MARKLOGIC HW

LOADING DOCUMENTS INTO DATABASE:

The songs data is assumed to be in a folder called "Data" in the same hierarchy where code is running.

Procedure
- All files are read and converted into JSON objects
- We create a bucket list for album (album name as key and list of songs as value) like
  [{

          'Pop' : [x,y,z...],

          'Boy' : [x,y,z...],

          'War' : [x,y,z...]

  }]
- A client connection is established by **marklogic.createDatabaseClient**() method
- The bucket list that we created is stored in the DB using **createCollection**() method

```javascript
for (var albumName in songsCollection) {
    connection.db.createCollection(albumName, songsCollection[albumName]).result()
        .then(null, function (error) {
            console.log(JSON.stringify(error));
        });
}
```

REST API's

Home Page: http://localhost:8020/
Method: GET
- This will render basic static web page with options for searching songs, albums and option to load database.

Marklogic Demo

| Enter Song Name | Search |

| Enter Album Name | Search |

| Load Files |

Load Songs: http://localhost:8020/v1/load

Method: GET
- Calling this URL will load all the files in "Data" folder into DB.
- This path is assumed to be static and thus hardcoded.
- A button is provided in the home page which uses this URL

Delete Album: http://localhost:8020/v1/delete
Method: POST
- This URL will remove all songs under given album.
- User has to provide the album name in the body of the URL
- Set the content type to "application/x-www-form-urlencoded", so the request body uses the same format as the query string

Get Album: http://localhost:8020/v1/album
Method: GET
- This URL is used to get all songs title under a given album.
- The album name has to be given as query string at the end of the URL as shown in the image

Two different ways are used to search
- Search by Query Builder (query, where) methods were used.
- Search by REST API (http://localhost:8000/v1/search?q=40) and all corresponding song titles were stored in array and sent as JSON objects

Since we are asked to use REST API for search in the mail I have commented out search by Query Builder method. If you want the server to render the HTML content and send as response add render=true flag in the URL (http://localhost:8020/v1/album?render=true&name=Pop)

Songs
Please
Gloria
Rejoice
October
I Threw a Brick Through a Window
I Fall Down
Fire

Get Song: http://localhost:8020/v1/song
Method: GET
- This URL is used to get all songs that match the given query string.
- The query string has to be given at the end of the URL as shown in the image

Two different ways are used to search
- Search by Query Builder (query, where) methods were used.
- Search by REST API (http://localhost:8000/v1/search?q=40) and (http://localhost:8000/v1/documents?uri=40.json)
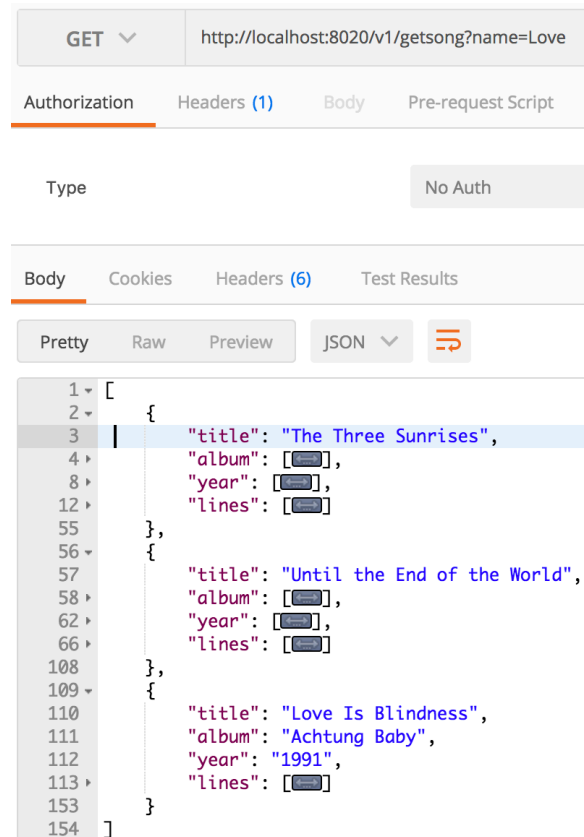
Since we are asked to use REST API for search in the mail I have commented out search by Query Builder method. If you want the server to render the HTML content and send as response add render=true flag in the URL (http://localhost:8020/v1/song?render=true&name=Pop)

Title	Album	Year	Line
New Year's Day	War,Under a Blood Red Sky,Best of U2 1980-1990	1983,1983,1998	All is quiet on New Year's Day,A world in white gets underway,And I want to be with you,Be with you night and day,Nothing changes on New Year's Day,,I will be with you again,I will be with you again,,Under a blood-red sky,A crowd has gathered in black and white,Arms entwined, the chosen few,,The newspapers say, say, say it's true,And we can break through,,Though torn in two, we can be one,,I will begin again, I will begin again,Oh and maybe the time is right,Oh maybe tonight,,I will be with you again,I will be with you again,,And so we are told this is the golden age,And gold is the reason for the wars we wage,Though I want to be with you,Be with you night and day,Nothing changes on New Year's day
Red Light	War	1983	I talk to you, you walk away,You're still on the down beat,You say you don't want my help,But you can't escape,If you're running from yourself,,I give you my love,I give you my love,Give you my love,Still you walk away,,It's your own late show,As you jump to the street below,But where can you go,To leave yourself behind,Alone in the spotlight,Of this, your own tragedy,,I give you my love, love, love,Love, love, love, love, love, love,,In the heart, in the heart of the city,Heart, in the heart of the city,Oh, love,I pour my love out for you,And I'll bring you through,See you night and day,,I give you my love, give you my love,Give you my love, give you my love,Give you my love, give you my love,Give you my love, give you my love,Give you my love, love, love,Love, love, love, love, love
The Refugee	War	1983	War, war,She's the refugee,I see your face,I see you staring back at me,War, war,She's the refugee,Her mama say one day she's gonna live in America,,In the morning, she is waiting,Waiting for the ship to sail, sail away,,War, war,Her papa go to war,He gonna fight,But he just don't know what for,War, war,Her papa go to war,Her mama say one day he's gonna come back from far away,,Help me,How can you help me,,In the evening she is waiting,Waiting for her man to come,And take her by her hand,And take her to this promised land,,War, war,She's a pretty face,Born at the wrong time in the wrong place,War, war,She's a pretty face,Her mama say one days she's gonna live in America,Yeah, America,,War, war,She's a refugee,She's coming man, she's come to keep you company,War, war,She's a refugee,Her mama say one day she's gonna live in America
Two Hearts Beat As One	War	1983	I don't know,I don't know which side I'm on,I don't know my right from left,Or my right from wrong,They say I'm a fool,They say I'm nothing,But if I'm a fool for you,Oh, that's something,,Two hearts beat as one,Two hearts beat as one,Two hearts,,I can't stop to dance,Honey, this is my last chance,I said, can't stop to dance,Maybe this is my last chance,,Two hearts beat as one,Two hearts beat as one,Two hearts,,Beat on black, beat on white,Beat on anything, don't get it right,Beat on you, beat on me, beat on love,,I don't know how to say,What's got to be said,I don't know if it's black or white,There's others see it red,I don't get the answers right,I'll leave that to you,Is this love out of fashion,Or is it the time of year,Are these words distraction,To the words you wanna hear,,Two hearts beat as one,Two hearts beat as one,Two hearts,,I try to spit it out,Try to explain the way I wanna feel, oh, yeah,Two hearts,,Well I can't stop the dance,Maybe this is my last chance,I said I can't stop the dance,Maybe this is my last chance,I said don't stop the dance,Maybe this is my last chance,I said I can't stop the dance,Maybe this is our last chance,I said don't stop the dance,Maybe this is our last chance

Test Scenarios

Scenario 1: Valid Album Name

The URL http://localhost:8020/v1/album?name=War should return only songs under album 'War' and does not contain any songs other than War.

Scenario 2: Invalid Album Name

The URL http://localhost:8020/v1/album?name=sfdfm should return error with proper message as the collection does not exists.

Scenario 3: No Album Name

The URL http://localhost:8020/v1/album should return error with proper message as no album name is provided as input.

Scenario 4: Valid String Match

The URL http://localhost:8020/v1/song?name=40 should return all songs that match the word "40".

Scenario 5: Invalid String Match

The URL http://localhost:8020/v1/song?name=sfdfm should return error with proper message as there is no match for the given input.

Scenario 6: No String Input

The URL http://localhost:8020/v1/song should return error with proper message as no song name is provided as input.

Scenario 7: Load The File Not Already In DB

The URL http://localhost:8020/v1/load should only load the files that are not already present in the DB and ignore rest files.

Scenario 8: Delete Should Delete Proper Files

The URL http://localhost:8020/v1/delete?name=Pop should delete the files under the collection "Pop" alone and leave rest of the documents intact.

Scenario 9: Delete with No Album Name

The URL http://localhost:8020/v1/delete should return error with proper message as no album name is provide as input.