STUDENT PLACEMENT ANALYZER: A RECOMMENDATION SYSTEM USING MACHINE LEARNING

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ABSTRACT

The Institutions today face a challenge of placements and to improve the same. It is a very complicated process to predict the placement of students manually. Educational institutions today strive to improvise the procedures and strategies that support decision making capabilities that improvise the students' placements. This can be addressed by making use of machine learning technique to predict the placement of the students. We make use of the historical data of the past students, this data is considered as the training data set and is used to train the model. The system then predicts the placement status of the student to one of the five categories or statuses, viz., Dream Company, Core Company, Mass Recruiters, Not Eligible and Not Interested in Placements. This model helps the placement cell of the organization to identify the weaker students and provide extra care towards them so that they improve their performance henceforth. Furthermore, the students in the final as well as pre-final years of B. E or B. Tech course can also make use of this system to know their placement status that they are likely to achieve. By this knowledge they can put in the necessary efforts to achieve their goals and to get placed in better companies.

Keyword: - *Decision Tree Classifier[1], Sci-kit Learn[2], Machine Learning[3], Prediction[4], Logistic Regression[5]*

1. INTRODUCTION

The primary aim of students who join professional courses in higher learning institutions is to secure a well-paid job in a reputed organization. The prediction of placement status that B.E students are most likely to achieve will help students to put in more hard work to make appropriate progress. It will also help the teachers as well as placement cell in an institution to provide proper care towards the improvement of students in the duration of course. A high placement rate is a key entity in building the reputation of an educational institution. It will also help the placement cell in an institution to provide proper care towards the improvement of students. This system has a significant place in the educational system of any higher learning institution.

2.EXISTING SYSTEM

An educational institution contains student records which is a prosperity of information, but is too large for one person to understand in its entirety. Finding the necessary characteristics from this data is an important task in educational research. Finding the placement status of each student in the institution is a tedious task. Hence, the limitation of this system includes time consumption, less efficient and less user satisfaction. Also this system is a manual process which adds to the limitation.

3.PROPOSED SYSTEM

Proposed system is an automation for student placement prediction. System analyze the previous year's student's historical data and predict placement chances of "current students" and percentage placement chance of the institution. Students having better chance of placement are characterized as "good" , if not "bad". Proposed system mainly concentrates on student knowledge, skill and attitudes. Proposed system clusters the students based on the characteristics, here we mainly concentrate on knowledge, skills and attitude of the students. System makes use of previous data to predict the future. System is an educational based application which helps institutes to know the percentage of placements. The proposed system minimizes the human effort and is also more accurate as it compares he current students data with the historical data.

4.SYSTEM ARCHITECTURE

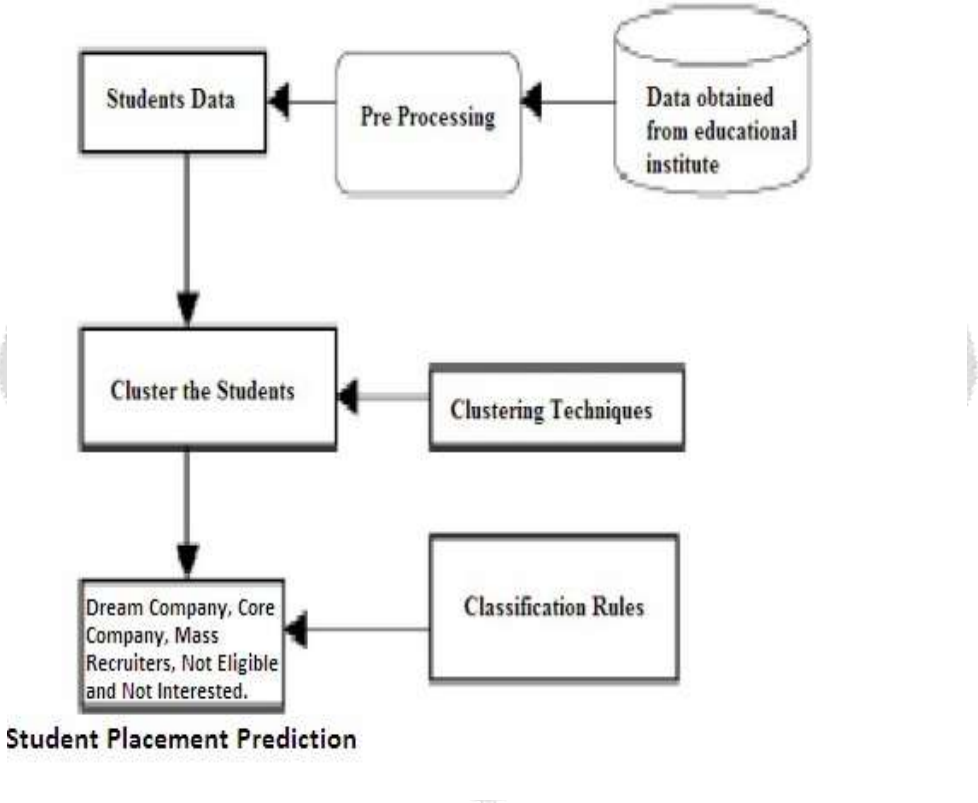

Fig 1 System Architecture

- The historical data and characteristics of the students is obtained from the Educational Institute.
- This data is sent to the pre-processing phase where the unstructured data is structured by various steps of data collection, data transformation, data integration and data cleaning.
- Now, the required students' data is extracted and clustering technique-Fuzzy C Means is applied to get the cluster or clusters of students
- For this cluster of students, the classification rules-Naïve Bayes Algorithm is applied that classifies the students to be placed to one of the five placements statuses.

5. STUDENT PLACEMENT PREDICTION

Admin Module

- The placement officer is the admin.
- He/she creates the courses and registers students to the respective courses.
- Admin can view the courses and the students along with their attributes.
- Admin predicts the placement status of the current students.
- Admin receives and responds to feedbacks.

Student Module

- The students can log into their profile and update their attributes.
- The students can predict the placement status.
- The students can post feedback which will be addressed by the admin.

Visitor Module

- The visitor can view the college details.

6.CONCLUSIONS

It is more likely to predict the placement status of the students at the end of the final years. Thus, the predictor helps to increase the placement rates by helping teachers and placement cell in an institution to coach for the students. The system helps in improving the placement rate of an institution thereby can act as a key element in improving the reputation of the institution.

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6. REFERENCES

[1]. Fatin Aliah Phang : Postgraduate Supervision: Supervisors versus Students .
[2]. K. G. Patel and C. K. Patil : Study of Implementation of Online Placement System.
[3]. Krina Parmar : Performance Prediction of Students Using Distributed Data Mining
[4]. Mr. Bhavesh Patel : Study and Evaluation of Student Performance Parameters using statistical features of excel