

Training Management and Performance Evaluation System

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Abstract— With the advance of computing and technology, manual systems are getting replaced. The purpose of the system is to automate the existing manual system with the help of a web application so that valuable data can be stored for a longer period and can be accessed and manipulated easily. This system can lead to a fast management system, reliable, secure, and error-free. The organization can maintain computerized training, performance and personal records of employees without redundant entries. It can also handle session registration, instructor-led training administration, tracking, and reporting. The system generates a monthly calendar of the training schedule that is which training has been planned on which date and when it has been executed. On the basis of which a notification is sent to the employee about the training. After the execution of the training, the employee receives a feedback form on his feedback about the training and his future actions. The performance of the employee is evaluated by his/her reporting manager in the feedback form itself on the basis of which a graph is generated. The system also calculates the total duration of training taken and generates a monthly graph on the basis of the man-days.

Keywords: MS SQL Server, Java Mail, Training, Graphs, Feedback, Application

I. INTRODUCTION

In simple terms, training and development refer to the imparting of specific skills, abilities, and knowledge to an employee. A formal definition of training and development is an attempt to improve current or future employee performance by increasing an employee's ability to perform through learning, usually by increasing his or her skills and knowledge. The need for training and development is determined by the employee's performance deficiency, computed as follows:

Training need = Standard performance – Actual performance.

We can make a distinction between training, education, and development. Such distinction enables us to acquire a better perspective on the meaning of the terms. Training, as was stated earlier, refers to the process of imparting specific skills. Education, on the other hand, is theoretical based and limited to the classroom.

Development refers to the opportunities given to the employees to learn new things. Education is theoretical learning in the classroom. Through training and education differ in nature and orientation, they are complementary. An employee, for example, who undergoes training is assumed to have had some formal education. Furthermore, a training programme is complete with an element of education. In fact, the difference between training and education is getting increasingly blurred nowadays. As more and more employees are called upon to exercise judgments and to choose alternative solutions to job problems, training programmes seek to broaden and develop the individual through

education. For instance, employees in well-paid jobs and/or employees in the service industry may be required to make an independent decision regarding their work and their relationship with clients. Hence, the organization must consider elements of both education and training while planning their training programmes. Development refers to those learning opportunities designed to help employee's growth. Development is not primarily skill-oriented. Instead, it provides general knowledge and attitudes which will be helpful to employees in a distinguished position.

II. PROBLEM STATEMENT

To evaluate the performance of employees through automatic training management and schedule an appropriate calendar from internal and external needs. It will automatically send mail notification before and after training is done and generate graphs based on analysis of feedback of employee, annual, monthly reports and even on particular duration, we check the progress of the employees.

III. LITERATURE REVIEW

This system develops a rule-based debriefing tool for improving the efficacy of medical training sessions. Unlike most existing de-briefing tools, the tool presented here has been designed to reduce medical trainer assessment time and to improve evaluation accuracy through a largely automated evaluation of trainee performance. The knowledge-based performance evaluation system consists of five modules: action definition, workflow definition, detection of a rule violation, inter-session comparison, and report generation. A rules engine drives the reasoning process once expert knowledge is extracted and encoded. The main purpose of the system is to automate the performance evaluation for the after-action review (AAR) process. In particular, the focus is on representation, reasoning, and detection of temporal patterns. The system is piloted and tested for a cardiopulmonary resuscitation (CPR) process [1].

The simulation-based training (SBT) model is used to develop project management competencies for industrial employees. Microsoft Project was used as simulation media to support training. SBT create a realistic experience in a controlled environment, where one of SBT media or software often used in project management training is Microsoft Project. Microsoft Project is very thorough and well designed for training on project management field. It often used in training because it is prohibitively expensive or simply too risky to allow trainees to learn in the real world. It also allows trainees to explore, make mistakes and learn a valuable lesson in a virtual environment [2].

The high technical education systems subjects interaction for engineers individual training educational trajectories organization are estimated. The profile training joint management and interactions stabilization methods are

proposed. The educational process block modular system, which implements the proposed principles and methods, is expressed. The HTE system subjects' goals, objectives diversification, and structuring proposed mechanisms and the developed methods of the highly qualified technicians training process organization, stabilization, and adaptive co-management are allows all interests agreement providing. The HTE system subjects' joint, integrated working stages segregation is allowed their interactions structuring, and individual control actions types selecting [3].

The training teaching management informatization takes the surveying and mapping profession as the study object and designs a training teaching information management system by using Web Service technology. The system is constructed by three function modules, which are training room manager module, teacher module, and system manager module. Each function module corresponds to its own user type and can be operated by the user after login on the system through the platform. Taking the mapping training teaching informatization of the surveying and mapping profession as an example, the system proposes the construction scheme of the training teaching management system and constructs a "Mapping Training Teaching Management Information System" [4].

The hospital knowledge management performance evaluation system is trained by using the improved back propagation algorithm and revise the neural network weight step by step, it makes the weight in fuzzy evaluation accord with the fact well, which can get better effect. The principles of knowledge management fuzzy comprehensive evaluation based on the neural network as follow: the input of the network is the hospital knowledge management evaluation indexes, the output of the network is the comprehensive evaluation vector; train the network using enough samples, modify the network connection weights vector constantly. Finish the network training and get the corresponding output values when the error meets the requirement. A trained neural network is an effective tool, and it can evaluate the corresponding object for other samples. The neural networks simulate the experts evaluate the hospital knowledge management, and at the same time it can avoid human errors also, has strong fault tolerance capability [5].

The system adopts a sales resource management (SRM) framework to provide guidance on how to develop effective salespeople via sales training. SRM can be used to identify the individual training needs based on the individual-based modelling data. The individual-based modelling data can also be used to evaluate the outcome of sales training. SRM is a novel data-driven approach to field sales management that seeks to optimize the sales process and drive productivity improvement through providing visibility into sales force behaviour and performance to both salespeople and decision-makers, by using validated real-time performance and activity measurement [6].

The database system mainly manages the evaluation information of talents trained by the government. There are two key features: management of government S & T programs and evaluation of training talents by programs. Therefore, this system consists of two modules. The database system of performance evaluation of training talents by government S & T program practically achieves systematically, scientific

and automatic evaluations. Its centralized management of information makes the data easier to be queried, modified, added, deleted and evaluated. Combined with the finished programs of Jiangsu Province, this system shows us a friendly interface and accurate evaluation scores. It is quite suitable for government to mastering the effects of training talents by programs [7].

Sports team training management information system basing on the B/S and C/S structure management was exploited by using the theory and methods of system engineering and the database technology. The digital construction in training and management is carried on. Integrating between network, computer, and intelligent body, the information management platform system for the team is developed. It can solve the problems in the training diary, training plan, physiological and movement technical test, online statistics comments and grading and the problems concerning the management of the team. The basic information managing system includes athletes and coaches information system, athletes managing information system, office information system, coach training system. The scientific research information system includes a training device information system, body function monitor and injury prevention, and cure system, tactics simulation system, psychology consultation system [8].

IV. PROPOSED SYSTEM OVERVIEW

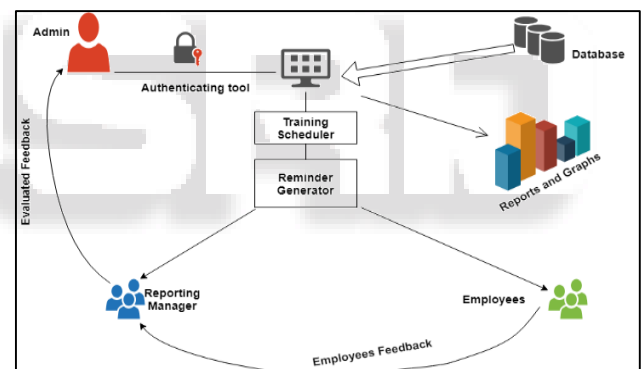


Fig. 1: Proposed System Overview

The proposed system allows authenticated users of the company to log in. The only user having admin access can arrange a training program

The system stores the internal and external training details. It receives nominations for programs via reporting manager. Admin schedules training program in the calendar.

An employee receives notification for program schedule. Feedback form filled by Employee is evaluated by the reporting manager.

Admin receives all kind of feedbacks and monthly, annual reports and graphs.

A. Features

This project presents the following type of notification:

- Notification for a program planned.
- Notification of program before 1 week.
- Notification for a Feedback form.
- Evaluation notification for reporting manager.
- The system provides a realizable and efficient.
- The application is easier to use all the employees.

- The application is the normal budget.
- User needs a computer using an active internet connection.

B. System Modules

This project contains the following three modules:

1) Admin Module:

- Admin can view own profile.
- He/she can view details of all employees.
- Can view training details of all employees.
- Can send the notification for external training to Reporting Managers.
- Can schedule training (Internal and External) in a calendar.
- Have access to view and download the filled feedback forms of all employees.
- Can view and download monthly reports of training.

2) Employee Module:

- Can view own profile.
- Can fill unlock feedback forms.
- Can view own training details.

3) Reporting Manager Module:

- Can view own profile.
- Can fill unlock feedback forms.
- Can view own training details.
- Have access to view the status of training programs of subordinating employees.
- Have access to add a remark on the feedback of subordinating employees.

C. Java Mail

- The Java Mail is an API that is used to compose, write and read electronic messages (emails).
- The Java Mail API provides a protocol-independent and platform-independent framework for sending and receiving emails.
- The javax.mail and javax.mail.activation packages contain the core classes of the Java Mail API.
- The Java Mail facility can be implemented in many events. It can be used at the time of registering the user, forgot the password, sending notifications for important updates, etc. So, there can be different usage of java mail API.

V. ADVANTAGES

The application allows authenticated users of the company to log in. It allows efficient storage of employee training details. The quarter-wise training calendar is generated on the bases of training details. Automatically notification will be sent to the employees for training scheduled. Further, the Employee is notified to fill the Feedback form. The system allows evaluating the performance of the employee through feedback. As per rating in feedback forms, graphs get generated as well as monthly, annual reports and graphs are also generated. All Reports can be exported.

VI. APPLICATION

The system can be used by the company for managing the training scheduled of the employees. The system will also

evaluate their performance via feedback. These services can also be availed by the hospital, the educational institution when required.

VII. CONCLUSION

The system successfully schedules training calendar and sends notification to the employee for the same. All the details are systematically stored in a server-based database. It evaluates and analyses performance of the employee. The system also successfully generates monthly reports and graphs.

In the future the major enhancement will be the automatic performance evaluation of the employee based on his current training as well as suggest trainings for the employee in future.

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