MyMediaPlayer

Audio/Video player

Developed by Sebastien Scullion & Matthew Stinis

Background

Inspiration:

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VLC Media Player, Windows Media Player, iTunes

Goals:
Create media player with built in media library
Ability to upload/download media to and from database
Ability to create playlists
Ability to register user profile
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Solution OverviewMain Window (Player View)

User opens the application, this is their "home" screen



Solution Overview Main Window (Player View) Features

Main Window features:

Tabs rather than windows to keep the media player user friendly

Designed with least amount of menu diving needed in mind

Volume meter

Timestamp meter

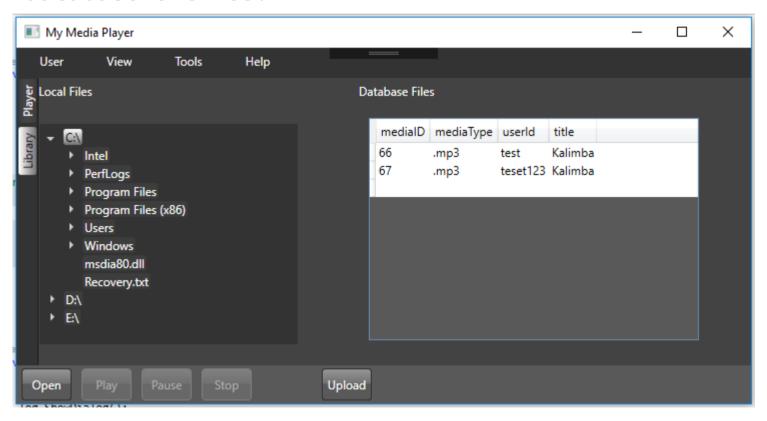
Player opens various media (audio/video) files

Ability to open and/or upload files directly from the player view.

Ability to pause, stop, and play.

Solution OverviewLibrary View

When the user selects the Library tab, they are presented with a tree view access to their local drives as well as a view of their database entries.



Solution OverviewLibrary View Features

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Library View features:
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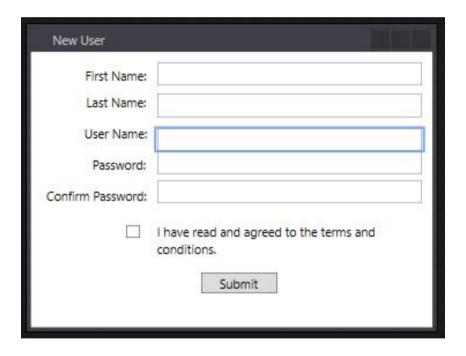
Ability to view user's database files (title, filetype, and userId)

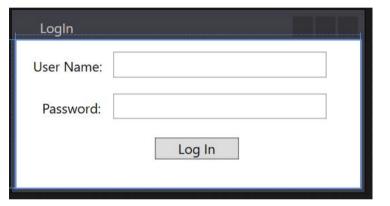
Ability to upload multiple files to database via convenient rightclick

Ability to play a file directly from local drive via right-click. Application will open the player tab.

Solution Overview Dialogs

Dialogs - Login, Register (accessible from the User menu)





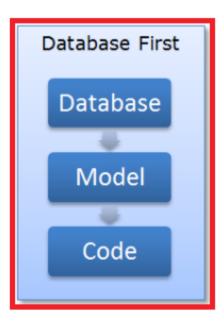
Technologies Used Behind Code

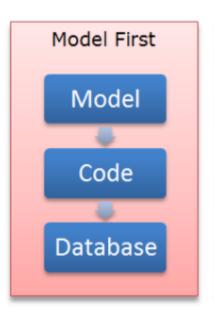
Technologies used:

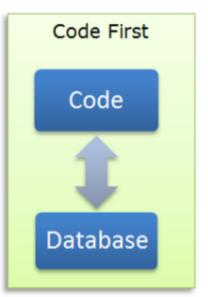
Entity framework (database first approach)

.NET framework

SQL database







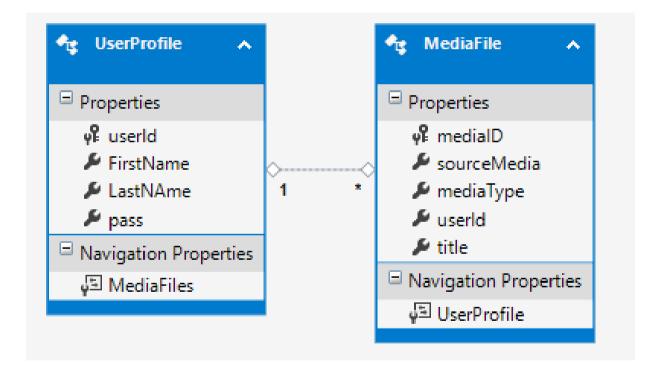
Technologies Used Behind Code

Technologies used:

Entity framework

.NET framework

SQL database



Technologies Used Design

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Technologies used:

GridPanel

Multiple windows/dialogs (main window, log in, register)

Multiple tabs within main app window
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Challenges and Solutions Matt

Challenges for Matt:

Create a functional and responsive design of application

Create a proper grid layout nested within tabs

Add theme to entire application

Understanding proper use of event handlers

Challenges and Solutions Sebastien

Challenges for Sebastien:

Entity framework

Challenge: Unfamiliar technology

Solution: Online learning and experimentation

Challenge: When adding columns to the database, after creating the object in the code behind, updates to the database were not successful.

Solution: When adding columns to the database, it is important to not only create the property of the column in the tables object, but also update the model.

What We Learned Matt

What Matt learned:
How to include different theme libraries into own app
How to use layout tools to give desired look (responsive design)
When and when not to use ribbon menus in design
How to solve git merge conflicts

What We Learned Sebastien

What Sebastien learned:
Use of LINQ in entity framework is not needed
Double, triple check variable assignment order
Be well-rested when coding, mistake will happen
Time management is an IMPERITIVE
C# is more fun than Java

Future work

Fast forward/rewind
Audio file conversion
Theme selector
Edit metadata of files
Default player option
Stream from database
Distributable file