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Web Content Flexibility through Mobile App

Sana Pathan[1], Rajeshri Khairnar[2], Monika Kanade[3], Sanyuja Karwal[4]
[1](P.V.G.'s COE, Nasik, Department of Computer Science, Pune University)
[2](P.V.G.'s COE, Nasik, Department of Computer Science, Pune University)
[3](P.V.G.'s COE, Nasik, Department of Computer Science, Pune University)
[4](P.V.G.'s COE, Nasik, Department of Computer Science, Pune University)

ABSTRACT
E-commerce is very efficient & effective, but it needs programming knowledge to manage.many small organizations do not have human resource for this task and cannot support cost for hiring programmers or tech-support.thus, many applications providers create CMS apps to enable the e-commerce website to be created and with friendly UI. By developing iOS app WCFMA, it can handle this dynamic nature of content manipulation. WCFMA is specifically designed to enable non-technical users,to modify the existing contents as and when required in an intuitive and real-time fashion.and instead of downloading or capturing product images to be displayed on websites from separate camera devices,take it from the mobile device(iphone) itself and edit the image like never before in the app and once done upload it on the web server. The website will fetch this updated images and display i tat an appropriate location.it will efficiently serve to dynamically manage websites of buisness whitch needs to change their web content at regular intervals where the owner or staff of the organization can handle their website from their iphone app.

Keywords **-** App(Mobile Application),ios(Apple's operating system),CMS(Content Management System), UI(User Interface),WCMS(Web Content Management System), WCFMA(Web Content Flexibility through mobileapp)…

I. Introduction

E-commerce is very efficient and effective, but it needs programming knowledge to manage. Many small organizations do not have human resource for this task and cannot support cost for hiring programmers or tech-support. Thus, many application providers create content management system applications to enable the e-commerce website to be created and managed through friendly UI. Therefore, WCFMA will solve this by developing iOS app which can handle this dynamic nature of content management. Web Content Management System (WCMS) is a significant aspect of E-commerce enterprises, which can improve the effectiveness of management, and maintenance in Web applications. It aims to solve content management and publication, website resources issue. The project will help to create a powerful, user-friendly App for managing, maintaining and publishing a database comprising updated information in the form of text and graphical images. The proposed system is specifically designed to enable non-technical users with no knowledge of computer programming, graphic imaging tools, or markup languages such as HTML to add fresh content to a website or to modify the existing contents as and when required in an intuitive and real-time manner. As a result, a technically competent Website management team is not required, and thus the cost and flexibility of the Website management process is significantly improved.

A system which is simple to use for non technical staff and which has a clear user interface and which is just plain fast. Instead of downloading or capturing product Images to be displayed in websites from separate camera devices, it can be taken from the mobile device (iPhone) itself and edit the image like never before in the phone app and once done upload it to web server will ease like accessing the website itself. The website will fetch these updated images and display it at appropriate location. It will efficiently serve to dynamically manage websites of business which needs to change their data content at regular intervals where the owner or staff of the organization can handle their website from their phone App. This content management system is a foundational website application platform for website management and information distribution and is an auxiliary tool system for dynamic content management having powerful image processing tool embedded in it. It enables the user to quickly maintain and manage the high performance dynamic website.

II. Design and Implementation Constraints

The primary design constraint is the mobile technology. Since the application is designated for ipads/iphone, limited screen size and resolution will

be a major design consideration. Creating a user friendly interface which is both effective and easily manageable will pose difficult challenges. Other constraints such as limited memory and processing power are also worth considering. The system is meant to be quick and responsive, even when dealing with large volume of data, so each feature must be designed and implemented with efficiency in mind.

III. Software requirements:

- iOS (version 6.1.3), Xcode 4.6
- The website should be running on a computer workstation or server class PC or a high-performance laptop PC with minimum of following configuration.
- There should be an easy access to the internet from the Monitoring station machine that the website is running on.
- Content management Application device should be a portable one and should be battery powered & rechargeable. (i.e. iphone)

IV. Hardware requirements

- iPhone
- system requirements:

Name	Minimum Requirements
System	Pentium IV or newest
Hard Disk	40 GB
Monitor	15 VGA Color
RAM	512 Mb

V. System Design

5.1 Basic structure of system

The app will efficiently serve to dynamically manage websites of business which needs to change their data content at regular intervals where the owner or staff of the organization can handle their website from their phone App.

Fig 1. shows the basic structure of proposed system.

Here instead of using computer system we will use the phone app. When the user wants to change the contents of website he will use the WCFMA to manipulate the contents through his iphone It includes iphone app ie.WCFMA, web server, web site etc. When user wants to change the contents of web site then he/she gathers the data or contents of website and then by sending SOAP request through webservice to webserver change the contents of website instantly, every time the SOAP request is needed to change the contents of website. After getting contents the app will provide different content editing tools and effects such as carousal ,rotational, linear effects and so on. After applying different effects the contents will be uploaded on website in few minutes and user can see the current updates on website.

5.2 GPU image filters

The GPUImage framework is a BSD-licensed iOS library that lets you apply GPU-accelerated filters and other effects to images, live camera video, and movies. In comparison to Core Image (part of iOS 5.0), GPUImage allows you to write your own custom filters, supports deployment to iOS 4.0, and has a simpler interface. However, it currently lacks some of the more advanced features of Core Image, such as facial detection.

For massively parallel operations like processing images or live video frames, GPUs have some significant performance advantages over CPUs. On an iPhone 4, a simple image filter can be over 100 times faster to perform on the GPU than an equivalent CPU-based filter.

5. 3 Web Service:

web service is, "a software system designed to support interoperable machine-to-machine interaction over a network". Web service is an interface for your software. We may have web user interface or a thick client (desktop) user interface for our software. Imagine web service as another similar interface. This interface is not for humans but for softwares. Web/thick client directly serves end user as an interface to interact with the software. Web service serves as an interface to software developers. Using web service as an API,developers can build external systems that will interact with the software.

5.4 Soap Web Service:

SOAP, originally defined as Simple Object Access Protocol, is a protocol specification for exchanging structured information in the implementation of Web Services in computer networks. It relies on XML Information Set for its message format, and usually relies on other Application Layer protocols, most notably Hypertext Transfer Protocol (HTTP) or Simple Mail Transfer Protocol (SMTP), for message negotiation and transmission. Simple Object Access Protocol (SOAP) is a standard protocol specification for message exchange based on XML. Communication between the web service and client happens using XMLmessages. SOAP defines the rules for communication like what are all the tags that should be used in XML and their meaning.

This project system will provide you with the end-user tools required to update content of your own websites through a user-friendly App (iphone App) which is simple, clear and has good graphical

interface. The proposed system is specifically to enable non-technical users to manage contents. As a result, a technically competent website management team is not required, and thus the cost of the website management process is significantly reduced and flexibility improved. Large-scale changes can be made to the site much easier. Instead of downloading or capturing product images to be displayed in websites from separate camera devices, it can be taken from the mobile device (iPhone) itself and edit the image Ideal for the organizations such as news papers, which require instant updates onto their websites.

This is the proposed system. Here instead of using a comp system we will use the app. when The admin or the owner wants to change the contents of website…he will use the cms to manipulate the contents through his iphone. Since the device is portable we can do the manipulation anywhere anytime within few minutes.

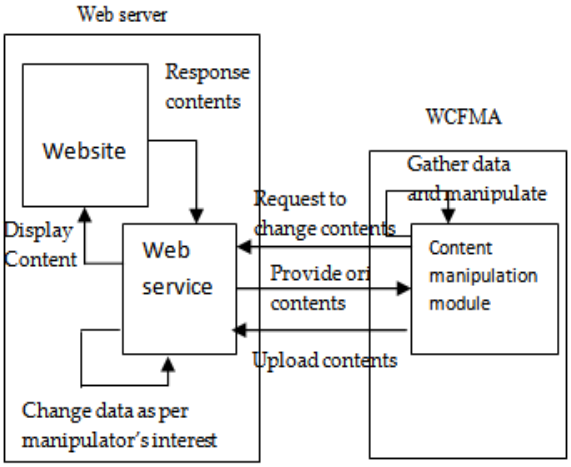

Fig1:Basic structure

VI. Workflow details

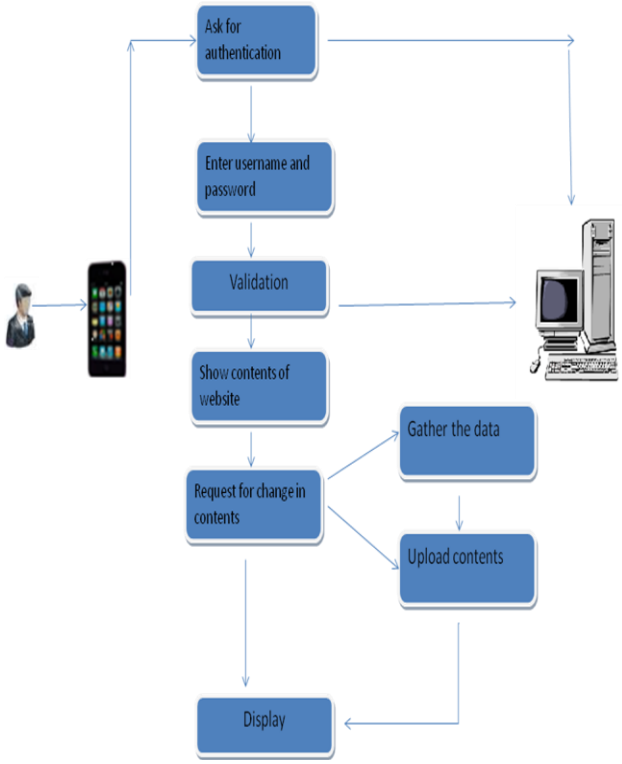

Fig 2: workflow of system

This diagram shows the basic flow of our project system. Firstly, when the owner will open his app, he will be asked for authentication. Then he will enter his username and password. Then it checks valid username and password in its db. After successful authentication user home page screen will appear on the app. The app will contain various options for managing the website.

If the owner wants to update a new image, then he will have to select that particular image. Then we can select the image to be uploaded. We will have two options – we can browse for any image from the phone gallery or we can immediately capture the photo thru phone itself. The app is also provide with different image editing tools such as Crop, brightness, sharpness,effects,filter,color adjustments, orientation and so on.

Then the image will successfully uploaded. Similarly if the owner wants to update a text, then he will have to select that particular text. The app is also provided with different text editing tools such as bold, italic, underline font style, size, color and so on. Then the text will successfully uploaded.

VII. Mathematical definition

S= {M,W,D}
Where,
M= CMS(iPhoneapp)
W= Web Server

D= Website
M = {M1, M2, M3, M4, M5}
W = {W1, W2, W3, W4}
Where,
M1=Authentication
M2= Gather Data
M3=Edit
M4=Manipulate Contents
M5=Upload Contents
W1=Manage Website
W2=Display Original Website
W3=Processing Contents
W4=Update Website

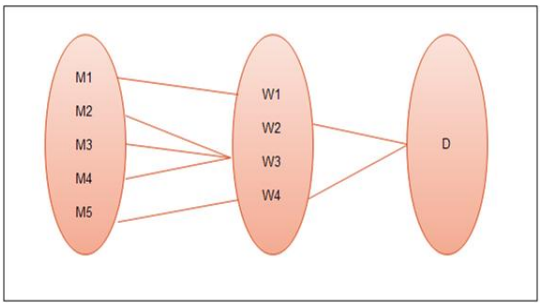

Fig 2: Mapping Constraints

Figure 3: Venn diagram

VIII. Applications

It is an auxiliary tool system for dynamic content management having powerful image processing tool embedded in it. It enables the user to quickly maintain and manage the high-performance dynamic website.

- News Channels
- News Papers
- E-Government
- Travel and tourism
- E-learning
- Online shopping
- E-court
- Designers
- Clothing and foot wears
- Jewelers

IX. Conclusion

Web site content encourages site visitors to stay longer and make frequent repeat visits. When up-to-date and relevant web content becomes available, the customer experience is greatly improved translating into increased customer (or employee) satisfaction and loyalty.

- Affordable Solutions and reduced cost
- Anytime, anywhere web content manipulation
- Faster updating without having knowledge of HTML.

X. Acknowledgement

We take great pleasure in presenting our project paper titled **"Web content exibility through Mobile App"** based on The mobile device i.e. iPhone is based on the ios operating system.

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