Application Description: Music Library Management System

The **Music Library Management System** is a database-driven application designed to help users manage and track music albums, artists, and songs. This system provides user-friendly forms for inputting, modifying, and reviewing music data, along with dedicated historical forms to monitor changes over time. The design adheres to normalized database principles, ensuring scalability, data integrity, and historical data tracking.

**Core Features and Functions**

**1. Album Management (ALBUM\_FORM)**

* **Purpose**: Manage album-related data with ease.
* **Key Features**:
  + Enter album details, including:
    - **Album Title**: Specify the album's name.
    - **Release Date**: Provide the release date in YYYY-MM-DD format.
    - **Genre ID**: Assign the album to a specific genre using its ID.
    - **Artist ID**: Link the album to an artist by their ID.
  + **Historical Tracking**:
    - Use the **View Genre History** button to access all historical changes related to album genres.

**2. Artist Management (ARTIST\_FORM)**

* **Purpose**: Maintain detailed information about artists.
* **Key Features**:
  + Input artist details:
    - **Artist Name**: Record the name of the artist.
    - **Country**: Specify the country of origin.
    - **Type**: Indicate whether the artist is a solo performer or part of a group.
  + **Historical Tracking**:
    - Access the **View Type History** button to view historical changes in the artist's type (e.g., solo to group).

**3. Song Management (SONG\_FORM)**

* **Purpose**: Manage detailed song information.
* **Key Features**:
  + Record song details, including:
    - **Song Title**: Enter the song's name.
    - **Duration**: Specify the duration in seconds.
    - **Language**: Record the language of the song.
    - **Explicit Content**: Mark the song as explicit if applicable.
    - **Album ID**: Link the song to its associated album.
    - **Track Number**: Specify the song’s position in the album.
  + **Historical Tracking**:
    - Use the **View Track Number History** button to access all track position changes for songs.

**4. Historical Data Management**

The application features dedicated forms for accessing and managing historical data:

* **Album History (ALBUM\_HISTORY\_FORM)**:
  + View or update records showing modifications to album details over time.
* **Artist History (ARTIST\_HISTORY\_FORM)**:
  + Access records tracking changes in artist details, such as type or country.
* **Song History (SONG\_HISTORY\_FORM)**:
  + View edits to song data, including changes to language or track position.

**User Interaction and Workflow**

1. **Data Entry and Updates**:
   * Users interact with forms (ALBUM\_FORM, ARTIST\_FORM, SONG\_FORM) to input or modify data.
   * Each form provides intuitive fields for capturing relevant details.
2. **Historical Tracking**:
   * Dedicated buttons on the forms allow users to view historical changes for key attributes.
   * Historical forms (ALBUM\_HISTORY\_FORM, ARTIST\_HISTORY\_FORM, SONG\_HISTORY\_FORM) enable users to trace modifications and ensure data accuracy.
3. **Reports and Insights**:
   * The application consolidates historical data for review, ensuring users can track trends and changes across the music library.

**Technological Highlights**

* **Normalized Database Design**: Ensures scalability and efficient data management by organizing data into logically structured tables.
* **Historical Data Management**: Tracks changes to key attributes over time, providing users with a complete history of modifications.
* **User-Friendly Interface**: Simplifies data interaction through forms and ensures accessibility for users of varying technical expertise.

This application streamlines the management of music libraries while offering robust tools for tracking and reviewing historical changes. It is designed to meet both operational needs and future adaptiveness.