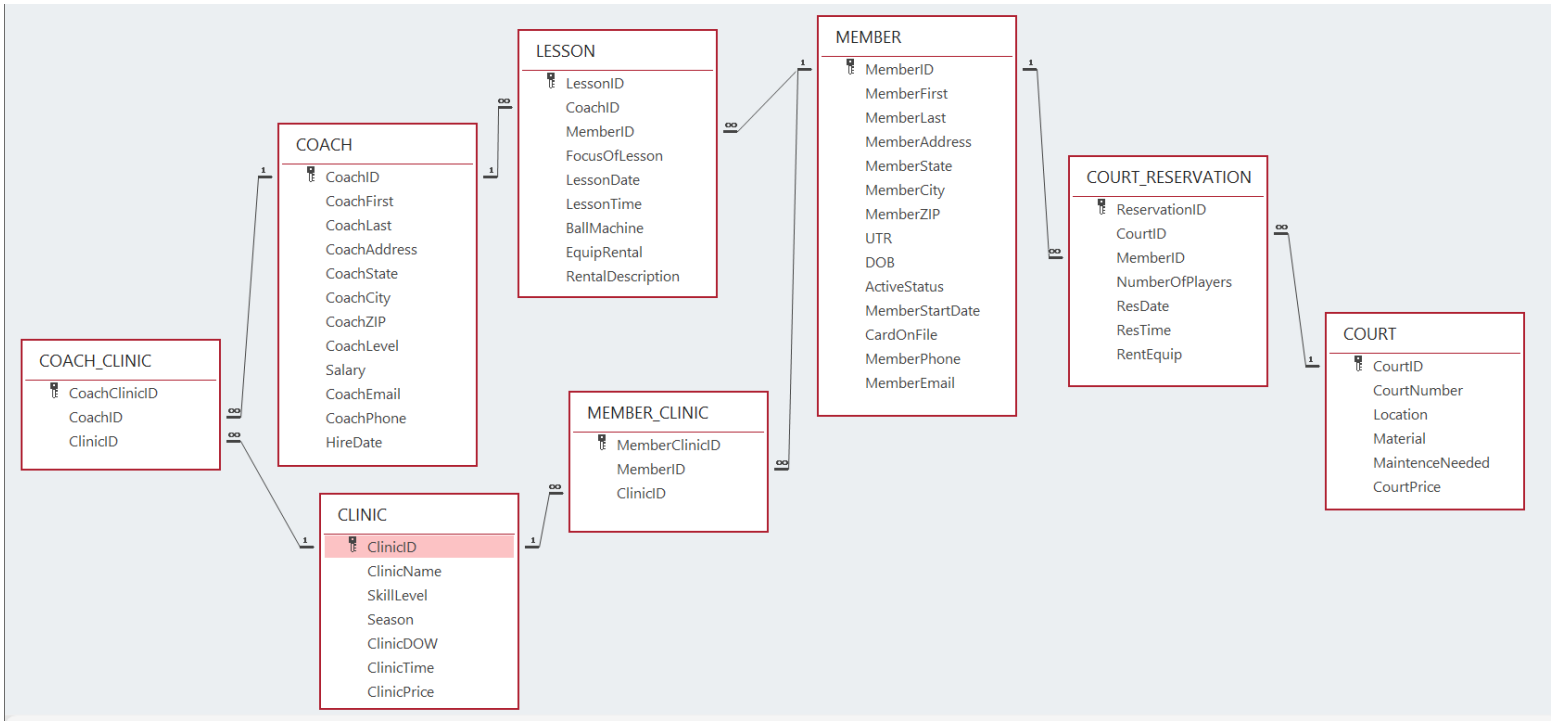
01/18/2024

The name of the company that I will be creating a database for is called *The Racquet Ritz*. The Racquet Ritz is a racquet club that has grown over the years and needs a database to organize all their information. The Racquet Ritz is a place where the community can come together to play tennis, learn tennis, shop for tennis gear, and grab a quick bit to eat.

Previously, The Racquet Ritz was managing their company information randomly on spreadsheets with no system to connect them all. The new database will serve as a single hub where you can access all of the company's information in one place and it will all be connected. The general information that will be managed and stored includes data on the employees (coaches and staff), the members, clinics, private lessons, items that we sell, supplies, food and beverage, and court scheduling.

Created by:

Mary Novak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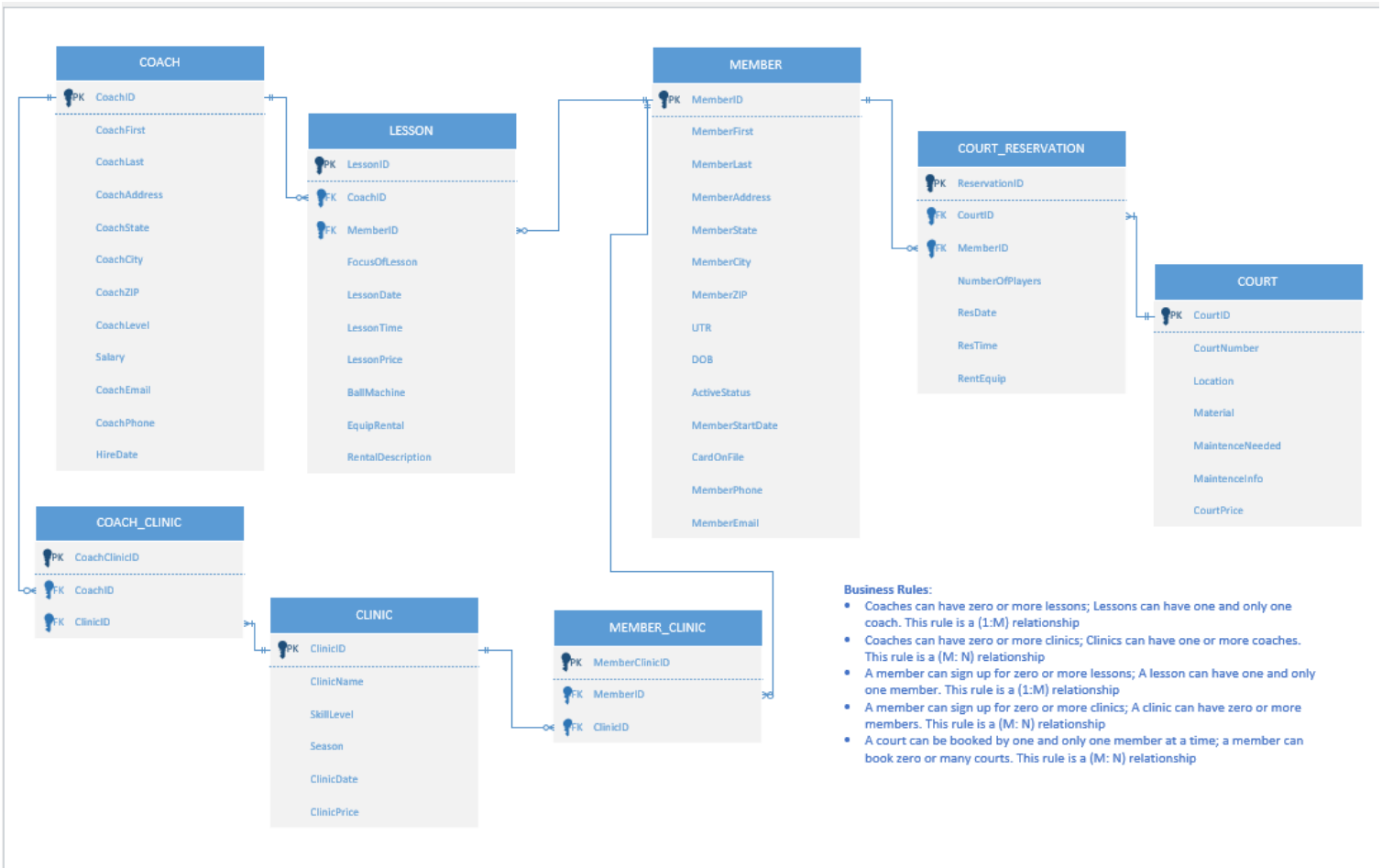
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Business Rules:
Coaches can have zero or more lessons; Lessons can have one and only one coach. This rule is a (1:M) relationship
Coaches can have zero or more clinics; Clinics can have one or more coaches. This rule is a (M: N) relationship
A member can sign up for zero or more lessons; A lesson can have one and only one member. This rule is a (1:M) relationship
A member can sign up for zero or more clinics; A clinic can have zero or more members. This rule is a (M: N) relationship
A court can be booked by one and only one member at a time; a member can book zero or many courts. This rule is a (M: N) relationship

I. EXECUTIVE SUMMARY

The Racquet Ritz is a racquet club that serves as a place where the community can come together to learn and play tennis. This club has grown over the years and needs a database to organize the company's information.

The new database I have created will serve as a single hub where one can access and analyze all of the company's information, whether that be the scheduling of lessons or clinics, members' information, or coach's information, it will all be in one place AND it will all be interactive (meaning if you update data or information in one place, it will update in all the other tables). From this organized data, the Racket Ritz can create reports that provide in-depth insights into various aspects of its operations, helping management make informed decisions to enhance efficiency, improve member satisfaction, and optimize resources.

II. PROJECT SCOPE AND DELIVERABLES

A. The Problem/Opportunity

The big issue with the Racquet Ritz system is that they are keeping all of the company data (coaches' information, members' information, lesson information, clinic information, court information) in spreadsheets in an unorganized manner with no correlation between the data. As their company grows, their original system makes it very hard to organize scheduling and make updates to their data. This causes their data to be messy and possibly not up to date.

This new database will help them keep all of the company's data regarding scheduling, lesson, clinic, member, and coach information in one place. Along with being interactive with each other so that the data is all up to date and we will be able to make informative business decisions based on the organized data.

1. **Database Description**

Business Rules:

- Coaches can have zero or more lessons; Lessons can have one and only one coach. This rule is a (1:M) relationship
- Coaches can have zero or more clinics; Clinics can have one or more coaches. This rule is a (M: N) relationship
- A member can sign up for zero or more lessons; A lesson can have one and only one member. This rule is a (1:M) relationship
- A member can sign up for zero or more clinics; A clinic can have zero or more members. This rule is a (M: N) relationship
- A court can be booked by one and only one member at a time; a member can book zero or many courts. This rule is a (M: N) relationship

The Entities: These entities are the tables that will be used in the database to keep track of the data and information.

COACH: The coach entities hold all the tennis coaches' information. Coaches are the only staff at the tennis pro shop. A member is able to schedule private lessons with them and they run clinics. The attributes that make up this entity are Coach ID (this attribute is the Primary Key, or 'Unique Identifier' for the COACH entity), Coach First Name, Coach Last Name, Coach Address, Coach State, Coach City, Coach ZIP, Level of Experience, and Salary.

MEMBER: The member entity holds all the information you might need to know about the club member. Members pay to be members of the Racket Ritz and they then can sign up for private lessons and clinics. The attributes that make up this entity are Member ID (this is the Primary Key for the MEMBER entity), Member First Name, Member Last Name, Member Address, Member State, Member City, Member ZIP, UTR, DOB, Membership Status, Membership Start Date, and Card on File.

LESSON: The lesson entity is the 'Associative Entity' in relation to the Coach and Member entities. It holds all the information you might need to know about private lessons. The attributes that make up this entity is the Lesson ID (the Primary Key for the LESSON entity), Coach ID, Member ID, Focus of Lesson, Date, and Lesson Price.

CLINIC: The clinic entity holds all the information you might need to know about the clinic the club hosts. A clinic is like a group lesson with multiple members and is conducted by many coaches. The attributes that make up this entity are Clinic ID (this is the Primary Key for this entity), Member ID, Clinic Name, Skill Level, Age Range, Season (when it is hosted), Date, and Clinic Price.

COACH_CLINIC: This entity is the Associative Entity in relation to the Coach and Clinic entities. The reason for this entity is that there can be multiple coaches teaching many different clinics. The only attributes within this entity are the Coach Clinic ID (which is its Primary key), and the individual Coach ID and Clinic ID, which are Foreign Keys from its appropriate entities. This entity's purpose is to connect the Coach and Clinic entities.

COURT: The Court entity holds all the information one might need to know about all the courts on the property. On the Racket Ritz property, there are many different courts, and this entity will keep all the data about each court. The attributes that make up this entity is Court ID (which is the Primary Key), Court Number, Location, Material, Maintenance Report, and Court Price.

COURT_RESERVATION: The Court Reservation entity is the Associative Entity in relation to the member and Court entities to connect the two. The reason for this entity is that a member can book a court for their personal use. The attributes that make up this entity are Reservation ID (which is the Primary Key), Court ID, Member ID, Number of People (will be on the court), Date, Time, and Equipment Needed.

2. **Queries**

Given the information provided in the Database description and the purpose of the database, some queries that could be addressed include the following (might change over time):

1. *Clinic Attendance Trends*: Generate a report on clinic attendance trends over the past year, highlighting peak season and popular skill levels.
2. *Membership Demographics*: Retrieve a breakdown of members by age range and/or skill level, helping to tailor marketing strategies and program offerings to specific demographics.
3. *Upcoming Reservations/Court Utilization*: Provide a list of upcoming court reservations, including the number of people, to anticipate demand and allocate resources efficiently. Along with analyzing the utilization of different court types by generating a report on the busiest and least used courts during prime hours.
4. *Coach Availability*: Generate a schedule of each coach's availability for private lessons in the upcoming month to facilitate efficient booking.

3. **Reports**

1. Clinic Attendance Trends Report:

The objective is to provide insight into clinic attendance patterns and trends over the past year. The analytics will involve monthly breakdowns and categorizing of the clinics by skill level and age. Visualizations could then be created to identify any inclining/declining trends. These analytics can help optimize scheduling by identifying popular clinic types and scheduling more during peak seasons.

2. Membership Demographics Report:

The objective is to understand the demographic composition of club members. We could run analytics on the age distribution of club members, membership breakdown (active, inactive), skill level of members, and membership start date trends. These analytics would support tailoring marketing campaigns to specific age groups or skill levels of members. The analytics could also help customize developed programs that cater to the interests and needs of specific age groups.

3. Upcoming Reservation and Court Utilization Report:

The objective is to optimize court allocation and anticipate demand. The analytics will involve upcoming court reservations for the next weeks/months and the average court

utilization during peak playing hours. These analyses can help determine staff scheduling and maintenance during low-demand or high-demand periods.

4. Coach Availability Report:

The objective is to streamline private lesson booking and ensure optimal coach utilization. This will involve having an analysis of the coach's workload and availability during peak hours. This will help optimize booking by matching member preferences with available coach slots for efficient scheduling. This could also help with the coach's workload balance to ensure the workload is distributed evenly and that they are not overworked.