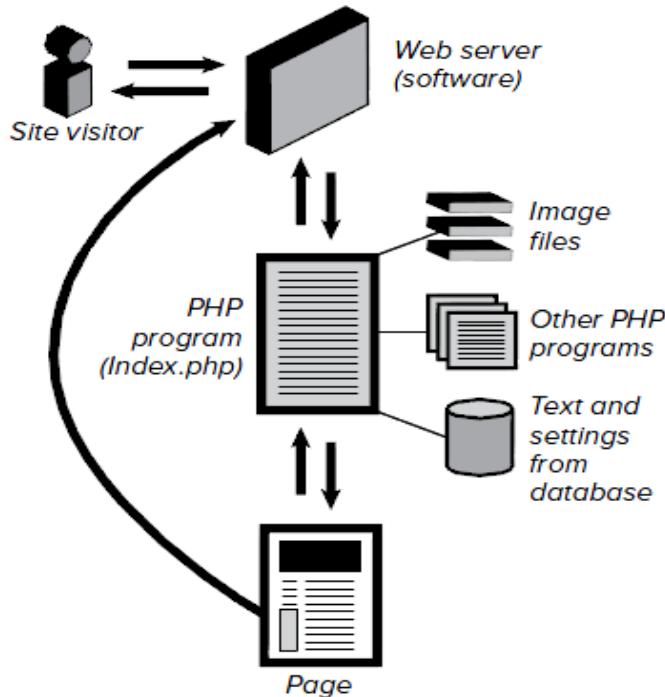


Overview and Installation

What is Drupal?

The Drupal project was started in 2000 by a student in Belgium named Dries Buytaert. The code was originally designed for a site called Drop.org



Drupal is a tool for building, managing, and presenting a website. It is open source software, so there is no explicit charge for using it.

Like much software that powers the web, Drupal doesn't run in the way that a word processing program or spreadsheet runs. It sits on a web server ready for action, and it flies into action when that web server receives a request to display a page.

Drupal responds to the request by interacting with the rules and information that have been stored in its database; the result of this response is almost always a web page that is returned to the user's browser. For the most part, input to Drupal consists of requests for pages that, after processing, are returned as pages of HTML.

The database that powers Drupal (MySQL normally) also lies in wait most of the time. It springs to action when Drupal sends a request for data or, in the case of developing a site, when Drupal sends a request to store information or rules about how the site is to be structured and displayed.

What is a CMS?

A Content Management System (CMS) stores and retrieves content that can be text, audio or video, images, and any other types that are relevant to the CMS and its users. This much is done with a database. But, CMSs add some additional features to basic storage and retrieval:

- A CMS normally provides the capability to version the content that it stores. Versioning means keeping track of multiple versions of the same item along with information about their sequence (and which is the current version); versioning may also allow for manual or automated comparisons to show the differences between versions.
- A CMS also typically provides for workflow management. This enables you to specify the steps that need to be taken as content moves through the system.
- Finally, a CMS generally provides the capability for a number of people to work together on the same content. Version control and workflow management are key tools that allow a collaborative process to culminate in the production and publication of final, consistent, and reviewed content.

Finding Drupal Sites (And Seeing What They Can Do)

There is a Drupal Showcase discussion on drupal.org (drupal.org/forum/25). Sites are listed as discussions with comments and suggestions, as well as links to the sites (Figure 1)

General

Drupal showcase

Login to post new content in the forum.

Topic	Replies	Created	Last reply ^
★ How to get your showcase post promoted to the front page of Drupal.org	0	2 years 24 weeks ago by Amazon	n/a
📌 Xmas Light Show video directory	1	2 days 17 hours ago by MacRonin	7 hours 55 min ago by MacRonin
📌 LCDTV.net – New Online Magazine Using Drupal 6	18	5 weeks 6 days ago by jazzdrive3	11 hours 42 min ago by xplan
📌 Two Drupal 7 – Personal Sites – a) Web Audio Channel and 2) Personal Blog	1	14 hours 16 min ago by roshan_shah	13 hours 9 min ago by Dan Silver
📌 Ultralingua.com: Language Software	14	1 week 1 hour ago by icanlocalize	23 hours 6 min ago by ddorian
📌 Niagara Falls Travel Portal for Clifton Hill – The World Famous Street of Fun by the Falls	3	23 weeks 3 days ago by niagarafallsinfo	1 day 39 min ago by tdee
📌 www.memorshop.com : Drupal based webshop using Ubercart, Acquia Prosper theme, and some more ..	3	42 weeks 3 hours ago by Luna	1 day 4 hours ago by dipprod
📌 Prelest.com – Female magazine	2	1 day 22 hours ago by dragondesign	1 day 9 hours ago by dragondesign
📌 Studentcafe.pl – student's press site ;)	3	1 week 1 day ago by hexen	1 day 13 hours ago by Dan Silver
📌 http://www.surreydirectory.info – Building a Search Engine like site	5	3 years 34 weeks ago by bpocanada	3 days 2 hours ago by mogop

New forum topics

[How to log permission changes](#)
[Sort/search and display dynamic content, is there an easy way?](#)
[i'm attending, i might attend, i'm not attending buttons](#)
[Show content of all subpages](#)
[Building a Heirarchic Country Vocabulary with CCK.](#)
[Community-driven store: where members sell their wares \(ebay, etsy, etc.\)](#)
[Two CCK fields fill each other](#)
[SQL syntax](#)
[Two columns node layout for displaying song translations](#)
[Views_mail redirection error exposed filter](#)
[Views Attachment field displays the taxonomy ID and ignores Rewrite Output](#)
[Trying to get Drupal to work the way my old PHP management system worked...](#)
[Textflow in FCK Editor with IMCE](#)
[two fatal errors](#)
[Need help to build multilingual site](#)
[How do i return ar array from a function in my template file](#)
[How can i use scrolling text with block?](#)
[How can I speed up my site?](#)
[how to make a fast-loading and slimmed page?](#)

Figure 1 – Drupal Showcase

Drupal Core

When you download and install Drupal, you are installing what is commonly called as Drupal core. Core represents the “engine” that powers a Drupal-based website, along with a number of out-of-the-box features that enable the creation of a relatively full-featured website such as:

- content
- file uploads/downloads
- menus
- user accounts
- roles and permissions
- blogs
- discussion forums
- online polls

Drupal 6 vs Drupal 7

Dozens of changes happened from version 6 to 7 and are described in minuscule detail in the periodic release notes linked from the Drupal project page at drupal.org/project/drupal.

Some of the highlights are:

- New themes. Drupal 7 adds a new default theme (Bartik) as well as a separate theme, appropriately called Seven, that makes administration easier.
- Lighter workflow. For version 7, links to Drupal's administrative functions have been radically reorganized into what its developers hope is a more user-friendly configuration, although it might leave Drupal 6 administrators scratching their heads for a while. Drupal 7 also puts commonly used commands in easy reach, in the Toolbar and customizable Shortcut bar. Finally - and most visibly - there's now an administrative overlay that floats controls in front of the screen they affect, reducing the feeling that you're navigating through a maze of screens.
- Improved installation and update procedures. What probably most often tripped up users of Drupal 6 was installation and updating, both of which have been fundamentally improved in Drupal 7. First, the installer has some nice touches that make it more foolproof. Second, help texts during installation are a lot more, well, helpful. Once you have Drupal installed, you can now install and update themes and modules through Drupal's web-based interface instead of needing access to the server (via its sometimes obscure commands).
- Smarter defaults. User studies and administrator experience have made Drupal more ready for use immediately upon installation. You can still override such behaviors, but on the whole, Drupal administrators will do a lot less initial work to make their Drupal 7 sites work the way they want.
- Easier, more flexible content management. For a content management system, the procedure for entering content in Drupal has historically been more difficult than it needed to be. But Drupal 7 makes up for lost time with three standout features. First, a neat visual trick called "vertical tabs" makes the content-entry form cleaner and easier to navigate. Second, you no longer need to download additional modules to put images in content. Finally, you can define highly customized types of content, for example catalog pages that include fields for price, color, and size. Before Drupal 7, you needed a module called Content Construction Kit (CCK) for this functionality.
- Fields in core. Drupal 7 has many improvements that are hidden from view—unless you're an experienced administrator or Drupal developer. "Fields in core" is one of those changes, but it has far-reaching benefits for everyone who uses Drupal. It essentially lets you break information into separate parts (fields) for truly original results. Fields in core actually goes beyond content, extending profiles, comments, and how you categorize content.
- Better organization of user permissions. Drupal has long offered extremely fine-grained permission controls. For example, you could allow users to edit (but not delete) their own blog entries. With that flexibility comes confusion, though, and the dozens of check boxes on Drupal 6's default permissions screen often threw new administrators for a loop.

Drupal Installation: Requirements

Drupal runs on a web server and stores its data in a database. The code for Drupal itself and contributed modules is primarily PHP. Other common web languages and protocols, such as CSS and JavaScript, are also used, but they rarely need to be considered: If you have a web server, it will almost always support them.

Note: The requirements for this class are a web host with **LINUX/UNIX, PHP** and **MySQL**. You can install Drupal on a Windows server with IIS but this class only supports a web host installation with LINUX/UNIX (Apache server).

Drupal Installation: Download Drupal Core

You can get the latest version of Drupal from <http://drupal.org/project/drupal>.

Recommended releases

Version	Downloads	Date	Links
7.8	tar.gz (2.64 MB) zip (3.05 MB)	2011-Aug-31	Notes
6.22	tar.gz (1.05 MB) zip (1.21 MB)	2011-May-25	Notes

Development releases

Version	Downloads	Date	Links
7.x-dev	tar.gz (2.64 MB) zip (3.07 MB)	2011-Sep-06	Notes
6.x-dev	tar.gz (1.05 MB) zip (1.21 MB)	2011-Aug-13	Notes

Note: We will be using version 7.x for this class.

Steps after download:

1. Extract to a folder on your computer.
2. FTP all files to a directory on your web host. This directory can either be your root or a separate folder. (Figure 2)
3. Create a MySQL database with your web host.
 - a. Each web host has a different interface but you will always need to give your database a name, a user name and a password. Some web hosts will have the database name and user name the same.
 - b. **Note:** You may also get a database host location that is not 'localhost'. You may need this as well during installation.

4. Enter your MySQL database information (Figure 3)
 - a. After you enter the database name, user name and password, you still may get an error message, if the other information is correct, then you may need to enter the Database host information as well under the Advanced options section.

5. Enter site configuration data. (Figure 4)
 - a. **Note:** Write down your admin user name and password. This will be your top admin account (super administrator) and is important you do not forget this information. Also put in a ‘real’ email account in case you forget your password you can reset it via email.

6. New site is displayed (Figure 5)

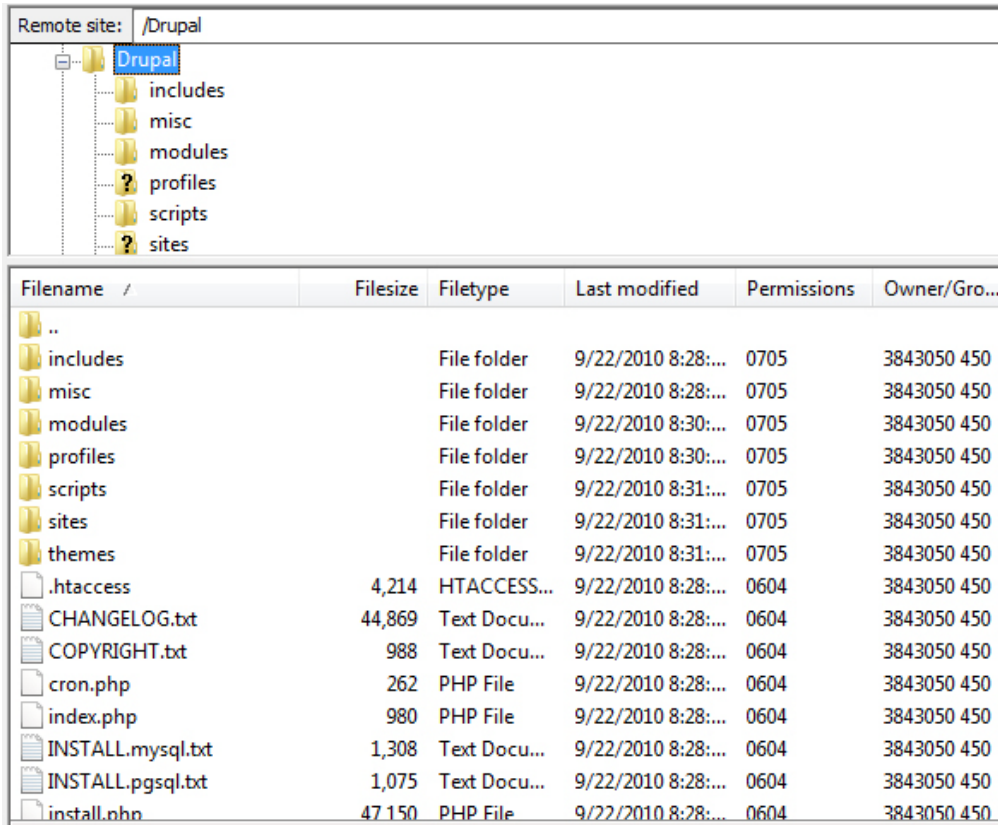


Figure 2 – FTP'd files from webhost (make sure .htaccess gets uploaded as well)

Database configuration



- ✓ Choose profile
- ✓ Choose language
- ✓ Verify requirements

▶ Set up database

- Install profile
- Configure site
- Finished

Database type *

- MySQL, MariaDB, or equivalent
- SQLite

The type of database your Drupal data will be stored in.

Database name *

The name of the database your Drupal data will be stored in. It must exist on your server before Drupal can be installed.

Database username *

Database password

▶ ADVANCED OPTIONS

Save and continue

Figure 3 – Enter your MySQL database information

Configure site



- ✓ Choose profile
 - ✓ Choose language
 - ✓ Verify requirements
 - ✓ Set up database
 - ✓ Install profile
 - ▶ **Configure site**
- Finished

SITE INFORMATION

Site name *

Introduction to Drupal

Site e-mail address *

me@localhost.com

Automated e-mails, such as registration information, will be sent from this address. Use an address ending in your site's domain to help prevent these e-mails from being flagged as spam.

SITE MAINTENANCE ACCOUNT

Username *

admin

Spaces are allowed; punctuation is not allowed except for periods, hyphens, and underscores.

Figure 4 – Site configuration

Dashboard Content Structure Appearance People Modules Configuration Reports Help

Add content Find content

Home

Introduction to Drupal

Home

Search

Welcome to Introduction to Drupal

No front page content has been created yet.

- [Add new content](#)

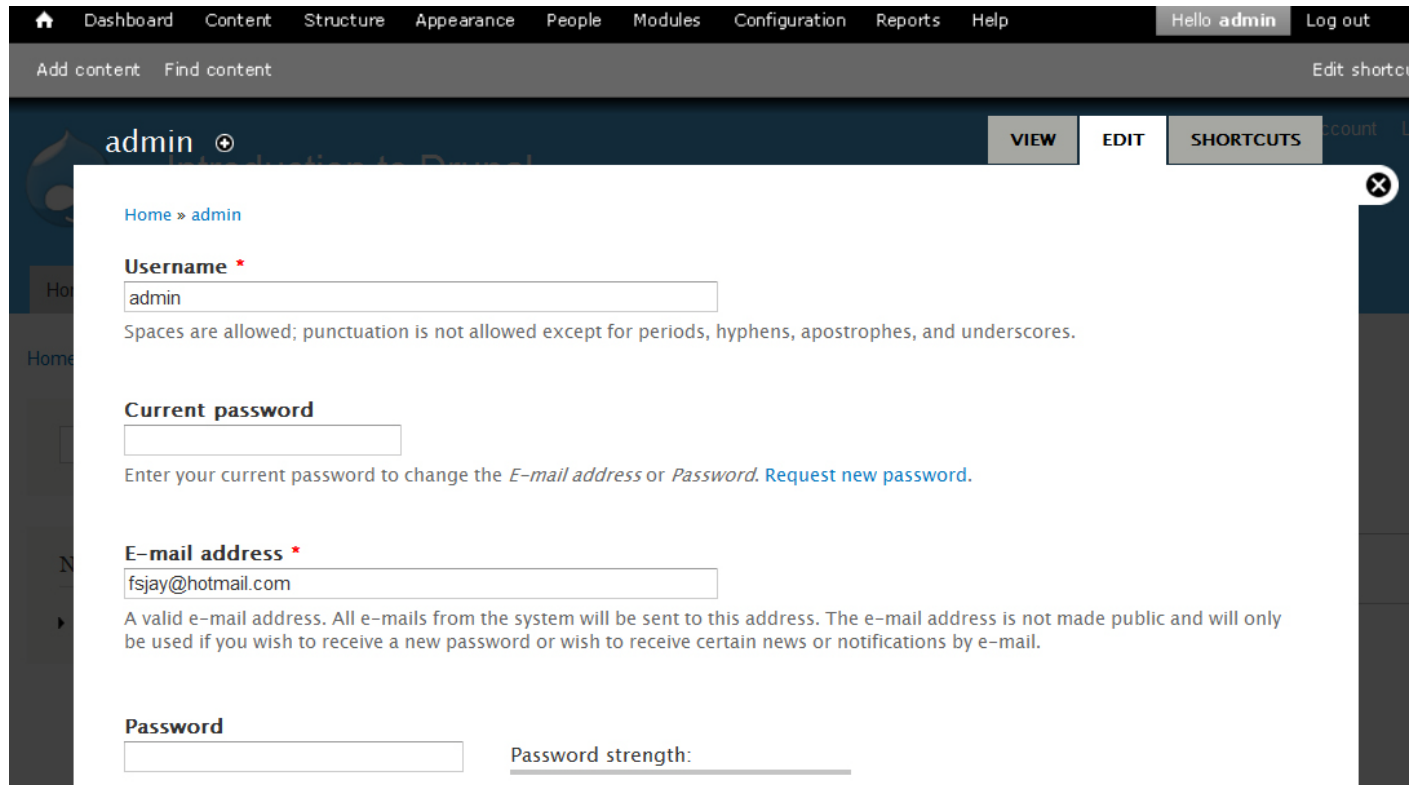
Navigation

- ▶ [Add content](#)

Figure 5 – Your newly created Drupal site. Congrats!

Drupal Installation: Admin Account Maintenance

After your log into your website your can modify your admin account by clicking the “my account” link and clicking the Edit tab (Figure 6).

The image shows a screenshot of the Drupal administration interface. At the top, there is a navigation menu with links for Dashboard, Content, Structure, Appearance, People, Modules, Configuration, Reports, and Help. On the right, it says "Hello admin" and "Log out". Below this is a secondary menu with "Add content" and "Find content". The main content area is titled "admin" and has tabs for "VIEW", "EDIT", and "SHORTCUTS". The "EDIT" tab is active. The form contains the following fields and instructions:

- Username ***: A text input field containing "admin". Below it, the text reads: "Spaces are allowed; punctuation is not allowed except for periods, hyphens, apostrophes, and underscores."
- Current password**: An empty text input field. Below it, the text reads: "Enter your current password to change the E-mail address or Password. Request new password."
- E-mail address ***: A text input field containing "fsjay@hotmail.com". Below it, the text reads: "A valid e-mail address. All e-mails from the system will be sent to this address. The e-mail address is not made public and will only be used if you wish to receive a new password or wish to receive certain news or notifications by e-mail."
- Password**: An empty text input field. To its right, there is a "Password strength:" indicator with a horizontal line.

Figure 6 – Modifying your account information

Drupal Content: Article or Basic Page

Articles are like a “river of news” which is mainly content that changes over time similar to a blog post where you can add comments as well. A Basic Page is more static used for and About Us or Welcome page.

Article content by Drupal gets promoted to the front page and show all Stories on the front page by default.

Pages are only displayed if you create a link via a menu to them and are not promoted to the front page like story content.

Note: We will cover more about content in future lessons.

Drupal Content: Story

Let's create a couple articles first by just clicking the Add Content link and then click "Article" (Figure 7 and 8).

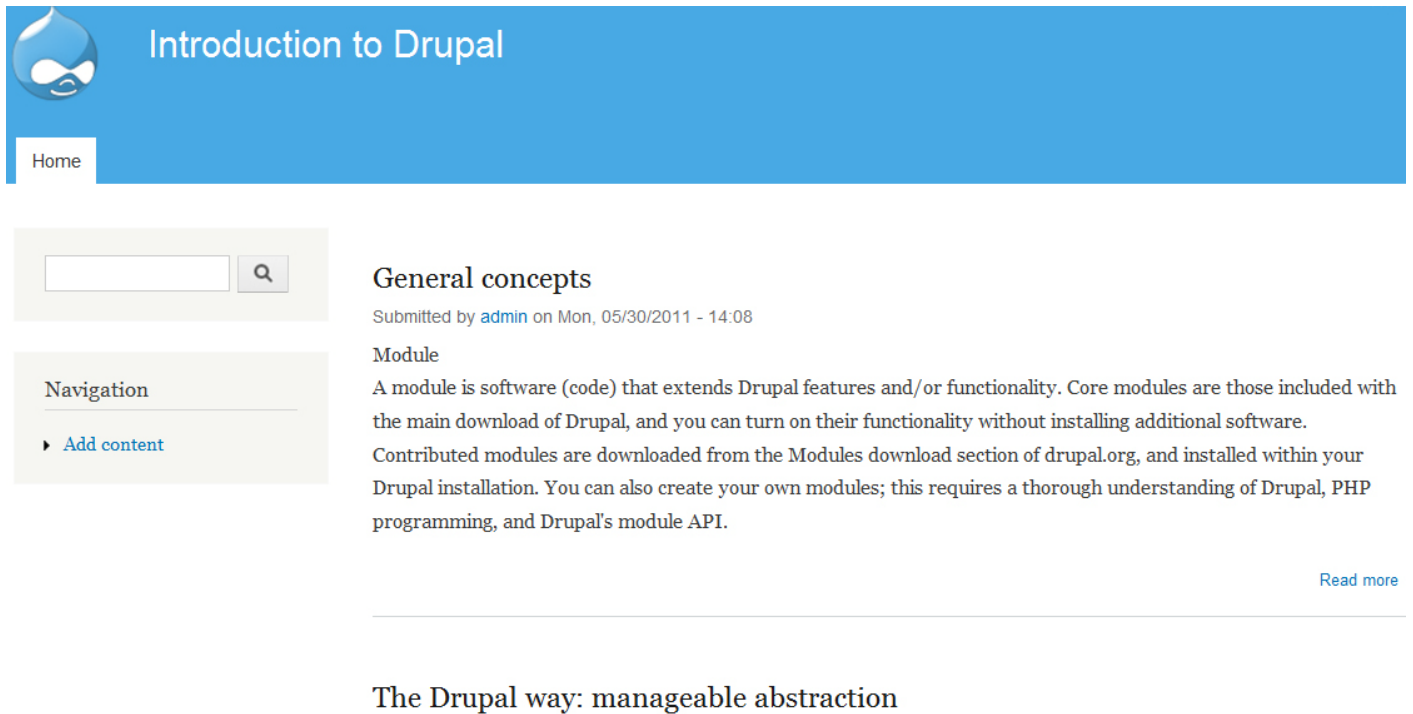


Figure 7 – Articles get displayed to front page



Figure 8 –Article content

[Home](#) » [Add content](#)

Title *

Tags

Enter a comma-separated list of words to describe your content.

Body (Edit summary)

Figure 9 –Create an Article

Now you will notice that all your articles are on the front page. If your Articles have a good amount of content you will see the teaser view on the front page that only displays a certain amount of content until the user clicks on the title to see the rest. By default it is the first paragraph as the teaser content but that can be customized.

Drupal Content: Page

Now let's create a Page so we don't have to see this river of articles on our front page. (Figure 10)

The page you just created will display by default.

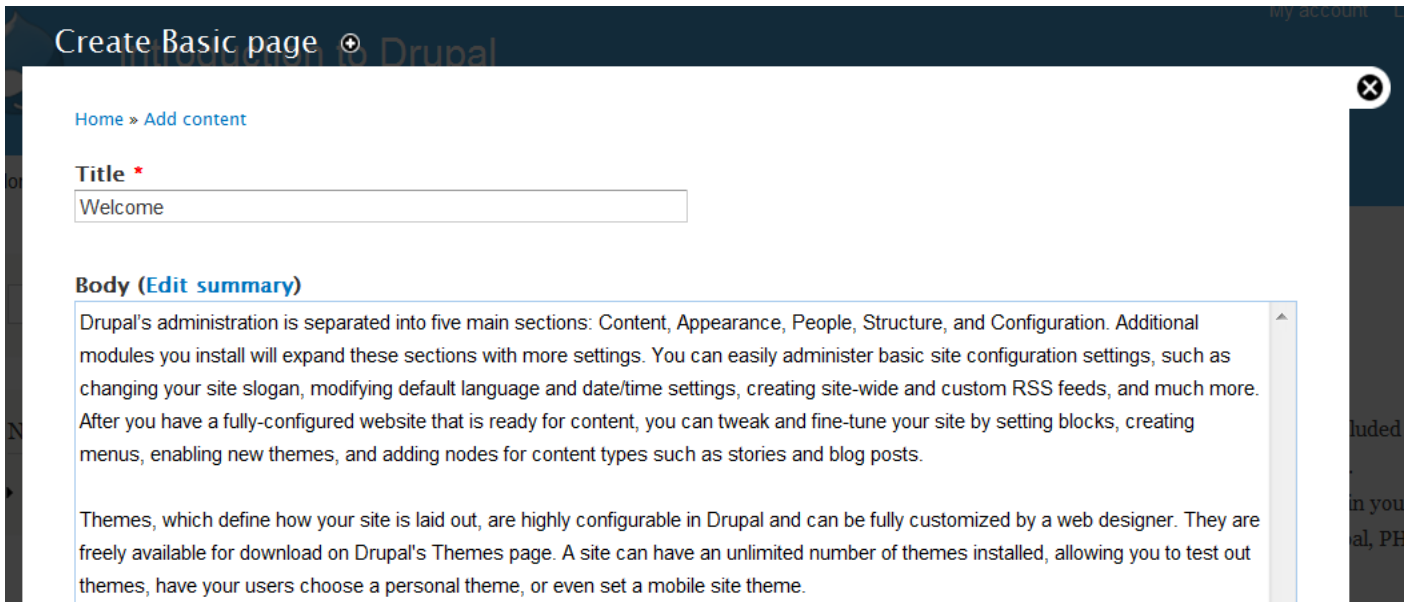
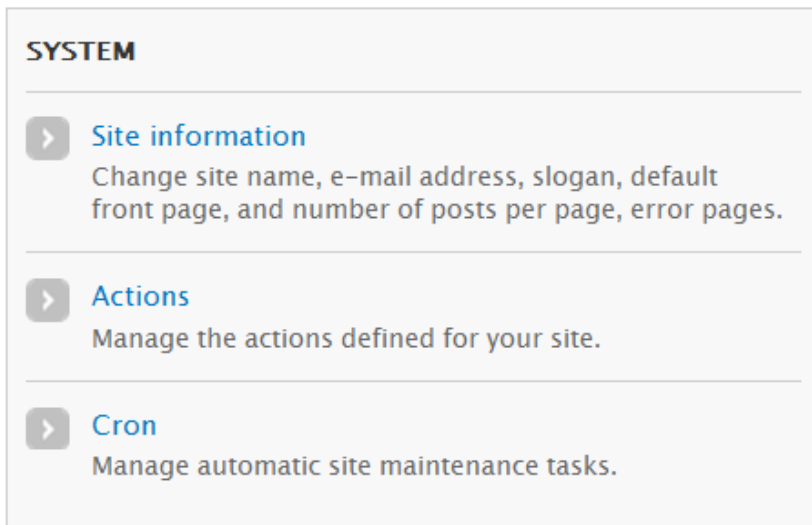


Figure 10 – Creating a Page

Drupal Content: Setting the Home Page Content

Even though you just created a Page, it doesn't display on the front page. So we need to make sure our page we just created gets promoted to the home page. Normally page content will be linked via a menu of some sort but for now we want to tell our Drupal site that our newly created page will be displayed on the front page.

Step 1: Go to Configuration: Site Information



Step 2: Scroll down to Default front page

Default front page

http://www.drupalclass.com/test/

Optionally, specify a relative URL to display as the front page. Leave blank to display the

Step 3: Enter the **node value** for the page you recently created (i.e. Node/3)

If you're not sure what **node value** your page was, go to "Content" and view the content you have already created (Figure 11).

Note: Nodes are how Drupal keeps track of all the different types of content on your site. So when you created a Page a node was created and is shown in the url when that Page is viewed.

SHOW ONLY ITEMS WHERE

status

type

UPDATE OPTIONS

<input type="checkbox"/>	TITLE	TYPE	AUTHOR	STATUS	UPDATED	OPERATIONS
<input type="checkbox"/>	Welcome	Basic page	admin	published	05/30/2011 - 14:25	edit delete
<input type="checkbox"/>	General concepts	Article	admin	published	05/30/2011 - 14:08	edit delete
<input type="checkbox"/>	The Drupal way: manageable abstraction	Article	admin	published	05/30/2011 - 14:06	edit delete

Figure 11 –Viewing your created content

Though most Drupal websites use url aliasing to put a descriptive name for the address of your content. (Figure 12)

Menu settings Not in menu	URL alias <input type="text" value="welcome"/> Optionally specify an alternative URL by which this content can be accessed. For example, type "about" when writing an about page. Use a relative path and don't add a trailing slash or the URL alias won't work.
Revision information No revision	
URL path settings Alias: welcome	
Comment settings Closed	
Authoring information By admin on 2011-05-30 14:25:11 - 0400	
Publishing options Published	

Figure 12 –Specifying an alias for your Page

Note: The default Page of your Drupal site does not have to display the alias name, it will be assumed to be the “index” page.

Understanding the Basics: Content

Content is the primary building block of any website, whether it is constructed using Drupal or any other tool in the marketplace. Content is what visitors come to a website to find, and a lack of content is often the reason visitors fail to return to a website after the first time. In its most basic form, content is any combination of text, pictures, video, audio, and graphics. An individual piece of content may take a variety of different forms:

- news story
- blog post
- product description
- company overview
- forum post
- photograph
- wiki entry

Content on a Drupal-based website often starts with a title followed by body text. Drupal provides the ability to expand on this with a custom content type. A custom content type enables you to create additional fields that can be used to capture other relevant and related information. A common example is a calendar event. An event includes a title and body text (the description of the event), as well as other pertinent information, such as the date and time, the location, and possibly a map or photo.

Note: I’ll be covering creating custom content types in a later lesson.

Installation Troubleshooting Tip:

There are some web hosts that have register_globals not disabled which is required for installation. A workaround would be to create a php.ini file and set register_globals to 0 or off (`register_globals = off`). <http://drupal.org/node/216882>

Additional Lesson Resources

1. Installation

Requirements: <http://drupal.org/requirements>
Basics installation: <http://drupal.org/node/628292>
How-to-articles: <http://drupal.org/node/21875>

2. Overview

Basics: <http://drupal.org/getting-started/before/overview>
Concepts: <http://drupal.org/node/19828>
Content Types: <http://drupal.org/node/21947>

3. Tutorials

Drupal Dojo - <http://drupaldojo.com/>
Learn By The Drop – <http://learnbythedrop.com/>
Mastering Drupal- <http://www.masteringdrupal.com/>

Assignment for Lesson 1

1. Read over this lesson.
2. Install Drupal on your webhost.
3. Create a page and make it display on your front page.
4. Display your site link in the class forum.

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