

Data Exchange Framework for GNUKHATA

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ABSTRACT

As India being a developing country, business in all sectors is booming. There are many other accounting software in the market like Tally, Quick book, etc. Purchasing an accounting software, especially for starting businesses, is a costly affair due to prohibitive licensing costs. Also, small business establishments may find it difficult to purchase licensed accounting software and as such, may opt for an unlicensed pirated copy of the original software. In addition, institutions that deal with teaching accounting find it difficult to afford hundreds of multiple copies of licensed software to be installed in computer laboratories.

GNUKhata is Free and Flexible Open Source Accounting Software developed by Digital Freedom Foundation.[3] It can be easily downloaded from the Internet.[3] It's special feature is that it can support emerging sectors of the economy who are being required to keep audited accounts, such as self-help groups, craft producer and micro-finance. As the organization wants to send the accounts data such as Inventory details and entire Report safely to CAs and other third parties.

As to access the data present in GNUKHATA from anywhere, facility to safely send organization data to CA and other third party and to avoid data clashing, data exchange from GNUKHATA to GNUKHATA ,Backup and Recovery is required. Proposed system is developed which contains Import data of the existing organization details if want to recover it and export of data such as List of Accounts, Products, Categories, Godown and also generating Invoices for Purchase and Sale.

General Terms

Backup software, Recovery data, Import and Export of data.

Keywords

Accounting, Inventory, Data Exchange, Data Migration, Data backup, Data Restore, Data Transfer, Data recovery.

1. INTRODUCTION

Your business exists to make money and accounting is a vital part of that activity. Accounting applications determine whether your business is profitable or not. The upside of such applications is that they automate a complex task to a series of clicks. Fortunately, open source accounting software provides you with free programs available for download. Typically, open source accounting software is built from an open source platform and uses such operating systems as Linux and Internet browsers available from Mozilla Firefox. Open source accounting software allows new business owners the chance to succeed with zero cost.

GNUKhata is highly customizable, given its open source nature. Existing software which saves a large amount of data

of different organizations altogether. Organizations require to safely send data to CA's and other third parties involved in auditing purpose. Even to provide proper and efficient service to users whomsoever using the GNUKHATA software, data backup is required. Data clashing is can also be one of the problem that can arise. Proposed system will help the existing GNUKhata software for data transferring through backup and recovery.

2. PROBLEM STATEMENT

There are already few accounting softwares, still we are doing it for small businesses, micro finance sectors, socio-organizations, and etc. so that they can easily have access to their organization details to send to CA's and other third party applications. This problem prompted us to make a User-friendly application with: Transferring data from GNUKHATA to GNUKHATA is Lacking, Secure data import & export functionality, Inventory management for maintain records, Digital Invoice memo and Transfer note in PDF formats, Reports generation in Excel formats

3. PROPOSED SYSTEM

Data Exchange and Backup is required because it helps in giving a good service to users, GNUKHATA needs to have a Backup. Not all the organizations have the internet access data online. Some organizations have online data but they come under Private network (Restricted Access). Change in Software version results Data loss so Data need to be backed up. There is also the possibility that the system gets crashed or issues related to the software, in this situation if the data is backup, one has not to face much problem related to the data.

3.1 Features of proposed system

It is a SQL based database system.[6][5] It is a multi-organization based setup facilitates organization to safely send data to CA and other third party involving Auditing and Evaluation of books on regular basis. Data is stored in hybrid format in JSON creating framework for backup system. Gives customized options to users for data transfer and backup of data.

3.2 Working of Backup and transfer

There are three layers of proposed system-User's screen, Front end control logic and Core engine. Process starts from User's screen to front end control logic and from Front end control logic to Core engine. Core engine requests to user which organization's data is needed? User can see the data, so that user can select required data. Depend on whatever user asks, core engine has to do the further process. Core engine does data processing by require the database and get data converting it into JSON Dictionary and return it to Front end control logic involves front end control logic also has to ask

to user what type of format he/she wants ?XML OR Spreadsheet format. According to user's choice format has selected. Suppose user selects XML format, backup.xml is created and sent back to browser. Now user again gets the option for Downloading the file to save it in the computer (save file) or share via email. Front end control logic is only used to convert data into spreadsheet or XML format. Back end i.e.Core engine analyzes the data, converts data into XML. Data can contain Nodes like for accounts, transactions, bank reconciliation, users, etc. It also have to Convert entire thing into JSON format and send it to Front end. Depend on user's Choices it gets converted into spreadsheet or XML.

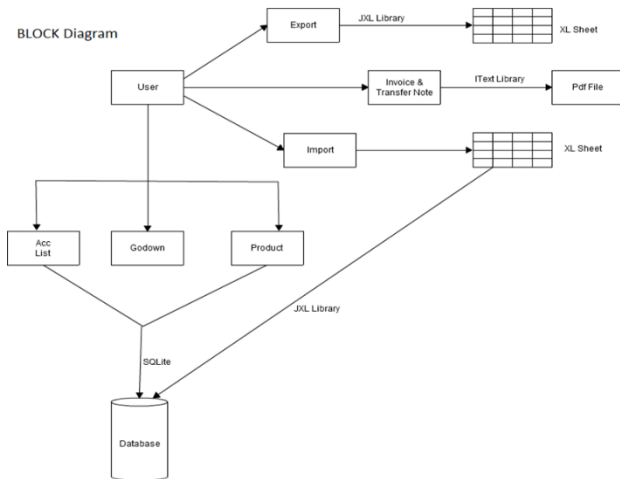


Fig.1. Block diagram of Proposed System[2]

4. LITERATURE SURVEY

GNUCash: GnuCash is free thanks to the open source movement. This financial software can be used to track personal finances and also works nicely as small business accounting software. GnuCash tracks a variety of account types, stocks, income, and expenses. GnuCash works with double-entry accounting, which is perfect for small businesses but introduces a new concept to many personal finance accounting users.[1] Two drawbacks in GnuCash is: GnuCash does not have a client/server mode. Once GnuCash develops this feature (I think it's in the works), I bet it will have a much larger user base. Until that happens, GnuCash is limited to a single user, client-only model. The data file can be stored on a server and shared out, but only one user can have that data file open at a time. GnuCash other drawback is its lack of integration with any tax software.[1] There is a reason for this. In the United States, the tax laws change every, and keeping up with those changes would be nearly impossible for the GnuCash to implement. However, a good accountant will be able to gather a wealth of information from within GnuCash when she completes your taxes. (GnuCash even has a Tax Income/Deductible Expenditures report.)[1]

TurboCash: TurboCASH .7 is an open source accounting package that is free for everyone to download and distribute under the terms of the General Public Licence (GPL). It is one of the world's first fully-featured open source accounts packages for small business, with over 80 000 users. TurboCASH accounting software is flexible. It can be configured for any country and any small business. We currently have chart of accounts available for free download for the UK and USA. More countries and languages are being added continually. We strive to provide powerful small business accounting software that doesn't break the

bank. TurboCASH includes most functions a business will ever need: debtors, creditors, general ledger, full stock control, VAT accounting, invoicing, bank reconciliation, trial balance, balance sheet and income statements, full reporting and analysis, as well as multi-company and multi-user capabilities.[1]

Wave Accounting: Wave Accounting is free accounting software for small businesses. The company's core product, Accounting by Wave, is a double entry accounting tool. Services include direct bank data imports, invoicing and expense tracking. Accounting by Wave integrates with expense tracking software Shoeboxed and e-commerce website Etsy. Invoicing by Wave is an offshoot of the company's earlier accounting tools. Additional products launched on or shortly after the company's rebrand in December 2012 include: a credit card processing tool, Payments by Wave, built initially on an integration with Stripe credit card processing, a receipt scanning tool, Receipts by Wave. Here are three main shortcomings that we found with Wave Accounting: Customer service: One key feature that's not available on the Wave Accounting software is customer support — at least not for free. Although the company has an FAQ page, community forums, a knowledge base, webinars, user guides and other sources of information, sometimes what you really need is to speak with a live person. Whereas paid accounting software options come with free live customer support, Wave requires you to purchase Premium Services, which start at \$9 per month. Paid support packages include live phone and chat support and a direct line to Wave headquarters. Payroll: Payroll services are not included either. Most paid accounting software programs come with payroll services (either as a built-in feature or third-party integration), but you'll need to pay for Wave Payroll to use Wave Accounting to pay employees. Wave Payroll costs \$15 per month, plus \$4 per employee per month. Besides the additional costs, this also means you're forced to use Wave's own payroll tools, which limits your options and may make payroll harder if you prefer to use your own payroll solution. Advertisements: Wave is free because it uses advertisements. In addition to posting ads while you're using the software itself, Wave will also include its branding on communications sent to customers, such as invoices and emails. There is currently no way to get rid of advertisements, so if this is a major deal breaker, a paid accounting software is for you.[1]

xTuple: xTuple is an enterprise software company that develops and markets open source software under the brand name xTuple ERP. At the heart of Project Accounting is the concept of the "virtual" General Ledger (G/L) Account. With Project Accounting, virtual G/L Accounts are built dynamically with your operation using a combination of existing G/L Account Numbers and the linked Project Name. Transactions flowing from Project-related Sales Orders, Purchase Orders and Work Orders are generally supported by Project Accounting.[1]

ZipBooks: ZipBooks is very simple and easy to use cloud based accounting software designed specifically for small businesses. ZipBooks enables you to streamline your financial operations and increase productivity. ZipBooks is designed for Small Businesses and individuals to manage their accounts and inventory without any prior accounting knowledge. The User interface is extremely easy and does not require any training or expert accountant to run the software. ZipBooks allows you to set different access levels for different users. This prevents user's access to the data they shouldn't be

seeing. You can also create a special user for your accountant for year end auditing and closing the year. [1]

5. CONCLUSION

Thus, this module will actually help the existing system to provide more target users who are having small scale businesses, micro-finance, socio-organizations, etc. The guidance is to make sure that the organizations can access necessary data without the requirement of Internet. The GnuKhata will provide more user friendly features which will help for maintaining exchange of data for CA's and other third party efficiently. Accountant can take backup of required data by exporting the data from the software and send it to accountants, can also view Balance sheet of Groups, make invoices and transfer note pdf files for sale and purchase order.

6. ACKNOWLEDGMENTS

After the completion of this work, words are not enough to express feelings about all those who helped us to reach goal. It's a great pleasure and moment of immense satisfaction for us to express my profound gratitude to Project Guide, Prof. Pragati Pejlekar, whose constant encouragement enabled us to work enthusiastically. His perpetual motivation, patience and excellent expertise in discussion during progress of the project work have benefited us to an extent, which is beyond expression.

We would also like to give our sincere thanks to Prof. Vaishali Jadhav, Head of Department, and Prof. Diksha Kumar, Project co-coordinator from Department of Information technology, Saraswati College of Engineering, Kharghar, Navi Mumbai, for their guidance, encouragement and support during a project.

I am thankful to Dr. Manjusha Deshmukh, Principal, Saraswati College of Engineering, Kharghar, Navi Mumbai for providing an outstanding academic environment, also for providing the adequate facilities.

Last but not the least we would also like to thank all the staffs of Saraswati college of Engineering (Information Technology Department) for their valuable guidance with their interest and valuable suggestions brightened us. Our thanks to the experts who have contributed towards development of the template.

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