Abigail Shulgan, Anushka Verma, Vansh Rai, Vlad Oprescu 2A2V Group Project CSCI 466-1

Any foreign keys are labeled with fk in parentheses.

The entities we've used and their attributes are as follows:

Songs: Holds information on all the songs in the database. It's attributes consist of the song title, song's artist/band, and then the song ID is the primary key.

Contributors: Holds information on possible contributors to the songs. The attributes include the contributor's name, their type (producer, songwriter, singer, etc.), and then the primary key is the contributor ID.

Song Contributions: Holds combined information from the Song Table as well as the Contributors Table. The attributes are Song ID (fk), Contributor ID (fk) and song contribution ID as the primary key.

Karaoke Versions: Holds all the possible versions and file ID to play for a song. It's attributes include the version (duet, solo, etc.), then the song ID (fk), and the file ID holds the track to play for the specific version of the song and it is the primary key along with the song ID(fk).

Participants: Holds information on any participants in karaoke. It holds their first name, last name, and their participant ID is the primary key.

Free Queue: This holds the order of the regular free for all queue. It's attributes consist of the participant's ID (fk), file ID (fk), the timestamp of when they joined the queue, and then the primary key is the free queue ID (F.Queue ID).

Priority Queue: This holds the order of the accelerated priority queue. It's attributes consist of the participant's ID (fk), file ID (fk), the timestamp of when they joined the queue, the amount they paid, and then the primary key is the priority queue ID (P.Queue ID).

As for relationships we have related Contributors to Song Contributions because contributors contribute to the songs.

Then Songs to Song Contributions because Songs get contributed to.

Then Songs to Karaoke Versions because songs have multiple versions and Songs is also related to Participants because they select songs to queue up.

Lastly, Karaoke Versions relates to Free Queue and Priority Queue because the versions are inserted into the queues.

For cardinalities we have everything related one to many except songs to karaoke versions is one-to-one.

One participant can select many songs and many songs can be selected by one participant.

One song can be added to song contributions many times and many contributions can apply to one song.

One contributor can add to many songs and one song can have many contributors.

One song version can apply to many songs and one song can have many versions.

One song version can be added to a queue many times and one queue can have many song versions.