

RESEARCH ARTICLE

OPEN ACCESS

Omera Invoice (OMERAI) a financial accounting based web application for small to large companies.

Prof. Prajakta Deshpande, Shreya Rajwade, Swapnali Koli, Sonal Wankhede, Bhagyashri Gaikwad.

(Cummins College of Engineering for Women, Pune, Department of Information Technology, Savitribai Phule University, Pune)

ABSTRACT

Online Invoice services are a largest growing field now-a-days. This has become most demanding for Product Management. Online Invoice applications available on the web do not meet with all the needs of the customer like providing quotation, creating invoice according to revised income tax policies with discount, project employee management and tracking etc. OMERAI is an on-line web application for companies to start invoicing their clients, to show status report of the project and invoice of the work done for timely billing of the employees. This will help project manager for timely billing and corresponding reports. This eliminates the manual calculation of the accountant, to track the product daily sale status and accordingly it will generate the invoice. With this website user can create professional looking invoices with company logo. When user is ready to bill his client, he can simply send invoice via email, download in PDF or print it, Email with single click. This application is cloud based so it will allow authenticated user to access information from anywhere through internet. Users can easily send and track invoices and also paid advance amount can be deducted. Thus the application will help user meet all his needs and work as per users requirements.

Keywords – Cloud based, Providing quotations and invoices according to revised income tax policies, Send and track invoices

I. INTRODUCTION

OMERAI is an online web application for companies to provide solution to small scale companies to start invoicing your clients, manage product sales and invoice their customers. This will help the overall accounting sector of the company for timely billing and to keep track on reports and capture expenses, Recurring invoices. OMERAI is Free to use. Also no special software / hardware required. OMERAI liberates you and your small business with smart, integrated small business software that saves you time and money helping you run your business better, freeing you to do whatever it is you'd rather be doing. Gives you access to your accounts from anywhere across the globe. OMERAI can help to elevate the accuracy of your records by eliminating human errors in calculation. Using OMERAI allows businesses to process their accounts with faster speed than manual processing. Part of this speed elevation comes from the use of computers, which are able to process data faster than the human brain. In addition, OMERAI enables organizations to increase efficacy by introducing automation. Say, for example, that an organization needs to record service tax on all of its dealings. OMERAI could be constructed to do that for each entry automatically, rather than having an employee work out the tax manually.

II. NEED OF OMERAI INVOICE

OMERAI is an online web solution that helps you to handle your business's financial dealings. It is more than a simple accounting/auditing application and manages the entire financial dealings of large organization. Using OMERAI helps companies to use the resources in their accounting departments efficiently, and can eliminate high-priced auditing mistakes. Omera Invoice will help to reduce the complexity to use of software even it is online solution by which any customer can use it anywhere in global network with various gadgets like Personal Computer, Laptop, Tab, Phone etc...

III. SYSTEM OVERVIEW

OMERAI Invoice eliminates the manual calculation of the accountant, with this Website user can create professional looking invoices complete with company logo. When user is ready to bill his client, he can simply send your invoice via email, He can download in PDF or print it, Email with single click. Using this portal user can do payment faster by online banking, even it will have facility that when was your invoice is viewed- from draft to paid with a tidy invoice history. If business entrepreneur is from different location and his outsourced company is in other country so this web application allows you to bill in any currency. OMERAI is an online web application for companies to provide end to end

invoicing, billing, estimate preparation and receipt generation support for your clients, to show status report of the project and Invoice of the work done for timely billing of the employees. This will also helps administrator for timely billing and to keep track on their employees, on project and capture Expenses, Recurring Profile, Time tracking, Reports etc. As per billing different taxes are involved that tax can be changed or fixed.



Fig.1 Work Flow Diagram

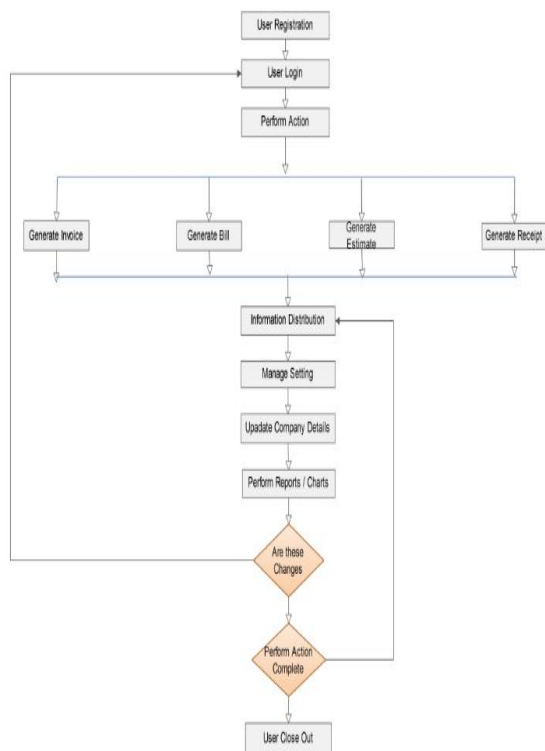


Fig.2 Project Flow Activity Diagram

IV. DESCRIPTION OF PROJECT FLOW ACTIVITY DIAGRAM

The entire Project Flow activity diagram states how the user can go through the system and perform his required task. Step-wise flow of the project is as follows:

Step 1: User Registration:

User/Company has to register itself on OMERA Invoice by providing all the required details. Once the user registers he will be sent a password to access his login on OMERA Invoice.

Step 2: Log in

The user will be provided with Password on the email address provided by the user. The user can thus login using the password provided to him.

Step 3: Create company profile and users

The user is thus registered and can now create various users for his company and assign them access rights accordingly. The user also has to create his company profile and update company information accordingly.

There are various types of users for the system who have been provided with respective access rights. These are the various types of users,

- Super Admin
- Company Admin
- Accountant
- Auditor
- End User

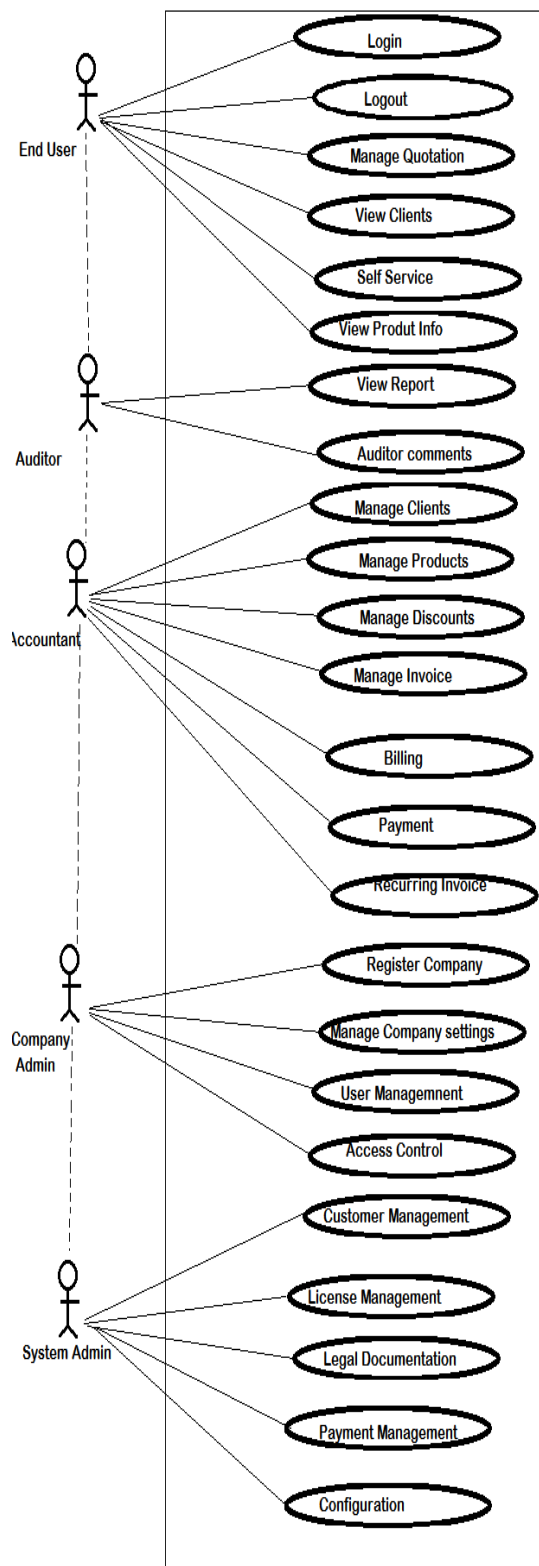


Fig. 3 Use case diagrams of users of the system

4.1 Super Admin/System Admin:

Super Admin has following tasks:

The Super Admin has been assigned with the task of adding the company who registers on

OMERA Invoice. It also registers the company's admin. In this case the super admin will be Gracioussoft Technologies who have sponsored this project. It has also been assigned with the task of:

- Customer Management
- License Management
- Legal Documentation
- Payment Management
- Configuration

4.2 Company Admin:

Control Admin has following tasks:

Company Admin has been assigned with the task of creating other users for the company.

- Register Company
- Manage Company Settings
- User Management
- Access Control

The users created by Company Admin are:

- Accountant
- Auditor
- End User

4.3 Accountant

Accountant has following tasks:

The Accountant can carry out all the accounting tasks of the company like:

- Manage Clients
- Manage Product
- Manage Discount
- Manage Invoices
- Billing Payment
- Recurring Invoice

4.4 Auditor:

Auditor has the task of auditing all the:

- Providing auditor comments
- Viewing and creating weekly, monthly and yearly reports

4.5 End User:

The End User has following tasks:

- Manage and view dashboard
- Manage quotation
- View clients
- View product information

V. TECHNOLOGIES USED:

The technologies used in this project are:

- Struts 2.3
- Cloud Computing

5.1 Struts 2.3

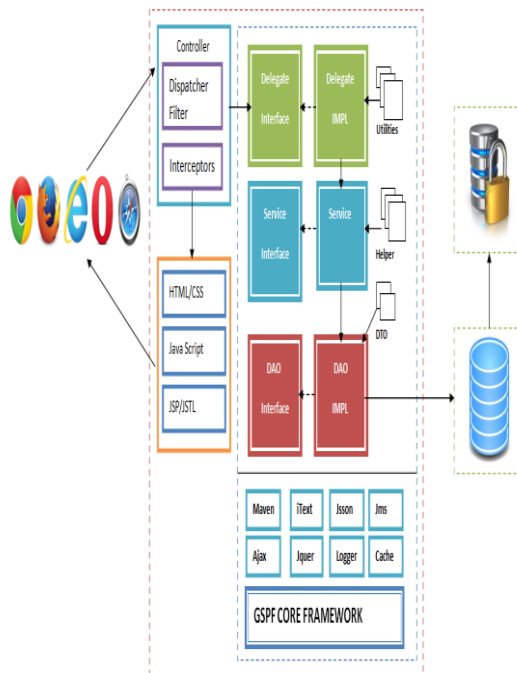


Fig.4 Struts framework

Struts2 is popular and mature web application framework based on the MVC design pattern. Struts2 is complete rewrite of the Struts architecture. The Web Work framework started off with Struts framework as the basis and its goal was to offer an enhanced and improved framework built on Struts to make web development easier for the developers.

5.2 Cloud Computing

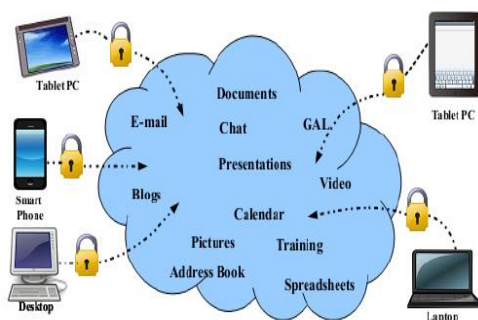


Fig. 5 Typical Cloud computing system

With the help of cloud computing, there is no application to install. Instead, the program lives on a computer in another location, which you access via the Internet. Since it's a computer far away from you, which you never see, people refer to this as "cloud computing." The only software you need to install on your own machine is a web browser like Internet Explorer, Firefox, Safari or Chrome, which you probably already have.

5.2.1 Service Models of Cloud Computing:

SaaS: Software-as-a-Service (SaaS): Cloud application services or Software as a Service is software that is deployed over the internet and/or is deployed to run behind a firewall in our local area network or personal computer. This is a pay as- you-go model and was initially widely deployed for sales force automation and Customer Relationship Management

5.2.2 Type of Cloud Computing Used

Hybrid: A hybrid cloud is a mix of public and private clouds.

VI. SYSTEM REQUIREMENT AND SPECIFICATION

6.1 Software Requirements:

- Eclipse version 3.7 (Juno)
- Java Run-time Environment 1.6
- Java SE JDK v6.0
- Mysql

6.2 Operating System

- Linux

6.3 Hardware Requirements:

- Memory: 4 GB RAM or more
- Monitor resolution of 1024 x 768 or higher
- Intel Pentium 4
- 1 GB (or more) available hard disk space
- Any browser like Mozilla Firefox for PC and Opera Mini in phones.

VII. DATABASE DESIGN

Various tables created in the database are as follows:

- Client_Details
- Invoice_Details
- Product_Status
- Tab_Address_type
- Tab_Business_Function
- Tab_City
- Tab_Company_Category
- Tab_Company_Details
- Tab_ompany_Sector
- Tab_Company_Type
- Tab_Country
- Tab_Currency
- Tab_Department
- Tab_Designation
- Tab_Disclaimer
- Tab_Language
- Tab_Security_Credentials
- Tab_Security_Question_List
- Tab_Source_Reference
- Tab_State
- Tab_Time_Zone

- Tab_User_Details
- TAB_User_Logger
- Tab_User_Role
- Tab_User_Status

VIII. PROPOSED ENHANCEMENTS

7.1 Future scope of the project

OMERA cannot work on i-phones. It can be made working on i-phones in future.

- We can improve some more security measures from hacking.
- Providing the data backup.
- By adding the module of online Ecommerce Transaction.
- By adding the module of SMS sending to Client.

IX. CONCLUSION

The “Omera Invoice (OMERAI)” is successfully designed and is tested for accuracy and quality. During this project we have accomplished all the objectives and this project meets the needs of the organization. The developed product will be used in searching, retrieving and generating information for the concerned requests. It reduces entry work. Easy retrieval of information is possible. The errors are reduced due to human intervention. It has been provided with user friendly GUI to enter the data. The product is portable and flexible for further enhancement. Web enabled. It helps find particular information within minimum time. The User is provided friendly interface by hiding all technical complexities. Thus we can conclude that our proposed system is better in providing services than the existing ones in context of:

- It is Free
- GUI
- Best suited for all types of small scale companies.
- Does not need any extra installations or hardware.

X. ACKNOWLEDGEMENTS

We take immense pleasure in thanking Graciouslysoft Technologies, Pune for having permitted us to carry out this project work. It gives us great pleasure and pride to get opportunity to sincerely thanks Prof. Prajakta Deshpande (Internal guides) for their valuable guidance and for providing all the necessary facilities, which were indispensable in the completion of this project Work. We are also thankful to all the staff members of the Department of Information Technology of MKSSS's Cummins College of Engineering for Women, Pune for their valuable time, support, comments, suggestions and persuasion. We would also like to thank the institute for providing the required facilities, Internet access and important books.

References

Accounting Websites:

- [1] Quickbooks: <http://www.quickbooks.com>
- [2] Freshbooks: <http://www.freshbooks.com>
- [3] <http://www.javatpoint.com>

Journal Papers:

- [1] By Muhammad Baqer Mollah, Kazi Reazul Islam*, Sikder Sunbeam Islam Dept. of Electrical and Electronics Engineering, Dept. of Computer Science, International Islamic University Chittagong, Chittagong, Bangladesh, Ryerson University, Toronto, Canada at the 2012 25th IEEE Canadian Conference on Electrical and Computer Engineering(CCECE)

Books:

- [1] Software Engineering By Roger. S. Pressman
- [2] Mysql For Professionals
- [3] Complete Reference For Advance Java Book
- [4] Complete Reference Book For Core Java Book
- [5] Uml complete Reference book.

Proceeding Papers:

- [1] Energy-Efficient Fault-Tolerant Data Storage and Processing in Mobile Cloud. Chien-An Chen; Myounggyu Won ; Stoleru, R. ; Xie, G.G. Publication Year: 2015