



1 Entities & Atributes

• USER

- o <u>USERID</u> A users unique identification number (primary key).
- o FNAME The users first name.
- o LNAME The users last name.

• SONG

- SONGID A songs Unique identifer (primary key).
- \circ TITLE The name of the song.
- ARTISTNAME The songs artist.

• CONTRIBUTOR

- CONTRIBUTORID A contributors unique identifier.
- o CNAME A contributors first and last name.

KARAOKEFILE

- o <u>FILEID</u> A files unique identification number (primary key).
- $\circ\,$ VERSION The type of performance for the song in the file.

2 Relationships & Cardinality

2.1 Pick

This is a binary relationship between USER and SONG. USER picks SONG.

Intersection data

- TIME The time the user picks a song.
- QUEUETYPE The type of queue (free or paid) that the user is placed in.
- PAID: The Amount paid by a user, which determines where they will end up in the queue.

Cardinality

Many-to-Many

- A single USER can pick multiple SONG's.
- A single SONG can be picked by multiple USER's.

2.2 Contribute

This is a binary relationship between CONTRIBUTOR and SONG.

Intersection data

• CONTRIBUTIONTYPE - This is the type of contribution that a contributor made to the song.

Cardinality

- A single contributor can contribute to many songs.
- A single song can be contributed to by many contributors.

2.3 Has

This is a binary relationship between ${\tt KARAOKEFILE}$ and ${\tt SONG}$

SONG has KARAOKEFILE.

Intersection data

• None

Cardinality

- A single song can have \boldsymbol{many} files.
- A single file can only have one song.