

# **Project Team 2**

## **Project-1A**

**Ben Gagliano, Zach Reid,  
&  
Brad Mercurio**

# System Design

The program created is a menu based system, utilizing an array list, that is able to track upcoming and showing movies. The menu allows the user to display, add, and edit movies from/to a separate .txt file, while also allowing the user to output the number of coming movies and change the date to start showing movies. When quitting the program, an autosave function is written in to update the .txt file.

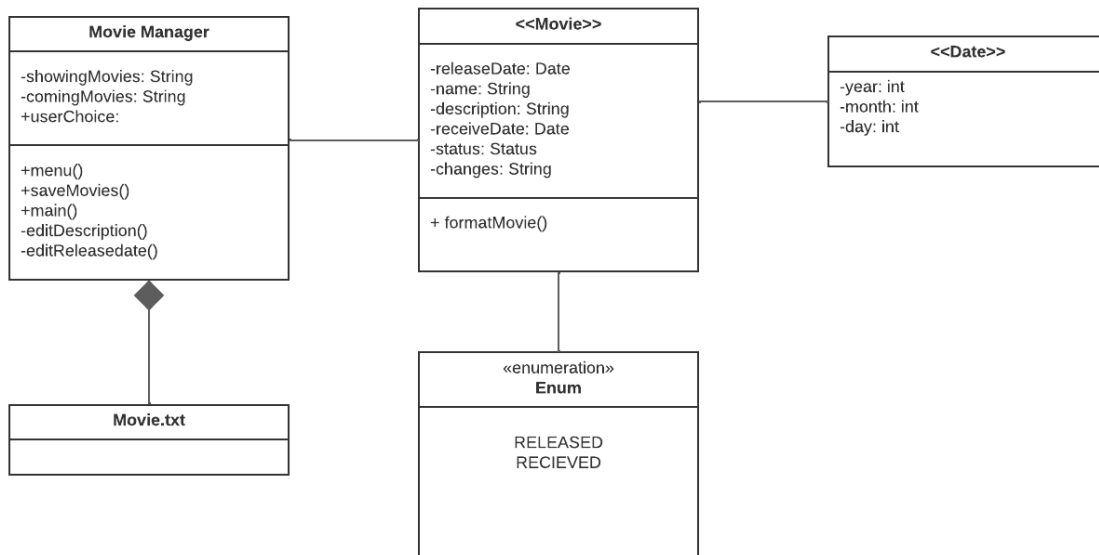
The main class is movieManager, consisting of the array lists, user choice, the menu(displaying, adding, editing, count coming, start showing, saving/quitting), and the overwrite function. The manager allows the user to manipulate the data stored in the .txt file. The movie class stores and assigns attributes to movies placed in the Array list while applying the Enum status and any changes to a movie's data. The Date class assigns attributes and validates any dates entered into the movieManager.

The data structures used are two Array Lists, comingMovies and showingMovies. By splitting the Array list up, it became easier to apply any changes/additions to the movie list.

# UML Class Diagram

## Team 2- Project 1A

Ben Gagliano, Zach Reid, Brad Mercurio | February 15, 2022



# Test Results and Analysis

## Expected Results:

Coming Movies added from file: 4  
Showing Movies added from file: 2

d - Display all Movies  
a - Add Movie Entry  
s - Output Showing Movies  
c - Output Coming Movies  
e - Edit a Movie  
z - Count Coming Movies  
m - Start Showing Movies in Theater  
q - Quit

Please input option:

### Results when a letter not listed is used(t):

That option was not recognized.

d - Display all Movies  
a - Add Movie Entry  
s - Output Showing Movies  
c - Output Coming Movies  
e - Edit a Movie  
z - Count Coming Movies  
m - Start Showing Movies in Theater  
q - Quit

Please input option:

### Results when d is pressed to display all movies:

Coming Movies:

Miss Bala, 2/1/2019, Mystery/Thriller, 1/17/2019, RECEIVED  
infection, 1/27/2019, Horror/Thriller, 1/17/2019, RECEIVED  
Stars, 1/30/2019, Drama/Comedy, 1/17/2019, RECEIVED  
test, 1/18/2019, Drama, 1/12/2019, RECEIVED

Showing Movies:

Glass, 1/18/2019, Drama/Fantasy, 1/12/2019, RELEASED  
Teddy's Big Brake, 1/19/2019, Comedy/Romance, 1/13/2019, RELEASED

d - Display all Movies  
a - Add Movie Entry  
s - Output Showing Movies  
c - Output Coming Movies  
e - Edit a Movie  
z - Count Coming Movies  
m - Start Showing Movies in Theater  
q - Quit

Please input option:

### Results after a is entered:

Enter Movie Name:

Results after a user enters a name:

Please enter movie descriptors separated by a space (e.g. Mystery Thriller)

Enter Movie Descriptors:

Results after descriptors are entered:

Enter release date (e.g. 1/1/2000):

**Results after release date is entered:**

Enter received date (e.g. 1/1/2000): 10/17/2021

**Results after received date entered: (takes user back to main menu)**

d - Display all Movies  
a - Add Movie Entry  
s - Output Showing Movies  
c - Output Coming Movies  
e - Edit a Movie  
z - Count Coming Movies  
m - Start Showing Movies in Theater  
q - Quit

Please input option:

**Results after s is entered:**

Glass, 1/18/2019, Drama/Fantasy, 1/12/2019, RELEASED

Teddy's Big Brake, 1/19/2019, Comedy/Romance, 1/13/2019, RELEASED

d - Display all Movies  
a - Add Movie Entry  
s - Output Showing Movies  
c - Output Coming Movies  
e - Edit a Movie  
z - Count Coming Movies  
m - Start Showing Movies in Theater  
q - Quit

Please input option:

**Results after c is entered:**

Miss Bala, 2/1/2019, Mystery/Thriller, 1/17/2019, RECEIVED

infection, 1/27/2019, Horror/Thriller, 1/17/2019, RECEIVED

Stars, 1/30/2019, Drama/Comedy, 1/17/2019, RECEIVED

test, 1/18/2019, Drama, 1/12/2019, RECEIVED

d - Display all Movies  
a - Add Movie Entry  
s - Output Showing Movies  
c - Output Coming Movies  
e - Edit a Movie  
z - Count Coming Movies  
m - Start Showing Movies in Theater  
q - Quit

Please input option:

**Results After e is entered :**

Enter Name of Movie to Edit:

**Results After a movie in the list is entered(Stars):**

Edit Description (d) or Edit Release Date (r):

**Results of d entered after correct movie name is entered:**

Current Movie Description is: Drama/Comedy

Please enter movie descriptors separated by a space (e.g. Mystery Thriller)

Enter a new Descriptors:

**Results after correct descriptors Mystery Thriller (takes user back to menu):**

d - Display all Movies

a - Add Movie Entry

s - Output Showing Movies

c - Output Coming Movies

e - Edit a Movie

z - Count Coming Movies

m - Start Showing Movies in Theater

q - Quit

Please input option:

**Results of r entered after correct movie name is entered:**

Current Release Date is: 1/30/2019

Enter a new Release Date (e.g. 1/1/2000):

**Result after Date is entered: (back to main menu)**

d - Display all Movies

a - Add Movie Entry

s - Output Showing Movies

c - Output Coming Movies

e - Edit a Movie

z - Count Coming Movies

m - Start Showing Movies in Theater

q - Quit

Please input option:

**Results after z is pressed in main menu:**

4 Movies Coming Soon

d - Display all Movies

a - Add Movie Entry

s - Output Showing Movies

c - Output Coming Movies

e - Edit a Movie

z - Count Coming Movies

m - Start Showing Movies in Theater

q - Quit

**Results after m is entered:**

Enter New Date (e.g. 1/1/2000):

**Results after a date is entered: (returns to menu)**

d - Display all Movies

a - Add Movie Entry

s - Output Showing Movies

c - Output Coming Movies

e - Edit a Movie

z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

**Results after q is entered:**

Saving Movies...

Movies saved to /Movie\_Manager/bin/movies.txt

**Bin folder and console:**

Bin folder:

Glass, 01/18/2019, Drama/Fantasy, 01/12/2019, RELEASED  
 Teddy's Big Brake, 01/19/2019, Comedy/Romance, 01/13/2019, RELEASED

Miss Bala, 02/01/2019, Mystery/Thriller, 01/17/2019, RECEIVED  
 infection, 01/27/2019, Horror/Thriller, 01/17/2019, RECEIVED  
 Stars, 01/30/2019, Drama/Comedy, 01/17/2019, RECEIVED

test, 01/18/2019, Drama, 01/12/2019, RECEIVED

Bin folder after test:

Showing:

Glass, 1/18/2019, Drama/Fantasy, 1/12/2019, RELEASED  
 Teddy's Big Brake, 1/19/2019, Comedy/Romance, 1/13/2019, RELEASED

Coming:

Miss Bala, 2/1/2019, Mystery/Thriller, 1/17/2019, RECEIVED  
 infection, 1/27/2019, Horror/Thriller, 1/17/2019, RECEIVED  
 Stars, 2/15/19, Mystery/Thriller, 1/17/2019, RECEIVED | description, releaseDate  
 test, 1/18/2019, Drama, 1/12/2019, RECEIVED  
 Dune, 10/22/2021, Sci-fi/Adventure, 10/15/2021, RECEIVED | added

Edits:

add - Added movie to Coming Movie List  
 description - Changed Movie's Description  
 releaseDate - Changed a Movie's Release Date  
 showing - Moved Movie from 'Coming Movie List' to 'Showing Movie List'  
 \*\*\* edits only appear on the entries that were edited.

## Test 1:

Coming Movies added from file: 4  
 Showing Movies added from file: 2

d - Display all Movies  
 a - Add Movie Entry  
 s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: d

## Coming Movies:

Miss Bala, 2/1/2019, Mystery/Thriller, 1/17/2019, RECEIVED  
infection, 1/27/2019, Horror/Thriller, 1/17/2019, RECEIVED  
Stars, 1/30/2019, Drama/Comedy, 1/17/2019, RECEIVED  
test, 1/18/2019, Drama, 1/12/2019, RECEIVED

## Showing Movies:

Glass, 1/18/2019, Drama/Fantasy, 1/12/2019, RELEASED  
Teddy's Big Brake, 1/19/2019, Comedy/Romance, 1/13/2019, RELEASED

d - Display all Movies  
a - Add Movie Entry  
s - Output Showing Movies  
c - Output Coming Movies  
e - Edit a Movie  
z - Count Coming Movies  
m - Start Showing Movies in Theater  
q - Quit

Please input option: a

Enter Movie Name: Dune

Please enter movie descriptors separated by a space (e.g. Mystery Thriller)  
Enter Movie Descriptors: Sci-fi Adventure

Enter release date (e.g. 1/1/2000): 10/22/2021

Enter received date (e.g. 1/1/2000): 10/15/2021

d - Display all Movies  
a - Add Movie Entry  
s - Output Showing Movies  
c - Output Coming Movies  
e - Edit a Movie  
z - Count Coming Movies  
m - Start Showing Movies in Theater  
q - Quit

Please input option: s

Glass, 1/18/2019, Drama/Fantasy, 1/12/2019, RELEASED  
Teddy's Big Brake, 1/19/2019, Comedy/Romance, 1/13/2019, RELEASED

d - Display all Movies  
a - Add Movie Entry  
s - Output Showing Movies  
c - Output Coming Movies  
e - Edit a Movie  
z - Count Coming Movies  
m - Start Showing Movies in Theater  
q - Quit

Please input option: c

Miss Bala, 2/1/2019, Mystery/Thriller, 1/17/2019, RECEIVED  
infection, 1/27/2019, Horror/Thriller, 1/17/2019, RECEIVED  
Stars, 1/30/2019, Drama/Comedy, 1/17/2019, RECEIVED  
test, 1/18/2019, Drama, 1/12/2019, RECEIVED  
Dune, 10/22/2021, Sci-fi/Adventure, 10/15/2021, RECEIVED | added

d - Display all Movies  
a - Add Movie Entry



s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: e

Enter Name of Movie to Edit: Stars

Edit Description (d) or Edit Release Date (r): d

Current Movie Description is: Drama/Comedy  
 Please enter movie descriptors separated by a space (e.g. Mystery Thriller)  
 Enter a new Descriptors: Mystery Thriller

d - Display all Movies  
 a - Add Movie Entry  
 s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: e

Enter Name of Movie to Edit: Stars

Edit Description (d) or Edit Release Date (r): r

Current Release Date is: 1/30/2019  
 Enter a new Release Date (e.g. 1/1/2000): 2/15/19

d - Display all Movies  
 a - Add Movie Entry  
 s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: z  
 5 Movies Coming Soon

d - Display all Movies  
 a - Add Movie Entry  
 s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: m

Enter New Date (e.g. 1/1/2000): 1/30/2019

d - Display all Movies  
 a - Add Movie Entry  
 s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: t  
 That option was not recognized.

d - Display all Movies  
 a - Add Movie Entry  
 s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: q

Saving Movies...

Movies saved to /Movie\_Manager/bin/movies.txt

Bin Second attempt Before:

Showing:

Glass, 1/18/2019, Drama/Fantasy, 1/12/2019, RELEASED  
 Teddy's Big Brake, 1/19/2019, Comedy/Romance, 1/13/2019, RELEASED

Coming:

Miss Bala, 2/1/2019, Mystery/Thriller, 1/17/2019, RECEIVED  
 infection, 1/27/2019, Horror/Thriller, 1/17/2019, RECEIVED  
 Stars, 2/15/19, Mystery/Thriller, 1/17/2019, RECEIVED | description, releaseDate  
 test, 1/18/2019, Drama, 1/12/2019, RECEIVED  
 Dune, 10/22/2021, Sci-fi/Adventure, 10/15/2021, RECEIVED | added

Edits:

add - Added movie to Coming Movie List  
 description - Changed Movie's Description  
 releaseDate - Changed a Movie's Release Date  
 showing - Moved Movie from 'Coming Movie List' to 'Showing Movie List'  
 \*\*\* edits only appear on the entries that were edited.

Bin After Second Attempt :

Showing:

Glass, 1/18/2019, Drama/Fantasy, 1/12/2019, RELEASED  
 Teddy's Big Brake, 1/19/2019, Comedy/Romance, 1/13/2019, RELEASED  
 Miss Bala, 2/1/2019, Mystery/Thriller, 1/17/2019, RELEASED | showing  
 infection, 1/27/2019, Horror/Thriller, 1/17/2019, RELEASED | showing  
 Stars, 1/17/19, Drama/Comedy, 1/17/2019, RELEASED | description, releaseDate, showing  
 test, 1/18/2019, Drama, 1/12/2019, RELEASED | showing

Coming:

Dune, 10/22/2021, Sci-fi/Adventure, 10/15/2021, RECEIVED  
 Spider-man, 12/15/2021, Action/Adventure, 12/7/2021, RECEIVED | added

Edits:

add - Added movie to Coming Movie List

description - Changed Movie's Description

releaseDate - Changed a Movie's Release Date

showing - Moved Movie from 'Coming Movie List' to 'Showing Movie List'

\*\*\* edits only appear on the entries that were edited.

## Test 2

Coming Movies added from file: 5

Showing Movies added from file: 2

d - Display all Movies

a - Add Movie Entry

s - Output Showing Movies

c - Output Coming Movies

e - Edit a Movie

z - Count Coming Movies

m - Start Showing Movies in Theater

q - Quit

Please input option: d

Coming Movies:

Miss Bala, 2/1/2019, Mystery/Thriller, 1/17/2019, RECEIVED

infection, 1/27/2019, Horror/Thriller, 1/17/2019, RECEIVED

Stars, 2/15/19, Mystery/Thriller, 1/17/2019, RECEIVED

test, 1/18/2019, Drama, 1/12/2019, RECEIVED

Dune, 10/22/2021, Sci-fi/Adventure, 10/15/2021, RECEIVED

Showing Movies:

Glass, 1/18/2019, Drama/Fantasy, 1/12/2019, RELEASED

Teddy's Big Brake, 1/19/2019, Comedy/Romance, 1/13/2019, RELEASED

d - Display all Movies

a - Add Movie Entry

s - Output Showing Movies

c - Output Coming Movies

e - Edit a Movie

z - Count Coming Movies

m - Start Showing Movies in Theater

q - Quit

Please input option: a

Enter Movie Name: Spider-man

Please enter movie descriptors separated by a space (e.g. Mystery Thriller)

Enter Movie Descriptors: Action Adventure

Enter release date (e.g. 1/1/2000): 12/15/2021

Enter received date (e.g. 1/1/2000): 12/7/2021

d - Display all Movies

a - Add Movie Entry

s - Output Showing Movies

c - Output Coming Movies

e - Edit a Movie

z - Count Coming Movies

m - Start Showing Movies in Theater  
q - Quit

Please input option: s

Glass, 1/18/2019, Drama/Fantasy, 1/12/2019, RELEASED

Teddy's Big Brake, 1/19/2019, Comedy/Romance, 1/13/2019, RELEASED

d - Display all Movies

a - Add Movie Entry

s - Output Showing Movies

c - Output Coming Movies

e - Edit a Movie

z - Count Coming Movies

m - Start Showing Movies in Theater

q - Quit

Please input option: c

Miss Bala, 2/1/2019, Mystery/Thriller, 1/17/2019, RECEIVED

infection, 1/27/2019, Horror/Thriller, 1/17/2019, RECEIVED

Stars, 2/15/19, Mystery/Thriller, 1/17/2019, RECEIVED

test, 1/18/2019, Drama, 1/12/2019, RECEIVED

Dune, 10/22/2021, Sci-fi/Adventure, 10/15/2021, RECEIVED

Spider-man, 12/15/2021, Action/Adventure, 12/7/2021, RECEIVED | added

d - Display all Movies

a - Add Movie Entry

s - Output Showing Movies

c - Output Coming Movies

e - Edit a Movie

z - Count Coming Movies

m - Start Showing Movies in Theater

q - Quit

Please input option: e

Enter Name of Movie to Edit: Stars

Edit Description (d) or Edit Release Date (r): d

Current Movie Description is: Mystery/Thriller

Please enter movie descriptors separated by a space (e.g. Mystery Thriller)

Enter a new Descriptors: Drama Comedy

d - Display all Movies

a - Add Movie Entry

s - Output Showing Movies

c - Output Coming Movies

e - Edit a Movie

z - Count Coming Movies

m - Start Showing Movies in Theater

q - Quit

Please input option: e

Enter Name of Movie to Edit: Stars

Edit Description (d) or Edit Release Date (r): r

Current Release Date is: 2/15/19

Enter a new Release Date (e.g. 1/1/2000): 1/17/19

d - Display all Movies  
 a - Add Movie Entry  
 s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: z  
 6 Movies Coming Soon

d - Display all Movies  
 a - Add Movie Entry  
 s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: m

Enter New Date (e.g. 1/1/2000): 2/17/2019

d - Display all Movies  
 a - Add Movie Entry  
 s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: t  
 That option was not recognized.

d - Display all Movies  
 a - Add Movie Entry  
 s - Output Showing Movies  
 c - Output Coming Movies  
 e - Edit a Movie  
 z - Count Coming Movies  
 m - Start Showing Movies in Theater  
 q - Quit

Please input option: q

Saving Movies...

Movies saved to /Movie\_Manager/bin/movies.txt

## Analysis:

The system works just as expected, allowing the user to fully utilize its features successfully and saving the data into the .txt file.

# Project Conclusion

In the future, the system could be updated to have a list of recent movies that have left the theater. We could also redesign the program to utilize a doubly linked list, allowing easier mobility and a faster time optimization. We could remove the date class and utilize the date function embedded in java to conserve space. Lastly, we could implement a GUI to make the program more user friendly. Overall, many things can be done to greatly improve the program's efficiency, usability, and features.

# Team Member Contribution

## **Ben Gaglino - Team Lead**

- Project Management
- Meeting Establishment
- System/UML Design(Report)
- Report Design
- Count Coming/Set Date Functions

## **Zach Reid - Head Programmer**

- System Structure & Design(Code)
- Menu/Save/Add/Edit/Quit Functions
- Data/Movie/Enum Classes
- Program Error catches and
- Program Editor

## **Brad Mercurio - Data Analyst**

- Analysis and Test Results
- .txt File Design
- Display Function

\*Due to the difficulty of getting in contact with each other, Zach went ahead and wrote the majority of the code upfront (in fear of it being a 2 person team) before our first meeting. Because of this, managing the workload was a bit harder to even out. In the future, tasks will be divided more evenly to improve the team's cooperation as a whole\*