

# JUKE BOX

## Functional Requirements

- A user can create a playlist from a pool of available songs.
- A user can delete a playlist.
- A user can add / delete songs from the playlist.
- A user can start playing songs by choosing a playlist. On choosing a playlist, the first song in the playlist will start playing.
- A user can switch songs by using Next, Back command or by choosing another song from the playlist that has been chosen.
  1. On reaching the end, Next will switch to the first song in the current playlist.
  2. On reaching the start, Back will switch to the last song in the playlist.
- Only one song can be played at a time.
- A user can choose to play the song from another playlist if and only if that playlist is selected. Basically two operations have to be done to successfully play the song of their choice.
  1. Select the playlist ( which will play the first song when selected )
  2. Choose the song of your choice.
- An album is a collection of songs owned by the original artist / artist group .  
Artist Group Example:- One Direction.  
One Direction Group is the album owner and is considered as an artist.
- Each song can feature multiple artists but it will be owned by the artist whose album this song belongs to.
- Each song can only be a part of one album.

Below are the commands to be executed by  
Command Executor

## Queries: Input and Output Format

### 1. LOAD-DATA

Load all the songs from csv into the Song repository.

CSV File Input format:

SONG\_NAME,GENRE,ALBUM\_NAME,ALBUM\_ARTIST, “#” separated Featured Artists

Sample CSV File:

South of the Border,Pop,No.6 Collaborations Project,Ed  
Sheeran,Ed-Sheeran#Cardi.B#Camilla Cabello  
Remember the Name,Pop,No.6 Collaborations Project,Ed  
Sheeran,Ed-Sheeran#Eminem#50 Cents

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Note:- Several (.) dots represent a list of defined Input formats.

Data File:- [Song.csv](#)

Input format:

LOAD-DATA { Input csv file }

Note:- Order in which the song is added in the playlist must be maintained.

Sample input:

LOAD-DATA songs.csv

Output Format Schema:

Songs Loaded successfully

## 2. CREATE-USER

Create a new user in the system

Input format:

CREATE-USER { Name }

Sample input:

CREATE-USER Kiran

Output Format Schema:

{ User id } { User Name }

Sample Output:

1 Kiran

### 3. CREATE-PLAYLIST

Create a new Playlist from a pool of songs. A song could exist in multiple playlists.

Input format:

CREATE-PLAYLIST { USER\_ID } { PLAYLIST\_NAME } { List of Song IDs }

Note:- Order in which the song is added in the playlist must be maintained.

Sample input:

CREATE-PLAYLIST 1 MY\_PLAYLIST\_1 1 2 3 4 5

Output Format Schema:

Playlist ID - { Playlist ID }

Or

Error Message if Any of the Above Song IDs is not present in the pool.

Sample Output:

Playlist ID - 1

Or

Some Requested Songs Not Available. Please try again.

### 4. DELETE-PLAYLIST

Delete a Playlist given Playlist ID if it exists in the system.

Input format:

DELETE-PLAYLIST { USER\_ID } { Playlist-ID }

Sample input:

DELETE-PLAYLIST 1 1

Output Format Schema:

Delete Successful

Or

Error Message if the Playlist IDs do not exist.

Sample Output:

Delete Successful

Or

Playlist Not Found

## 5. MODIFY-PLAYLIST

Modify a Playlist to add/delete Song from the playlist.

Input format:

1. To add Song

MODIFY-PLAYLIST ADD-SONG { USER\_ID } {Playlist-ID } { List of Song IDs }

Note:- Do not add the song again if the Song ID already exists in the playlist.

2. To delete Song

MODIFY-PLAYLIST DELETE-SONG { USER\_ID } {Playlist-ID } { List of Song IDs }

Sample input:

1. To add Song

MODIFY-PLAYLIST ADD-SONG 1 1 6 7

2. To Delete Song

MODIFY-PLAYLIST DELETE-SONG 1 1 3 4

Output Format Schema:

1. To add Song

Playlist ID - { Playlist ID }

Playlist Name - { Playlist Name }  
Song IDs - { List of final Song IDs}  
Or  
Error Message if Any of the Requested Song IDs is not present in the pool.

2. To delete Song

Playlist ID - { Playlist ID }  
Playlist Name - { Playlist Name }  
Song IDs - { List of final Song IDs }  
Or  
Error Message if Any of the Requested Song IDs to be deleted are not present in the playlist.

Sample Output:

1. To add Song

Playlist ID - 1  
Playlist Name - MY\_PLAYLIST\_1  
Song IDs - 1 2 3 4 5 6 7  
Or  
Some Requested Songs Not Available. Please try again.

2. To delete Song

Playlist ID - 1  
Playlist Name - MY\_PLAYLIST\_1  
Song IDs - 1 2 5 6 7  
Or

Some Requested Songs for Deletion are not present in the playlist. Please try again.

## 6. PLAY-PLAYLIST

Start playing the playlist. The output will be the first song of the playlist.

Input format:

PLAY-PLAYLIST { USER\_ID } { Playlist-ID }

Sample input:

PLAY-PLAYLIST 1 1

Output Format Schema:

Current Song Playing

Song - { Song Name }  
Album - { Album Name }  
Artists - { List of Artists }  
Or  
Error Message if Playlist is empty.

Note:- The output song will be the first song of the playlist.

#### Sample Output:

Current Song Playing  
Song - Save Your Tears(Remix)  
Album - After Hours  
Artists - TheWeeknd,Ariana Grande  
Or  
Playlist is empty.

## 7. PLAY-SONG

Switch songs on the active playlist currently playing any song.

#### Input format:

1. Switch to play a previous song in the active playlist.  
PLAY-SONG { USER\_ID } BACK
2. Switch to play the next song in the active playlist.  
PLAY-SONG { USER\_ID } NEXT
3. Switch to the preferred song in the playlist.  
PLAY-SONG { USER\_ID } { Song ID }

#### Output Format Schema:

1. Switch to play a previous song in the active playlist.  
  
Current Song Playing  
Song - { Song Name }  
Album - { Album Name }  
Artists - { List of Artists

2. Switch to play the next song in the active playlist.

Current Song Playing  
Song - { Song Name }  
Album - { Album Name }  
Artists - { List of Artists

3. Switch to the preferred song in the playlist.

Current Song Playing  
Song - { Song Name }  
Album - { Album Name }  
Artists - { List of Artists  
Or  
Error Message if above Song ID is not part of a current active playlist.

#### Sample Output:

1. Switch to play a previous song in the active playlist.

Current Song Playing  
Song - Save Your Tears(Remix)  
Album - After Hours  
Artists - TheWeeknd,Ariana Grande

2. Switch to play the next song in the active playlist.

Current Song Playing  
Song - Save Your Tears(Remix)  
Album - After Hours  
Artists - TheWeeknd,Ariana Grande

3. Switch to the preferred song in the playlist.

Current Song Playing  
Song - Save Your Tears(Remix)  
Album - After Hours  
Artists - TheWeeknd,Ariana Grande  
Or  
Song Not Found in the current active playlist.

# Loading Data into the Application

INPUT:-

```
LOAD-DATA songs.csv
CREATE-USER Kiran
CREATE-PLAYLIST 1 MY_PLAYLIST_1 1 4 5 6
CREATE-PLAYLIST 1 MY_PLAYLIST_2 1
DELETE-PLAYLIST 1 2
PLAY-PLAYLIST 1 1
MODIFY-PLAYLIST ADD-SONG 1 1 7
MODIFY-PLAYLIST DELETE-SONG 1 1 7
PLAY-SONG 1 5
PLAY-SONG 1 NEXT
PLAY-SONG 1 NEXT
PLAY-SONG 1 BACK
PLAY-SONG 1 BACK
PLAY-SONG 1 19
```

OUTPUT:-

```
Songs Loaded successfully
1 Kiran
Playlist ID - 1
Playlist ID - 2
Delete Successful
Current Song Playing
Song - South of the Border
Album - No.6 Collaborations Project
Artists - Ed Sheeran,Cardi.B,Camilla Cabello
Playlist ID - 1
Playlist Name - MY_PLAYLIST_1
Song IDs - 1 4 5 6 7
Playlist ID - 1
Playlist Name - MY_PLAYLIST_1
Song IDs - 1 4 5 6
Current Song Playing
Song - Cross Me
Album - No.6 Collaborations Project
Artists - Ed Sheeran,Chance The Rapper,PnB Rock
Current Song Playing
```



Song - Give Life Back To Music  
Album - Random Access Memories  
Artists - Daft Punk,Nile Rodgers  
Current Song Playing  
Song - South of the Border  
Album - No.6 Collaborations Project  
Artists - Ed Sheeran,Cardi.B,Camilla Cabello  
Current Song Playing  
Song - Give Life Back To Music  
Album - Random Access Memories  
Artists - Daft Punk,Nile Rodgers  
Current Song Playing  
Song - Cross Me  
Album - No.6 Collaborations Project  
Artists - Ed Sheeran,Chance The Rapper,PnB Rock  
Given song id is not a part of the active playlist