

William Clarke  
N00935124  
COP 4710

## **Summary**

The Movie Recommendation takes in user input, a movie name, and search's a database containing 5,000 movies to find the 5 most relevant to the title given. It does this by taking the given title, passing it into a JDBC query that returns the movies ID number. Then, using that ID number, we compare it to the IDs of all the movies in the database. If the movie does not match the current ID, which it won't 4,999 out of 5,000 times, we get the Keywords, and Genres related to those 4,999 films. We compare them to the inputted movies Keywords and Genres. We then use an algorithm to compute the distance the related movies are to the user movie in our matrix. We take the top 15 closest movies, and get their "vote\_average" along with their "vote\_count" from the database. We then computed the total "vote\_count", represented as "maxVote", for all the movies. We then calculate each movies "Score" with the following.

*"float score = (float) (((vote\_average \* vote\_average)\*vote\_count)/maxVote)\*100)"*

The 5 movies with the highest score are than recommended to the user.

## **How to Run**

- 1.) Open the program in your IDE
- 2.) Compile/Run the program
- 3.) Follow the prompt printed to console
  - a. *"Enter 'm' to use the Movie Recommendation or Enter 'c' to Create Database"*
- 4.) If C is entered, Database is created/remade, then the Movie Recommendation engine starts.
- 5.) If M is entered, Movie Recommendation starts
  - a. -----
  - b. *Welcome to the Movie Recommendation Program!*
  - c. *Enter 'm' to Find Movie Suggestions or Enter 'e' to exit!*
  - d. -----
- 6.) If E is entered, the program terminates
- 7.) If M is entered, the Movie Recommendation engine starts
  - a. *What Movie Do You Like? ( You Can Enter 'e' To Exit The Program At Anytime)*
- 8.) You then enter in your movie name to get suggestions.

## **Sample Runs**

When the “Input Fails” it is because it suggest movies in the series, if the “Input Works Well” it is because it suggest movies that are related but not in the same series as the inputted movie.

### **1 Input Fails**

What Movie Do You Like? ( You Can Enter 'e' To Exit The Program At Anytime)

Cars 2

Suggesting Movies.....

Here Are Your Suggested Movies For 'Cars 2' (2011)

Title	Year
1.) Up	2009
2.) Back to the Future Part II	1989
3.) Aladdin	1992
4.) Cars	2006
5.) Kung Fu Panda	2008

### **2 Input Fails**

What Movie Do You Like? ( You Can Enter 'e' To Exit The Program At Anytime)

Toy Story

Suggesting Movies.....

Here Are Your Suggested Movies For 'Toy Story' (1995)

Title	Year
1.) Monsters, Inc.	2001
2.) Toy Story 3	2010
3.) Toy Story 2	1999
4.) Cars	2006
5.) Pinocchio	1940

### **3 Input Works Well**

What Movie Do You Like? ( You Can Enter 'e' To Exit The Program At Anytime)

Avatar

Suggesting Movies.....

Here Are Your Suggested Movies For 'Avatar' (2009)

Title	Year
1.) Star Trek Into Darkness	2013
2.) The Fifth Element	1997
3.) Pirates of the Caribbean: On Stranger Tides	2011
4.) Aliens	1986

5.) Independence Day            1996

#### **4 Input Works Well**

What Movie Do You Like? ( You Can Enter 'e' To Exit The Program At Anytime)

Saw

Suggesting Movies.....

Here Are Your Suggested Movies For 'Saw' (2004)

Title	Year
1.) Lock, Stock and Two Smoking Barrels	1998
2.) Mystic River	2003
3.) L.A. Confidential	1997
4.) Lucky Number Slevin	2006
5.) Scream	1996

#### **5 Input Works Well**

What Movie Do You Like? ( You Can Enter 'e' To Exit The Program At Anytime)

Interstellar

Suggesting Movies.....

Here Are Your Suggested Movies For 'Interstellar' (2014)

Title	Year
1.) The Martian	2015
2.) 2001: A Space Odyssey	1968
3.) The Matrix Reloaded	2003
4.) The Matrix Revolutions	2003
5.) Moon	2009