Automated Employee Performance Appraisal System

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Abstract: **The project is an collaboration with Ace Creative Learning, an education solutions company, offering training and guidance to students preparing for various engineering and medical entrance examinations through distinct teaching environments: Deeksha Network and Deeksha Academy.The project is focused towards building a performance analysis model and system for the various deans of the institutions under the Deeksha Network. The proposed analysis model is based on certain Key Result Areas (KRAs) specified by Ace Creative Learning, results of which will be displayed on the an application developed by us. The entire system (analysis model and result application) will be implemented on the Ace Creative Leaning internal network.**

Keywords: Automation, graph-evaluation, automated, security, dynamic

INTRODUCTION

The project aims at providing in-depth and on the go reports of the employees of Ace Creative Learning. The project provides a graphical overview of an employee's performance and growth through his/her time in the company also showing a comparison of his/her performance with peers. A module to analyze performance trends has been included as well.The objective of our project was not only to solve the problems that arise from the current system in place at Ace Creative Learning, but to also create a system that is efficient, modular, and robust. Our proposed system will provide a comprehensive view of the performance of the various employees of the company.

Snapshot of the dashboard

Figure 1

MODULES SECURITY AND ACCESS

Security is a bare necessity in any tool, and therefore our tool has moderate level security to protect from unauthorized access. The tool at startup displays a login page where the user id, password and also the type of employee has to be chosen using the drop down menu. Once the input has been entered, the credentials are checked and verified.

AUTOMATED GRAPH GENERATION

The tool accesses the data and ratings that has been entered by the different dean's/employee's, after which based on the pre defined Key Result Areas (KRA's) which have been specified, The performance and rating is calculated of each employee and a graph is generated. The graphs can be chosen using the tab interface, the advantage of the tab interface is that additional tabs can be added when needed making the tool scalable.

Types of Graphs integrated in the tool:

TYPE 1

The graph produced shows of course a line segment representing the performance of an employee, another line segment representing the average rating of all the dean's/employee's, and finally the third line segment represents the highest rating among all the dean's/employee's.

TYPE 2

The second type of graph that is projected is based on any one KRA chosen, This KRA can be chosen by the user using the drag down menu of the list of KRA that is used for evaluation, the graph then produced is similar to the type 1 graph but, the difference being it is isolates 1 KRA as a parameter.

AUTOMATED REPORT GENERATION

No performance analysis tool would be complete without a report of the calculated data.
The tool is equipped with a mechanism to convert the data that is calculated, such as the rating of the dean/employee and the various graphs produced and so on, to be automatically converted into a PDF file.
We achieve this automation by integrating the iText plug-in for C# onto our software.

INTERACTIVE DASHBOARD

The Dashboard can be considered the most important aspect from the viewpoint of the managers and the employee's.

As shown in figure 1, The dashboard consists of the following components:

- User –bio :On the left edge of the dashboard the details of the current employee is displayed with the user's image and basic information.

- Evaluation: The rating or score of the dean/employee is shown in a scale of 1-5,the rating is color coded where a score of 0-1 is represented by the color red signifying a low rating, the score 2-3 is represented by the color orange signifying an satisfactory rating and a score of 3-4 is coded as light green signifying above average rating and finally a score of 5 is the highest score represented by the color light blue. The 3 KRA's that have the highest rating and the 3 KRA's that have the least rating for a given employee/dean is shown next to the overall score of the dean/employee.

- Graph-evaluation: A simple and powerful feature of the dashboard is the dynamic graph's that are created on the basis of the ratings given by the manager's and peers .The user has the option to choose from two distinct types of graphs produced by the different algorithm's used by the Tool.

- Report-generation: A PDF report of all the calculated information and relevant information of a given dean/employee can be created with a click of a "Generate Report" button in the dashboard.

DYNAMIC UPDATION OF THE DATABASE
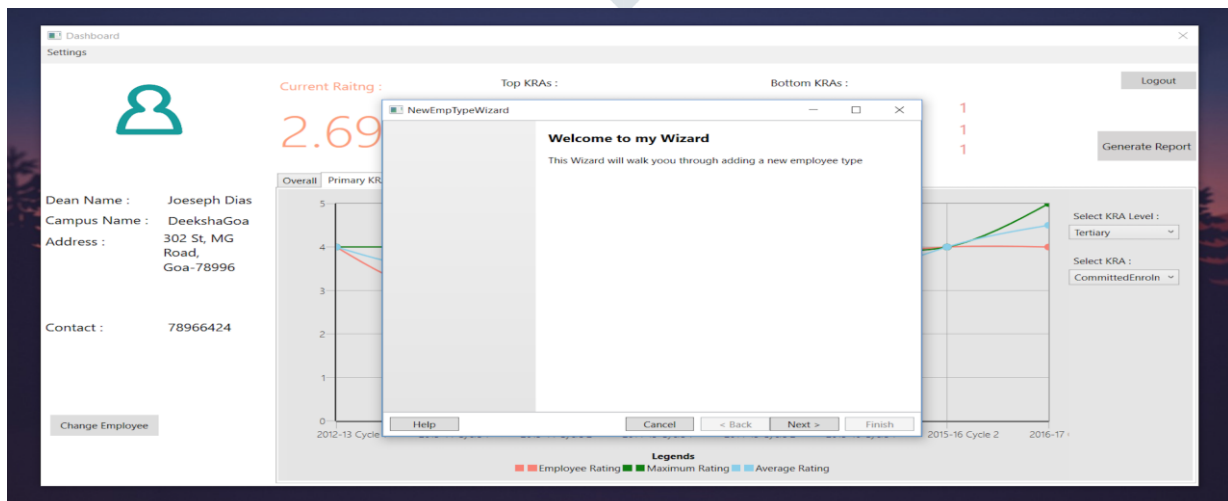
Snapshot of The wizard

Figure 2

Keeping in mind the fact that the company using our tool is only going to continue expanding and growing, the tool is built to be scalable and dynamic.

Creating new employee type: If a new employee type may be created by the company and is in need to be rated and reviewed, for such cases the tool has a built in wizard(as shown in Figure 2).

The wizard takes you through the following steps:
1. The User must key in the required name of the new employee type.
2. Then the Name and the range of the possible values of the primary KRA must be specified, any number of such primary KRA's can be created.
3. Similarly the procedure of step 2 can be repeated in the case of creating secondary and tertiary KRA's.
4. At the completion of the above steps the new employee type is created in the database with the new KRA's.

RESULT

The project provides the manager's at Ace Creative Learning Pvt. Ltd with a   sophisticated and simple tool which gives a comprehensive view of their employee's performance through out their time with the company, it highlight's the strength's and also where their performance is not satisfactory. The tool gives the employee's a platform to know where they stand and what may be improved for the continuous growth of the employee's in a positive direction. The tool also allows the managers to take better decisions.

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