

Creation of journal gateway using Drupal: an experiment with UGC Infonet Journal gateway

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ABSTRACT

A Journal gateway is needed for any Organization, Institution, or Publisher to store, organize, and disseminate the journal resource to their patrons. This study is an experimental attempt to build the journal gateway for UGC Infonet using an open-source content management system i.e. Drupal. In this study, we are trying to organize the data of UGC Infonet journal databases that the University Grants Commission subscribes to using the Dewey Decimal Classification System.

KEYWORDS: Journal, Resource, Infonet, Drupal, DDC, Classification.

INTRODUCTION

We are in the age of information or digital era, in this digital era information is doubling every year in the disciplines of Humanities and science and technology but the process of doubling frequency is peak level in ICT (Information and Technology). Information explosion leads to so many problems for Information scientists, Information organizers, librarians, and also for users of Information. Information organizer tries to simplify the search process using Content management systems (CMS).

A content Management system is a platform for storing, organizing, and disseminating information in the form of web content in websites. CMS is a collection of tools designed to allow the creation, modification, organization, search, retrieval and removal of information¹. In the present situation open-source content management system creates a big market and a mere number of CMS are available according to their functionality and designing platforms².

Drupal is open source Content management system, we could use this software in dynamic webpage designing platforms and web applications. Its core principles are very easy, flexible, and versatile to design the content of websites. Drupal simplifies the process of authoring, user creation, and managing the content, images, audio, and video in the web environment³.

Drupal can be downloaded, used, modified and shared with anyone under the General Public License(GPL) based on PHP and MySQL systems⁴.It also used in mobile phones for developing personal websites, it allows users to easily create and configure a Web site to their mobile devices that can take advantage of the wide set of normal functionality of the content management system and the context and data of the mobile phone⁵.

UGC Infonet digital library consortium was launched in the year 2003 by former Ex-president of India APJ Abdul Kalam to provide journal subscriptions to Indian university libraries, and Indian universities facing a Serial Crisis. The term Serial crisis means” exponential and continuing increase in subscription cost of scholarly journals. The crisis is a result of the rise in cost of journals much faster than the rate of inflation, increase in number of journals and the paucity of funds available to the libraries”⁶.

UGC Infonet digital consortium provides archival access to 7500 core and peer-reviewed journals and bibliographical databases. In this paper, we try to organize bibliographical data of UGC infonet in a classified manner and create a database in Drupal content management systems.

OBJECTIVE

The objectives of the present study are as follows,

- ✓ Subject-wise classification of UGC-Infonet journal collection
- ✓ Creation of a database of listed journals by UGC-Infonet using MySQL.
- ✓ Developing a journal gateway to search and retrieve the UGC-Infonet journal collection.

METHODOLOGY

This study is conducted in a phased manner. The project involved the collection of data for developing the database and the learning process to know about the Open source content management system – Drupal, hence, this project worked out in the following five phases.

Phase 1: collection of journals from UGC-Infonet Site:

The UGC-Infonet lists the journals under the publisher and does not categorize list or provide options to Search the journal on the subject therefore, the first phase involves the tabulation of the entire journal list and categorizing the same subject-wise. The data tabulated are grouped into different subjects with title, publisher and the URL to access the same. The data has been tabulated using Microsoft Excel.

Phase 2: Classification and organisation of data

In the second phase, the archived data was organized in the form of subject, publishers, journal name, and URL of the journal's web page. The subject-wise classification is made on the following aspects

- 1) The departments functioning under the university setup
- 2) The main class of Dewey Decimal Classification Schema
- 3) The journals published by the fusion or fission of subjects is listed as per the indication of the publisher

At most care has been taken to avoid the repetitions of journals in different areas. Since some of the journals concentrate on the allied subjects of the main area, overlapping in the area is possible in the listing.

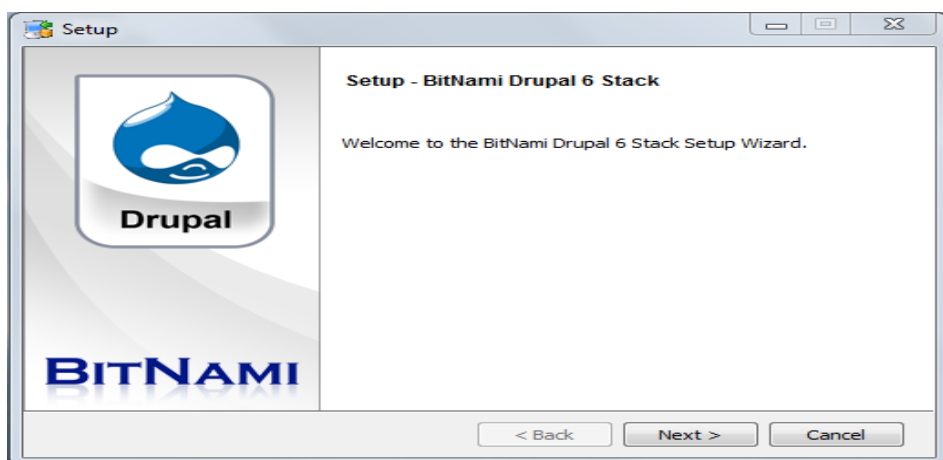
Phase 3: Installation and customization of Drupal

In this phase installing of Drupal and pre-requisite software of Drupal like MySQL, Easy php, and Apache. After installation, we customized of the web site to our own needs and purposes.

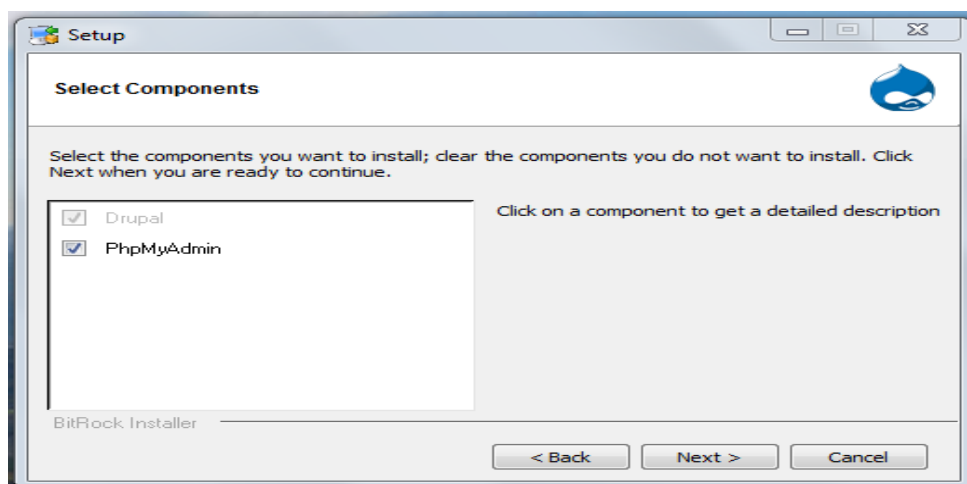
Drupal is a powerful open-source content management tool. It has different features to handle the content. Installation is very easy. In this project, we have used a Bitnami Drupal suite for the installation of our Drupal. The following steps should be followed to install.

Drupal acts as a front-end software and back-end software's Apache, MySQL, and PHP. These are not installed separately because they all come with the Bitnami Drupal suite.

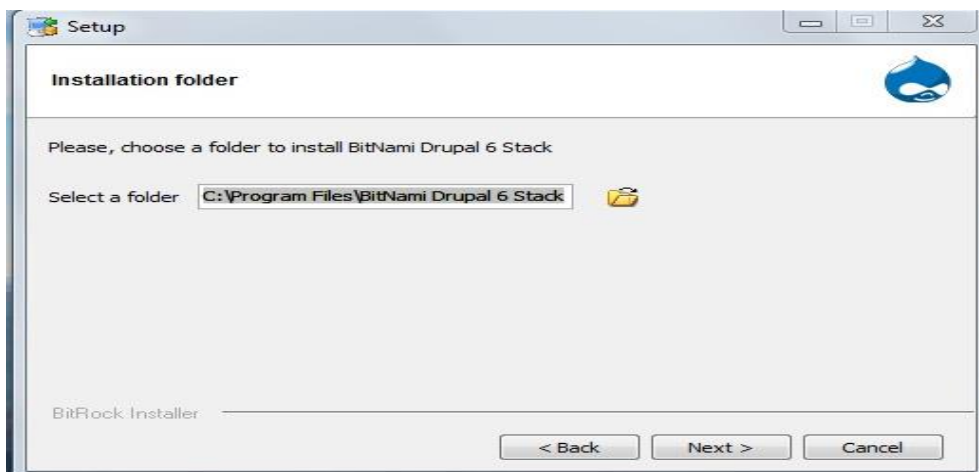
Step 1: Run Bitnami drupal suite as administrator.



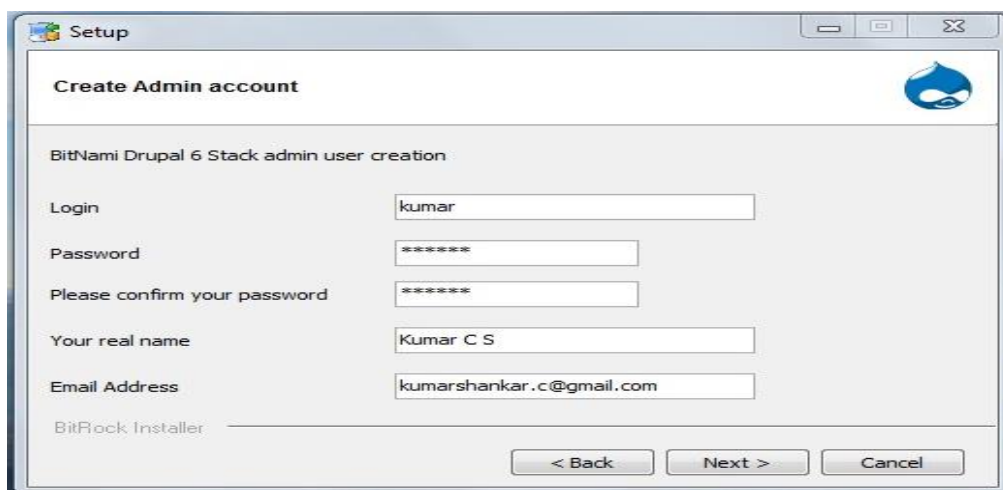
Step 2: select the PhpAdmin and click on next option in dialogue box



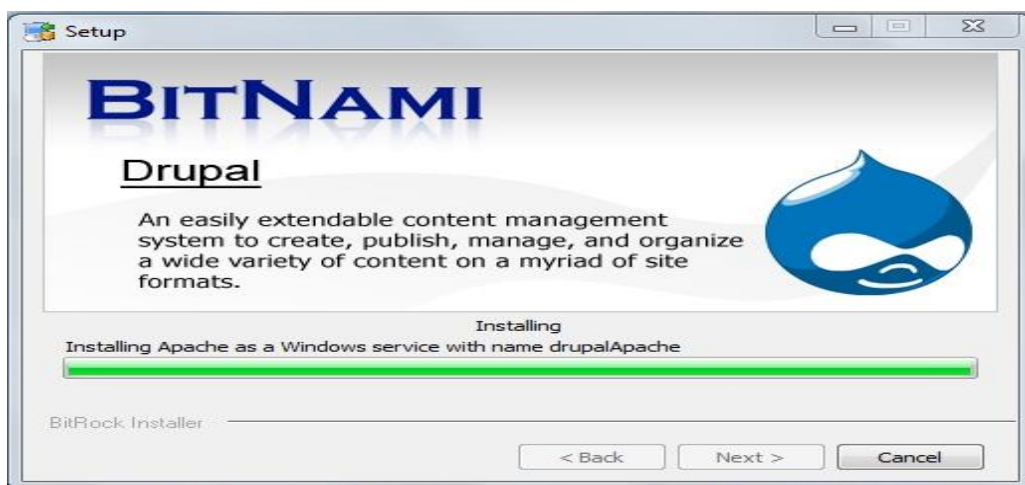
Step 3: Define the location for where the Drupal should install



Step 4: Create Drupal admin account with proper user name and password



Step 5, 6,7,8 are taken as for drupal installation. Since we have used the core module with EasyPHP enabled the installation of PHP, Apache, MySQL and setting up of environment variables will be taken care within the system.

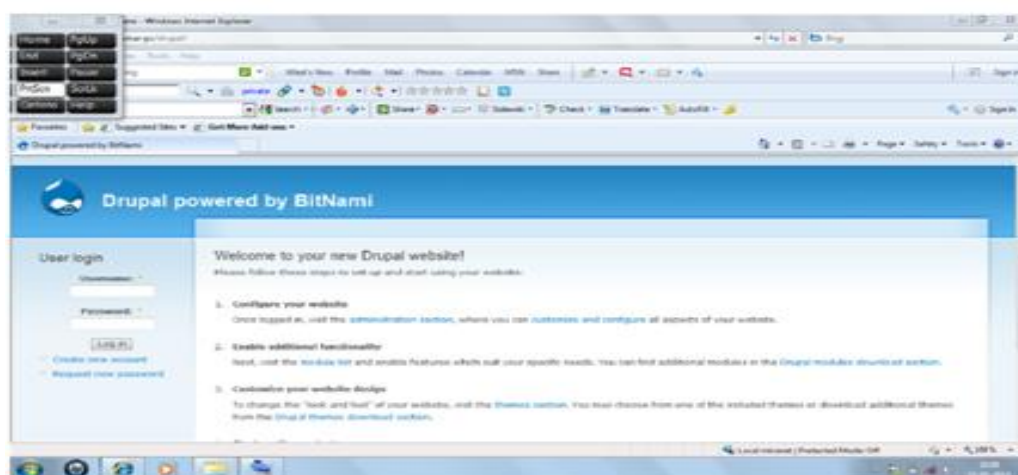


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Step 9: The installation will provide the hyperlink to the core Drupal home page.

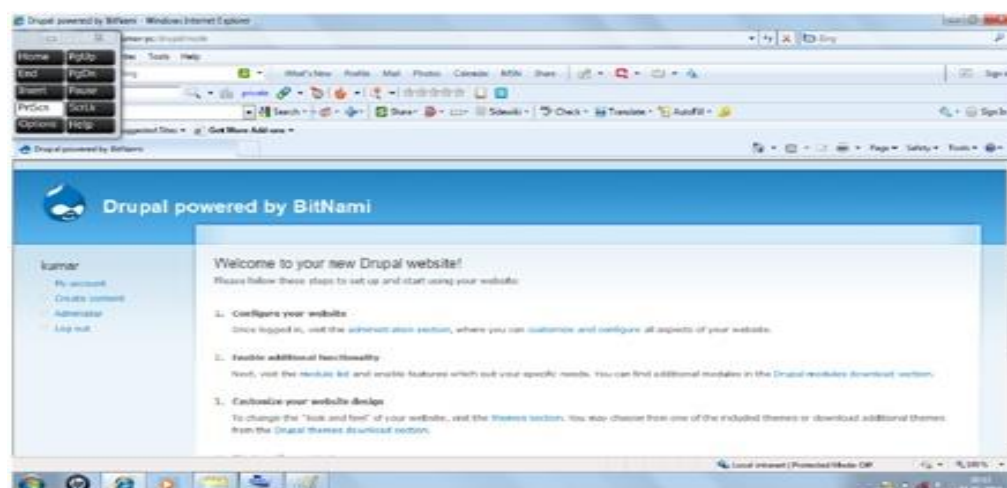


Step 10: The Drupal homepage will allow us to customize and select the theme to meet our requirements and choice.



Step 11: The admin login in the Drupal provides the option to customize the theme and open up the administrators option to create content, administer the privileges, module installation and customization and other privileges.

Step 12: In this step you are in your site



Phase 4: Creation of MySQL data base

The database of the tabulated data was created using Microsoft Excel sheet this organized data was imported to the MySQL database of Drupal. Before importing the data excel sheet converted the Microsoft xls sheet into CVS file format.

Site configuration:

Change basic site information, such as the site name, slogan, e-mail address, mission, front page and more.

Here we can add site name, E-mail address, Slogan, Mission and also the add image to the site. And finally save all the configurations.

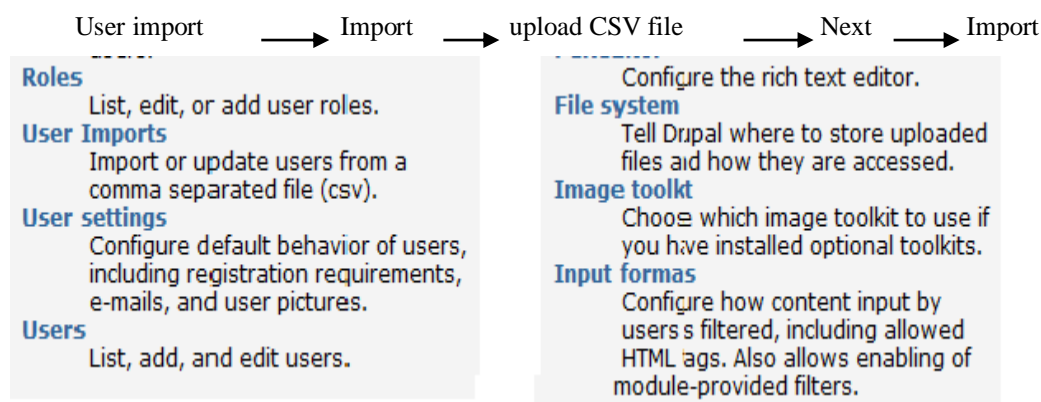
For this follow these steps: Administration → Site information → save configurations →



Creating a Journals database in Drupal:

Here we can add journals database to site by using user import module.

The following step should follow:



Click on the User import go to the User import module

Home » Administer » User management

User Imports

List Imports Import Configure

Import or update users from a comma separated file (csv). Click 'Import' to start a new import.

file	started	processed	imported	errors	status
13000.csv	05/30/2010 - 09:53	13724	0	27875	imported

Settings | Delete

file	started	processed	imported	errors	status
50.csv	05/30/2010 - 09:34	49	49	0	imported

Settings | Delete

Click on import option

Home » Administer » User management » User Imports

User Imports

List Imports Import Configure

A file must be uploaded or selected from FTP updates.

Browser Upload

Upload a CSV file.

CSV File:

Choose File imp.pr.csv

Select the CSV file to be imported. Maximum file size: 2097152 MB.

FTP Upload

Saved Settings:

journal gateway

In this step upload a CSV file

Creation of CSV file: our Project database created in XL sheet after all the information collected in the XL sheet, these file saved as CSV file

Home » Administer » User management » User Imports

User Imports

List Imports Import Configure

Use Different CSV File

Remove file to use a different file. All settings on this page will be deleted.

Uploaded file:

imp.pr.csv

Remove file

Field Match

Match columns in CSV file to profile fields, leave as '----' if there is no match.
Username: The Username will be built from CSV columns in the order selected.
Abbreviate: Use the first letter of a field in uppercase for the Username, e.g. 'john' -> 'J'.
 If no CSV fields are selected, the Username will be randomly generated.

csv column	Drupal fields	username	abbreviate
Subject	-----	no	<input type="checkbox"/>
Journals Name	-----	no	<input type="checkbox"/>
	-----	no	<input type="checkbox"/>
Publishers	-----	no	<input type="checkbox"/>
	-----	no	<input type="checkbox"/>
	-----	no	<input type="checkbox"/>

Here we define the subject, journal name, publishers, and publisher urls.

User Imports

List Imports Import Configure

▼ Use Different CSV File

Remove file to use a different file. All settings on this page will be deleted.

Uploaded file:
imp_pr.csv

Remove file

▼ Field Match

Match columns in CSV file to profile fields, leave as '-----' if there is no match.
Username: The Username will be built from CSV columns in the order selected.
Abbreviate: Use the first letter of a field in uppercase for the Username, e.g. 'john' -> 'J'.
 If no CSV fields are selected, the Username will be randomly generated.

csv column	Drupal fields	username	abbreviate
Subject	Subject	no	<input type="checkbox"/>
Journals Name	Journal Title	no	<input type="checkbox"/>
	-----	no	<input type="checkbox"/>
Publishers	Publishers	no	<input type="checkbox"/>
	-----	no	<input type="checkbox"/>
	-----	no	<input type="checkbox"/>

Finally click on import

Phase 5: Integrating the search module in Drupal to search the database.

Using the Drupal modular architecture the web portal which can act as the gateway to the journal data stored in the MySQL was designed. The portal was enriched with the themes and searching options.

Create content

Administer

Log out

Search Journal

o Search Journal

Well Come to Journal gateway

Submitted by [kumar](#) on Sun, 05/30/2010 - 16:19

Journal portal is an important concept like a web portal. Using journal portal any Organization, Institution, Enterprisers, Publishers can store, organize and disseminate the journal resource to their patrons. We were here concentrating on a content management system to build a journal portal because content management system (CMS) is a collection of procedures used to manage work flow in a collaborative environment. These procedures can be manual or computer-based. The procedures are designed to:

- Allow for a large number of people to contribute to and share stored data

3. Placing the search term

My account

Create content

Administer

Log out

Enter your keywords:

chemistry

Search results

Advances in Organometallic Chemistry

Chemical Engineering | Advances in Organometallic **Chemistry** | Elsevier Science | <http://www.sciencedirect.com/> ...

Computational Biology and Chemistry

Chemical Engineering | Computational Biology and **Chemistry** | Elsevier Science | <http://www.sciencedirect.com/> ...

Electrochemistry Communications

Chemical Engineering | Electrochemistry Communications | Elsevier Science | <http://www.sciencedirect.com/> ...

Industrial Chemistry Library

Chemical Engineering | Industrial **Chemistry** Library | Elsevier Science | <http://www.sciencedirect.com/> ...

Journal of Electroanalytical Chemistry

Chemical Engineering | Journal of Electroanalytical **Chemistry** | Elsevier Science | <http://www.sciencedirect.com/> ...

Journal of Fuel Chemistry and Technology

SCOPE AND LIMITATION OF THE STUDY

The present study aimed to develop a journal gateway for UGC-Infonet using a content management system. Content management concept plays an important role in designing and developing personal websites, blogs, portals, homepages, organizational websites, etc. Due to its stability, robustness, conceptual, and modular architecture, CMS is a widely trusted source of web applications. Drupal greatly supports the developer's community with an active forum. With this added feature the current study aimed to use CMS to build a journal portal of UFC –Infonet. UGC-Infonet is a part of the University Grant Commission (UGC). They offer a lot of services to their universities, academic colleges, and other institutions. But so many university libraries lack knowledge on the utilization of information resources, and they were not aware of the UGC-Infonet services. So this study designed a user-friendly environment for the patrons of UGC-Infonet

The present study only aimed at developing a journal portal for the UGC-Infonet journal subscription. Further, the study has not tried to classify the journals using any classification the scheme, its approach is to provide the general arrangements of the journal for ease to access.

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