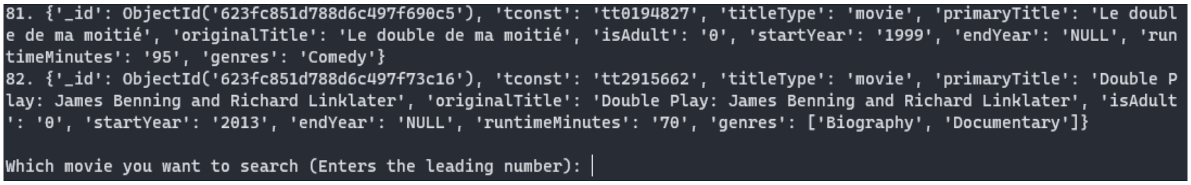
Report for Mini-Project 2

1) User Guild and Testing Strategy:

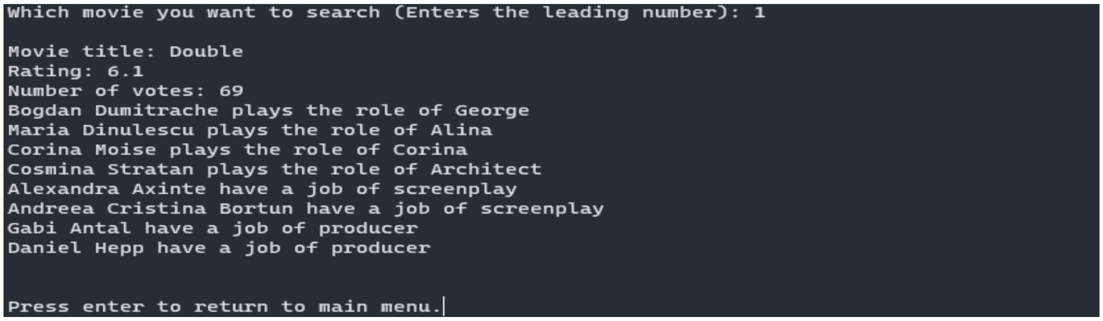
a) Search Movie:

This function asks the user to give a keyword or keywords for the movie that the user wants to search, and the function will return all the matching results to the keywords with all the variables related to the movie.



```
81. {'_id': ObjectId('623fc851d788d6c497f690c5'), 'tconst': 'tt0194827', 'titleType': 'movie', 'primaryTitle': 'Le doubl
e de ma moitié', 'originalTitle': 'Le double de ma moitié', 'isAdult': '0', 'startYear': '1999', 'endYear': 'NULL', 'run
timeMinutes': '95', 'genres': 'Comedy'}
82. {'_id': ObjectId('623fc851d788d6c497f73c16'), 'tconst': 'tt2915662', 'titleType': 'movie', 'primaryTitle': 'Double P
lay: James Benning and Richard Linklater', 'originalTitle': 'Double Play: James Benning and Richard Linklater', 'isAdult
': '0', 'startYear': '2013', 'endYear': 'NULL', 'runtimeMinutes': '70', 'genres': ['Biography', 'Documentary']}

Which movie you want to search (Enters the leading number): 
```

Then the user is asked to choose a movie by inputting the index at the front, and the function will return the title, the rating, the number of votes, and all the caster/crew members with their jobs and character (if any).

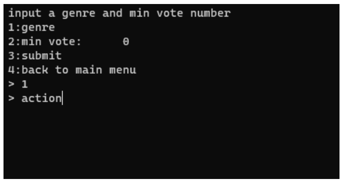


```
Which movie you want to search (Enters the leading number): 1

Movie title: Double
Rating: 6.1
Number of votes: 69
Bogdan Dumitrache plays the role of George
Maria Dinulescu plays the role of Alina
Corina Moise plays the role of Corina
Cosmina Stratan plays the role of Architect
Alexandra Axinte have a job of screenplay
Andreea Cristina Bortun have a job of screenplay
Gabi Antal have a job of producer
Daniel Hepp have a job of producer


Press enter to return to main menu.
```

To test this function, we keep giving invalid input followed by correct input to see if the function gets stuck somewhere and somehow crushed, also checking if there exists a special case in the database we did not take into consideration. If there is invalid input, the function will ask it to re-enter it.

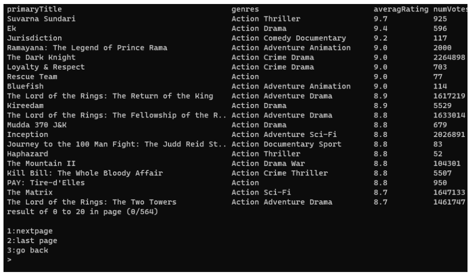
b) Search Genres:

As this option selected a string of genres (with restriction with a-z, A-Z), a positive number Needs to be provided. A zero is initialized, however, the number is able to override. Both fields are mandatory to fill, and a type check will proceed.



```
input a genre and min vote number
1:genre
2:min vote:      0
3:submit
4:back to main menu
> 1
> action
```

As a correct submission is found, an index will be provided, and the movie that contains the provided genre and movie have to commend with more than the number provided. This process should take about 5 seconds.

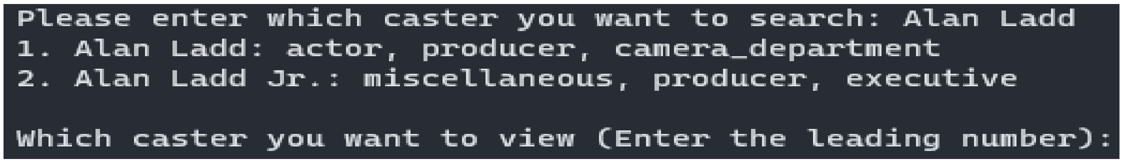


```
primaryTitle                                    genres                        averagRating numVotes
Suvarna Sundari                                 Action Thriller               9.7          925
Ek                                              Action Drama                  9.4          596
Jurisdiction                                    Action Comedy Documentary     9.2          117
Ramayana: The Legend of Prince Rama             Action Adventure Animation    9.0          2000
The Dark Knight                                 Action Crime Drama            9.0          2264898
Loyalty & Respect                               Action Crime Drama            9.0          703
Rescue Team                                     Action                        9.0          77
Bluefish                                        Action Adventure Animation    9.0          114
The Lord of the Rings: The Return of the King   Action Adventure Drama        8.9          1617219
Kireedam                                        Action Drama                  8.9          5529
The Lord of the Rings: The Fellowship of the R.. Action Adventure Drama       8.8          1633014
Mudda 370 J&K                                   Action Drama                  8.8          679
Inception                                       Action Adventure Sci-Fi       8.8          2026891
Journey to the 100 Man Fight: The Judd Reid St.. Action Documentary Sport     8.8          83
Haphazard                                       Action Thriller               8.8          52
The Mountain II                                 Action Drama War              8.8          104301
Kill Bill: The Whole Bloody Affair              Action Crime Thriller         8.8          5507
PAY: Tire-d'Elles                               Action                        8.8          950
The Matrix                                      Action Sci-Fi                 8.7          1647133
The Lord of the Rings: The Two Towers           Action Adventure Drama        8.7          1461747
result of 0 to 20 in page (0/564)

1:nextpage
2:last page
3:go back
>
```

A list of the movie with descending rating of the movie will be shown with 15 results per page, the user is able to flip pages, range response will not proceed and a back option allow the user gracefully exit the search genre function.

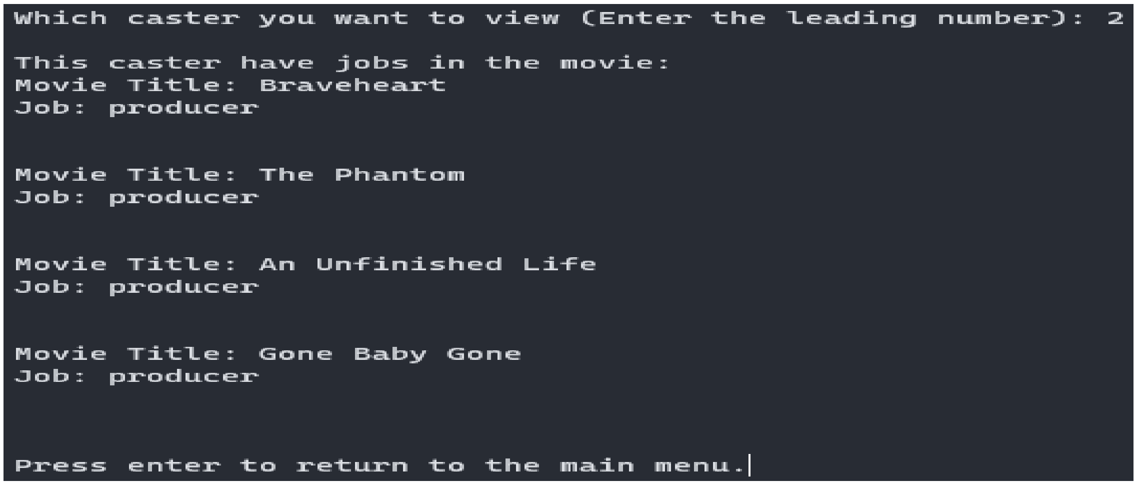
c) Search Caster/Crew Member:

1. This function requires the user to give a crew/caster member's name as input, and the function will give a list of names that match the input with their profession behind.



```
Please enter which caster you want to search: Alan Ladd
1. Alan Ladd: actor, producer, camera_department
2. Alan Ladd Jr.: miscellaneous, producer, executive

Which caster you want to view (Enter the leading number):
```

2. Then the user is asked to choose one of them, then the function will return all the movie that this person has a job or character in. (If the person has a Null in job or character then this section will not appear).



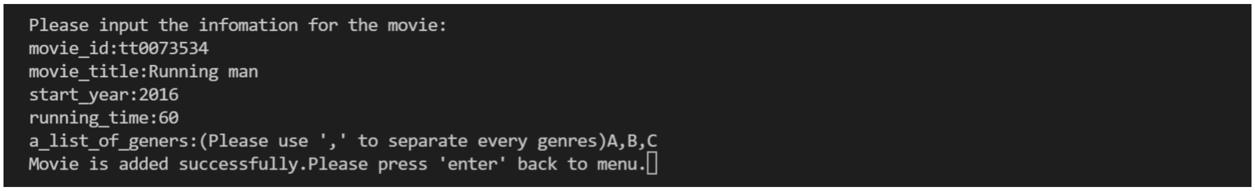
```
Which caster you want to view (Enter the leading number): 2

This caster have jobs in the movie:
Movie Title: Braveheart
Job: producer


Movie Title: The Phantom
Job: producer


Movie Title: An Unfinished Life
Job: producer


Movie Title: Gone Baby Gone
Job: producer



Press enter to return to the main menu.
```

To test this function, we keep giving invalid input followed by correct input to see if the function gets stuck somewhere and somehow crushed, also checking if there exists a special case in the database we did not take into consideration. If there is invalid input, the function will ask it to re-enter it.

d) Add Movie:

1)Assume we insert some details for a movie with movie_id:tt0073534, movie_title:Running man,start_Year:2016,running_time:60 and genres:A,B,C. The interface is like below.

2)You cannot leave movie_id,movie_title,start_year,running_time, and genres empty, which means you cannot press ‘enter’ to try to skip the input step.

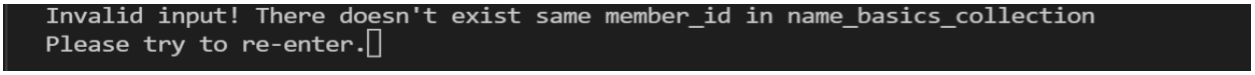


```
Please input the infomation for the movie:
movie_id:tt0073534
movie_title:Running man
start_year:2016
running_time:60
a_list_of_geners:(Please use ',' to separate every genres)A,B,C
Movie is added successfully.Please press 'enter' back to menu.
```

e) Add Caster/Crew Member

1)When adding a cast/crew member, the member_id and title_id should be stored in the database.

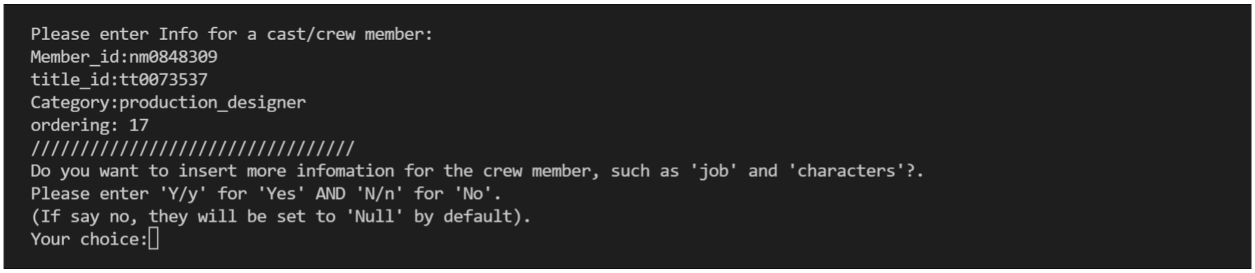
Test:(i)When using an id that doesn’t exist, you will receive an error message.



```
Invalid input! There doesn't exist same member_id in name_basics_collection
Please try to re-enter.
```

(ii)Use **Member_id:nm0848309(already exists) and title_id:tt0073537(already exists),** you can go to the next step successfully.Just like the sample below.

2)And this program will show the order for this title automatically, in this case, the program shows the ordering is 17 automatically. After that, if you want to insert more information, you can continue inserting more by choosing ‘Y/y’. If you choose “N/n”, the other information will be set to “Null” by default.



```
Please enter Info for a cast/crew member:
Member_id:nm0848309
title_id:tt0073537
Category:production_designer
ordering: 17
////////////////////////////////
Do you want to insert more infomation for the crew member, such as 'job' and 'characters'?.
Please enter 'Y/y' for 'Yes' AND 'N/n' for 'No'.
(If say no, they will be set to 'Null' by default).
Your choice:
```

2) Detailed design of the software:

a) Define Functionality:

Search_title(db):

This function asks the user to enter one or more keywords to search for a movie, the result will get all movie that is relevant to the keywords and ask the user to select one of them. The selected movie will display the title, the rating, the number of votes, and all caster/crew members who have a job or character in the movie.

Character(tt, db):

This is a sub-function for Search_title, using the movie id “tconst” to find the characters and the crew/caster members of this corresponding movie.

Seach_genres(db):

This function fetches input from the user, and it will search the genre of the result, and send the information to result

data display(result):
Display the information with 15 per page. With the flip page function
search_caster(db):
This function will ask the user to enter a name for the caster/crewmember they want to search, the output will be every caster/crew member's name that is similar to the input and their profession after. After the user chooses the correct caster/crew member, the function will return all the movies that this person is a part of.
add_movie(db):
Users can add a movie with a unique id, a title, a start year, a running time, and a list of genres. Other information will be set to "Null" by default.
add_caster(db):
User can add some information for a cast/crew member with the member_ Id ,title_id, and a _category.The ordering will be added automatically based on the data in the database.And other information will be set to Nuill by default.
menu(db)
This function will create a user menu to let the user view all the functionality they can do this our program and an exit choice in the options.
main():
Since the program includes MongoDB, we ask the user to put the host number after the file when running the program.

3) **Group work Strategy:**

We divide the entire project into 3 parts (Phase 1 + Phase 2 Q2, Phase 2 Q1,3, and Phase 2 Q4,5)**,** after we are done with phase 1, we ask each team member to work on their own parts first before we merge all source code together. The report is done together, where each member describes their own part of the work while sharing their design with other team members.

1. Zhiyu9: responsible for phases 2, Q1, 3:
   Time spend: a week;   Work statues: Fully completed
2. Zmai1: responsible for phases 1 + phases 2, Q2:
   Time spend: a week;   Work statues: Fully completed
3. Shiyao4: responsible for phases 2, Q4, 5:
   Time spend: a week;   Work statues: Fully completed

Tools: We ask each member to constantly upload if any changes were made and keep their eye on the updated file we have on Github, where we store all the files needed to complete this project.