Pimpri Chinchwad Education Trust's

# Pimpri Chinchwad College of Engineering


## Department of CSE (AI & ML)

### Project Report

on

## "MOVIE RECOMMENDATION SYSTEM"

under

## OOP Project

Academic year 2022-23

by


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# Chapter 1
# **Problem Statement**

## Title: Movie Recommendation System

To build a movie recommendation system based on the user's choice of interest and accordingly recommend to relevant movies to the user. We wish to integrate the aspects of personalization of user with the overall features of movie such as genre.

# Chapter 2

# **Objective**

- The Movie Recommendation System provides a mechanism to help users categorize users with similar interests.
- Basically, the purpose of a recommendation system is to search for material that will be interesting to a person.
- To create number of factors to personalized lists of useful and interesting content specific to each user/individual.
- To fulfil the user's needs in the shortest time possible.
- To keep the user as long as possible on the platform so that it will generate the most possible profit for them.

# Chapter 3

# Introduction

- We tend to like things that are similar to other things we like
- These patterns can be used to make predictions to offer new things
- Recommendation systems involve predicting user preferences for unseen items such as movies

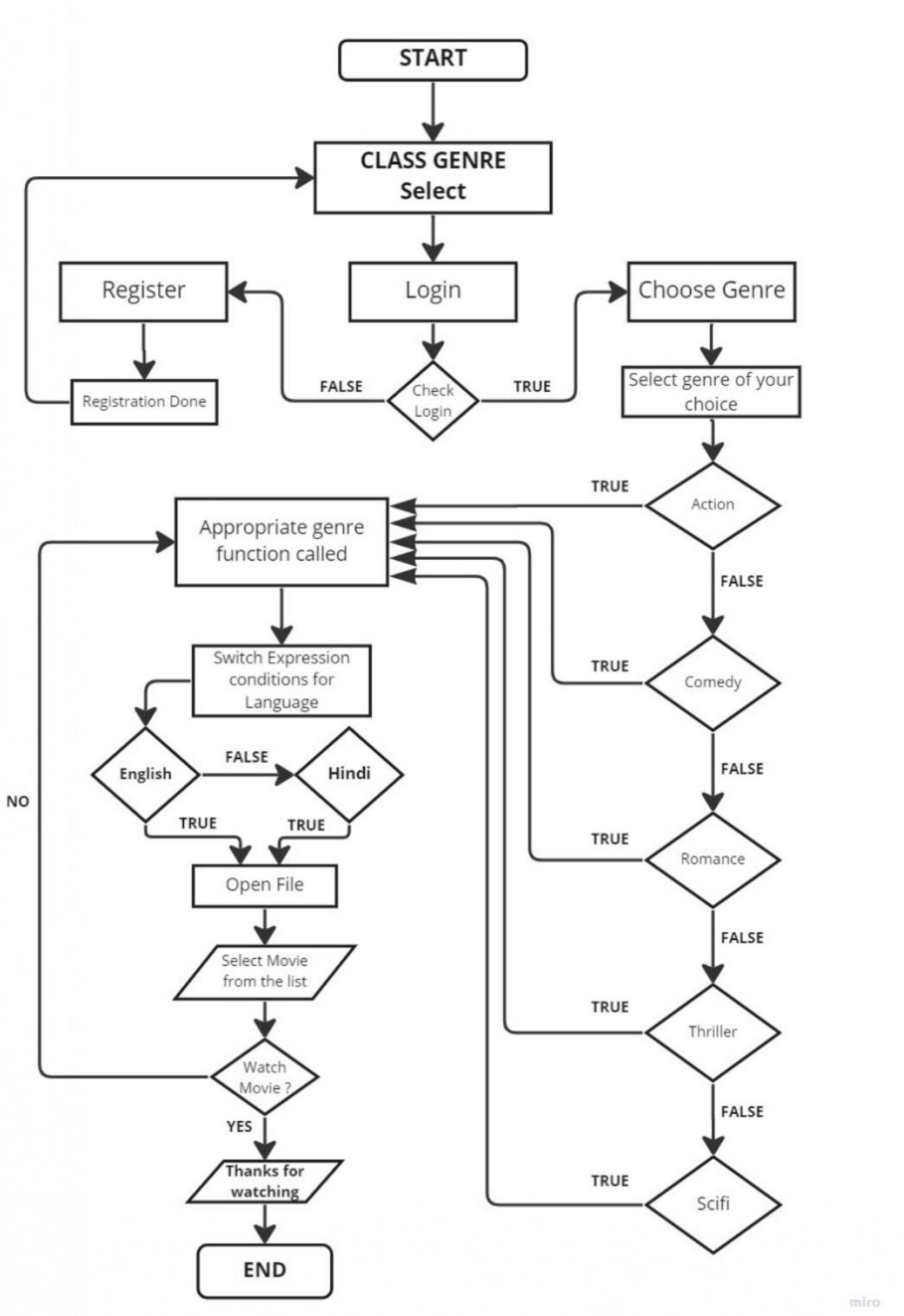
The primary goal of movie recommendation systems is to filter and predict only those movies that a corresponding user is most likely to want to watch.

## How does it work?

We have used the strategy of ***Content-Based filtering*** which uses the data provided about the items (movies). The C++ code used for this strategy recommends movies that are similar to the user's preferences. Therefore, the similarity in content-based filtering is generated by the data about the film selections and accordingly a list of movies appears on the interface based on the user's choices.
The information is available in the database (here in .txt files). After that, the system provides movie recommendations for the user. That said, the core element in content-based filtering is only the data of only one user that is used to make predictions.

# Chapter 4

# **Flowchart**



# Chapter 5

# Program Code

Here, we have used constructed this movies recommendation system using the concepts of Object-Oriented Programming in C++ language. And, categorized the recommendations for the user according to his/her genre of interest.

- Categorisation is made on the basis of the following genres:
  - Action
  - Comedy
  - Romance
  - Thriller
  - Sci-Fi
- Each of the above genre further gives user the provision to choose languages in order to sort the recommendations more efficiently:
  - English
  - Hindi
- The concepts of OOP used in this program are:
  - Class and Object (Class Genre and its object)
  - File Handling (Database for storing files with items as movie names)
  - Exceptional Handling (In the Registration block)
  - *Recursion* (Concept of DSA, used everywhere in the program)

- Dataset used in the program:
  - 1 file for storing the user data during registration
  - 10 files for storing movie names
  - 10 files for storing movie links

# Program Code:

**Abstract Class** :

```
class genre
{
    public:
    int flag=0;
    string w;
    void select();
    void login();
    void registr();
    void choose_genre();
    void action();
    void actionenglish();
    void actionhindi();
    void comedy();
    void comedyenglish();
    void comedyhindi();
    void romance();
    void romanceenglish();
    void romancehindi();
    void thriller();
    void thrillerenglish();
    void thrillerhindi();
    void scifi();
    void scifienglish();
    void scifihindi();
};
```

**Main Function :**

```
main()
{
    genre g;
    g.select();
}
```

# Chapter 6

# Output screen shots

```
**************************************************************************
                        WELCOME TO LOGIN PAGE
**************************************************************************

1.LOGIN
2.REGISTER
3.USE AS GUEST WITHOUT SIGNING IN

Enter your choice :2

Enter the username : parth

Enter the password : pccoe1234


You are successfully registered
**************************************************************************
                        WELCOME TO LOGIN PAGE
**************************************************************************

1.LOGIN
2.REGISTER
3.USE AS GUEST WITHOUT SIGNING IN

Enter your choice :1


Please enter the following details
USERNAME : parth
PASSWORD : pccoe1234
```

```
Hello parth
LOGIN SUCCESSFUL

**********************************************************************
Choose any one of the below genres :
1. ACTION
2. COMEDY
3. ROMANCE
4. THRILLER
5. SCIFI

Choose your genre of interest : 3

**********************************************************************


Languages available :
1. English
2. Hindi
Choose your language of preference : 1

**********************************************************************
Here we have a list of top 10 ROMANCE English movies :
1. Forrest Gump
2. Titanic
3. Eternal Sunshine of the Spotless Mind
4. Good Will Hunting
5. Slumdog Millionaire
6. Am├ⁿlie
7. Silver Linings Playbook
8. Life Is Beautiful
9. Fifty Shades of Grey
10. You



Enter the number of movie you wanted to watch : 9

**********************************************************************
You selected : 9. Fifty Shades of Grey
Do you wanted to watch this movie : y
```

**Once you click ‘y’ you will be directed to the corresponding movie (if available) on youtube. Else, if movie is not available on youtube, you can watch its trailer.**

# Chapter 7

# References (Books/ Notes/ Web Links )

Concepts are taken from following books and websites :


- Object Oriented programming using C++ by Saurav sahay
- Object Oriented Programming With C++ - E. Balagurusamy
- www.github.com