

MusicTube

Integration Systems Project

MusicTube is a web application for listening to music and watching music videos. The application has two types of users: standard users (**music consumers**) who listen to music and watch music videos, and creators (**artists**) who, in addition to the privileges of standard users, also have the possibility of uploading audio and video files, depending on what they offer as musicians.

The application allows view listing of entire albums of artists, or just singles, but also view the list of artists in various formats that can be exported. It's also possible to like and comment the available content, which can be done by any user, as well as leaving feedback by standard users. Sorting and filtering of songs / albums / artists / genres is available. There is also an opportunity for premium users and email subscription.

Technologies & Tools

- Back-end framework - **.NET Core**
- Front-end framework - **Server-Side Razor** pages
- Layout & design - **HTML, CSS** and **Bootstrap**
- Handling user requests and dynamic content - **JavaScript** and **JQuery**
- Database server - **SQL Server**
- Programming language – **C#**
- Main architectural pattern - **Onion** architecture (**Domain, Repository, Service, Web** layers)
- Plugins used for document export - **Gembox.Document, ExcelDataReader, ClosedXML**
- SMTP Mail transfer plugin – **MailKit** with **Gmail**
- Payment provider - **Stripe.net**

Functionalities

- **User Registration / Login** with two types/roles of users
 - **Creators**, artists, which are the types of users who upload and change the content (videos and songs)
 - **Listeners**, which are the types of users who listen to content
- **List view** of all available **songs**
- **List view** of all available **videos**
- **List view** of all available **albums**
- **List view** of all available **artists**
- **CRUD Operations** for two types of **media**
 - **Songs**, which users can create and listen to in *.wav* or *.mp3* formats
 - **Videos**, which users can create and listen to in *.mp4* format
- **Filtering** the **media**
 - By genre, song, name, description and label for **videos**
 - By genre, name, description and label for **songs**
- **Searching** for **media** by any text which is contained in name, description, label or genre
- **Sorting** the **media** by rating or popularity
- **Filtering, sorting, searching** and **pagination** the artists by any property
- **Filtering, sorting, searching** and **pagination** the albums by any property
- **Premium subscription plan** option for **creators** who want to **upload full albums** (songs can be added after the creation of the album):
 - **Bronze subscription plan** which offers 2 published albums for 10\$
 - **Silver subscription plan** which offers 5 published albums for 20\$
 - **Gold subscription plan** which offers 15 published albums for 50\$
 - **Diamond subscription plan** which offers unlimited published albums for 20\$
- **Newsletters subscription** for users who want to receive **Email notifications** about their **favorite artist** uploading a **song** or an **album**
- **Excel export** for **artists**, unfiltered or filtered by genre
- **Excel export** for **albums**, unfiltered or filtered by genre
- **Leaving feedback** including comments and likes for any authenticated user
- **Leaving reviews** including summary, description and rating for any listener