Keegan Moseley, Ehsan Haghian, and Milad Ghavami

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**CHOIR MANAGEMENT DATABASE SCHEMA**

**1. Member Table**

Explanation: Primary table storing all choir member information.

Table Name: Member

Primary Key: member\_id

Attributes:

- member\_id (INT, PK, AUTO\_INCREMENT)

* Unique identifier for each member
* Cannot be null

- first\_name (VARCHAR(50))

* Member's first name
* Cannot be null

- last\_name (VARCHAR(50))

* Member's last name
* Cannot be null

- email (VARCHAR(100))

* Primary email contact
* Must be unique
* Cannot be null

- join\_date (DATE)

* Date when member first joined
* Cannot be null

- is\_active (BOOLEAN)

* Current membership status
* Default: TRUE
* Cannot be null

- address\_line\_1 (VARCHAR (30))

* Cannot be null

- address\_line\_2 (VARCHAR (30))

* Can be null

- city (VARCHAR(100))

* Cannot be null

- state CHAR(2)

* Cannot be null

- postal\_code (VARCHAR(5))

* Cannot be null

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**2. MembershipHistory Table**

Explanation: Tracks all membership periods and cancellations.

Table Name: MembershipHistory

Primary Key: history\_id

Foreign Keys: member\_id, cancellation\_reason\_id

Attributes:

- history\_id (INT, PK, AUTO\_INCREMENT)

* Unique identifier for each history record

- member\_id (INT, FK)

* Reference to Member table
* Cannot be null

- end\_date (DATE)

* End date of membership period
* Can be null for active memberships

- cancellation\_reason\_id (INT, FK)

* Reference to CancellationReason table
* Cannot be null

- specific\_reason (TEXT)

* Detailed explanation for leaving
* Can be null

- exit\_feedback (TEXT)

* Member's feedback upon leaving
* Can be null

- is\_eligible\_for\_return (BOOLEAN)

* Whether member can rejoin later
* Default: TRUE

- notes (TEXT)

* Administrative notes
* Can be null

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**3. Role Table**

Explanation: Manages positions and responsibilities within the choir.

Table Name: Role

Primary Key: role\_id

Foreign Key: member\_id

Attributes:

- role\_id (INT, PK, AUTO\_INCREMENT)

* Unique identifier for each role assignment

- member\_id (INT, FK)

* Reference to Member table
* Cannot be null

- role\_type (VARCHAR(50))

* Type of role (Treasurer, Secretary, Admin)
* Cannot be null

- salary\_amount (DECIMAL(10,2))

* Monthly salary if applicable
* Default: 0.00

- role\_start\_date (DATE)

* When role assignment began
* Cannot be null

- role\_end\_date (DATE)

* When role assignment ended
* Can be null

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**4. Practice Attendance Table**

Explanation: Tracks member attendance at practices.

Table Name: PracticeAttendance

Primary Key: practice\_id

Foreign Keys: member\_id , absence\_reason\_id

Attributes:

- practice\_id (INT, PK, AUTO\_INCREMENT)

Unique identifier for attendance record

- member\_id (INT, FK)

* Reference to Member table
* Cannot be null

- practice\_date (DATE)

* The date of the choir practice session
* Cannot be null

- present (BOOLEAN)

* Whether member attended
* Cannot be null

- absence\_reason\_id (INT, FK)

* Reference to AbsenceReason table
* Can be null

- specific\_reason (TEXT)

* Detailed explanation of absence
* Can be null

- record\_time (TIMESTAMP)

* When attendance was recorded
* Cannot be null

- notified\_in\_advance (BOOLEAN)

* Whether absence was notified beforehand
* Default: FALSE

- notes (TEXT)

* Additional notes
* Can be null

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**5. AbsenceReason Table**

Explanation: Standardizes reasons for missing practice.

Table Name: AbsenceReason

Primary Key: absence\_reason\_id

Attributes:

- absence\_reason\_id (INT, PK, AUTO\_INCREMENT)

* Unique identifier for reason

- reason\_category (VARCHAR(50))

* Category of absence (Sick, Work, Travel, etc.)
* Cannot be null

- description (TEXT)

* Detailed description of reason category
* Cannot be null

- is\_excused (BOOLEAN)

* Whether absence is excused
* Default: FALSE

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**6. CancellationReason Table**

Explanation: Standardizes reasons for membership cancellation.

Table Name: CancellationReason

Primary Key: cancellation\_reason\_id

Attributes:

- cancellation\_reason\_id (INT, PK, AUTO\_INCREMENT)

* Unique identifier for reason

- description (TEXT)

* Detailed description of reason
* Cannot be null

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**7. Payment Table**

Explanation: Tracks all financial transactions.

Table Name: Payment

Primary Key: payment\_id

Foreign Keys: member\_id

Attributes:

- payment\_id (INT, PK, AUTO\_INCREMENT)

* Unique identifier for payment

- member\_id (INT, FK)

* Reference to Member table
* Cannot be null

- payment\_date (DATETIME)

* Date of payment
* Cannot be null

- payment\_amount (DECIMAL(10,2))

* Payment amount
* Cannot be null

- payment\_method (VARCHAR(50))

* Method of payment
* Can be null

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**8. NotificationLog Table**

Explanation: Tracks all system notifications.

Table Name: NotificationLog

Primary Key: notification\_id

Foreign Key: section\_leader, section\_member

Attributes:

- notification\_id (INT, PK, AUTO\_INCREMENT)

* Unique identifier for notification

- section\_leader(int, FK)

* the member\_id of the section leader this notification was sent to
* FK for member\_id
* Cannot be null

- section\_member(int, FK)

* the member\_id of the section member whom this notification is in reference to
* FK for member\_id
* Cannot be null

- notification\_time (TIMESTAMP)

* When notification was sent
* Cannot be null

- message (TEXT)

* Notification content
* Cannot be null

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**9. VoiceParts Table**

Explanation: Stores information about members' assigned voice parts.

Table Name: VoiceParts

Primary Key: voice\_part\_id

Attributes:

- voice\_part\_id (INT, PK, AUTO\_INCREMENT)

* Unique identifier for each entry
* Cannot be null

- member\_id (INT, FK)

* Reference to Member table
* Cannot be null

- voice\_part (VARCHAR(20))

* Singing part (Soprano, Alto, Tenor, Bass, …..)
* Cannot be null

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**10. Budget Table**

Explanation: Tracks budget allocations and updates over time.

Table Name: Budget

Primary Key: budget\_id (INT, PK, AUTO\_INCREMENT)

Attributes:

budget\_id (INT, PK, AUTO\_INCREMENT)

* Unique identifier for each budget entry.
* Cannot be null.

budget\_date\_set (DATE)

* Date when the budget was set.
* Cannot be null.

budget\_amount (DECIMAL(12, 2))

* Budget amount allocated.
* Cannot be null.