



# Project Report

For

## Movie Success Predictor

Version 2.0

Prepared by

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## **ABSTRACT**

The '**movie success predictor**' provides us a way to view and analyze the latest movies at the theatre according to the database listing. The main aim of the project is to develop a software which would enable us to predict the success or failure of a movie on a number of parameters which are well known to consumers, such as Actor names, Director names, Genre, Release Date etc..

Having features such as a listing of movies according to a numerous amount of parameters (7 to be precise), review viewing and entering, prediction of a movies success or failure, the software has a wide reach, marketable to consumers of all age groups.

The main functionality is the predictor, which gives us a definite rating based on the set of the parameters chosen. This allows us to judge multiple permutations and combinations of different actor, actress, director, genre, etc. This has been implemented using **Multiple Linear Regression** on the basis of the input parameters, allowing us to view the final success or failure of a movie at the box office. All information for movies was taken from ImdB (Internet movie database) in real time.

The software used to build this program is **Java (JDK 8)**, making it portable and runnable on any system in the world. **MySQL** has been used for backend connectivity, the program utilizing a JDBC connector package to interact with the MySQL server where in our database is stored.

The MLR and Matrix operations were derived from Wikipedia.

# SOFTWARE TESTING

## UNIT TESTING: 1) Log-In, 2) Review, 3) Add Movie, 4) Update Movie, 5) List Movie

Test case id	Test cases	Priority	Preconditions	Input test data	Steps to be executed	Expected results	Actual results	Pass/fail	Comments
1.1	Test if user is able to login successfully.	A	User must be registered already	correct username, correct password	1) Enter input (correct) username and password on the respective fields 2) Click login	User must successfully login to the web page	user logs in to the predictor page	Pass	
1.2	Unsuccessful login because username doesn't exist	A	User not registered	incorrect username	1) Enter input (incorrect) username and password on the respective fields 2) Click login	Error message display	wrong username/password error is displayed	Pass	
1.3	Unsuccessful login because of incorrect password	A	User must be registered already	incorrect password	1) Enter input (correct) username and password on the respective fields 2) Click login	Error message display	wrong username/password error is displayed	Pass	
1.4	Unsuccessful login because fields are empty	A	-	-	1) Click on login	Error message display	enter username and password error message is shown	Pass	
2.1	Test if user successfully reads movie review	A	User must be logged in	correct movie name i.e movie name which exists in the database	1) Enter correct movie name 2) Click on proceed	User able to see all the reviews of that movie	User can browse through the movie reviews displayed according to the input movie	Pass	
2.2	User cannot see review because movie name field empty	A	User must be logged in	-	1) Click on proceed	Error message display	Enter movie name error is displayed	Pass	
2.3	User cannot see review because movie name doesn't exist	A	User must be logged in	incorrect movie name	1) Enter incorrect movie name 2) Click on proceed	Error message display	movie name doesn't exist error is displayed	Pass	
3.1	Test if admin can successfully add a movie	A	admin is logged in	correct rating and a movie name	1) Enter a movie name and correct rating in the respective fields 2) Click on add entry	Admin successfully adds the given movie	Movie successfully added message is prompted	Pass	
3.2	Admin cannot add new movie because of no movie name specified	A	admin is logged in	provide rating	1) Enter movie rating 2) Click on add entry	Error message display	Enter movie name error is displayed	Pass	
3.3	Admin cannot add new movie because of no rating specified	A	admin is logged in	provide movie name	1) Enter movie name 2) Click on add entry	Error message display	Enter movie rating is displayed	Pass	
3.4	Admin cannot add new movie because of neither rating nor movie name is specified	A	admin is logged in	-	1) Click on add entry	Error message display	Enter movie name and rating is displayed	Pass	
3.5	Admin cannot add new movie because of incorrect rating	A	admin is logged in	enter incorrect movie rating	1) Enter incorrect movie rating 2) Click on add entry	Error message display	incorrect movie rating is displayed	Pass	
4.1	Test if admin can successfully update a movie	A	admin is logged in	correct movie name i.e movie name which exists in the database	1) Enter an existing (correct) movie name 2) Click update	Admin gets the provision to update the specified movie	Admin is provided with update movie rating and delete options	Pass	
4.2	Admin cannot update because no movie name specified	A	admin is logged in	movie name field empty	1) Click on update	Error message display	Enter movie name error is displayed	Pass	
4.3	Admin cannot update because movie name specified doesn't exist	A	admin is logged in	enter incorrect movie name	1) Enter movie name in the respective field 2) Click on update 1) Enter any one (actor, actress, director, genre) input (correct) in the respective field	Error message display	Movie does not exist error is displayed	Pass	
5.1	Test if user can get the list of movies successfully	A	user is logged in	correct input of only one of the input fields	2) Click on proceed	User gets the list of movies accordingly	User can browse through the movie list displayed according to the input parameter	Pass	
5.2	User can't get the list of the movies because no field is specified	A	user is logged in	no input - all fields empty	1) Click on proceed	Error message display	No fields specified message is shown	Pass	
5.3	User can't get the list of the movies because more than 1 field is specified	A	user is logged in	input for more than 1 field	1) Give input for multiple text boxes 2) Click on proceed	Error message display	More than one field specified error message is shown	Pass	
5.4	User can't get the list of the movies because specified field doesn't exist	A	user is logged in	incorrect input for a field	1) Enter any one (incorrect) input 2) Click on proceed	Error message display	Incorrect input error is displayed	Pass	

## SYSTEM TESTING: 1) Add Movie Entry, 2) Update Rating, 3) Deleting Movie, 4) Prediction, 5) Write Review

Test case id	Test cases	Priority	Preconditions	Input test data	Steps to be executed	Expected results	Actual results	Pass/fail	Comments
1.1	Adding a new movie entry in the database successfully	A	admin must be logged in	All the required fields of the new movie has to be provided by admin	1) Write the movie name 2) Select all the information about the movie from the combo boxes 3) Provide its correct rating 4) Click add entry	Movie with all its information is stored in database	1)Admin is provided with a message that movie has been added successfully 2) Movie added to the database	Pass	
1.2	Adding a new movie entry in the database unsuccessfully	A	admin must be logged in	1) admin provides incorrect rating 2) movie name field is empty	1) Write the movie name 2) Select all the information about the movie from the combo boxes 3) Provide its correct rating 4) Click add entry	1) rating is not accepted no movie name specified error	1) incorrect rating message is displayed 2) enter movie name is shown to the admin	Pass	
2.1	Updating rating of a movie successfully	A	1)admin must be logged in 2)a movie is selected	new rating is specified for that movie	1) enter correct rating click on update	2) new rating is stored in the database	1) rating updated message is shown 2) new rating stored in the database for the given movie	Pass	
2.2	Updating rating of a movie unsuccessfully	A	1)admin must be logged in 2)a movie is selected	incorrect new rating specified	1) enter incorrect rating click on update	2) error in updation because of incorrect new rating	incorrect rating message is displayed	Pass	
3.1	Deleting a movie successfully	A	1)admin must be logged in 2)a movie is selected	-	1)click on delete movie	movie deleted from the database	1) movie deleted message is displayed 2)selected movie is deleted from the database	Pass	
3.2	Deleting a movie unsuccessfully due to SQL server not connected	A	1)admin must be logged in 2)a movie is selected	-	1)click on delete movie	movie not deleted from the database	specified movie is not deleted from the database	Pass	
4.1	Correct prediction of movie rating	A	user must be logged in	different parameters based on which rating is calculated is selected	1) select all the different movie information from all the check boxes 2) click on predict	correct rating is displayed	rating is calculated according to the user inputs and displayed	Pass	
4.2	Incorrect prediction of movie rating due to incorrect data entry in the database	A	user must be logged in	different parameters based on which rating is calculated is selected	1) select all the different movie information from all the check boxes 2) click on predict	incorrect rating i.e rating not in the range between 1 to 10 is displayed	rating is calculated according to the user inputs and displayed	Pass	
5.1	Writing a movie review successfully	A	1)user must be logged in 2)user chooses to write a movie review	correct movie name is entered and then its review is written	1) Specify correct movie name Write its movie review Click on submit	2) review is stored for that movie in the database	1) movie review for that movie is added successfully is displayed 2) review is stored for that movie in the database	Pass	
5.2	Writing a movie review unsuccessfully	A	1)user must be logged in 2)user chooses to write a movie review	incorrect movie name is entered and then its review is written	1) Specify correct movie name Write its movie review Click on submit	2) review is not stored in the database	1)specified movie doesn't exist is shown 2)since no match found for the movie name so review is not added in the database	Pass	

# CYCLOMATIC COMPLEXITY

## 1. User Login Module.

```
private void jLabel8MousePressed(java.awt.event.MouseEvent evt) {
    usr = username_tf.getText();
    int a=0;
    int ul = usr.length();
    pass = password.getText();
    int pl = pass.length();
    boolean flagu = usr.isEmpty();
    boolean flagp = pass.isEmpty();

    if(flagu==true && flagp==false)
    {
        JOptionPane.showMessageDialog(null, "Specify Username!!");
    }
    else if (flagu==false && flagp==true)
    {
        JOptionPane.showMessageDialog(null, "Specify Password !!");
    }
    else if(flagu == true && flagp==true)
    {
        JOptionPane.showMessageDialog(null, "Specify Username and Password!!");
    }
    else
    {
        if(ul<51 && pl<51)
        {
            try {
                con = DriverManager.getConnection("jdbc:mysql://localhost:3306/msp?
autoReconnect=true&useSSL=false","root", "suvimal");
                Statement stmt = con.createStatement();
                //ResultSet rss = stmt.executeQuery("Select RATING from predict where MOVIE_NAME =
'BARFI'");
                //double r = rss.getDouble("RATING");
                // System.out.println(r);
            }
            catch (SQLException ex) {
                JOptionPane.showMessageDialog(null, "Database Connection Error!!");
            }
        }
    }
}
```

```

ResultSet rs = stmt.executeQuery("Select password from login where username = '"+usr+"'");
while(rs.next())
{
    String dp = AESCrypt.decrypt(rs.getString("password"));
    if(dp.equals(pass))
    {
        //View main menu
        a=1;
        userLoggedIn obj = new userLoggedIn();
        obj.setVisible(true);
        this.setVisible(false);
        //JOptionPane.showMessageDialog(null, "I am happy.");
    }
}
if(a!=1)
    JOptionPane.showMessageDialog(null, "Incorrect Username/Password!!");

}
catch (SQLException ex) {
    Logger.getLogger(userlogin.class.getName()).log(Level.SEVERE, null, ex);
} catch (Exception ex) {
    Logger.getLogger(userlogin.class.getName()).log(Level.SEVERE, null, ex);
}
}
else
{
    JOptionPane.showMessageDialog(null, "Incorrect Username/Password Length!!");
}
} // TODO add your handling code here:
}

```

## 2. Search Movie Module.

```
private void proceedMousePressed(java.awt.event.MouseEvent evt) {
    actr = actor.getText().toUpperCase();
    act = actress.getText().toUpperCase();
    dir = director.getText().toUpperCase();
    gen = genre.getText().toUpperCase();
    boolean b1,b2,b3,b4;
    b1 = actr.isEmpty();
    b2 = act.isEmpty();
    b3 = dir.isEmpty();
    b4 = gen.isEmpty();
    int flag=0;
    //System.out.println(actr);
    //System.out.println(act);
    if(!b1 && b2 && b3 && b4)
    {
        var = "MOVIES OF "+actr;
        switch(actr)
        {
            case "SHAH RUKH KHAN" : s="SHAH_RUKH_KHAN";break;
            case "SALMAN KHAN" : s="SALMAN_KHAN";break;
            case "AAMIR KHAN" : s="AAMIR_KHAN";break;
            case "AKSHAY KUMAR" : s="AKSHAY_KUMAR";break;
            default : s = "suvi";
        }
    }
    else if(b1 && !b2 && b3 && b4)

        {
            var = "MOVIES OF "+act;
            //System.out.println("12345");
            switch(act)
            {case "KATRINA KAIF" : s="KATRINA_KAIF";break;
            case "KAJOL DEVGAN" : s="KAJOL_DEVGAN";break;
            case "KAREENA KAPOOR" : s="KAREENA_KAPOOR";break;
            case "PRIYANKA CHOPRA" : s="PRIYANKA_CHOPRA";break;
```

```

        default : s = "suvi";
    }
    }
else if(b1 && b2 && !b3 && b4)
{
    var = "MOVIES DIRECTED BY "+dir;
    switch(dir)
{case "YASH CHOPRA" : s="YASH_RAJ_CHOPRA";break;
case "RAJ KUMAR HIRANI" : s="RAJ_KUMAR_HIRANI";break;
case "IMTIAZ ALI" : s="IMTIAZ_ALI";break;
case "SANJAY LEELA BHANSALI": s="SANJAY_LEELA_BHANSALI" ;break;
default : s = "suvi";
}
}
else if(b1 && b2 && b3 && !b4)
{
    var = gen + " MOVIES";
    System.out.println(var);
    switch(gen)
{case "ACTION" : s="ACTION";break;
case "ROMANCE" : s="ROMANCE";break;
case "COMEDY" : s="COMEDY";break;
case "DRAMA": s="DRAMA";break;
default : s = "suvi";
}
}
else if( b1 && b2 && b3 && b4)
    {
        flag=1;
        JOptionPane.showMessageDialog(null, "No Field Specified!!");
    }
else
{
    JOptionPane.showMessageDialog(null, "Please Specify Only 1 Field!!");
    flag=1;
}
}

```



```

if(flag==0)
{
    if(s.equals("suvi"))
    {
        JOptionPane.showMessageDialog(null, "Wrong Input!!");
    }

    else{
        try {
            con = DriverManager.getConnection("jdbc:mysql://localhost:3306/msp?
autoReconnect=true&useSSL=false","root", "suvimal");
            Statement stmt = con.createStatement();

            listMovie obj = new listMovie();
            obj.setVisible(true);
            this.setVisible(false);

            rs = stmt.executeQuery("select MOVIE_NAME from predict where "+s+"="+1+"");
            while(rs.next())

            {
                listMovie.List_textarea.append(rs.getString("MOVIE_NAME")+"\n");
                //System.out.println(rs.getString("MOVIE_NAME"));
            }
            listMovie.vari.setText(var);
            //rs.beforeFirst();

            //View main menu

            //this.setVisible(false);

        } catch (SQLException ex) {
            Logger.getLogger(userlogin.class.getName()).log(Level.SEVERE, null, ex);
        } catch (Exception ex) {
            Logger.getLogger(userlogin.class.getName()).log(Level.SEVERE, null, ex);

```

}

}

}

## **RESULT, DISCUSSION AND CONCLUSION**

In order to acquire the latest movie critiques and rating alongside reviews, one should consider using the movie success predictor. This ensures a smooth understanding of the upcoming cinema and how to go by it based on reviews.

The reach of the project being widespread shows a lot of promise in the area of cinema. This software can be broadly utilized as a portable on-the-go application for a user.

Every users identity is protected. To keep the passwords safe, an **AES** encryption system has been used, which relies on a cipher to encrypt and decrypt. This ensures the safety and protection of identity for the user, even in the database.

This software moreover helps us save time, by granting us a prediction system with which we can make things much quicker rather than physically being present at the box office.

## **REFERENCES**

For understanding MLR: <http://www.statisticssolutions.com/what-is-multiple-linear-regression/>

For concepts and formulae: [https://en.wikipedia.org/wiki/Linear\\_regression](https://en.wikipedia.org/wiki/Linear_regression)

Basics of MLR: <https://www.youtube.com/watch?v=dQNpSa-bq4M>

AES Encryption reference: <https://gist.github.com/bricef/2436364>

For MySQL: <https://www.mysql.com/>