Department Of Computer Engineering

D. Y. Patil College of Engineering, Akurdi, Pune-44

# SYNOPSIS

 Group Details:

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| Name Of the Students | Roll No | Sign | | |
| Saurabh Shivaji Mohite | SECO2223A021 |  | | |
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1. Class: S.E. Computer Engineering Sem-l.
2. Batch: A-2
3. Title Of the Project: College Predictor based on MHT-CET entrance exam

5.Overview:

College Predictor System is a web-based application system in which students can register their MHT-CET Percentile along with their personal information. This helps to predict the colleges for their admissions. Administrator can add the college details and the batch details. Using this Application, the student will get rid of admission process after entrance exam The main advantage of the project is to bring ease in admission process for students. Administrator has the power for the add and remove new colleges according to cutoffs. Admin can add the college details like cutoffs according to category, branch, etc. into a file and the details are saved into the system. The total time for the admission process lower and the it becomes faster. It helps students to make right decisions for choosing their college. In which students can register with their personal as well as marks details to prediction of colleges.

1. Objective:

* To bring ease in college admission process after entrance exam.
* To remove all confusion about college admission process for students choosing their colleges.
* Students will get reviews about colleges before taking admission.
* The ease of making better choices and making better decisions in terms of selecting colleges is our aim.
* Our analysis on colleges for the students makes easier for them to make accurate decision about their preferred colleges.
* Our analysis with the data mining methods would help giving probable accuracy and this requires analytical methods for predicting future recommendation.
* Today, most students make mistakes in their preference list due to lack of knowledge, improper and incorrect analysis of colleges and insecure predictions. Hence repent and regret after allotment. Our project will solve the general issue of the student community by using technology.

7.Software and Hardware Requirements:

Software:

* Visual Studio Code -Text Editor
* Supported Operating System: Windows 11
* Supported Databases: SQLite (default) , Microsoft SQL Server
* Languages: HTML, CSS, Java-script, SQL etc.

Hardware:

* Dual-Core 2 G-hertz or higher
* 4 GB RAM
* 1 GB free disk space

Other Requirements :

* The data i.e., cutoffs percentage of previous years and college details are the main requirement for proper working of our system.
* The college recommendation system requires data from the latest CAP round containing percentage, seattype, college name, college location and course name, etc. for college listing, this data is extracted from pdf provided by the mahacet.org for every college and is stored into a database.
* The college details are extracted from college’s and other educational websites.
* The cutoffs prediction system requires data from previous years cutoffs for proper prediction analysis which is hardly available on some websites over the internet, that is not in proper format

8.Problem Approach:

1. The algorithm which is expected to have higher accuracy in recommending the best preference list of colleges is used.
2. This project would prove helpful for students minimizing their time in searching colleges and predicting whether they will be allotted the desired college or not.
3. We have collected the cut off details of all the colleges for creating the database
4. Using previous year cut off marks we have calculated the range in which the college may fall.
5. Accordingly, the comparison will be made between the marks entered by the user and the list of colleges will be displayed in which the user may get admission.

9. Review Of Literature :

[1] In the paper “Prediction and Analysis for Students' Marks Based on Decision Tree Algorithm.” by Zhiwu Liu and Xiuzhi Zhang(IEEE) proposes, using decision tree algorithm C4.5 to establish a classification rule and an analysis-forecasting model for student’s marks. Describing how the analysis-forecasting result can be used to find out the factors which can affect students' marks, so some negative learning habits or behaviors of students can be revealed and corrected in time. The effectiveness and 2022 IEEE 7th International conference for Convergence in Technology (I2CT) Pune, India. Apr 07-09, 2022 978-1-6654-2168-3/22/$31.00 ©2022 IEEE 1 2022 IEEE 7th International conference for Convergence in Technology (I2CT) | 978-1-6654-2168-3/22/$31.00 ©2022 IEEE | DOI: 10.1109/I2CT54291.2022.9825378 Authorized licensed use limited to: Dr. D. Y. Patil Educational Complex, Akurdi . Downloaded on March 10,2023 at 10:32:54 UTC from IEEE Xplore. Restrictions apply. correctness of analysis and forecasting model and classification for students' marks based on decision tree algorithm C4.5 has been examined by an example. This system only provided Students marks and the accuracy of forecasting model is less than 80%.

[2]The “College Admission Predictor” by Annam Mallikharjuna Roa and Et al. proposes a web based application system in which students can register their marks along with their personal information. The main advantage of the project is the computerization of the entrance seat allotment process. Using this Application, the entrance seat allotment became easier and can be implemented using system Whatever may be their scores, this application helps to find the best colleges. The main objective of this system was to make the right choice of colleges. The proposed system only performed the seat allotment process.

[3]The “StudieMe: College Recommendation System” by Vidish Sharma and Et al. proposed a novel web platform for a college selection process. Having a recommendation system as a helping hand to give them detailed information about the options they have and the best options to choose from according to their caliber is a huge requirement. In this paper, they worked on designing a recommendation system that could understand the skill set and interest of a user through the data from the User's Profile to suggest recommended options of colleges for the users to select. They have developed the college recommendation system as a web platform which gives the result as top matched colleges for a particular user. In this paper, recommendation system is not based on cutoffs percentage.

[4]“HRSPCA: Hybrid recommender system for predicting college admission” by Abdul Hamid M Ragab ,Abdul Fatah S. Mashat and Ahmed M Khedra (IEEE) proposed a new college admission system using hybrid recommender based on data mining techniques and knowledge discovery rules, for tackling college admissions prediction problems. The proposed HRSPCA system consists of two cascaded hybrid recommenders working together with the help of college predictor, for achieving high performance. The first recommender assigns student's tracks for preparatory year students while the second recommender assigns the specialized college for students who passed the preparatory year exams successfully. The system analyzes student academic merits, background, student records, and the college admission criteria. Then, it predicts the likelihood of university college that a student may enter. In this paper, the recommendation system is not based on cutoffs percentage.

10. Architectural flow of Project:

FrontEnd

Students

Predicted College List

Enter Percentile and other details

HTML,CSS Template

Javascript , SQL,etc

View Logic

WebApp Logic

Model

BackEnd

Database

11. References:

1. [1] Zhiwu Liu & Xiuzhi Zhang “Prediction and Analysis for Students' Marks Based on Decision Tree Algorithm.” IEEE Third International Conference on Intelligent Networks and Intelligent Systems by Zhiwu Liu and Xiuzhi Zhang(IEEE), 2010
2. [2] Annam Mallikharjuna Roa , Nagineni Dharani , A. Satya Raghava , J. Buvanambigai , K. Sathish “College Admission Predictor” Journal of Network Communications and Emerging Technologies (JNCET), 2018 .
3. [3] Vidish Sharma, Tarun Trehan, Rahul Chanana and Suma Dawn“StudieMe: College Recommendation System” IEEE 3rd International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE), 2019.
4. [4] Abdul Hamid M Ragab ,Abdul Fatah S. Mashat and Ahmed M Khedra “HRSPCA: Hybrid recommender system for predicting college admission.” IEEE 12th International Conference on Intelligent Systems Design and Applications (ISDA), 2012 .
5. [5] Shaobo Huang & Ning Fang “Regression Models of Predicting Student Academic Performance in an Engineering Dynamics Course ”
6. [6] Prediction using Supervised ML ( Prediction of Marks )
7. [7] Zafar Iqbal, Junaid Qadir, Adnan Noor Mian & Faisal Kamiran “Machine Learning Based Student Grade Prediction: A Case Study” [8] DSECutoff Mobile Application: https://play.google.com/store/apps/details?id=com.rohit.suthar.dsecut off&hl=en\_IN&gl=US

12. Names Of at least two conference, where papers can be published:

I. IEEE Pune Section International Conference (IEEE PuneCon 2022)

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| Mrs. Pooja Bhondve |  |
| Project Guide | Project Co-Ordinator |