

Placement Prediction

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Abstract: *Predicting the performance of a student is a great concern to the higher education managements. The purpose of training and placement management system is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Student's academic achievements and their placement in campus selection becomes as challenging issue in the educational system. Monitoring the student's progress for their campus placement helps in monitoring the student's progression in the academic environment. The purpose of higher education organizations is to offer superior opportunities to its students. Proposed student prediction system is most vital approach which may be used to differentiate the student data/information on the basis of the student performance. Managing placement and training records in any larger organization is quite difficult as the student number are high; in such condition differentiation and classification on different categories becomes tedious. Proposed system will classify the student data with ease and will be helpful to many educational organizations. There are lots of classification algorithms and statistical base technique which may be taken as good assets for classify the student data set in the education field. In this paper, Naïve Baiyes, SVM, KNN algorithm has been applied to predict student performance which will help to identify performance of the students and also provides an opportunity to improve to performance. For instance, here we will classify the student's data set for placement and non-placement classes. Based on the result, higher education organizations can offer superior training to its students. Under this study information related to student's performance measures is analyzed in different perspectives to learn the achievements of the students through their activities.).*

Keywords: Placement

I. INTRODUCTION

The Training and Placement activity in the college is one of the most important activities in the life of the student. Therefore it is very important to make the process hassle free so that the students would be able to get the required information as and when required. Also with the help of a good system it would be easy for the staff of the Training and Placement cell to update the students easily and the work would be less. The "College placement Prediction using Machine Learning" has been developed to override the problems prevailing in the practicing manual system. This Software is supported to eliminate and in some cases reduce the hardships faced by the existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner. Majority of the companies have been focusing on campus recruitment to fill up their positions. The companies identify the talented and qualified professionals before they have completed their education. This method is the best way to work on the right resources at the right time to get good companies at the beginning of their career. Every organisation, whether big or small, has challenges to overcome and managing the information of placement, training, placement cells, technical skill. Every training and placement management system has different training needs, therefore we design exclusive employee management system that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organisation is equipped with the right level of information and details of your future goals. Also for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime. These system will ultimately allow you to manage resources. Students studying in final year of engineering focus on getting employed in reputed companies. 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.

Motivation:

The major issue in the Student community who are at the stage of Graduate is the selection of their career. It is mainly due to lack of information in the field which they want to choose. In order to give them proper guidance towards the Professional education like the Courses, Degrees, and Institutions, and jobs prediction this system will be available to the students who are willing to know the complete details about different areas.

II. DESCRIPTION OF THE PROBLEM

Problem Statement:

Campus placement of a student plays very important role in a college. Campus placement is a process where companies meet colleges and identify students which are talented and qualified, before they complete their graduation. So this system makes the work of prediction of placement of student easy. we are developing a system in which the students will register/Login into the system and Enter their biodata and skillsets, according to students' academic details the system will identify whether the student is eligible for the placement and recommend the courses to the students. Admin 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. If the student is eligible for placement mail will be sent to the student from admin and students names will be displayed on the dashboard in their colleges.

Objective:

The main objective of the project on Placement management system is to manage the details of placement, student, and technical skill. It manages all the information about Placement cell, technical skill. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing placement, placement cell, and student.

III. LITERATURE REVIEW

Data Mining Approach For Predicting Student and Institution's Placement Percentage

Placement of students is one of the very important activities in educational institutions. Admission and reputation of institutions mainly depends on placements. Hence all institutions strive to strengthen placement department. In this study, the objective is to analyze previous year's student's historical data and predict placement chance of the current students and the percentage placement chance of the institution. A model is proposed along with an algorithm to predict the placement chance of students. Data pertaining to the study were collected from the same institution for which the placement chance prediction and percentage placement need to be found from 2006 to 2015. Data collected is divided into historic data from 2006 to 2014 and test data i.e., 2015; 2016 data is considered as current data. Suitable data pre-processing methods are applied. Students having better chance of placement are characterized as good if not bad. This proposed model is compared with other classification algorithms such as Naive bayes, Decision tree, and Neural network with respect to accuracy, precision and recall. From the results obtained it is found that the proposed algorithm predicts better in comparison with other algorithms.

Job Performance Prediction Model based on Adversity Quotient Career Interest

Job performance of an individual can be predicted through personal highlighted. Capable of predicting job performance is benefiting from all perspectives. Job performance in this study refer to the abilities of students in completing the task given by lecturer. Through this study, student's job performance through Adversity Quotient (AQ) and career interest were determined. A total of 370 Bachelor's students from eight faculties in Universiti Tun Hussein Onn Malaysia (UTHM) has been selected as respondents by the sampling strata. The research was a survey study and the instruments were a

questionnaire of AQ Related Personality Traits (ARP) Stoltz, Inventory Self-Directed Search Form Easy (SDSS) Holland and Job Performance Questionnaire. Data were analyzed using sum, mean, frequency, percentage and Multiple Linear Regression test. The findings show that the majority of respondents are in high level of AQ, the dominant of career interest of students is the Social personality. The Multiple Linear Regression analysis shows job performance is predictable through the variables Adversity Quotient (AQ) and two types of personality career interest (Social and Entrepreneur), that is $\text{Job Performance} = 35.21 + 7.28 (S) + 3.98 (E) + 0.11 (AQ)$. This model is expected to be applied to Bachelor's students of UTHM to predict future job performance based on scores of AQ, Social, and Entrepreneur.

Evaluating Students Performance in Placements Activity

In an education system, predicting student's performance in placement has become more challenging due to the large volume of data and imprecise data with fuzziness in educational databases. Large volume of data is processed using big data analytics methods. Processing of data with different factors and with different parameters is difficult in traditional system, where big data analytics can help organizations to better understand the information contained within the data.

It also helps them to identify the data that is most important for the prediction and future decision making. The aim of evaluating student's performance is to help them to develop individual student's professionalism, to encourage self-improvement, to maintain achievements and also to give them prior idea about their level of skills in placements. It also plays a vital role in increasing placements. In this paper some of the existing methodologies and their drawback for the student analysis have been discussed.

IV. SYSTEM DESIGN AND FLOW

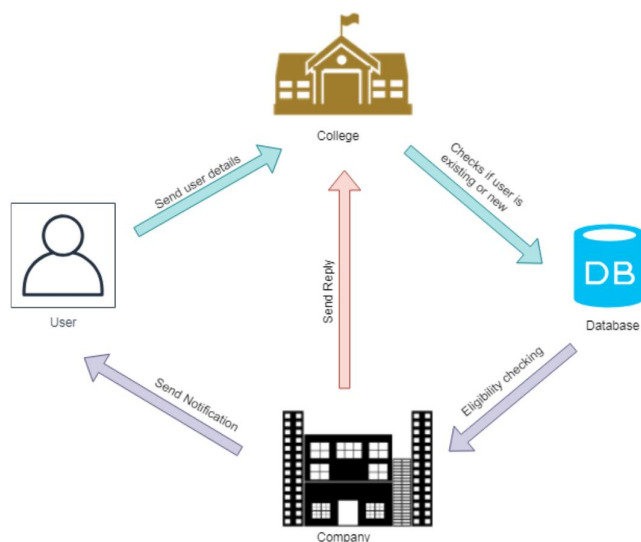


Fig. System Architecture

Admin

In this module, the Admin has to log in by using valid user name and password. After login successful he can do some operations such as View All Users and Authorize, View All E-Commerce Website and Authorize, View All Products and Reviews, View All Products Early Reviews, View All Keyword Search Details, View All Products Search Ratio, View All Keyword Search Results, View All Product Review Rank Results.

View and Authorize Users

In this module, the admin can view the list of users who all registered. In this, the admin can view the user's details such as, user name, email, address and admin authorizes the users.

View Charts Results

View All Products Search Ratio, View All Keyword Search Results, View All Product Review Rank Results.

Ecommerce User

In this module, there are n numbers of users are present. User should register before doing any operations. Once user registers, their details will be stored to the database. After registration successful, he has to login by using authorized user name and password. Once Login is successful user will do some operations like Add Products, View All Products with reviews, View All Early Product's reviews, View All Purchased Transactions.

End User

In this module, there are n numbers of users are present. User should register before doing any operations. Once user registers, their details will be stored to the database. After registration successful, he has to login by using authorized user name and password. Once Login is successful user will do some operations like Manage Account, Search Products by keyword and Purchase, View Your Search Transactions, View.

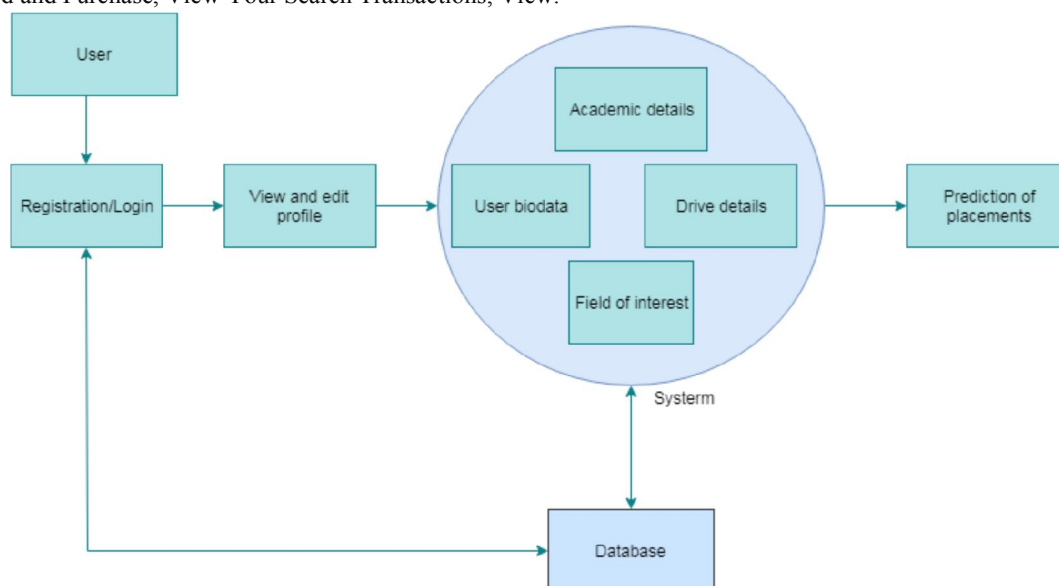


Fig: Flow Diagram

VI. PROJECT IMPLEMENTATION

ALGORITHM

Support Vector Machine:

Support Vector Machine or SVM is one of the most popular Supervised Learning algorithms, which is used for Classification as well as Regression problems. However, primarily, it is used for Classification problems in Machine Learning. The goal of the SVM algorithm is to create the best line or decision boundary that can segregate n-dimensional space into classes so that we can easily put the new data point in the correct category in the future. This best decision boundary is called a hyper plane. SVM chooses the extreme points/vectors that help in creating the hyper plane. These extreme cases are called as support vectors, and hence algorithm is termed as Support Vector Machine.



Figure: Home page

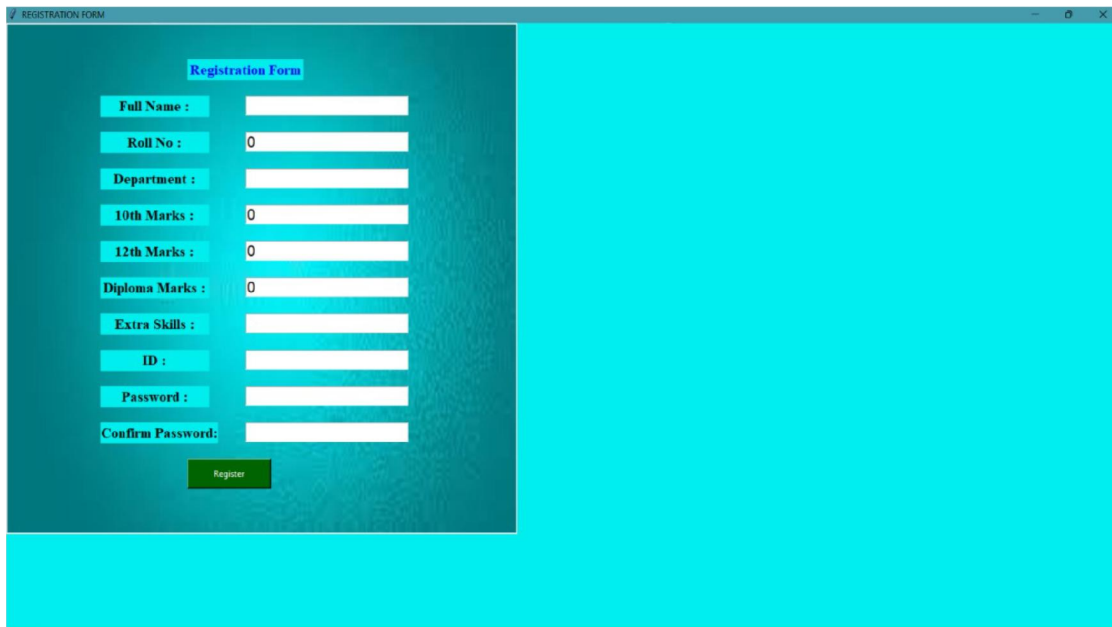


Figure: Registration Page

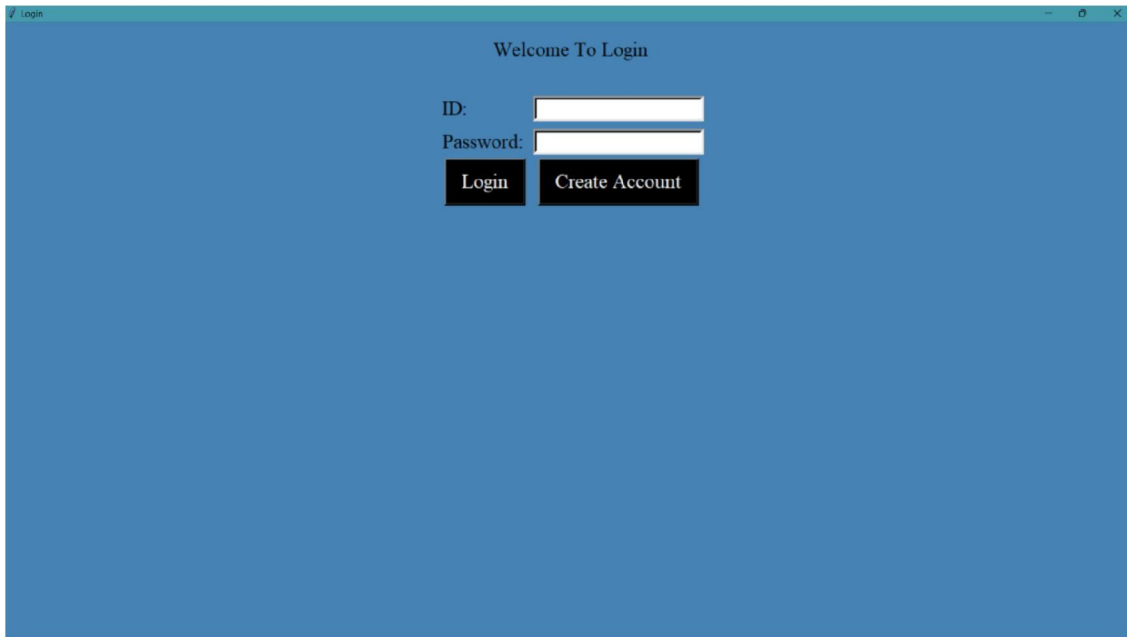


Figure: Log in Page



Figure: Result

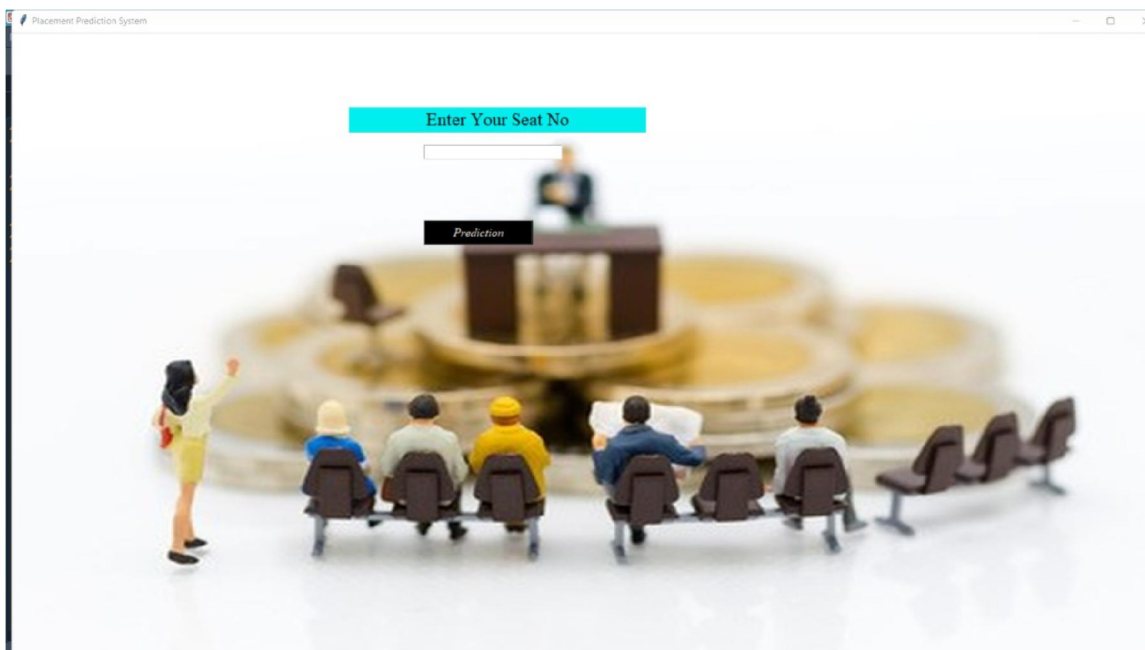


Figure: Result

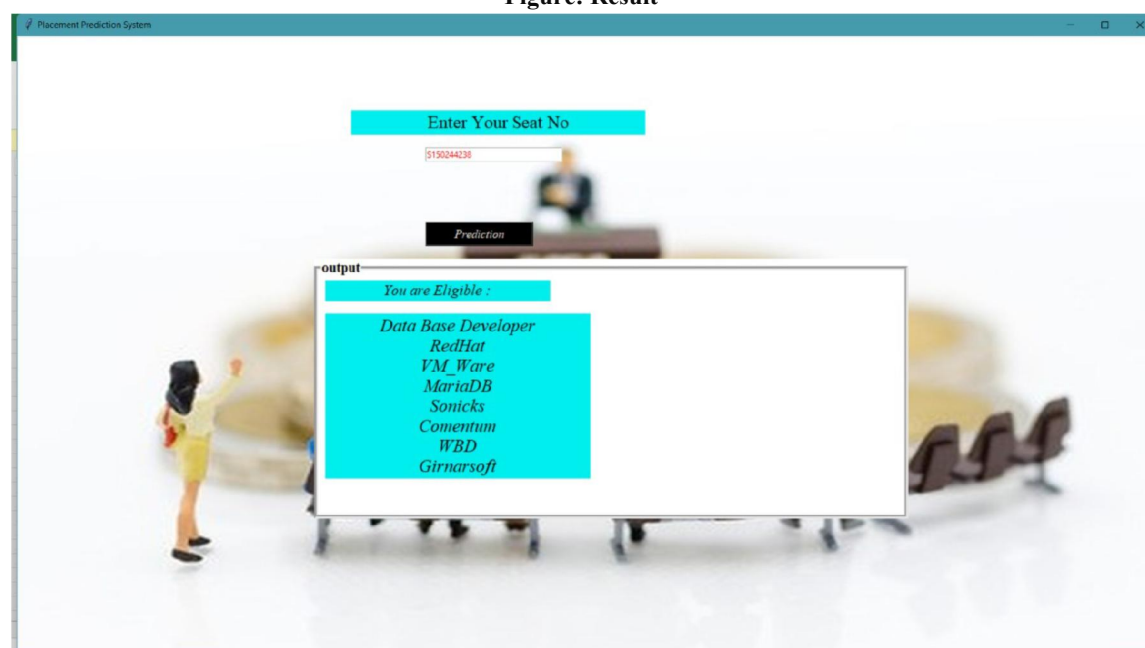


Figure: Result

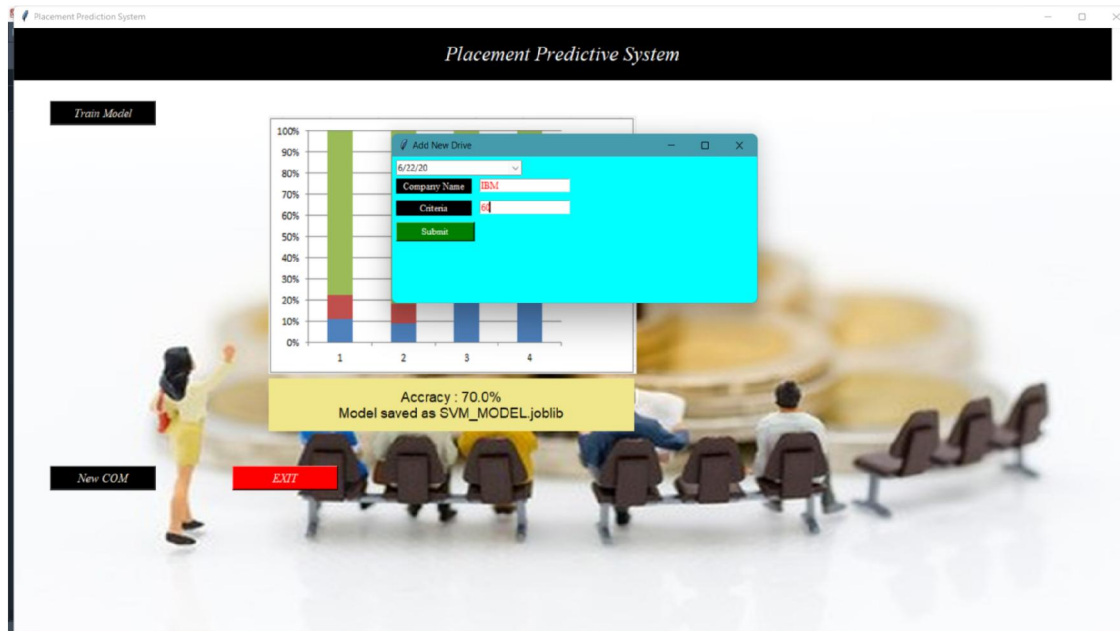


Figure: Result

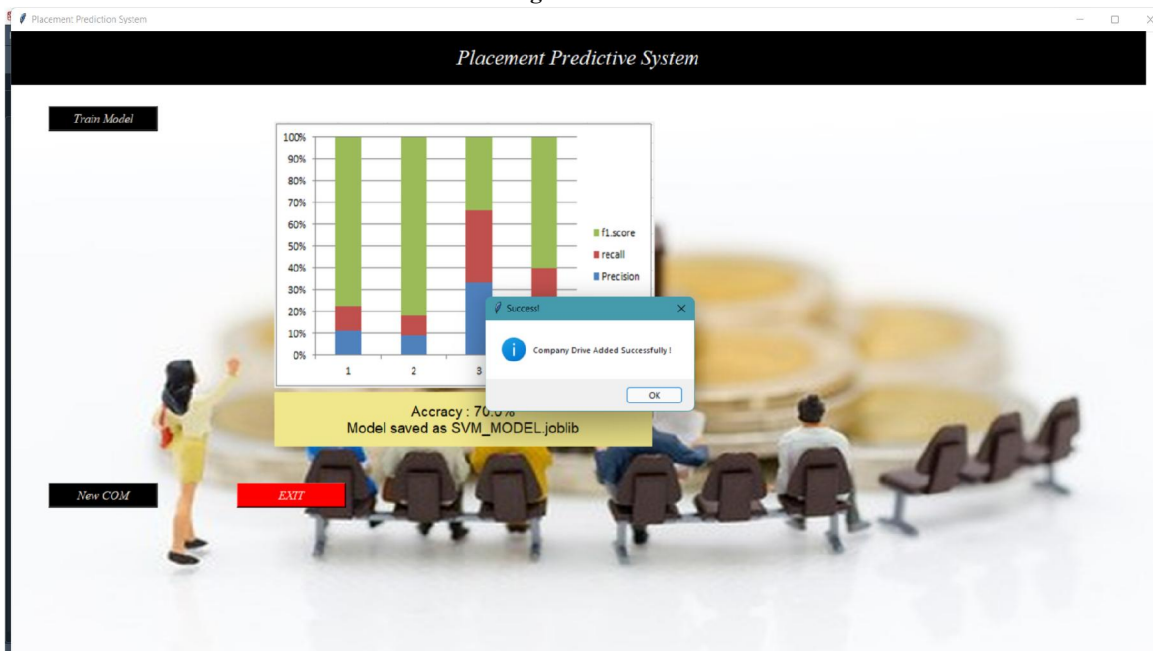


Figure: Result

VII. ADVANTAGES & DISADVANTAGES

Advantages:-

- It used to Predicting the placement of a student gives an idea to the Placement Office as well as the student on where they stand.
- To predict the eligibility of student for placement so to prepare for only those companies for which the student will actually be eligible for.

- Provide an efficient single point management system which will give all the data of the students of the college at the same place.
- Easily predicts and analyses lot of student data set for predefined classes by using SVM.

Disadvantages:-

- Need to improve to a great extent using this prediction model in all institutions.
- Improvement in User Interface to make user friendly.

VIII. CONCLUSION & FUTURE WORK

Thus, we have seen how this system is going to help institutions to predict student's placement in final year of study. This system would help reduce tedious job of predicting placement chances. The placement Office can work on identifying the weaknesses of the students and take measures of improvement so that the students can overcome the weakness and perform to the best of their abilities.

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