Skill Enhancement System for Employees using Machine Learning

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***Abstract*— In information technology the main aim is to shift the manual system to automated system. In this paper the mainly focus on choosing the courses according to his skills. To grab the skill from the employee in an organization, organization must give the test to employees. According to test points courses will be tested. The methodology we used here is SVM (support vector machine). In SVM algorithm, this classifies and defines the each and every node. Node represents the courses.**

Keywords—Enhancement, SVM(Support vector machine), Skills.

I. INTRODUCTION

This project is developed to enroll the course of your undertaking developmental choice and to take up your errand and test when you are free anyway there will be a period limit. In that time you need to complete the course.

This application gives various courses and moreover allows downloading the confirmation once you got done with your course. The courses are viable and besides grant selecting for the course successfully which in this way makes the laborer get aptitude in the space of the assignment to improve the speed of progression.

The endeavor has the courses which will be unmistakable for laborers, specialists and besides for various purposes. It manages all the nuances of laborers, courses, charge structure, plan, and tutors. This endeavor gives a lot of features to direct in very well manner. It is outstandingly clear and easy to get it.

It can help for the laborers needs to enroll by giving the fundamental nuances, for the unequivocal course, and should in like manner indicate the use for the course if enlistment is done adequately, the agent can benefit the course.

The course enrollment framework permits the user to enlist for specific course. It will likewise encourage tracking the user, for example, their name, address, date of birth, etc. So all the data about a user will be accessible in a couple of second. Over all it will make the course enrollment framework a simpler activity for the manager and the user of any association.

The courses will be selected and give the video suggestion to the employees using SVM algorithm. The course will be selected according to the points which they got in the quiz. The points were compared with the historical dataset. And gives the result according to historical result [7].

II. LITERATURE REVIEW

Pydala Bhasha and Muni Chandra Sekhar [1] In this paper the one of the skills of employee is recorded while doing interview process. That skill will sent to the server, the server will gives the guide directly to the employee. In the server Brute force algorithm were written, that algorithm will takes the employees skills, checks for datasets & gives the exact guide to employee.

Mr. V. Subramanian and Dr. A. Ananda Kumar [2] proposed a method where the employees were trained in a mass zone after the training there will be assessment. After the completion of assessment they will assign job to them. According to their job they will be again trained to enhance their skill.

R IbrahimThis [3] et al presented a paper describes that employees were request their requirement according to their project skill. According to the requirement admin will send those requirements to support team. Support team will sent back the guidance material to the employees.

Andrew poon[4] presented a paper in which he briefly discussed about choosing the project for machine learning project automatically. The projects were chosen unique from other projects by current and past students work. This work attempts to address this problem by using text analysis and clustering to organize past projects.

A Sharma and R Raghuvanshi [5] presented a paper in which HR of the company should arrange informal conversation activity within the co-workers. Using activity result HR will arrange the training for to enhancing of the skills in formal way

A Elnaga and A Imran [6] presented a paper in which the organization should grab the skills of the employee through their work performance according to that rating they attend the training with respect to their skills.

III. PROPOSED METHODOLOGY

Proposed framework will wipe out all the manual mediation and speed up entire procedure. Framework will permit representative to discover the courses accessible and dependent on user decision and need user can choose the courses and view recordings and comprehend it in a commonsense manner to improve user's insight and user can return to the course content at whatever point user needs to see it.

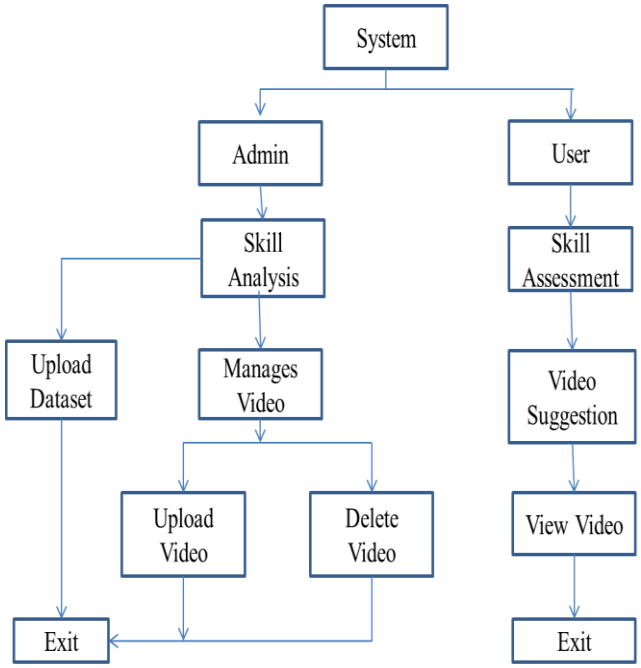

fig 1: Block diagram of proposed methodology

In above figure it represents entire system flowchart. This shows every process of the system. There are two actors user and admin. In user module user should be take assessment that assessment points will stores in server. In server the SVM classification will takes place according to that result it will suggest the skill to the user.in admin module admin can manage the skill videos.

For every video there will be an appraisal for the video. Based on the evaluation, the representative will be ingested into the task after the ability improvement.

The evaluation is done by two processes, a) Data collection and parsing b) Classification of data using SVM algorithm.

A. Data collection

The data is referred to the marks/points which is got when employees were taken quiz. Using quiz data will be collected. After the collection of data i.e,. Marks. The marks will be divided into four quadrants. Each quadrant represents a value which is related to employee's skill level. Using that level further process will take place.

B. Classification of Data Using SVM algorithm

- SVM algorithm determines the interpretation of the data and classifies it according to the same class
- Once data is obtained and processed, the data will be evaluated using the existing data sets and classified.
- The result shall be given according to algorithm classification.

C. Working of SVM classification

• Identify the Test Facts Cluster: Here we have three cluster details (A, B , and C) and the instructions are all neatly divided. So, how are we to view the class proper?

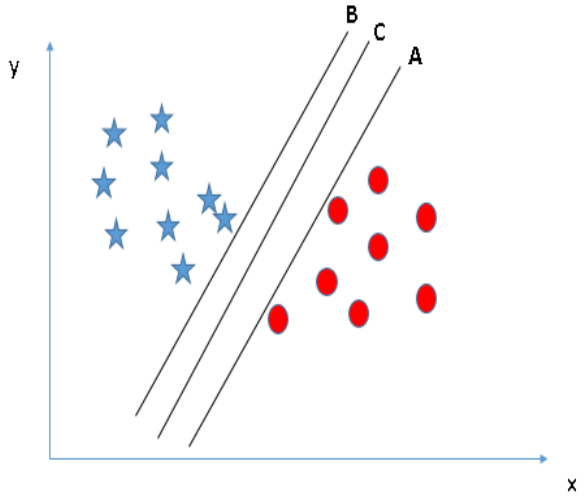

fig 2(a): SVM classification

Here, optimizing distances between nearest component records (each class) and cluster information can help us decide the right kind. The difference is known as Margin.

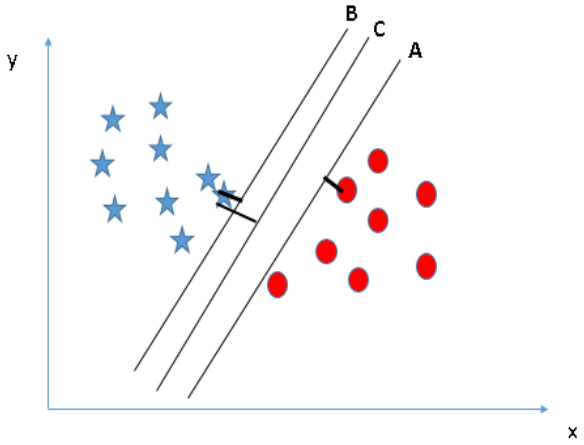

fig 2(b): SVM classification

You may see above that the margin for cluster C is immoderate with respect to each A and B. Therefore, we name the class proper as C. Robustness is another lightning reason for choosing the higher-margin cluster. When we pick a low-margin class then there may be unnecessary risk of over-magnificence bypassing.

IV. EXPERIMENTAL RESULT

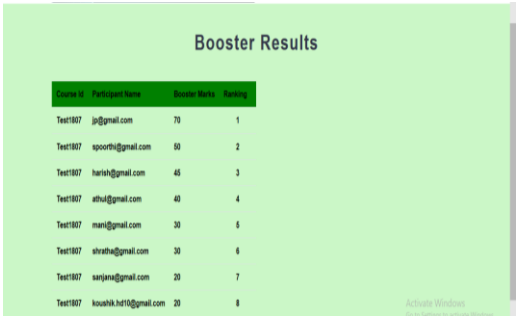

fig 3: Result page

In above figure it represents the Ranking of the employees to the admin so that using this result admin can see the entire teams performance. The rank will be given according to their individual point which they got in the quiz test. Using this result the result skill video will be suggested according to the historical dataset.

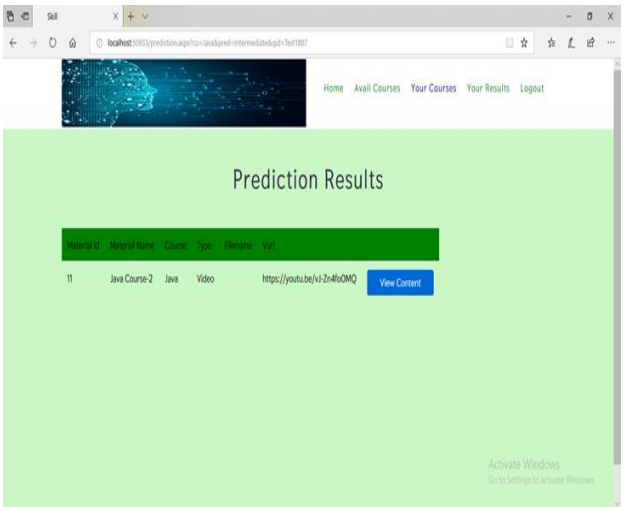

fig 4: prediction page

In above figure it represents entire system flowchart. This shows every process of the system. There are two actors' user and admin. In user module user should be take assessment that assessment points will stores in server. In server the SVM classification will takes place according to that result it will suggest the skill to the user.in admin module admin can manage the skill videos.

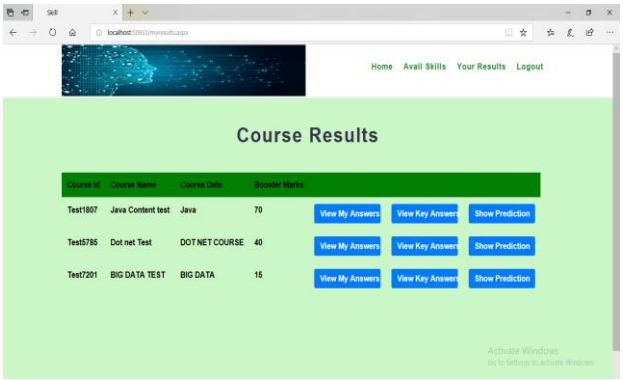

fig 5: course wise result

in above figure it gives the data's of course wise result for the system. And also it gives the alert to the user when the click to view prediction so that user can view their level of skill.

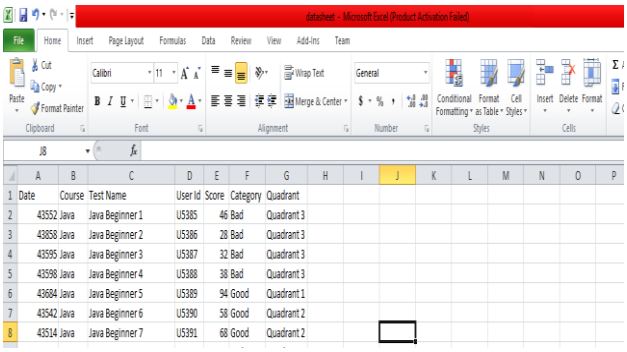

fig 6: training datasets

In above figure it shows the training datasets to upload from admin side so that system can do the comparison users points and training dataset and gives the result to the users.

V. CONCLUSION

Skill is a process or methodology used to achieve desired results, and all the knowledge and methods necessary to be consistently successful. Researchers lack robust consensus on phrase definitions including "competence", "ability" and "comprehension" in control, entrepreneurship, and strategic communications. The most distinguished discrepancy is the discussion surrounding what, if any, the difference is between an ability and a competency, but the difference between what is supposed to be "skill" and "competency" is shrinking in today's economy, one that needs flexibility from its people. When knowledge of whether a chosen interest or occupation requires technological understanding, talent is considered more complex and includes a wide variety of elegant and personal attitudes and capabilities.

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