

Music Capstone Project

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Project Description

An online product catalog that can be browsed: The work starts with adding many new product catalog features which includes displaying categories, products, and product details.

Searching the Catalog: For the visual part, a text box is used in which the visitor can enter one or more words to search through the product catalog. In Music CD Shop, the words entered by the visitor are searched for in the products' names and descriptions. Also, the user can search for a particular song by entering the title, artist, style, format and the price range.

A Custom Shopping Cart and checkout: A custom shopping basket is implemented, which stores its data into the local database. Also a "shopping cart summary control" is created that shows up in every catalog page except the shopping cart page.

Handling Customer Accounts: In customer account system, details such as credit card numbers are stored in a database so that customers don't have to retype this information each time they place an order. Customers can log in via a login page or dialog box to get access to secured areas of the web site. Once logged in, the WebApplication remembers the customer until the customer logs out (either manually via a Log Out button or automatically, if the session times out or a server error occurs). All secure pages in a Web Application need to check whether a customer is logged in before allowing access.

Catalog Administration: This administrative interface is implemented for easy management of the web store data. The catalog administration page allows the administrator to:

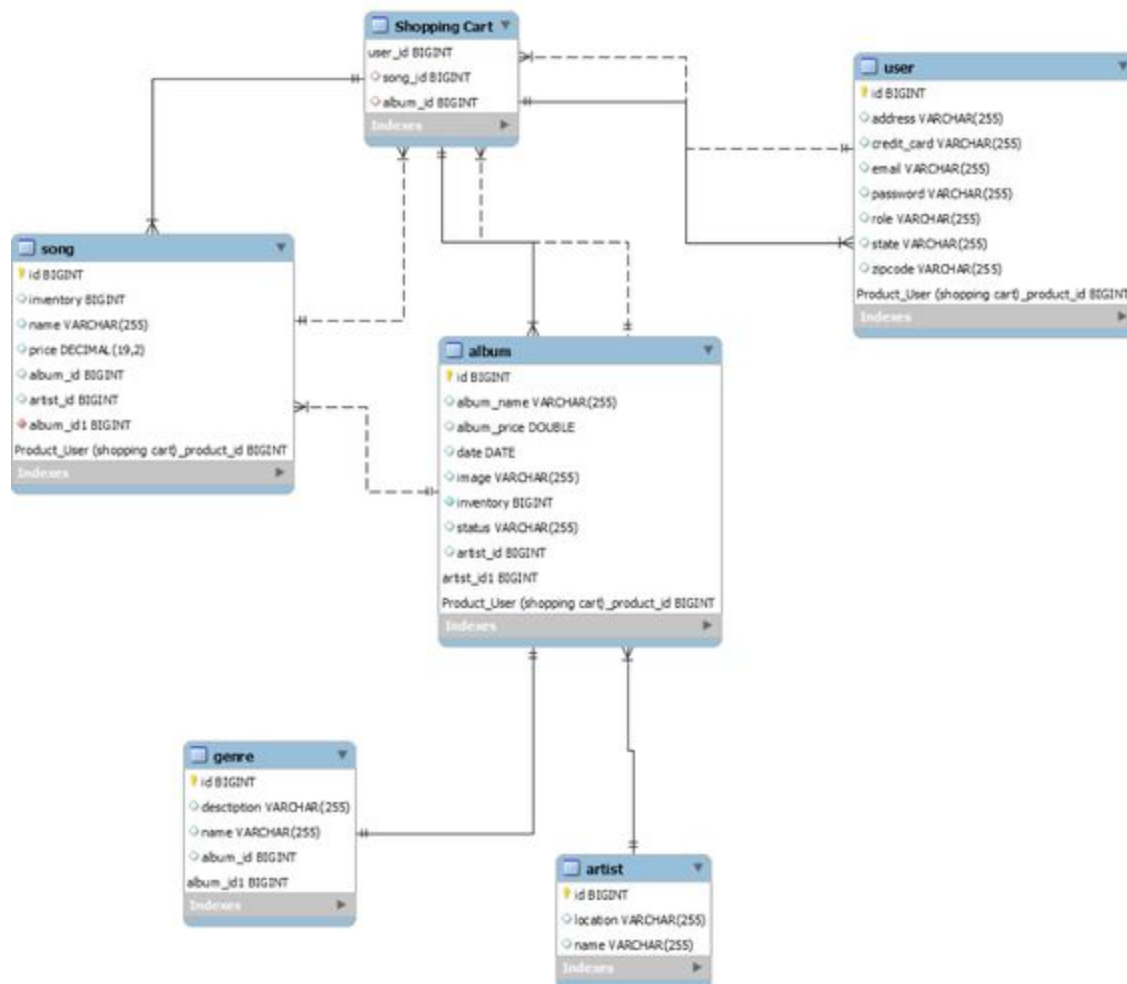
- Add or remove genres, and update the details of existing genres
- View and manage the categories that belong to a genre
- Manage the list of products in a specific category, and edit product details
- Assign an existing product to an additional, or move it to another category
- Remove a product from a category or delete the product from the catalog
- Manage orders by updating their status

Technologies

- Spring boot

- Java 8
- MySQL database
- Spring Data JPA
- JSP
- Servlets
- Bootstrap

Planning Section



Entities and Attributes

User Entity:

id, name, email, password, address, city, state, zip code, credit card number, list of roles, connection to shopping cart

Album Entity:

Id, name, price, artist, date, condition, image url, inventory, genre, song

Genre Entity:

Id, name, description

Song Entity:

Id, name, price, inventory, artist, album, genre

Artist Entity:

Id, name, location, songs, albums

Shopping Cart:

Songs, Albums, User

Future plans

- Refactor code to include use of Project Lombok and Streams for efficiency
- Implement Order Entity for customers to see past orders
- Implement sorting by product condition
- Add more search options to refine results
- Improve user interaction (show adding to shopping cart)
- Add feature to album create/edit to show album preview image
- Add more features to allow user multiple ways to update details

Technologies Used

- Eclipse/IntelliJ: An IDE to code for the application
- Java: A programming language to develop the prototype
- Git: To connect and push files from the local system to GitHub
- GitHub: To store the application code and track its versions
- Scrum: An efficient agile framework to deliver the product incrementally
- Specification document: Any open-source document or Google Docs

Examples

Login Page

Login:

Please enter your username and password:

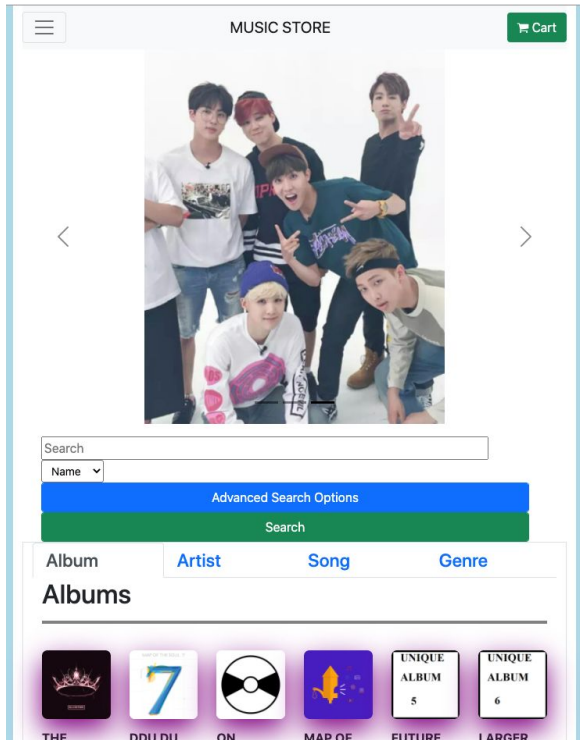
[Click here to sign up!](#)

Sign Up

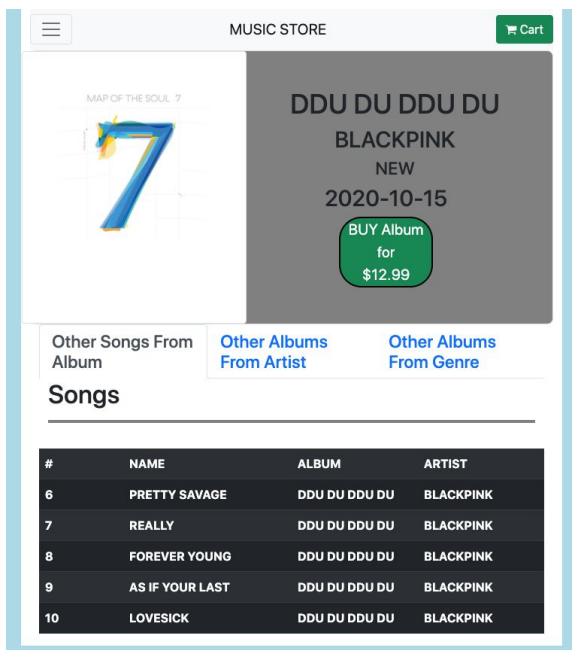
Sign Up:

Please enter an email and password:

Home Page



Album Id Page



Song Id Page

MUSIC STORE

Cart

BE LONG TO ME

BTS

NEW

2020-11-02

BUY SONG

FOR

\$0.99

BUY ALBUM

FOR

\$9.99

Other Songs From Album

Other Songs From Artist

Other Songs From Genre

Songs: MAP OF THE SOUL: 7

#	NAME	ALBUM	ARTIST
14	BE LONG TO ME	MAP OF THE SOUL: 7	BTS
15	22	MAP OF THE SOUL: 7	Backstreet Boys
16	1982	MAP OF THE SOUL: 7	Taylor Swift

Artist Id Page

MUSIC STORE

Cart

BLACKPINK

Korea

Albums From Artist

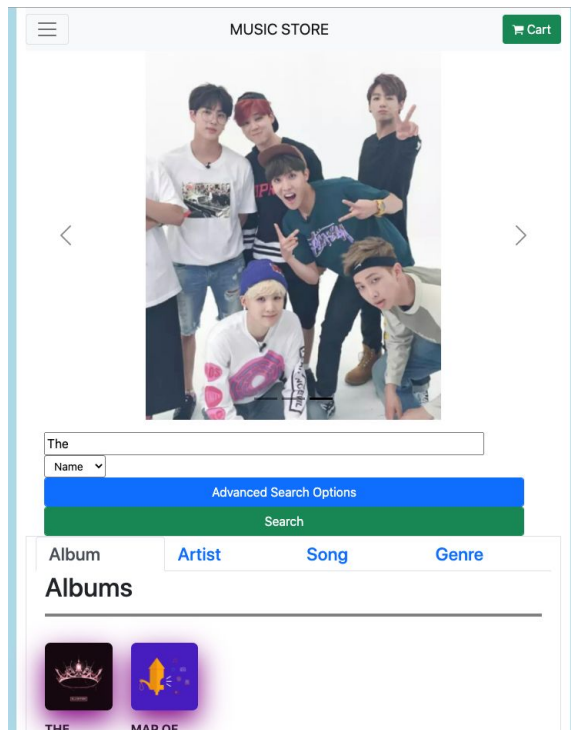
Songs From Artist

Artist Genres

Songs: BLACKPINK

#	NAME	ALBUM	ARTIST
1	WHAT WILL I DO	THE ALBUM	BLACKPINK
2	B PINK OR BE GREEN	THE ALBUM	BLACKPINK
3	BLACK PACK	THE ALBUM	BLACKPINK
4	CRAZY OVER U	THE ALBUM	BLACKPINK
5	HOW YOU LIKE THAT	THE ALBUM	BLACKPINK
6	PRETTY SAVAGE	DDU DU DDU DU	BLACKPINK
7	REALLY	DDU DU DDU DU	BLACKPINK

Search Results Page



Shopping Cart Page

MUSIC STORE

Cart

DDU DU DDU DU	\$12.99	
MAP OF THE SOUL: 7	\$9.99	
Total	\$22.98	

User Details

Name

Admin

Email

admin@admin.com

Address

12345 Apple St.

City

New York

State

New York

Zip Code

10012

Credit Card

123456789123

☒ Save my information

Buy Now

Completed Checkout Page

MUSIC STORE

Confirmed!

Your Order Will Be Shipped Shortly!

Shipping Address

12345 Apple St., New York
NY, 10012

Total: \$22.98
Card: 123456789123

Admin Home Page

ADMIN

Albums

Name	Price	Date	Status	Artist Id	Inventory	Genre		
CHIC A DEE	9.99	Oct 7, 2020	NEW	Artist_6	15	K-pop		
DDU DU DDU DU	12.99	Oct 15, 2020	NEW	BLACKPINK	15	K-pop		
FUTURE	5.99	May 2, 2020	NEW	Backstreet Boys	15	Pop		
HATE YOU	11.99	Oct 2, 2020	NEW	Artist_10	15	Pop		
LARGER THAN LIFE	15.99	Aug 2, 2020	NEW	Backstreet Boys	15	Pop		
LOVE ME	12.99	Oct 2, 2020	NEW	Artist_9	15	Rock		
LUCIOUS CUCIOUS	5.99	Oct 2, 2020	NEW	Artist_7	15	K-pop		
MAP OF THE SOUL: 7	9.99	Nov 2, 2020	NEW	BTS	15	K-pop		
MELLINIUM	13.99	Apr 2, 2020	NEW	Taylor Swift	15	Pop		
ON	11.99	Dec 15, 2020	NEW	BTS	15	K-pop		
ROCKIN AROUND	11.99	Oct 25, 2020	NEW	Artist_5	15	Funk		
SOMETHING	15.99	Oct 2, 2020	NEW	Artist_8	15	Rock		

Admin Album Create

Album Details:

Name:

Price:

Inventory:

Date:

mm/dd/yyyy

Image URL:

Status:

New

Genre:

K-pop

Artist:

BLACKPINK

Submit

Admin Song Create

Song Details:

Name:

Price:

Inventory:

Album:

THE ALBUM

Artist:

BLACKPINK

Submit

Admin Artist Edit

Create / Update a Artist:

Artist Name:

Taylor Swift

Location:

USA

Save Changes

Admin Genre Edit

Create / Update a Genre:

Genre Name:

Genre Description :

Admin Customer Home

ADMIN 

Users

Id	Name	Email	State		
1	Admin	admin@admin.com	NY		
2	user	user@user.com	NY		

Admin Customer Update

User Details

Name

Email

Address

City

State

Zip

Credit Card