ER Diagram Description

The Following is a Description of all Existing Entities within the ER Diagram:

PQUser - This entity represents many instances of Users being stored within the Priority Queue.

The attributes associated with the entity **PQUser** are the following:

Pledge: This attribute represents a single instance of a pledge thats associated with a single instance of a user within the priority queue.

PQUser - This attribute represents an ID(identifier) that is utilized to dissociate a single instance of a user within the Priority Queue.

PQ_FName - This attribute represents a single instance of a user's first name within the Priority Queue.

PQ_LName - This attribute represents a single instance of a user's last name within the Priority Queue.

FUser - This entity represents many instances of users being stored within the First in First out Queue.

The attributes associated with the entity **FUser** are the following:

FI_FName - Represents the single instance of a user first name stored in the FIFO Queue.

FIUser - This attribute represents an ID that is utilized to dissociate a single instance of a user with the FIFOQueue.

FI_LName - Represents the single instance of a user's last name stored in the FIFO Queue.

File - This entity represents the many instances of files that will be stored.

The attributes associated with the entity **File** are the following:

FileID - This attribute is an ID(identifier) that is utilized to dissociate a single instance of a song file.

FileName - This attribute represents a single instance of a file name assigned to a single mp4 file.

Song - This entity represents the many instances of songs that will be stored.

The attributes associated with the entity **Song** are the following:

Title - This attribute represents a single instance of a song title assigned to a single instance of a song.

SongID - This attribute is an ID(identifier) that is utilized to dissociate a single instance of a song title.

Writer - This entity represents the many instances of writers stored.

The attributes associated with the entity **Writer** are the following:

WriterID - This attribute is an ID(identifier) that is utilized to dissociate a single instance of a writer.

W_Name - This attribute represents a single instance of a writer's name.

Artist - This entity represents the many of the single instances of writers stored.

The attributes associated with the entity **Artist** are the following:

ArtistID - This attribute is an ID(identifier) that is utilized to dissociate a single instance of an artist.

A_Name - This attribute represents a single instance of an artist's name.

Producer - This entity represents the many of the single instances of producer stored.

The attributes associated with the entity **Producer** are the following:

ProducerID - This attribute is an ID(identifier) that is utilized to dissociate a single instance of a producer.

Prod_Name - This attribute represents a single instance of a producer's name.

The Following is a Description of all Existing Relationships within the ER Diagram:

The relationship between the entities **PQUser** and **File** is called **Priority Queue**. When this relationship occurs, it creates a single instance of time represented as an attribute. The attribute time represents the exact time when the user was added to the queue. This relationship occurs when a user selects a song and chooses to be inserted into the priority queue. This relationship has a cardinality of one to many because many single instances of possible users can only select a single song.

The relationship between the entities **FUser** and **File** is called **FIFOQueue**. When this relationship occurs, it creates a single instance of time represented as an attribute. The attribute time represents the exact time when the user was added to the queue. This relationship occurs when a user selects a song and chooses to be inserted into the first in first out queue. This relationship has a cardinality of one to many because many single instances of possible users can only select a single song.

The relationship between the entities **File** and **Song** is called **KaraokeFile**. This relationship bonds the single instance of a file to a song title so when a user selects a song, the file associated with the song is played. This relationship has a cardinality of one to one since one file is associated with one song title.

The relationship between the entities **Writer** and **Song** is called **SongWriter**. This relationship represents that many writers could have written many songs since many artists can be associated with many songs; Hence, the cardinality of many to many.

The relationship between the entities **Artist** and **Song** is called **SongArtists**. This relationship represents that many artists could have sang many songs since many artists can be associated with many songs; Hence, the cardinality of many to many.

The relationship between the entities **Producer** and **Song** is called **SongProducer**. This relationship represents that many producers could have produced many songs since many producers can be associated with many songs. Hence, the cardinality of many to many.