

IMPLEMENTATION OF SMALL-MEDIUM BUSINESS

ESTABLISHMENT FOR SITE FINANCE

Vandana N.S¹, Mrs Bharathi M²

¹PG Student, IVth sem M.Tech, S J C Institute of Technology, Chickballapur, Karnataka (India)

²PHD Research Scholar, MSRIT college of Engineering, Bangalore, Karnataka (India)

ABSTRACT

SIFI is a web based application, built on Ubuntu which acts as operating system, Apache Web Server for hosting web sites, Drupal for Content Management and MySql as the backend data store. Drupal modules are been developed using PHP for all the functionalities. SIFI helps business manage accounting for projects right from project start to finish. SIFI provides various modules like Master Data Management, which includes banks, loans, user data management, bill of materials(BOM) and payments. Log management, back up and recovery importing Excel files , report and analysis. The Master data modules which are stated above provides four on-screen functions such as view, edit, add new entry and save functions. Next Log management helps to fix errors with the help of “watch dog function”. Back up and recovery for recovering the data which is lost. Importing Excel modules helps to receive excel file from the user, process it and store data in Data Base .Reporting modules convert all the modules into PDF format with the help of TCPDF software. These modules provides advantages such as minimum time consumption ,more authentication and on-screen validation.

Keywords: *Drupal, Modules, TCPDF, Themes, watch dog*

I. INTRODUCTION

SIFI is developed such that it can be used in different and hundreds of well-known organizations, including corporations, media and publishing companies, governments, non-profits, schools, and individuals. Government sectors such as banks, hospitals, post offices, education sectors for storing data for long time. In Private sectors SIFI can be used for business managing and can be used in companies. For example TCS, infosys, wipro, ibm etc will be having many number of employees, no one can remember entire company details , so in order to overcome that problem the same project can be modified as their need. Bootstrap will also be used, it is used to fix the screen problem. Means it supports for laptops, mobiles, and big screens.(from small screen to big screen).

Initially ubuntu need to be installed which acts as operating system. Installation will be done with the help of live CD,[8] CD need to be inserted in optical drive once system is booted it shows options such as try ubuntu version or install ubuntu. As we are in need of ubuntu OS, continue with it. Main thing is memory partition , it can be single or dual partition, which depends on user. Once this is done ubuntu OS will be ready to use.

II. DRUPAL INTRODUCTION AND INSTALLATION

The name Drupal represents an English conversion of the Dutch word "druppel", which means "drop" (as a water droplet). [1]The name came from Drop.org Web site, whose code slowly evolved into Drupal. Buytaert wanted to call the site "dorp" (Dutch for "village") for its residential/religious aspects, but he miss typed when it was published ,then they started to search for better name where fortunately Drupal sounded better when checking the domain name. Basically drupal got a significant boost in 2003 when it helped build "Dean Space" for Howard Dean. Dean used drupal as open source sharing (means he made available with cost effective/user friendly).About 50 un official websites started using drupal or drupal softwares so that they can communicate directly with each other, fortunately dean ended his campaign. Later in 2004 civic space labs took control of developing and distributing Drupal technology". This was first company to develop drupal with full time employees. Then from 2007 to 2008 there were approximately 1.4 millions downloads in drupal.org website. Other companies also started developing drupal , drupal web site listed many merchants or sellers that were offered drupal related services.

By 2014 drupal became a group of sharing a common ideas and its popularity is growing rapidly till now more than 1,015000 sites used drupal. Installation is as followed.[4]

Drupal is a content management system, means it is a application which allows the authenticated user to insert, delete or modify data. Download the drupal recent version in tar.gr format. Create a new folder in /var/www/html path and name the folder name as "site finance". extract the files over there. After extracting you will get some default files and owner permissions should be changed for all files to read and write. Once you are done with this go to web browser and type in url browser HTTP://localhost/sitefinance so that the front page of drupal's site finance exists. And go to roles and permission and create new user and give the permission. This new user is needed, because every user who is member of drupal should not have administrator permission .Each time when some change is performed you need to go to configuration and select performance and there the option called clear cache exists. Once has been done with all these the drupal is now ready to use.

2.1 Installing Modules and Themes

Once drupal is installed next step will be installing modules and themes. Module can be designed with the help of four files. They are .info file, .module file, .install file and .inc file. Here we have developed many modules which are stated in abstract. some themes will be installed by default when drupal is installed. The user can use default themes or they can download and install themes in 2 ways.[2]

- 1) Install through interface
- 2) Install manually

1)Install through interface: Once drupal is installed we will get option to download from there and directly we can install it.

2)Install Manually: Go to drupal.org web site and download in tar.gz format and extract files and move the extracted files to Site finance -> all -> themes folder, enable permissions in drupal, save the configuration and clear the cache.

III. WATCH DOG

Watch Dog is a function that will be in-built once drupal is installed. The watchdog function will monitor system logs messages, where it can be viewed them from drupal Reports. Logs will be in sequence and it can be easily debugged.[3]

IV. MASTER DATA MANAGEMENT

Master data is basically called as parent data. It contains different child data which are stated in abstract. The person who tries to access data he must be member. means he need to get new user name and password and that request must be sent to admin, once the admin accepts his/her request he will become member for accessing the contents in web site. It contains five modules such as,

4.1 Loans: Contains loan type, start date, modified date, end date, address, phone number etc as fields.

4.2 Banks: Contains bank name, bank id, customer name, address etc.

4.3 User data: States how particular user is making use of data.

4.4 Payments: Information about amount that will be paid to bank by customers in form of checks, demand drafts etc.

4.5 Bill Of Materials: A Bill of materials or product structure is a list of the raw materials , sub-assemblies, intermediate assemblies, sub-components, parts and the quantities of each needed to manufacture an end products. A BOM may be used for communication between manufacturing partners or confined to a single manufacturing plant. In site finance BOM is a sub module or data to complete the organization details, which carries data about the materials maintained by the organization. The BOM contains bill of categories, sub-categories, unit of measure, create date, modified date and end date consumed by the manufacturers out of the organization. In this we make different action on product to maintain in the organization such as add new category, sub-category, edit the category, view a details of each product and delete the category from front end not in the database. where all these modules provide four on-screen functions, which are view, edit, save and add new entry. Initially need to create the data bases of particular module using basic Mysql commands. View function provides only the basic detail of particular module once the person who is not an authorized. Edit can be used to edit the files when any fields need to be edited. Add new entry is for adding new information to the particular modules and files can be saved on-screen.

V. LOG MANAGEMENT

Log management is standard way to log into drupal error messages which has standard function called watchdog . Used to find out errors and fix the errors. The watchdog function monitors system records, system events in a log that can review. This helps to get a quick overview of activity on particular site. Since the log records events are in sequence, it can also be useful for debugging site errors. Here it supports view and edit functions. Since error rectifications are done, no new error will be added.

VI. IMPORTING EXCEL FILES

This module is used to receive excel file from the user, process it and store data in Data Base. In order to remove unwanted code, we need to upload a file. Advantages of this module is easy to read large volume of data, filter unwanted data, easy to insert large amount of data into database .

In below figure1 the user will read the excel file which will be in php form, once it goes through excel ,filters unwanted code and will get stored in data base.

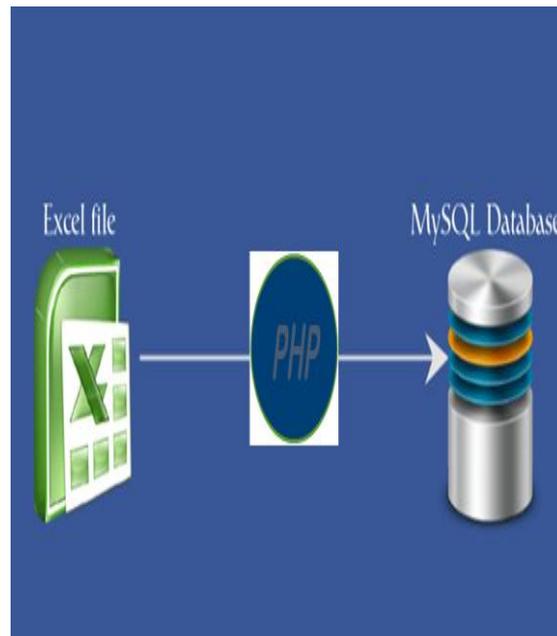


Figure 1: Storing Data In Data Base

VII. BACK UP AND RECOVERY

A backup is a copy of data from the database in the selected table from the site-finance that can be used to reconstruct the data. The retrieval of files backed up is called restoring and then used that data for the future purpose. there are two phases for retrieving lost data.

1st phase : Read the many table names, table_schema and constraints tables in the list of tables. choose the particular tables in the site finance and create the selected table in the drupal system.

2nd phase: Add the data's using mysql syntax

Backup the table from the site finance and display in the drupal system using php for functionalities and mysql for the backend data store for the future purpose the backed up files can be restoring in to the Zip files

VIII. REPORTING MODULE

Using TCPDF for PDF reports, the reports that creates using TCPDF file is easy to change the details. TCPDF is a PHP based library that includes complete support for utf-8 unicode and right to left languages. The reporting module using TCPDF is easy to create its own PDF and is easy to change the details that is required. Same time can also change the header details, That may be a college details or company or any other offices. The header, footer, and the main body are the three fields we use to change or add in the PDF. That can save and generate a

PDF file with the given details. This supports image in the report in the form of jpg, png and svg images. As in the normal PDF can not change any information but using TCPDF it is easy to change the given information with own logo or the image for header where ever necessity in the body.

IX ADVANTAGES

- 1) **MORE AUTHENTICITY:** None of user can log in into web site to access detailed information until the user is member of that web site.
- 2) **TIME CONSUMPTION:** Time consumption will be in some milli seconds.
- 3) **ON-SCREEN VALIDATION:** If errors occurs while entering the data, the data can be changed on-screen, which does not consume even some milli seconds.
- 4) **FLEXIBILITY :** It makes users to handle data easily, means the user who donot have knowledge of technical activities (non technical) can access the content .
- 5) **SCALABLE :** This paper is used to implement huge data ,where lacks of records can be stored.
- 6) **PERFORMRNCE :** As time consumption will be in milli seconds, performance will be very high.

X. BRIEF DISCUSSION

The below tables contains the brief discussion about the modules which are implemented in SIFI project. Functionality means what are the on screen functions that are been implemented and description gives the brief explanation.

<i>Number</i>	<i>Module</i>	<i>functionality</i>	<i>description</i>
1.	<i>Bank</i>	<i>View, Edit, Save, add new entry</i>	
2.	<i>Loans</i>	<i>View, Edit, Save, add new entry</i>	
3.	<i>User Data</i>	<i>View, Edit, Save, add new entry</i>	
4.	<i>Bill Of Materials</i>	<i>View, Edit, Save, add new entry</i>	
5.	<i>Payments</i>	<i>View, Edit, Save, add new entry</i>	
6.	<i>Log Management</i>	<i>View, Save</i>	<i>Stores Logs who enters and catches errors with the help of watch dog and will fix it.</i>
7.	<i>Importing EXCEL Files</i>		<i>Takes the file from which is in PHP format, filters unwanted code and stores in data base.</i>
8.	<i>Backup And Recovery</i>	<i>Save</i>	<i>Helps to retrieve files which are lost and will store in ZIP form.</i>
9.	<i>Reporting</i>	<i>Save ,Print</i>	<i>Converts into PDF format with the help of TCPDF software.</i>

TABLE 1: Brief discussion about all modules

XI. CONCLUSION AND FUTURE ENHANCEMENT

Implementation of small medium establishment for site finance which contains different modules helps to store data enormously in secured way. This project clearly over comes the problem of scalability, modifiability, and can be trusted against intruders/victims. As this is specific to one application, future enhancement can be done according to their specific fields.

REFERENCES

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- [3] [http://www.digitalocean.com/watch dog in drupal](http://www.digitalocean.com/watch-dog-in-drupal)
- [4] <http://www.Drupal.org>.
- [5] <http://drupal.org/book/export/html/120612> , the Drupal Cookbook for beginners.
- [6] [https://en.wikipedia.org/wiki/ubuntu#over view](https://en.wikipedia.org/wiki/ubuntu#over-view)
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