SETTING UP DRUPAL, CREATING CONTENT TYPES, WORKING WITH VIEWS

Drupal I

Spring 2011

INTRODUCTION

- Drupal is a tool that helps people build interactive websites.
- It is free to download, install, customize and use.
- It started in 2000 by Dries Buytaert and some friends when he was at the University of Antwerp as an application that allowed people to share notes.
- In January 2001 Dries released the source code, which heralded the birth of the Drupal project.

INTRODUCTION

- Drupal provides a wide variety of useful tools for educators.
  - For the instructor, it can serve as a blogging platform, allowing teachers to communicate directly with students, parents, and the larger school and Internet community.
  - Offers a flexible range of privacy options that permit users to keep some or all of the content within a site private.
  - Supports features such as social bookmarking, podcasting, video hosting, formal and informal groups.

DRUPAL TERMINOLOGY

- Drupal has a specific lexicon; the most common are as follows:
  - **Node**: piece of content that is created on your site (e.g. a page) aka post.
  - **Content type**: Refers to different types of content found in your Drupal site. Drupal install comes with two content types
    - Page
    - Story
  - **Modules**: contributed components written and shared by the Drupal community, extending the functionality of Drupal.

DRUPAL TERMINOLOGY

- **Theme**: controls the look and feel of your site. The default installation comes with several themes.
- **Menu**: provides lists of links, and can be used to create an organizational and navigational structure for your site.
- **Taxonomy**: categories used to organize content within your site.
- **Term**: specific tags within a taxonomy. For example:
  - Lets say that taxonomies to organize assignments are "type of assignment" and "subject".
  - An assignment about "theory of computer science" may be tagged with *Reading* for type of assignment and *computer science.*

DRUPAL TERMINOLOGY (cont.)

- **User**: people using your site.
- **Role**: all site users belong to one or more roles. The site administrator (you) can assign different rights to different roles.
- **Anonymous user**: any person who visits your site and is not a member of your site.
- **Authenticated user**: all site members are authenticated users and belong to the default authenticated role.
- **Block:** used to display menus.
- **Region:** areas that can contains blocks (header, left sidebar, right sidebar, content, footer)

BEFORE INSTALLING DRUPAL…

- To get Drupal running, you will need:
  1. A domain (school domain could be used or acquire your own)
  2. A web host
     - School could be the web host or acquire a hosting company
     - Drupal runs on Apache environment and other web servers (e.g. MS IIS)
     - PHP version 5.2 and MySQL version 5 is recommended
  3. FTP access to your web host
     - Required to upload Drupal codebase to your web space.

OR

- A local testing environment
  - PC users can use XAMPP; MAC users can use MAMP

SETTING UP A LOCAL TESTING ENVIRONMENT IN WINDOWS

- Follow these steps:
  1. Download the latest version of XAMPP and install it on your desired drive (e.g. C:\ for hard disk, E:\ for flash drive, etc.)
  2. Start Apache Web server and MySQL (database server) services from the XAMPP control panel.
  3. In your web browser, type **http://localhost/xampp** and click Security. Make sure that you select the English language as soon as you see the language link for it.

SETTING UP A LOCAL TESTING ENVIRONMENT IN WINDOWS

- (optional, for added security) decide on a password for the MySQL root user that you will remember. If decided, then go to:

  http://localhost/security/xamppsecurity.php

- Your user name for MySQL is root. Enter the password twice.
- Click the **Password changing** button.

SETTING UP A LOCAL TESTING ENVIRONMENT IN MAC

- The steps are similar, but somewhat different.
- Go to the Website for step by steps instructions on how to create the local environment for drupal **http://drupal.org/node/66187**
- This other website also has instructions on how to do this: **http://groups.drupal.org/node/24016**

DOWNLOADING DRUPAL

- This tutorial is based on version 6.x:
  1. You may download either versions 6.2 or 7.0 from **http://drupal.org/project/drupal**. Save the download inside your **xampp\htdocs** folder (very important! -- for Mac users **mamp\htdocs**)
  2. When you unzip the Drupal download, it may create a directory called "drupal-6.17" (or whichever version of drupal you downloaded). It is recommended that you rename it to just "drupal".
  3. In a web browser, go to

     http://localhost/phpmyadmin. Username is root, password is whatever you chose.

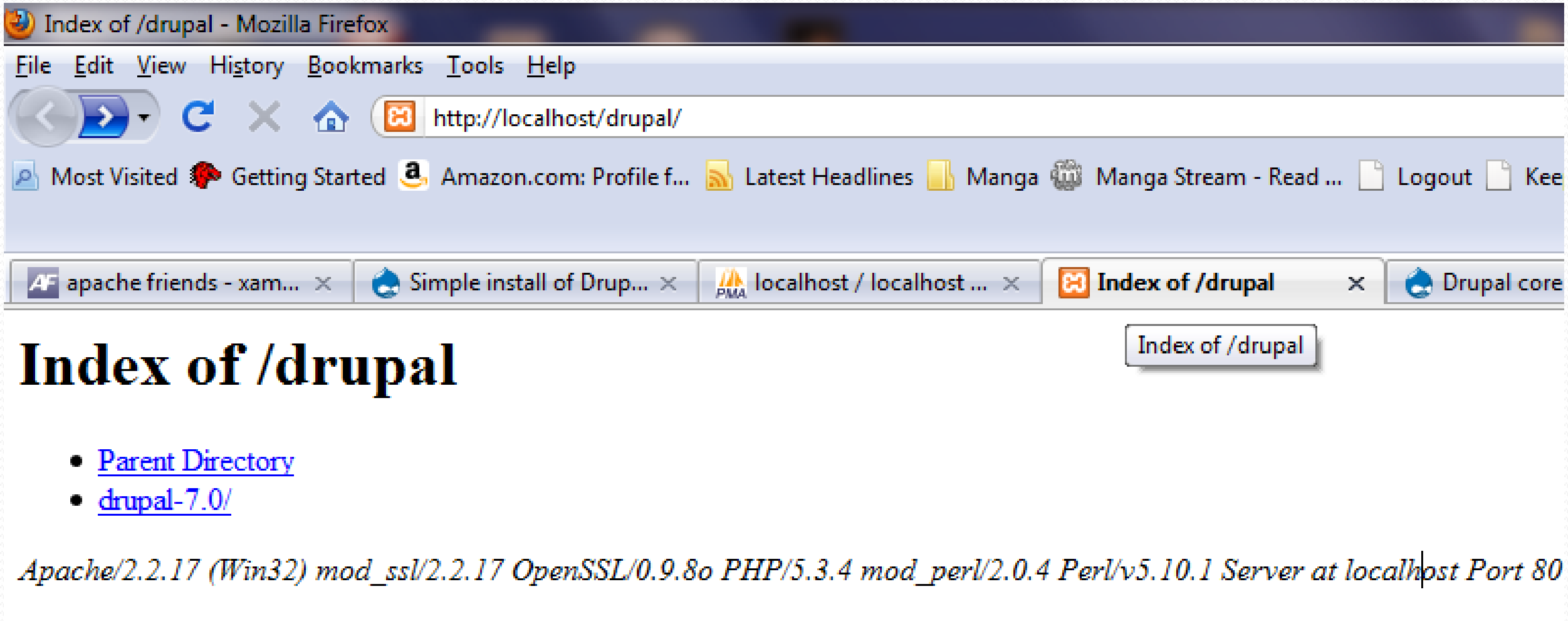
DOWNLOADING DRUPAL

- Follow these steps:

4. On the screen section that says MySQL localhost, under **Create new database**, type Drupal.
5. Click the **Create** button. This creates the database.
6. Using **Windows Explorer** program, create a copy of the file **default.settings.php** (located in \xampp\htdocs\drupal\sites\default) and rename the copy as **settings.php**

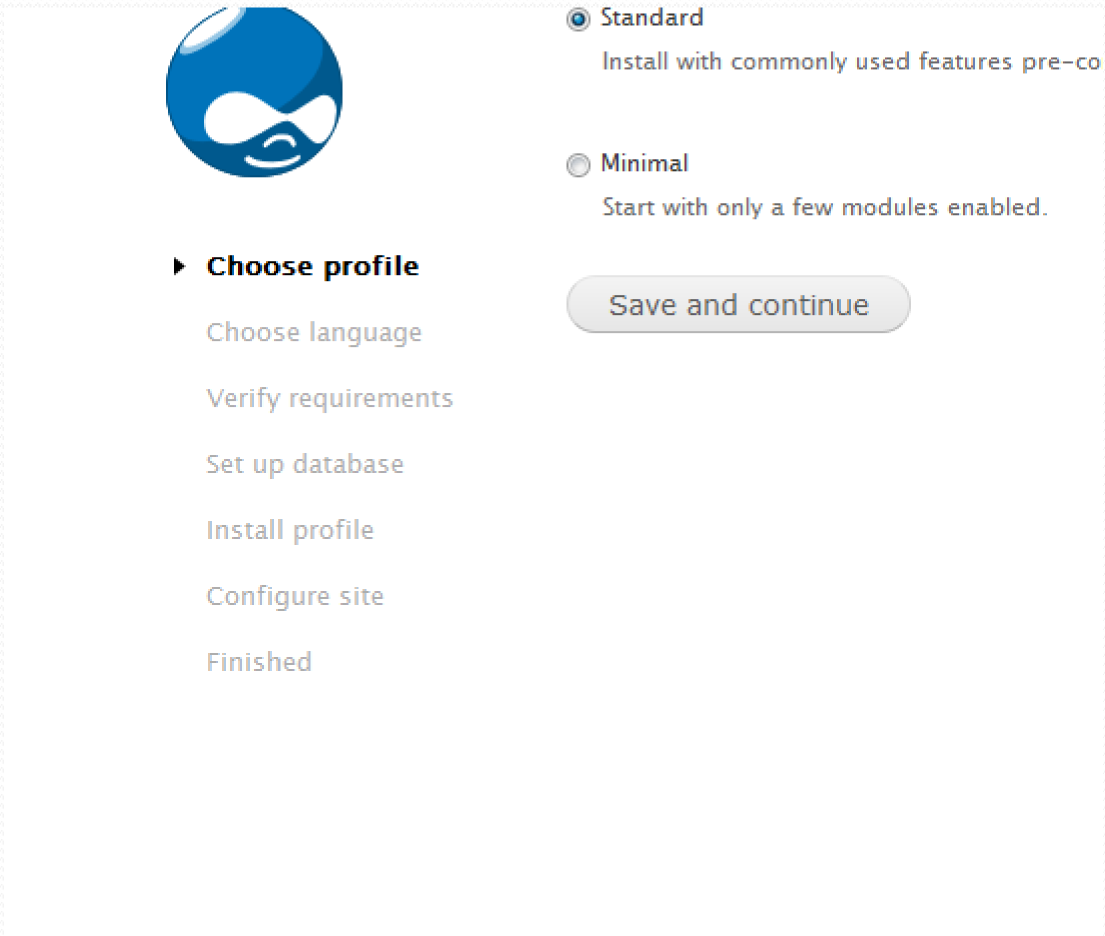
INSTALLING DRUPAL

- Once that the web host has been configured, Drupal must be properly setup and configured.
  1. Open your web browser and type **http://localhost/drupal**. You may need to browse this screen until you find the Drupal folder in the browser and click on it



INSTALLING DRUPAL

2. Make sure you select the standard profile and click **Save and Continue**.



INSTALLING DRUPAL

3. Select the language for Drupal site. English is already selected by default. Click **Save and Continue**.
4. Enter the name of the database (must have been created prior to this step)
5. Enter the name of the database username and database password (must have been created prior to this step; usually the username is root for the creator of the database, password is your choice)
6. On the configure site screen, you can enter some general information about your site and create your fist user account. This account has full rights over every aspect of your site.

ADDING MODULES AND THEMES

- Follow these steps:
  1. Download the theme or module from drupal.org
  2. Decompress the theme or module (they exist as tar.gz or zip files)
  3. Create two subdirectories: **modules** and **themes**. Both must be inside the **drupal/sites/all** directory.
  4. Upload the theme or module to your site inside their respective directories (modules or themes)
  5. In Drupal, enable the modules at **admin/build/module** or the theme at **admin/build/themes**

CREATING ROLES

- Drupal comes with two default roles:
  - Authenticated: all site members belong to this role.
  - Anonymous: used for non-members visiting the site.
- However, it is good practice to have more specialized roles, since they can have additional levels of security.
- Follow these steps:
  1. Click the **Administer -> User Management -> Roles** link (on the left hand side of the screen).
  2. Click the **Add role** button

PRACTICE #1

- Add three roles: teacher, student, site admin.

CREATING CONTENT TYPES

- On your Drupal site, you will have different types of content or nodes.

- The default install comes with two types:
  - Page:
    - refers to content that rarely changes (e.g. “About us” section of website).
    - does not allow visitor comments and is not featured on the site’s initial homepage.
  - Story:
    - refers to content that informs or engage website visitors (e.g. press releases, and blog-like entries).
    - allows visitor comments and is featured on the site’s initial homepage.

- However, it is good practice to have more content types for different functions, making your website more versatile.

CREATING CONTENT TYPES

- The main steps are:
  1. **Creating the content type itself**
  2. Adding Fields to the content type (optional)
  3. Adding Taxonomy to the content type (optional)
  4. **Assigning Privileges to the content type**

CREATING CONTENT TYPES

- Follow these steps:
  1. Click the **<u>Administer -> Content Management -> Content types</u>** (on the left hand side of the screen).
  2. Click the **<u>Add content type</u>** link.
  3. In the **Name** textbox, type a human-readable **unique** name for the content type.
     - It is recommended that it begins with a capital letter and contain only letter, numbers, and spaces.
     - It is displayed as part of the list on the create content page.

CREATING CONTENT TYPES

4. In the **Type** textbox, type a **unique** machine-readable name for the content type. This name will be used to construct the URL of the create content page for this content type.
   - It is recommended that it only has lowercase letters, numbers, and underscores.
   - It is displayed as part of the list on the create content page.
5. In the **Description** textbox, type a more detailed description of what the content type is used for. You can include html here as well.
6. Click the **Submission form settings** link. This section allows you to customize what appears to people as they add content on your site.

PRACTICE #2

1. Create a new content type. These are the values to enter.
   a. Name: **Bookmark**
   b. Type: **bookmark**
   c. Description: **Add a bookmark that points to an external web site.**

CREATING CONTENT TYPES

7. In the **Title field label** textbox, you may type the name that the user will see associated with the textbox where they can enter the title for their data.
8. In the **Body** textbox, you may type the name that the user will see associated with the comment box where they can enter comment for their data.
9. In the **Minimum number of words** combo box, you select the minimum number of words to be considered valid for this content type (e.g. useful for test posts).
10. In the **Explanation or submission guidelines** textbox, you may type the same text that you put on the description (step 5).

PRACTICE #3

1. For your new content type, these are the values to enter under submission form settings.
   a. Explanation or submission… : **Add a bookmark that points to an external web site.**
   b. Leave everything else as is.

CREATING CONTENT TYPES

11. Click the **<u>Workflow Settings</u>** link. This section allows you to cover the basic rules for what happens to a piece of content when it is created or edited.
12. Check the **<u>Published</u>** checkbox to ensure that regular users can see your content.
13. Check the **<u>Create new revision</u>** checkbox to ensure that every time a piece of content is edited and saved, it creates a revision.
    - Users with sufficient privileges can view and revert to older revisions (wiki-like functionality).
14. Under **Attachments**, select **<u>Enabled</u>** if you want users to attach files to content. Otherwise, leave it **<u>Disabled</u>**.

PRACTICE #4

1. These are the values to enter under workflow settings:
   a. Check the published checkbox
   b. Disable attachments

CREATING CONTENT TYPES

15. Under **Default comment setting**, decide whether comments are allowed.
16. Under **Anonymous commenting**, decide whether this type of commenting would be allowed.
17. Under **Preview comment**, decide whether this will be optional or required.
18. Click the **<u>Save content type</u>** button.

PRACTICE #5

1. These are the values to enter under the comment settings section:
   a. Default comment setting: **read/write**
   b. Default display order: **oldest first**
   c. No anonymous comments are allowed (it is already grayed out)
   d. Preview comment: **Optional**
   e. Location of comment submission form: **display below post or comments.**

CREATING CONTENT TYPES: ADDING FIELDS

- On your Drupal site, generally you need fields associated with your content type.
- To add fields to content types, we need to install the Content Construction Kit (CCK). Additional modules might be obtain separately. Consult with the drupal.org website.
- The modules need to be downloaded, extracted, uploaded into sites/all/modules.
- Follow these steps:

1. Click the **Administer -> Site Building ->Modules** link. You will see all the modules that have been enabled and other modules that have not.
2. Enable the following modules:
   - Content, Fieldgroup, Link, Node Reference, Number, Option Widgets, Text, and User Reference.
3. Click the **Save configuration** button.

CREATING CONTENT TYPES: ADDING FIELDS

4. Click the **Administer -> Content Management -> Content types** link.
5. Click the **Manage fields** link for the content type that you want to add fields to.
6. In the **Label** text box, type the name that the user will see for the specific content that the user will enter.
7. In the **Field name** text box, type the name in lowercase that best represents the field for the specific content that the user will enter.
8. In the **Type of data to store** combo box, select the data type that best represents the field for the specific content the user will enter.
9. In the **Form element to edit the data** combo box, make a selection according to the data type chosen in the previous step.
10. Click the **Save** button. This will bring you on to the configuration screen.

PRACTICE #6

1. Add a new field. These are the values to enter.
   a. Label: **Link to source**
   b. Field name: **link**
   c. Type of data: **Link**

CREATING CONTENT TYPES: ADDING FIELDS

11. In the **Help text box**, type instructions to present to the user below this field on the editing form.
12. Check the <u>**Required**</u> checkbox to make sure the user provides the necessary content.
13. Set any other options that may be necessary.
14. Click the <u>**Save field settings**</u> button. This returns you to the Manage fields administrative screen.
15. On this page, you can order your fields using drag and drop. Click the <u>**Save**</u> button to record any changes.

PRACTICE #7

1. These are the values to enter in the manage fields administrative screen:
   a. Help text: **Enter a link to an external web site. Most links will start with http://**
   b. Check the Required checkbox
   c. Link Title: **No title**

CREATING CONTENT TYPES: ASSIGNING TAXONOMIES

- On your Drupal site, taxonomies can be used to organize content.
- Site administrators can create different taxonomy categories to organize posts (pieces of content)
  - For example, when posting an assignment, an instructor might want to create two taxonomies: one for the type of assignment, and another for the subject of the assignment.
- Follow these steps:

1. Click the **Administer -> Content Management -> Taxonomy** link.
2. Click the **Add Vocabulary** link.
3. In the **Vocabulary name** textbox, type the name for the vocabulary that will be used to describe posts (pieces of content).
4. In the **Description** textbox, enter a description for the vocabulary. This description is not displayed anywhere on the site by default (admin purposes).
5. In the **Help text** textbox, enter instructions to present to the user when selecting terms, e.g., *"Enter a comma separated list of words"*.

CREATING CONTENT TYPES: ASSIGNING TAXONOMIES

6. Select the **Tags** checkbox to let the user add the list of terms (free tagging). Otherwise, only the administrator will be able to do this.

7. Select the **Multiple Select** checkbox to let more than one term to be applied to a post.

8. Select the **Required** checkbox to make the user choose a term.

9. Click the **Save** button to save your preferences.

PRACTICE #8

1. Add a new taxonomy. These are the values to enter.
   a. Vocabulary name: **Keywords**
   b. Description: **Keywords to describe content**
   c. Help text: **Enter keywords to describe your post.**
   d. Tags checkbox: **checked**
   e. Multiple select checkbox: **checked**

CREATING CONTENT TYPES: ASSIGNING PRIVILEGES

- The final step in preparing content types for use on your site is to assign privileges
- Follow these steps:

1. Click the **<u>Administer -> User Management -> Roles</u>** link.
2. Click the **<u>edit permissions</u>** link.
3. On the **Permissions** page, scroll down to the section titled **node module**.
4. Assign roles to the desired content.
5. Click the **<u>Save permissions</u>** button to save your settings.

PRACTICE #9

1. Assign to the teacher role, the following content:
   a. Create bookmark content
   b. Delete own bookmark content
   c. Edit own bookmark content

TESTING THE CONTENT

- The final step in preparing content types for use on your site is to assign privileges
- Follow these steps:

1. Click the **<u>Create content</u>** link.
2. Click the **<u>content type</u>** link that you created.
3. Enter all the required information.
4. Click the **<u>Save</u>** button to save your new content.

PRACTICE #10

1. Create a new bookmark and provide the following information:
   a. Title: **The First Bookmark**
   b. Body: **I just found this amazing search engine: It finds anything! And I mean anything!**
   c. Link to Source: **http://www.google.com**
   d. Keywords: **search, google, utilities, research**
2. Create another bookmark, use the website of your choice.

PRACTICE #10

1. Create a Bookmark. Set the values as follows:
   - **Title**: Background on Moby Dick
   - **Body**: This Wikipedia article on Moby Dick gives a solid overview of the novel. While the article lacks detail, it is accurate. It also contains information on the basic themes of the novel, some historical context, and a character list.
   - **Keywords**: Moby Dick, background, historical context, character list, themes
   - **Link**: http://en.wikipedia.org/wiki/Moby-Dick
2. Create another bookmark, use the website of your choice.

CREATING VIEWS

- Allow site administrators to sort and display content created on the site
- The three major steps are:

1. Adding a view.
2. Setting the defaults.
3. Adding a display type.

CREATING VIEWS: ADDING A VIEW

1. Click the **Administer -> Site Building ->Modules** link. You will see all the modules that have been enabled and other modules that have not.
2. Make sure that the following modules are already enabled; if not, then do so: **Advanced Help**, **Views**, **Views exporter**, and **Views UI**.
3. Click the **Administer -> Site Building -> Views** link. The view administration page appears showing tools for finding, creating, and organizing views.
4. Click the **Add** tab.
5. In the **View name** textbox, type a unique name for the view; containing only alphanumeric characters and underscores.
6. In the **View description** textbox, type a description that will appear in the view's administrative page.
7. In the **View tag** section, you may use tags to categorize your views; useful when you plan to have a site with a lot of views.
8. In the **View type** section, select the type of data you will be collecting for display.
9. Click the **Next** button. This brings you to the **Edit view** screen.

PRACTICE #10

1. Create a new view and set the following values:
   a. View name: **bookmarks_all**
   b. View description: **All bookmarks created on the site**
   c. View tag: **public_view**
   d. View type: **Node**

CREATING VIEWS: SETTING THE DEFAULTS

- This section holds the basic settings for the view.
- There are five general steps in this section:

1. **Adding Fields**
2. **Adding Filters**
3. Adding Arguments (optional)
4. **Setting the Style (optional)**
5. **Additional configuration (optional)**

CREATING VIEWS: SETTING THE DEFAULT

- **Adding Fields**
  1. Click the ± icon next to the **Fields** option. This brings up the list of available fields, which can be organized by group.
  2. Select the **Node** group to have available fields such as: teaser, title, type, updated date and updated comment. You may select as many fields as you need.
  3. Select the **Content** group to have as available fields, those that you have already added when creating content type. You may select as many fields as you need.
  4. Select the **Taxonomy** group to have as available fields, such as: all terms, term, and term description. You may select as many fields as you need.
  5. Click the **Add** button. This will automatically bring you to the wizard that will help you configure some display options for the field.

PRACTICE #11

1. Add new fields for the view you created:
   a. **Node: Title**
   b. **Node: Updated/commented date**
   c. **Content: Link: Link to Source**
   d. **Taxonomy: All Terms**

CREATING VIEWS: SETTING THE DEFAULT

- **Adding Fields**

6. Click on a field that you want to configure.
7. Select the necessary options to configure your fields.
8. Click the **Update** button to save the configuration.
9. Repeat these steps for as many fields as you have.

PRACTICE #12

1. Configure the following fields

   a. **Node: Title**
      - Check the **Link this field to its node** checkbox. This option provides a link back to the original bookmark.

   b. **Content: Link: Link to Source**
      - Select **URL, as link**. This will specify that the URL will work as a link to the stored location.

   c. **Taxonomy: All Terms**
      - Label: **Keywords**
      - Empty list text: **No terms available for this post**.
      - Select **Limit terms by vocabulary** and select **Keywords** vocabulary.
      - Leave other options as is

CREATING VIEWS: SETTING THE DEFAULT

- **Adding Filters**
  - Once that fields have been configured, you still need to filter the view to display only what you want.
    - For example, the all_bookmark view is going to display by default all types of posts, not only bookmarks.
  - Follow these steps:

1. Click the **Add filter** icon.
2. From the **Groups** combo box, select **Node**. This will help you to filter by content type.
3. Select **Node: Type**. This will make sure that only the desired content type will appear in the view (e.g. story, page, etc).
4. Select **Node: Published or admin**. This will make sure that unpublished nodes are filtered out if the current user cannot view them.
5. Click the **Add** button to save these options. This will bring you to the wizard that will help you configure the filter.

PRACTICE #13

1. Add a filter for the bookmarks_all view. Use the options from the previous slide.

CREATING VIEWS: SETTING THE DEFAULT

- **Adding Filters**

6. Click on the desired filter to configure.
7. Select the necessary options for the filter.
8. Click the **<u>Update</u>** button.
9. Repeat the previous steps for as many filters as you need to configure.

PRACTICE #14

1. Configure the filter called **Node:Type**. Set the type as **Bookmark**.

CREATING VIEWS: SETTING THE DEFAULT

- **Setting Style**
  - Specifies how the view will be displayed on the page.
  - The default style is unformatted, which allows the view to be adjusted via CSS.
  - Follow these steps:
    1. Click the **Unformatted** link, under **Style**, which is located under the **Basic settings** section.
    2. Select a style from the list.
    3. Click the **Update** button. This will bring you to the **Style options** screen.

PRACTICE #15

1. Set the style to **Table**.

CREATING VIEWS: SETTING THE DEFAULT

- **Setting Style**
  1. Select **Default Sort** for a particular field if you want to present your content sorted by that field.
  2. Select a **Default Sort Order** from the list (e.g. ascending or descending)
  3. Select **Enable Drupal style "sticky table headers** if you want the table heading to scroll down the page if the list goes longer than one screen.
  4. Click the **Update** button. This will bring you to the **Style options** screen.

PRACTICE #16

1. Select **<u>Default sort</u>** for the **Updated/commented date** field.

2. Check the box that says **Enable Drupal style…**

3. Set the default sort order to **<u>Descending</u>**.

CREATING VIEWS: SETTING THE DEFAULT

- **Setting Additional Configuration Options**
  - Help create views that make more sense for people using your site.
  - Make the necessary changes

PRACTICE #17

1. Set the **Title** property to **All Bookmarks**. This is the title that your users will see.

2. Set the **Items to display** property to **30**. This adjusts the number of items to display on a single page.

CREATING VIEWS: ADDING A DISPLAY

- Provide a method of displaying data returned by the view.
- The most common are pages and blocks.
- Page display type can be used to display full nodes, whereas the block display type can be used to display a table view or just the title.

CREATING VIEWS: ADDING A DISPLAY

- Follow these steps:
  1. Select the display type from the combo box and click the **Add display** button. You are presented with a status message and some specific options for configuring your display
  2. Make the necessary configuration changes.
  3. Click the **Update** button to save your changes.

PRACTICE #18

1. Add a **Page** display type. Configure the following properties:
   - Under **Page settings**, the Path property must be set to **bookmarks/all**. This will cause the page to be visible at **<u>http://yoursite.org/bookmarks/all</u>**
2. Add a **Block** display type. Configure the following properties:
   - Under **Fields**,
     - Click the Rearrange icon.
     - Click the **<u>Override</u>** button. This sets specific values for the block display separate from the Default display.
     - Remove the fields **<u>Node: Update/commented date</u>** and the **<u>Taxonomy: All terms Keywords</u>** fields and click the **<u>Update</u>** button.
   - Under **Basic settings**,
     - Set **Items to display** to **5 (use Override)**.
     - Set **More link** to **<u>Create more link</u>**. Make sure you use the **<u>Override</u>** button and **update** your changes. If there are more than 5 bookmarks saved, the block will link to the all bookmarks page.

CREATING VIEWS: SAVE YOUR VIEW

- Once you have set your defaults and specified the view display, save the view!
- None of the changes, settings, or configuration options are permanently stored until you click the **Save** button.