Database Design & Documentation

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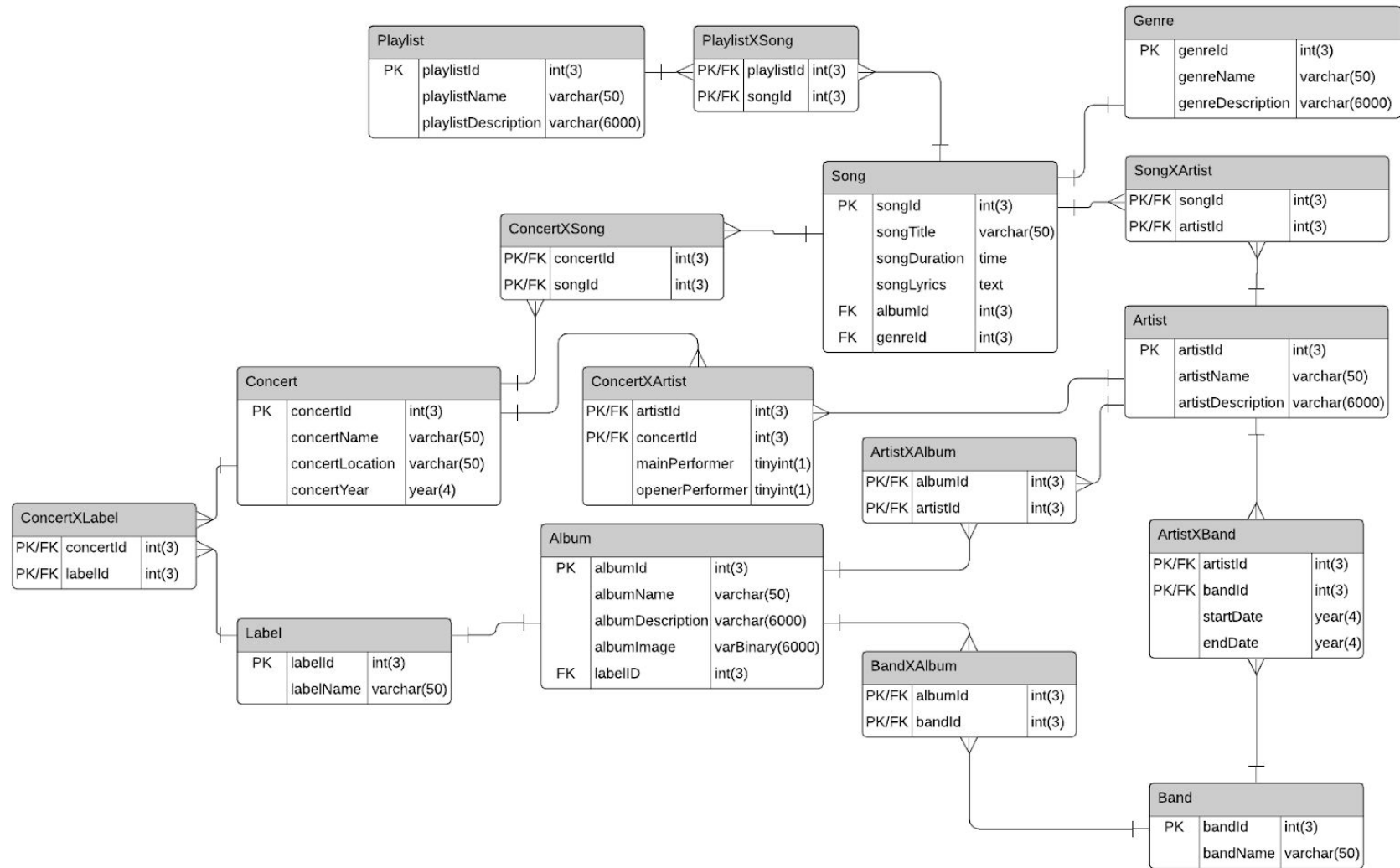
Lakhpa Sherpa

David Ang

Jimmy Doan

ER Diagram

Music_DB

Playlist

PK	playlistId	int(3)
	playlistName	varchar(50)
	playlistDescription	varchar(6000)

PlaylistXSong

PK/FK	playlistId	int(3)
PK/FK	songId	int(3)

Genre

PK	genreId	int(3)
	genreName	varchar(50)
	genreDescription	varchar(6000)

Song

PK	songId	int(3)
	songTitle	varchar(50)
	songDuration	time
	songLyrics	text
FK	albumId	int(3)
FK	genreId	int(3)

SongXArtist

PK/FK	songId	int(3)
PK/FK	artistId	int(3)

ConcertXSong

PK/FK	concertId	int(3)
PK/FK	songId	int(3)

Artist

PK	artistId	int(3)
	artistName	varchar(50)
	artistDescription	varchar(6000)

Concert

PK	concertId	int(3)
	concertName	varchar(50)
	concertLocation	varchar(50)
	concertYear	year(4)

ConcertXArtist

PK/FK	artistId	int(3)
PK/FK	concertId	int(3)
	mainPerformer	tinyint(1)
	openerPerformer	tinyint(1)

ArtistXAlbum

PK/FK	albumId	int(3)
PK/FK	artistId	int(3)

ConcertXLabel

PK/FK	concertId	int(3)
PK/FK	labelId	int(3)

Album

PK	albumId	int(3)
	albumName	varchar(50)
	albumDescription	varchar(6000)
	albumImage	varBinary(6000)
FK	labelID	int(3)

ArtistXBand

PK/FK	artistId	int(3)
PK/FK	bandId	int(3)
	startDate	year(4)
	endDate	year(4)

Label

PK	labelId	int(3)
	labelName	varchar(50)

BandXAlbum

PK/FK	albumId	int(3)
PK/FK	bandId	int(3)

Band

PK	bandId	int(3)
	bandName	varchar(50)

Database Dictionary

Entities	Attributes	Type	Field Size	Accepted Values	Null? Y/N	Default	On Update	On Delete	Primary/ Foreign Key	Description
Concert	concertId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary	
	concertName	varchar	50		N	N/A	CASCADE	RESTRICT		Name of concert
	concertLocation	varchar	50		N	N/A	CASCADE	RESTRICT		Location of concert
	concertYear	int	4	YYYY	Y	NULL	CASCADE	RESTRICT		Year the concert was held
ConcertxSongs	concertId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
	songId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
ConcertxArtist	artistId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
	concertId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	

	Column	Type	Size	Values	Null	Default			Key	Description
	openerPerformer	tinyint	1	True/False	Y	NULL	CASCADE	RESTRICT		Was the artist/band an opening act?
	mainPerformer	tinyint	1	True/False	Y	NULL	CASCADE	RESTRICT		Was the artist/band the main act?
ConcertxLabel	concertId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
	labelId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
Label	labelId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary	
	labelName	varchar	50		Y	N/A	CASCADE	RESTRICT		Name of the record label company
Playlist	playlistId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary	
	playlistName	varchar	50		N	N/A	CASCADE	RESTRICT		Name of the playlist
	playlistDescription	varchar	6000		Y	N/A	CASCADE	RESTRICT		Description of the playlist
PlaylistxSongs	playlistId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	

Table	Column	Type	Size	Format	Null	Default	Update	Delete	Key	Description
	songId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
Song	songId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary	
	songTitle	varchar	50		N	N/A	CASCADE	RESTRICT		Title of the song
	songDuration	time	N/A	hr:min:sec	N	N/A	CASCADE	RESTRICT		Length of song
	songLyrics	text	N/A		Y	NULL	CASCADE	RESTRICT		Link to the lyrics of a song
	albumId	int	3	###	N	N/A	CASCADE	RESTRICT	Foreign	
	artistId	int	3	###	N	N/A	CASCADE	RESTRICT	Foreign	
	genreId	int	3	###	N	N/A	CASCADE	RESTRICT	Foreign	
Genre	genreId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary	
	genreName	varchar	50		N	N/A	CASCADE	RESTRICT		Genre type

Table	Column	Type	Size		Nullable	Default			Key	Description
	genreDescription	varchar	6000		Y	NULL	CASCADE	RESTRICT		
Album	albumId	int	3	###	N	N/A	CASCADE	RESTgenre RICT	Primary	
	albumName	varchar	50		N	N/A	CASCADE	RESTRICT		Album name
	albumDescription	text	N/A		Y	NULL	CASCADE	RESTRICT		Album description
	albumImage	varbinary	6000		Y	NULL	CASCADE	RESTRICT		The image of the album (if any) album images are small in size (< 256 kb)
	labelId	int	3	###	Y	N/A	CASCADE	RESTRICT	Foreign	
ArtistxAlbum	albumId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
	artistId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
Artist	artistId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary	
	artistName	varchar	50		N	N/A	CASCADE	RESTRICT		Artist name

Table	Field	Type	Size	Format	Null	Default	Update	Delete	Key	Description
	artistDescription	varchar	6000		Y	NULL	CASCADE	RESTRICT		Description of the artist
ArtistxBand	artistId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
	bandId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
	startDate	year	4	YYYY	Y	NULL	CASCADE	RESTRICT		When was the band formed
	endDate	year	4	YYYY	N	N/A	CASCADE	RESTRICT		The date if the band disbanded
Band	bandId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary	
	bandName	varchar	50		N	N/A	CASCADE	RESTRICT		Name of the band
BandxAlbum	albumId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
	bandId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	
SongxArtist	songId	int	3	###	N	N/A	CASCADE	RESTRICT	Primary & Foreign	

	artistId	int	3	###	N	N/A		CASCADE	RESTRICT	Primary & Foreign	