

DESIGN DOCUMENT

Problem: Project 1 MP3 Tracker

List of Inputs, Outputs, and Processing Required

INPUTS

- UserName
- Menu Option
- Song Title
- Artist
- Song Release Date
- Playback Time
- Genre
- Download Cost
- File Size
- File Path

OUTPUTS

- Song Title (When Displaying MP3)
- Artist (When Displaying MP3)
- Song Release Date (When Displaying MP3)
- Playback Time (When Displaying MP3)
- Genre (When Displaying MP3)
- Download Cost (When Displaying MP3)
- File Size (When Displaying MP3)
- File Path (When Displaying MP3)
- UserName (Upon Exiting the Program)

PROCESSING

- NA

Identification of Classes and Their Responsibilities

Class name: MP3

Responsibilities:

- Initialize Song Title
- Initialize Artist

- Initialize Song Release Date
- Initialize Playback Time
- Initialize Genre
- Initialize Download Cost
- Initialize File Size
- Initialize File Path
- Initialize UserName
- Allow for creation of copy of attributes for user to input attribute
- Create method to display mp3 attributes in string format

Class name: MenuDriver**Responsibilities:**

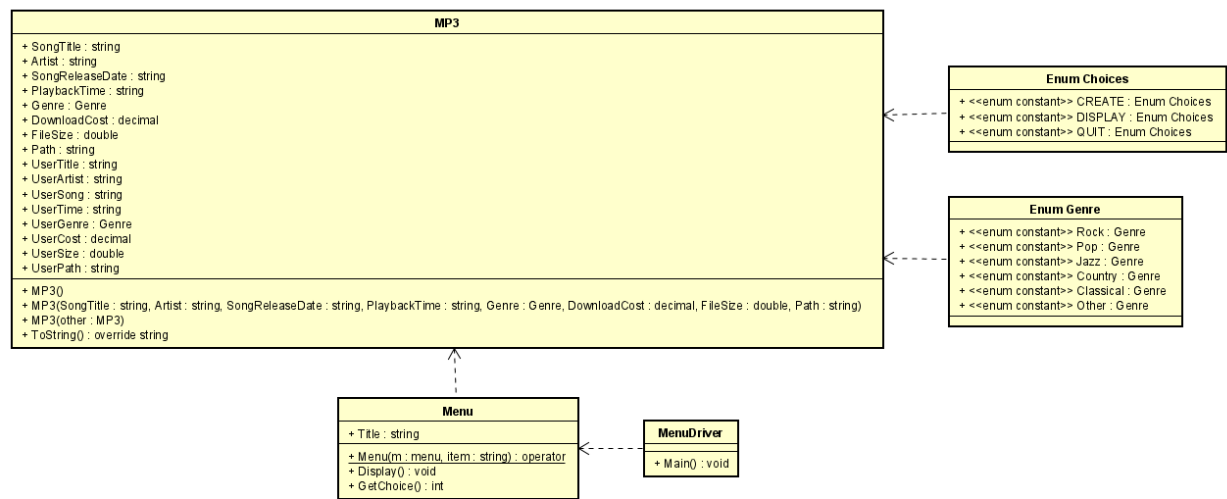
- Gives User access to menu choices
- Allows creation of username
- Allows user to create a new MP3 File
- Allows user to Display the created MP3 File
- Allows user to select option to quit program

Class name: Menu**Responsibilities:**

- Create choices for MenuDriver class
- Allows user to only enter choices displayed on menu

UML Class Diagram

This diagram may omit common methods that essentially all classes have such as constructors and getters/setters, but they must be present in the code.



Algorithms

NA

Test Cases

```
Menu Application
Welcome! In this file you can create or open an MP3! Please enter your name: Justin Dubin

Menu
----
1. Create new MP3 File
2. Display Current MP3 File
3. Quit
Type the number of your choice from the menu: 1

You selected Create
Enter MP3 Title here:
Title 1
Enter Artist here:
Artist 1
Enter Release Date here:
12/12/2012
Enter Song Playtime IN MINUTES here:
5
Enter Genre From List:
Rock      = 1
Pop       = 2
Jazz      = 3
Country   = 4
Classical = 5
Other     = 6
3
Enter Download Cost here:
4.99
Enter File Size here:
5
Enter Album Photo Path here:
album.png
MP3 Title: Title 1
Artist: Artist 1
Release Date: 12/12/2012
Song Playtime: 5
Genre: Jazz
Download Cost: 4.99
File Size: 5
Album Photo: album.png
Press any Key to Continue!

You selected Display
MP3 Title: Title 1
Artist: Artist 1
Release Date: 12/12/2012
Song Playtime: 5
Genre: Jazz
Download Cost: 4.99
File Size: 5
Album Photo: album.png
Press any Key to Continue!

Menu
----
1. Create new MP3 File
2. Display Current MP3 File
3. Quit
Type the number of your choice from the menu: 3

Microsoft Visual Studio Debug Console
Press Any Key to Quit
Goodbye, Justin Dubin
```

After User gives name, they are prompted to make an MP3 with option 1. If they try and display an MP3 before it is created (option 2), they will be prompted to go back and use option 1 to create an MP3. When the user is done, they can press option 3 to quit and they will receive a goodbye message with their username personalized.