

# **MOVIES RECOMMENDATION SYSTEM**

## **Project synopsis**

**SUBMITTED IN THE PARTIAL FULFILMENT FOR THE AWARD OF THE DEGREE OF  
BACHELOR OF ENGINEERING**

**IN**

**Big Data and Analytics**

**Submitted by:**

**DIGVIJAY KUMAR**

**UID - 19BCS3878**

**Under the supervision of :**

**su hail javed quarishi**



**CHANDIGARH  
UNIVERSITY**  
Discover. Learn. Empower.

**CHANDIGARH UNIVERSITY, GHARUAN, MOHALI - 140413, PUNJAB**

## **DECLARATION**

**I undersigned solemnly declare that the project synopsis based on my own work carried out during the course of our study under the supervision of teacher suhail javed quarishi. I assert the statements made and conclusions drawn are an outcome of my work. I further certify that the work contained in the report is original and has been done by me under the general supervision of my supervisor.**

**II. The work has not been submitted to any other Institution for any other degree/ diploma/certificate in this university or any other University of India or abroad.**

**III. I have followed the guidelines provided by the university in writing the report.**

**IV. Whenever we have used materials (data, theoretical analysis, and text) from other sources.**

**NAME - DIGVIJAY KUMAR**

**UID - 19BCS3878**

## **ACKNOWLEDGEMENT**

**I have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals and organizations. I would like to extend my sincere thanks to all of them.**

**I am highly indebted to teachers for their guidance and constant supervision as well as for providing necessary information regarding the project & also for their support in completing the project.**

**I would like to express my gratitude towards my parents and my department and teachers for their kind co-operation and encouragement which help me in completion of this project.**

**THANKS AGAIN TO ALL WHO HELPED**

## **ABSTRACT**

**Goal of this project is making a movies recommendation system. Movie recommendation system is probably the most trending data science application today. They can be used to predict user preference for any particular items like comedy, romantic, action, top rated, trending now and Netflix original contents. I use TMDB API key for movies database which provide us to programmatically fetch and use data. So in our movie recommendationsystem you can see all the movies is recommended in different categories.**

**Movie recommendation system provide a mechanism to assist users in classifying users with Similar interests. This make recommender system essentially and useful.**

**As the data quality and quantities increases, in future to provide a new perspective to the whole idea Of supporting users in developing, exploring and understanding their unique personal preferences. All of the major tech companies are using recommendation system in some form or other.**

**Like amazon is using it to suggest frequently bought together or customer who viewed this item also viewed. YouTube is using it to create an auto playlist based on your preferences. In fact, for entire business model and its success revolves around how good their recommendation system is.**

## **Table of Contents**

- 1. TITLE PAGE**
- 2. DECLARATION**
- 3. ACKNOWLEDEGMENT**
- 4. ABSTRACT**
- 5. CONTENT**
- 6. INTRODUCTION**
  - 6.1.PROJECT DEFINITION**
  - 6.2.PROJECT OVERVIEW/SPECIFICATION**
  - 6.3.HARDWARE SPECIFICATION**
  - 6.4.SOFTWARE SPECIFICATION**
- 7. LITERATURE SURVEY**
- 8. PROBLEM FORMULATION**
- 9. OBJECTIVES**
- 10. METHODOLOGY**
- 11. CONCLUSION &  
DISCUSSION**
- 12.REFERENCES**

## **PROBLEM DEFINITION**

**According to survey there find that people sometimes facing many different kinds of problems while watching and selecting movies and it's kill a lots of time while selecting or choosing which are top rated movies, which are trending movies similarly which are comedy, action, romance, horror, documentaries. So for solving these kinds of problems and people easily access their preferences, this movies recommendation system provide a good user interface so that people find their choices. and in this movie recommendation system I use TMDB API key for movie database which fetch data similar to Netflix contents and with the help of this API key we get recommendation of movies in different categories. This kind of recommendation system sort out the problem of people who find difficulties in selecting movies with their preferences.**

## **PROJECT OVERVIEW**

**Main aim for making this project is to solve above problems mentions so that peoples easily able to select their movies with their preferences that if anyone want to know which aretop rated movies, which are Netflix original, which are trending movies in Netflix and others different categories like horror, comedy, romance etc. about our project we make our movies recommendation system with the help of web development concepts and for movies database we use TMDB API key and that's provide us a Netflix user interface so people find this as a friendly user recommendation system.**

### **REACT**

**For frontend single page development we use react a javascript library with port number local host 3000. React work on html/css/javascript. It is a kind of java script library. React is aopen source frontend javascript library. It use for building user interfaces. It is maintained byfacebook. React can be used as base in the development of single page.**

### **NODE JS**

**For development and working both frontend and backend parts we use node js package manager. Node.js is a runtime environment, which let users choose how to use, whether frontend or backend, and one common language can be used as backend and front end.This environment is entirely based on V8 JavaScript engine so it work on javascript. It is a server side language use in http module, server side programming.**

**Node js work through two ways first is asynchronous which have a call back functions and second is non blocking I/O which tell different worker in server no need to wait.**

### **NPM**

**Npm is a node package manager for node js package. It put modules in place so that node canfind them and manage. It is extremely configurable to support a wide variety of use cases. It use in backend development.**

## **HTML**

**HTML is the language for describing the structure of Web pages. HTML gives authors the means to: Publish online documents with headings, text, tables, lists, photos, etc. Retrieve online information via hypertext links, at the click of a button.**

## **CSS**

**Cascading Style Sheets (CSS) use a separate language from HTML. CSS allows you to apply consistent styling of elements across all pages on your site, so that all headings, lists, and paragraphs look and act the same on every page of a site.**

## **Javascript**

**JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user.**

## **TMDB API KEY**

**Tmdb is a transfer management database and it is movies database where millions of movies database available. Api is a application interface key which is a dataset of movies and it is a kind of system which provide us to programmatically fetch and use movies data.**

## **MOVIE TRAILER MODULE LIBRARY**

**It fetch Youtube trailers for any movies. It return one or many trailer URLs. We use this library for movies trailer data which available in TMDB movies database.**

## **FIREBASE**

**It is google database use for creating web application and site display. The Firebase Realtime Database lets you build rich, collaborative applications by allowing secure access to the database directly from client-side code. Data is persisted locally, and even while offline, realtime events continue to fire, giving the end user a responsive experience.**



## **HARDWARE SPECIFICATION**

**A desktop/laptop OS window 10,8,7 or Mac then macOS big sur.**

## **SOFTWARE SPECIFICATION**

**An IDE ( VS CODE )**

**Node js (runtime**

**environment)**

**Npm (node package manager)**

**React ( javascript library)**

**TMDB API key ( moviesdatabase)**

**Google chrome**

## **LITERATURE SURVEY**

**Movies recommendation system recommend all the movies with their categories that which are top rated. Which are trending in Netflix and other ways. With the help of TMDB movie database which provide a Netflix user interface where all the are arranged with their categories. This movie recommendation system fetch movies data which available in TMDB. One of the work that we have done in our movie recommendation project was to predict the top rating that each user will give to specific movies by doing neural network classification of different rating classes. I tried two approaches while using neural networks for predicting movie ratings.**

## **PROBLEM FORMULATION**

**Does any similar movies recommendation system exist which provides us this kind of specifications like selecting movies with our preferences and categories.**

**Answer : many multimedia platforms have their recommendation system in fields of music, shopping etc and similarly this recommendation system provides a movies recommendation which helps people in selecting their movies with categories wise. So that people save their time in searching or suffering in internet this recommendation system makes work easier for them.**

## **OBJECTIVES**

**Main objective for this project is making a movies recommendation system with the help of TMDB movie database which helps people in selecting the movies and save their time.**

**Recommendation systems are probably the most trending data science application today.**

**They can be used to predict user preference for any particular item.**

**By continuously generating recommendations suitable for particular individuals, engagement on the platform can be maximized. Content can be recommended based on multiple approaches Based on previous watches, based on searches and ratings.**

**Movie recommendation systems provide a mechanism to assist users in classifying users with similar interests. This makes the recommender system essentially a central part of websites and applications.**

**As the data quality and quantities increase, in the future to provide a new perspective to the whole idea**

**Of supporting users in developing, exploring and understanding their unique personal preferences.**

**The future of recommendation system lie in integrating self actualization to do justice to serendipity While recommending which will also support rather than replace human decision making by understanding preferences.**

**It would definitely work revolutionary in the field of data science and people would easily access what they prefer.**

**All of the major tech companies are using recommendation system in some form or other. Like amazon is using it to suggest frequently bought together or customer who viewed this item also viewed. YouTube is using it to create an auto playlist based on your preferences.**

## **METHODOLOGY**

**The following methodology will be followed to achieve the objectives defined for proposed research work:**

- 1. Detailed study of HTML CSS and JAVASCRIPT for frontend developing part.**
- 2. Implementation of node js, npm package manager , react library .**
- 3. Use of TMDB API KEY for movie database.**

## **Conclusion and discussion**

**First I give the introduction of our project in which talk about problem definition,project overview/specification, hardware and software specification.**

**And its also include the literature survey and review of our project. What are problems and implementation.**

**This synopsis also provide instruction of the concept which is important to understand.**

**This synopsis will cover what are the methodology for this project and what are the objectivesfor this project and last it cover the conclusion and discussion.**

## **REFERENCES**

1. **<https://www.geeksforgeeks.org/reactjs-tutorials/>**
2. **<https://www.geeksforgeeks.org/how-to-fetch-data-from-an-api-in-reactjs/>**
3. **<https://www.themoviedb.org/documentation/api>**
4. **<https://www.npmjs.com/package/movie-trailer>**
5. **<https://arxiv.org/ftp/arxiv/papers/1909/1909.12749.pdf>**