Interviewee Role

Dominguez Experts Martial Arts

An employee of a martial arts school is essential to maintaining efficient operations and providing pupils with high-quality instruction. Teachers impart skills, uphold order, and evaluate students' development. Program coordinators oversee class schedules and events, while front desk employees take care of registrations, payments, and consumer inquiries. The manager of the school is in charge of personnel supervision, daily operations, and adherence to business and safety rules. Every worker helps to establish a disciplined and encouraging learning environment for learners of all abilities.

Mini-World Scenario: Dominguez Experts Martial Arts

Interview Questions and Answers:

1. How do you track student information (e.g., contact details, rank, enrollment status)?

“We keep track of a student's name, contact information, birthdate, enrollment date, rank, and involvement in class.”

2. What types of classes do you offer, and how are they scheduled?

“We provide classes in a variety of martial arts techniques for beginners, intermediates, and experts. There is a set weekly timetable for classes.”

3. How do you assign instructors to classes? Can an instructor teach multiple classes?

“The assignment of instructors is determined by their availability and area of competence. A teacher may instruct more than one class.”

4. What information do you record about each instructor (e.g., rank, specialization, contact details)?

“We keep track of assigned classes, name, rank, specialization, and contact information.”

5. How do you manage student memberships (e.g., types, duration, renewal process)?

“Memberships have a start and end date and can be either monthly or annual. Renewals can be handled automatically or manually.”

6. What is the process for tracking payments and outstanding balances?

"The student's ID, the amount, the date, and the mode of payment are logged with each payment. The system flags balances that are not paid."

7. How do you handle attendance tracking for students and instructors?

"Every class session's attendance is tracked for both teachers and students."

8. Do you track student progress, such as belt promotions and grading results?

"Yes, we keep track of test dates, grading results, and belt promotions."

9. Is there a limit to the number of students per class, or can students enroll in multiple classes?

"Although there is a maximum number of students in each session, students may enroll in more than one class if there is room."

10. Do you generate reports on student attendance, payments, or instructor performance?

"Indeed, for administrative purposes, we create reports on instructor performance, payments, membership status, and attendance."

Analysis

Entities and Attributes:

Students

- **Attributes:**
    - Student_ID (Primary Key, String)
    - First_Name (String)
    - Last_Name (String)
    - DOB (Date)
    - Contact (String)
    - Email (String)
    - Address (String)
    - Enrollment_Date (Date)

Instructors

- **Attributes:**
    - Instructor_ID (Primary Key, String)
    - First_Name (String)
    - Last_Name (String)
    - Contact (String)
    - Email (String)
    - Specialization (String)
    - Rank (String)

Relationships and Cardinality:

a. Enrolls In (between Students and Classes)

- **Cardinality (In Structural Constraint):**
    - A student can enroll in multiple classes, and each class can have multiple students. (Many-to-Many)
- **Attributes:**
    - Enrollment_Date (Date)

b. Teaches (between Instructors and Classes)

- **Cardinality (In Structural Constraint):**
    - An instructor can teach multiple classes, but each class is taught by only one instructor. (One-to-Many)

c. Has Membership (between Students and Memberships)

- **Cardinality (In Structural Constraint):**
    - A student can have only one active membership at a time. (One-to-One)
- **Attributes:**
    - Start_Date (Date)
    - End_Date (Date)
    - Status (Enum: Active, Expired)

d. Makes Payments (between Students and Payments)

- **Cardinality (In Structural Constraint):**
    - A student can make multiple payments, but each payment is linked to only one student. (One-to-Many)
- **Attributes:**
    - Payment_Date (Date)
    - Amount (Decimal)
    - Payment_Method (Enum: Credit Card, Cash, PayPal)

Borrows Relationship:

- • **Cardinality:** A student (1) can enroll in multiple classes (M), and each class (1) can have multiple students (M).
- • **Participation:** This could be considered optional for both students and classes because not all students may be enrolled at all times, and not all classes may have active enrollments.