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Online Authoring Tool for Knowledge Management System

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Abstract: In this paper we present an overview of Knowledge Management System. We also give a brief overview of online authoring tool also known as authorware and how it plays an important role in Knowledge Management System. Knowledge management (KM) comprises a range of strategies and practices used in an organization to identify, create, represent, distribute, and enable adoption of insights and experiences. Many large companies and non-profit organizations have resources dedicated to internal KM efforts, often as a part of their business strategy, information technology or human resource management departments. Due to the increased need of online documentation in knowledge management system, the need of online authoring tool has grown significantly in recent years. In this paper, we are identifying the drawbacks of existing authorware and providing solution for it. The main focus is given on the drawbacks of Yahoo editor which is currently the most famous open source authoring tool. After examining the Yahoo editor we found some major drawbacks, among them easy integration, simplicity, user-friendliness and ease of use could be mentioned.

I. INTRODUCTION

IT service management (ITSM) refers to the implementation and management of quality information technology services. IT service management is performed by IT service providers through people, process and information technology. ITSM is process-focused and has ties and common interests with process improvement frameworks and methodologies. The discipline is not concerned with the details of how to use a particular vendor's product, or necessarily with the technical details of the systems under management. Instead, it focuses upon providing a framework to structure IT-related activities and the interactions of IT technical personnel with business customers and users. IT service management in the broader sense overlaps with the disciplines of business service management and IT portfolio management, especially in the area of IT planning and financial control. ITSM is generally concerned with the "back office" or operational concerns of information technology management (sometimes known as operations architecture), and not with technology development. In this respect, ITSM may be seen as analogous to an enterprise resource planning (ERP) discipline for IT [7][8].

The idea of a KM system is to enable employees to have ready access to the organization's documented base of facts, sources of information, and solutions. A KMS offers integrated services to deploy KM instruments for networks of participants, i.e. active knowledge workers, in knowledge-intensive business processes along the entire knowledge life cycle. KMS can be used for a wide range of cooperative, collaborative, adhocracy and hierarchy communities, virtual organizations, societies and other virtual networks, to manage media contents; activities, interactions and work-flows purposes; projects; works, networks, departments, privileges, roles, participants and other active users in order to extract and generate new knowledge and to enhance, leverage and transfer in new outcomes of knowledge providing new services using new formats and interfaces and

different communication channels. The term KMS can be associated to Open Source Software, and Open Standards, Open Protocols and Open Knowledge licenses, initiatives and policies [2].

II. SIGNIFICANCE

Knowledge management application is used in every IT company. This system is used as the foundation for a wide range of departmental and enterprise-wide solutions. For example, if a person X needs help with the configuration of his/her printer, traditionally he/she will contact the help desk to solve his/her issue. The help desk will then either send a technician to solve this issue or will suggest some guidelines/steps in order to solve this problem. Imagine if thousands of employees call the help desk for such small issues, the technical people would always have to go personally and solve the problems. This will be is very time consuming n tiresome. This also gives less productivity for the company. The knowledge management application will contain knowledge management artifacts .These artifacts will have the solutions to the common problems that an enterprise faces during its operations. The knowledge management artifacts will be written by people from the service desk. They will write solutions to the problems that can be solved by the user himself by referring to the knowledge artifacts [3].

The knowledge management articles have two views. One of them is t he content view and the other one is the design view. The content view allows the end user to view the content from the knowledge management artifacts. This content contains the solutions to his/her problems. The design view allows the service desk people to create new artifacts and modify existing artifacts. The online authoring tool plays a very important role in the creation of knowledge management artifacts. The online authoring tool allows the user to create artifacts with various formatting options that makes the document easy to read and understand important statements from the knowledge management artifacts .The yahoo editor has drawbacks such as easy integration, simplicity, user-friendliness and ease of use which we have overcome in our online authoring tool [5][6].

III. RELATED WORK

YUI Rich Text Editor

Yui rich text editor is a project developed by Yahoo! As a part of the YUI library for an online rich-text editor that replaces a standard html textarea. It allows for drag and drop inclusion and sizing of images, text coloring, realignment, fonts, italic and bold text. The YUI rich text editor uses a plug in architecture and it is skinnable along with the rest of the YUI. The YUI rich text editor (rte), contains the following components: editor, SimpleEditor, ToolbarButton, and ToolbarButtonAdvanced. Some differences in the SimpleEditor and the editor control are that the SimpleEditor uses JavaScript prompts and select elements rather than YUI defined elements. This component was designed and implemented by the Yahoo! Developer **Dav Glass** in order to add a rich text editor component to the YUI [2].

The rich text editor is a UI control that replaces a standard html textarea, it allows for the rich formatting of text content, including common structural treatments like lists, formatting treatments like bold and italic text, and drag-and-drop inclusion and sizing of images. The rich text editor's toolbar is extensible via plugin architecture so that advanced implementations can achieve a high degree of customization.

In order to give you the greatest possible control over the size and performance of the rich text editor codebase, we provide two versions of the editor module and two versions of the buttons that live on the toolbar:

1. Editor: editor contains all features described on this page.
2. SimpleEditor: SimpleEditor contains a subset of editor's features.
3. ToolbarButtonAdvanced: the advanced toolbar buttons are based on yui buttons; they are more richly featured at the cost of more dependencies.

4. ToolbarButton: the simpler toolbar buttons have fewer dependencies and so are lighter on the page; they do not support progressive enhancement nor menu-button functionality.

Drawbacks

Editor will currently not function inside of the winjs windows 8 application environment. Editor relies on several dom tricks under the hood to deal with the browser's inconsistencies. Due to the security limitations inside of the winjs environment, editor cannot use these techniques and will not function as expected.

IV. PROPOSED SYSTEM

Normally authoring a single help article can require a separate screen capture application. So this makes the creation and modification of articles tiresome. When a user clicks on the text area for entering the details, the authoring tool will appear automatically. As the tool appears automatically, it will be displayed only when required. Also the need to go on separate screen for editing is eliminated.

The text will be rendered either in a div or in an iframe. The authoring tool will provide the user with the following features: bold, italic, underline, cut, copy, paste, left alignment, right alignment, center alignment, justify, changing the foreground and background color, adjusting the font size and font name, deleting the text, undo, redo, hyperlink, paragraph options and many such options. We have provided two views to the user. Each view has its significance. The content view allows the end user to view the content from the knowledge management artifacts. The content view is read only. This content contains the solutions to his/her problems. The design view allows the service desk people to create new artifacts and modify existing artifacts. The design view is read and writes.

Online authoring tool will provide integration with a web-based system so that one can create content and post it directly to forms, topics, or posts. Authorware includes both a web editor as well as a desktop authoring tool. A powerful desktop authoring tool that includes screen capture, image editing and annotations. A collaborative web backend that automatically stores revisions of your articles helps you manage your workflow and publishes your content exactly where you customers need it. All of your content is stored with a web backend.

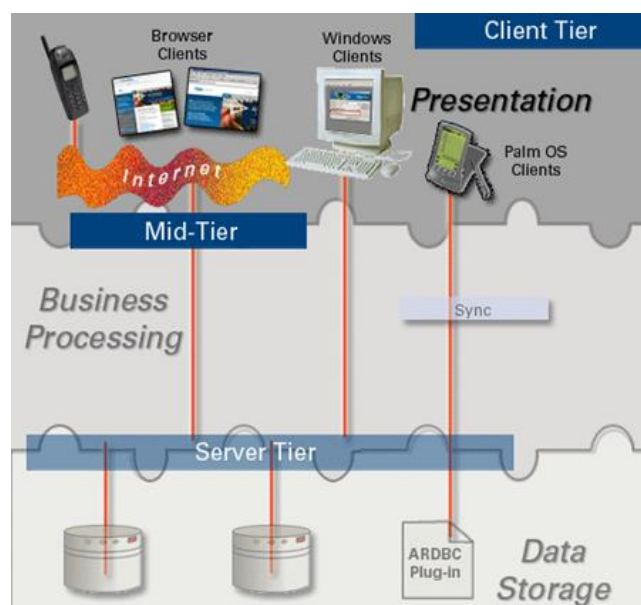


Figure 1: Components of KMS

There are four main components in the knowledge management system as shown in Figure 1. They are:

1. User tier: Client tools are used to run, manage and build applications.
2. Mid-tier: The mid-tier and add-in-services let you access the system from web browsers and wireless clients.

3. Server tier: The server contains the applications and software for creating new applications.
4. Data tier: The database server holds data that applications create and manipulate.

The user who is accessing a particular form will access it from database. The user request goes to the midtier which is then given to the server. The server identifies the user credentials and the requested form and gives this form to the midtier so that user can access and perform modifications as required. Authorware is integrated on the midtier of the system.

V. CONCLUSION

The successful implementation of the online authoring tool will lead to enhancement of knowledge management system. It will help to write better knowledge articles for the knowledge base. The problems will be solved by the user himself or herself. This will save time and increase the productivity. Also, the creation and modification of the articles can be done with much ease than earlier. It will be easy to integrate as compared to the yahoo editor. Thus some major drawbacks such as easy integration, simplicity, user-friendliness and ease of use will be overcome successfully.

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