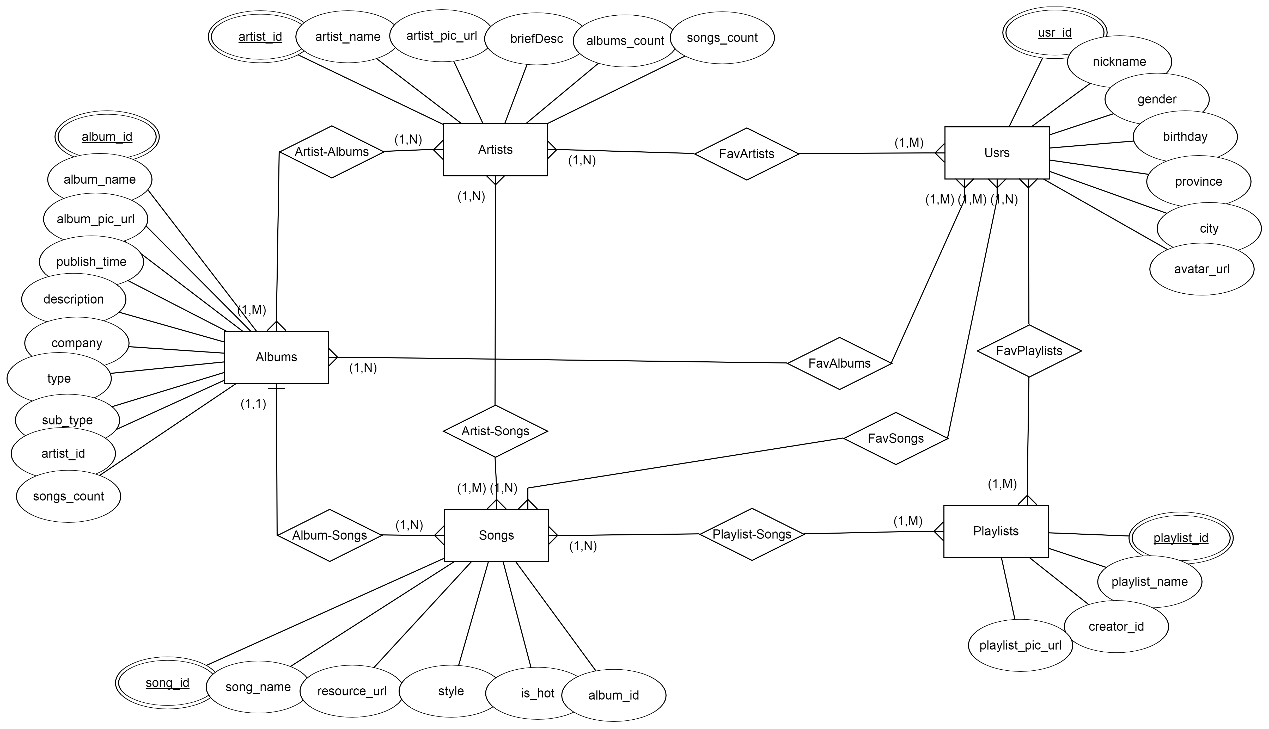
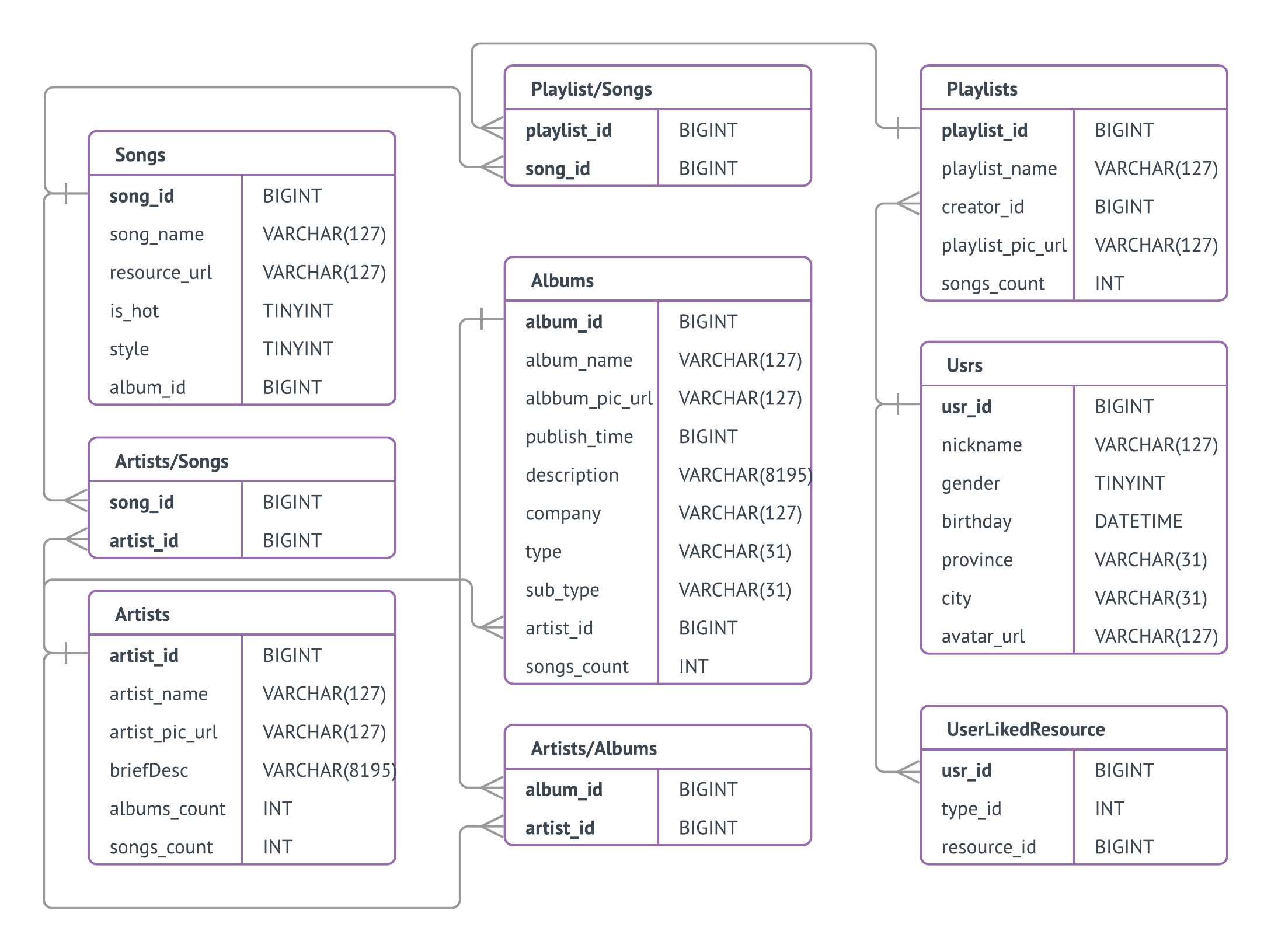
## 需求分析及功能描述

## E-R概念模型设计与分析



## 关系数据模型



## 数据库构建代码

|  |
| --- |
| -- create\_music\_database.sql  -- ﻿DROP DATABASE MUSIC;  **CREATE** DATABASE MUSIC**;**  **USE** MUSIC**;**  **CREATE** **TABLE** SONGS **(**  song\_id **BIGINT** UNSIGNED **NOT** **NULL,**  song\_name **VARCHAR(**127**)** **NOT** **NULL,**  resource\_url **VARCHAR(**127**)** **NOT** **NULL** **DEFAULT** ''**,**  style **VARCHAR(**31**),**  is\_hot **TINYINT** UNSIGNED **NOT** **NULL** **DEFAULT** 0**,**  album\_id **BIGINT** UNSIGNED **NOT** **NULL,**  **PRIMARY** **KEY** **(**song\_id**)**  **)** **CHARACTER** **SET** utf8**;**  **CREATE** **TABLE** ARTISTS **(**  artist\_id **BIGINT** UNSIGNED **NOT** **NULL,**  artist\_name **VARCHAR(**127**)** **NOT** **NULL,**  artist\_pic\_url **VARCHAR(**127**),**  briefDesc **VARCHAR(**8191**),**  albums\_count **INT** UNSIGNED **NOT** **NULL** **DEFAULT** 0**,**  songs\_count **INT** UNSIGNED **NOT** **NULL** **DEFAULT** 0**,**  **PRIMARY** **KEY** **(**artist\_id**)**  **)CHARACTER** **SET** utf8**;**  **CREATE** **TABLE** ALBUMS **(**  album\_id **BIGINT** UNSIGNED **NOT** **NULL,**  album\_name **VARCHAR(**127**)** **NOT** **NULL,**  album\_pic\_url **VARCHAR(**127**)** **,**  publish\_time **BIGINT** UNSIGNED **NOT** **NULL,**  description **VARCHAR(**8191**),**  company **VARCHAR(**127**),**  type **VARCHAR(**31**),**  sub\_type **VARCHAR(**31**),**  artist\_id **BIGINT** UNSIGNED **NOT** **NULL,**  songs\_count **INT** UNSIGNED **NOT** **NULL,**  **FOREIGN** **KEY** **(**artist\_id**)** **REFERENCES** ARTISTS**(**artist\_id**)**  **ON** **DELETE** **CASCADE**  **ON** **UPDATE** **CASCADE**  **PRIMARY** **KEY** **(**album\_id**)**  **)CHARACTER** **SET** utf8**;**  **CREATE** **TABLE** USRS**(**  usr\_id **BIGINT** UNSIGNED **NOT** **NULL,**  nickname **VARCHAR(**127**)** **NOT** **NULL,**  gender **TINYINT** **NOT** **NULL** **DEFAULT** 0**,**  birthday **DATETIME,**  province **VARCHAR(**31**)** **,**  city **VARCHAR(**31**)** **,**  avatar\_url **VARCHAR(**127**)** **,**  **PRIMARY** **KEY** **(**usr\_id**)**  **)CHARACTER** **SET** utf8**;**  **CREATE** **TABLE** PLAYLISTS**(**  playlist\_id **BIGINT** UNSIGNED **NOT** **NULL,**  creator\_id **BIGINT** UNSIGNED **NOT** **NULL,**  playlist\_pic\_url **VARCHAR(**127**),**  **PRIMARY** **KEY** **(**playlist\_id**)**  **)CHARACTER** **SET** utf8**;**  **CREATE** **TABLE** Artist\_Songs**(**  artist\_id **BIGINT** UNSIGNED **NOT** **NULL,**  song\_id **BIGINT** UNSIGNED **NOT** **NULL,**  **FOREIGN** **KEY** **(**song\_id**)** **REFERENCES** SONGS**(**song\_id**)**  **ON** **DELETE** **CASCADE**  **ON** **UPDATE** **CASCADE,**  **FOREIGN** **KEY** **(**artist\_id**)** **REFERENCES** ARTISTS**(**artist\_id**)**  **ON** **DELETE** **CASCADE**  **ON** **UPDATE** **CASCADE** **,**  **PRIMARY** **KEY** **(**artist\_id**,** song\_id**)**  **)CHARACTER** **SET** utf8**;**  **CREATE** **TABLE** Artist\_Hot\_Songs**(**  artist\_id **BIGINT** UNSIGNED **NOT** **NULL,**  song\_id **BIGINT** UNSIGNED **NOT** **NULL,**  **FOREIGN** **KEY** **(**song\_id**)** **REFERENCES** SONGS**(**song\_id**)**  **ON** **DELETE** **CASCADE**  **ON** **UPDATE** **CASCADE,**  **FOREIGN** **KEY** **(**artist\_id**)** **REFERENCES** ARTISTS**(**artist\_id**)**  **ON** **DELETE** **CASCADE**  **ON** **UPDATE** **CASCADE** **,**  **PRIMARY** **KEY** **(**artist\_id**,** song\_id**)**  **)CHARACTER** **SET** utf8**;**  **CREATE** **TABLE** Artist\_Albums**(**  artist\_id **BIGINT** UNSIGNED **NOT** **NULL,**  album\_id **BIGINT** UNSIGNED **NOT** **NULL,**  **FOREIGN** **KEY** **(**album\_id**)** **REFERENCES** ALBUMS**(**album\_id**)**  **ON** **DELETE** **CASCADE**  **ON** **UPDATE** **CASCADE** **,**  **FOREIGN** **KEY** **(**artist\_id**)** **REFERENCES** ARTISTS**(**artist\_id**)**  **ON** **DELETE** **CASCADE**  **ON** **UPDATE** **CASCADE,**  **PRIMARY** **KEY** **(**artist\_id**,** album\_id**)**  **)CHARACTER** **SET** utf8**;**  **CREATE** **TABLE** Usr\_Liked\_Resource**(**  usr\_id **BIGINT** UNSIGNED **NOT** **NULL,**  type\_id **INT** UNSIGNED **NOT** **NULL**  **CHECK(**type\_id **in** **(**1**,** 10**,** 127**,** 1270**)),** /\*appoint to resource type\*/  resource\_id **BIGINT** UNSIGNED **NOT** **NULL,** /\*can be song\_id, artist\_id, album\_id, playlist\_id\*/  **FOREIGN** **KEY** **(**usr\_id**)** **REFERENCES** USRS**(**usr\_id**)**  **ON** **DELETE** **CASCADE**  **ON** **UPDATE** **CASCADE**  **)CHARACTER** **SET** utf8**;**  **CREATE** **TABLE** Playlist\_Songs**(**  playlist\_id **BIGINT** UNSIGNED **NOT** **NULL,**  song\_id **BIGINT** UNSIGNED **NOT** **NULL,**  **FOREIGN** **KEY** **(**song\_id**)** **REFERENCES** SONGS**(**song\_id**)**  **ON** **DELETE** **CASCADE**  **ON** **UPDATE** **CASCADE,**  **FOREIGN** **KEY** **(**playlist\_id**)** **REFERENCES** PLAYLISTS**(**playlist\_id**)**  **ON** **DELETE** **CASCADE**  **ON** **UPDATE** **CASCADE**  **)CHARACTER** **SET** utf8**;** |

## 实体应用程序