

Innovation Management Software: A Platform to Innovate More Effectively

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Abstract—Far too many ideas die in lost notes and cleaned up whiteboards. This paper explains how we can capture every “eureka moment” just the way it hits us, and take it through to execution. The paper proposes to create a desktop client (called, Innovation Management Software-IMS) that allows a user to register his/her ideas along with attaching images or URL to explain the idea just by clicking on an icon in the system tray. The system will have a provision of user profile creation and idea details submission form. The users can view their own ideas and also the repository of the ideas submitted. The industry concept of collaborative idea management will be implemented in the system by suggesting similar or complementary ideas to the user via notifications. This is achieved by matching of keywords from the user's idea with those from ideas of other people. Upon successful matching owner details are displayed to the user and emails are sent to both the parties to foster collaboration amongst them. As a future enhancement, the IMS aims to integrate with systems that can track the realization of an idea into a product after expert evaluation. Hence, the IMS aims to ensure that the "right ideas" actually end up meeting an organization's relevant innovation needs.

Keywords—idea management, notification, idea registration, collaboration corner, keyword matching.

I. INTRODUCTION

The main idea is to preserve and manage innovative ideas. The system will provide a repository to store innovative ideas and also act as a platform to mould them into a product by encouraging collaboration with other people. The motivation behind this work is to unleash the potential of employees by providing them a platform to both express and store an new idea and suggest them similar ideas with their respective domains to combine ideas to form a better one.

The paper talks of creating a desktop client application for the Innovation management software for managing the innovation life-cycle. The system will require client and server development and deployment to handle multiple users simultaneously. The system will require user management for different roles and access permissions and work-flow management with alerts.

The system must provide for a user profile creation, allowing the user to register and login to submit his ideas. The user should be able to attach files to explain his idea, view all the ideas, search for ideas belonging to particular domain. The system must then suggest similar ideas to the user and also provide the owner details to foster collaboration and develop

better ideas.

Provisions for collaboration can also be made. The major goals that the authors wish to achieve are the following:

- To promote innovation
- To ensure that no good ideas will sit on the shelves collecting dust
- To provide a platform for users to preserve and improvise their ideas
- To provide browsing of ideas submitted across the organization
- To notify user of similar idea registered in the system
- To facilitate collaboration among employees having similar ideas by providing idea and owner details

An outline of the scope of this paper divides the system into following two major parts:

Capturing Idea inception and Collaborative idea management(an approach that companies use to drive continuous innovation by harnessing the creativity of their employees).

The basic components of CIM are:

- Support for users to submit new ideas .
- Empowering employees to work collaboratively to define better solutions for a given problem.
- Managing and communicating the progression of the ideas through the full cycle of the idea journey up to implementation.

The outcome of our work will be a system that is a repository of ideas promising innovation. The system provides both aggregate and filtered view of all the ideas submitted. And also results in a number of ideas that are developed due to collaboration of complementary ideas.

II. DESIGN OF SYSTEM MODULES AND SYSTEM FEATURES

The user interface for the innovation management software will be a desktop client application. This application will appear as a system tray icon in the task bar on desktop. The interface provides user with facilities like profile creation and idea submission by providing the application windows, including the main window, child windows, dialog boxes, and message-boxes. Navigation between screens has been

provided by means of next and previous buttons. Custom controls for different functionality is provided. Support for user input through the keyboard and mouse is provided. Animation can be added to UI elements, and various visual effects in the UI can be implemented. The application has a back end server and database connectivity. Relevant information from the same upon request is reflected on the software interface.

The basic modules that will be required to work upon to create the system include the following-

System Modules

Module 1: Creation of User Interface for registration

- 1.1 Sign-up form with captcha
- 1.2 Validity of parameters
- 1.3 Login form
- 1.4 Password retrieval

Module 2: Creation of User Profile

- 2.1 Update profile
- 2.2 Change Password
- 2.3 Log-out

Module 3: Idea registration

- 3.1 Display all ideas with hot-count
- 3.2 Display my ideas
- 3.3 Have an idea
- 3.4 Notification

Module 4: Collaboration corner

- 4.1 Accepting keywords
- 4.2 Matching keywords
- 4.3 Sending suggestions

The design of the proposed system requires the creation of two main parts- Idea Registration and a Collaboration Corner.

The Idea registration provides for user profile creation and an idea submission form whereas the collaboration corner is involved in the matching of ideas and notification of the same to the user.

III. IMPLEMENTATION AND TECHNOLOGIES USED

Hardware Resources

- System
- CPU speed 2 GHz
- Hard disk 100 GB
- Ram 2 GB
- Monitor 14' color monitor

Software Resources

- Operating system : Windows 7 / Windows 8
- IDE :Eclipse & MySQL Query Browser

- Database : MySQL
- Programming Language : JAVA
- Other technologies : Swing and Hibernate Connection framework.

Swing is a GUI Widget toolkit for java. It is a set of extensible GUI Components to create JAVA based Front End or GUI Applications .Swing is a part of Oracle's Java Foundation Classes (JFC) .

Hibernate is an Object-Relational Mapping(ORM) solution for JAVA .It is used for mapping Java classes to database tables. Hibernate is known for using XML files directly and without writing any line of code.

To elaborate the implementation aspect of the system following screenshots of the User Interface have been provided:

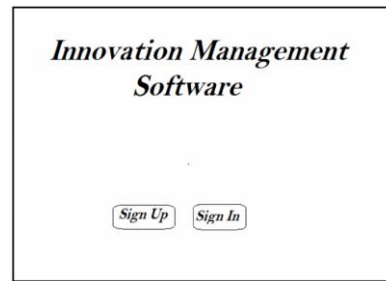


Fig.1. User Interface

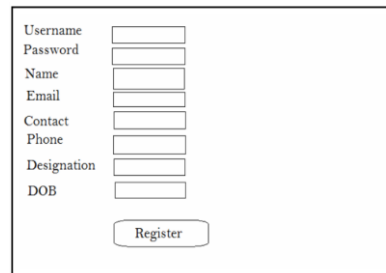


Fig.2. User Registration

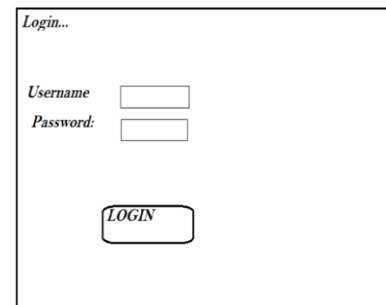


Fig. 3. Login Page

Fig. 4. Dashboard

Fig. 5. Idea Submission

Sr. No.	Title	View
1	<input type="text"/>	<input type="button" value="View"/>
2	<input type="text"/>	<input type="button" value="View"/>
3	<input type="text"/>	<input type="button" value="View"/>
4	<input type="text"/>	<input type="button" value="View"/>

Fig. 6. Viewing of Ideas

IV. CONCLUSION

The system will be liable to the following constraints on the software front: Firstly, low speed internet connectivity will not allow the system to function efficiently because it would delay creation of user profile, submitting of idea into the database, retrieval of ideas when searched via keywords, matching of keywords and also notification to the concerned user will be delayed. Second, plagiarism will defeat the purpose of

innovation. The ideas submitted must be original and authentic. Any mechanism for checking the above is currently not a part of the scope.

Third, currently method of checking if two ideas are exactly or almost same has not been provided. Hence, instead of suggesting a similar/complementary idea to accelerate innovation the system will suggest an idea which will be same as the idea that it was compared to. Fourth, if keywords provided by user are not suffice, no matching will take place. If keywords are extracted using an algorithm, its performance parameters and time complexity becomes a major constraint.

The paper elaborates the process of development of a desktop client provided with an icon in the system tray. As soon as the user clicks on the icon, he is directed to a user registration page if not registered, otherwise to his user profile where he submits his ideas, view his / others ideas and look out for collaboration to improvise his idea. Thus the paper enlisted the creation of a user-interface, server connectivity to employer's database, storing and retrieving data and sending notifications for successful idea management which finds varied applications in industry to ensure successful idea management and its use in developing new products by collaborating similar ideas. This system also finds an interesting use in the competitions organized by companies where user submit innovative ideas and along-with evaluating them based on the standard criteria, collaboration advice for similar set of ideas is given.

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