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Editor: Heather James

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Feedback

Your feedback is much appreciated. Please don't forget to tell us about your experience. http://www.acquia.com/training-feedback

We're always improving these materials and keeping them up to date. The modules are often updated in between publishing dates. You may find some differences in the user interface, especially discrepancies in screenshots. We appreciate your feedback and will work as quickly as possible to incorporate any corrections.

Appendix

Please download the PDF full appendices available at http://tinyurl.com/trainingappendix

Course overview

Prerequisites

By now, you're familiar with Drupal essential features. Perhaps you've been using a Drupal site that was created by someone else, and you want to know how to extend it, or perhaps you have downloaded and tried out Drupal, but you're not sure where to start. This course assumes you can:

- Navigate the administration area to manage essential tasks.
- Configure and set up a basic Drupal site.
- Install and configure modules.
- Manage user roles and accounts.

What you'll learn

By the end of this course you should be able to:

- Build complex and powerful functionality.
- Articulate best practices of site building with Drupal.
- Configure both controlled vocabularies and free tagging with Taxonomy.
- Manage navigation through Drupal's menu system.
- Configure your site to improve search, through the use of URL path configuration.
- Be able to configure automatically generated thumbnails.
- Know how to create advanced listings of content.
- Maintain a secure and speedy website.

All through **Site Building!**

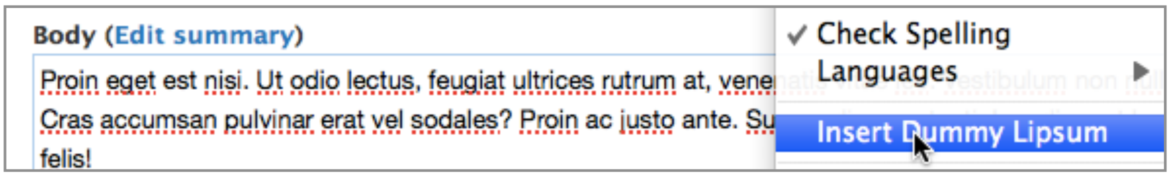
Challenge exercises

If you have additional time, try the exercises and activities marked **Challenge.** You can also try to apply some of the activities to ideas relevant to your own work. This will help you come up with good questions to answer throughout the course.

Software and Modules used in this course

Software

- Depending on your classroom set up, you may be using remotely installed sites, or you are using a local installation (on your own computer). We recommend using the Acquia dev desktop. You can get that here: http://acquia.com/downloads A guide for installation is available at http://network.acquia.com/node/237679
- Ideally, a browser with an inspection tool, such as Firebug in Firefox. http://getfirebug.com Other browsers have something similar, such as “Developer tools” for Chrome or the “Develop menu” in Safari.



- Dummy Lipsum - A Lorem Ipsum generator extension. You can add placement text, by right-clicking on the text area. https://addons.mozilla.org/en-US/firefox/addon/dummy-lipsum/

Modules

This course assumes you are using Acquia Drupal 7. This may either be locally, on your own computer, or remotely through a hosted service. Acquia Drupal 7 comes with these additional modules:

- acquia_connector
- apachesolr
- mollom
- pathauto
- token

Example contributed modules used

At the start of each unit, new modules are introduced. Depending on your classroom set up, you may be installing these as you go, or these may be available already in your module list.

- Advanced Help http://drupal.org/project/advanced_help
- Calendar http://drupal.org/project/calendar
- Chaos tools http://drupal.org/project/ctools
- Date http://drupal.org/project/date
- Developer module http://drupal.org/project/devel
- Display Suite http://drupal.org/project/ds

- Entity http://drupal.org/project/entity
- Entity reference http://drupal.org/project/entityreference
- Flag http://drupal.org/project/flag
- Link http://drupal.org/project/link
- Mollom http://drupal.org/project/mollom
- Theme developer http://drupal.org/project/devel_themer
- Views, Views UI http://drupal.org/project/views
- Views Bulk Operations (VBO) http://drupal.org/project/views_bulk_operations
- Workbench http://drupal.org/project/workbench

Themes used:

- Adaptive Theme http://drupal.org/project/adaptivetheme
- Corolla http://drupal.org/project/corolla

Keep any eye out for recommended modules and themes in each unit. There are literally thousands of modules, this will help you find the most popular, stable and useful modules.

Schedule

Depending on your venue, timings may differ. These are only guidelines based on a schedule from 9-4:30pm. While sessions may run longer or shorter, keep track of the break time. It's really important to take breaks, get away from the computers, and stretch, especially in the afternoons.

Day 1

Start	Duration	Session	Description
On arrival		Before we start	Expressing ideas and questions in wireframes
9:00	45 mins	**Session 1**	**Site Building introduction** • What is site building? • What are we doing today? • Site configuration review
9:45	30 mins	**Session 2**	**Designing and planning content** • Modeling data and content types • Extending with new field types
10:15	15 mins	Break	Don't forget to take a break
10:30	1hr 30 mins	**Session 2**	**Designing and planning content** • Practical activities and a review of concepts.
12:00	1 hr	Lunch	If it's nice outside, go for a walk.
1:00	1hr 30 mins	**Session 3**	**Content display and organization** • Building custom queries with Views • Dynamically filtered displays • Pages and blocks
2:30	0:15	Break	You might need some tea or coffee!
2:45	45 mins	**Session 4**	**Site structure and layout** • Information architecture • Navigation
3:30	1 hr	**Day 1 Review**	**An architecture workshop** • Brainstorm ideas on the white board or paper. • Think about functionality, interaction, and layout.

Day 2

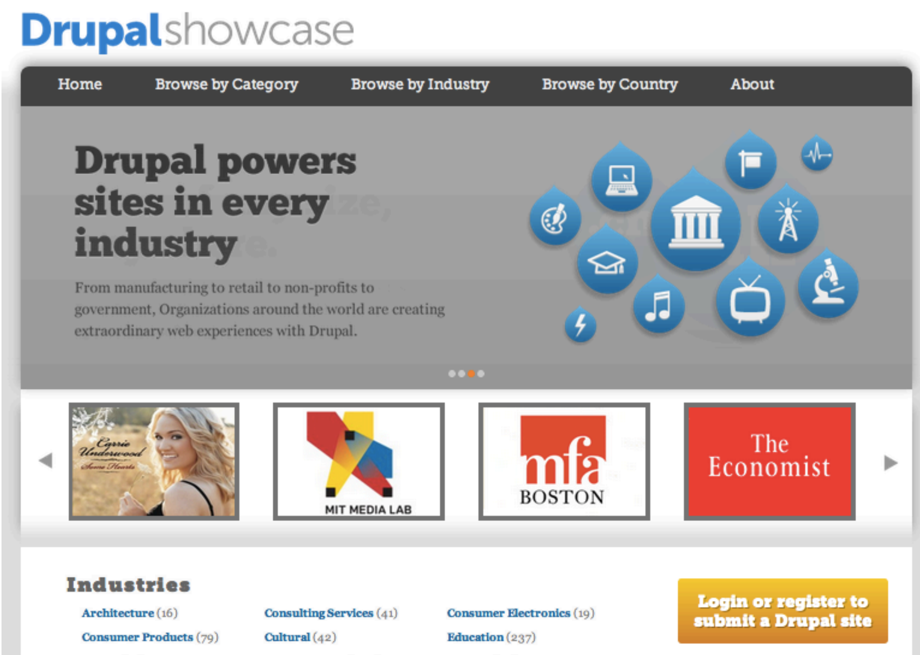
Start	Duration	Session	Description
9:00	15 mins	**Introduction to Day 2**	**Step by step: Intro to the workshop** • Overview of the structure of the session. • Reminder of what we did yesterday.
9:15	1 hr 15 mins	**Session 5 continued**	**Functionality and interaction tutorials** • Advanced site building activities, step-by-step • Installing and configuring popular modules • Typical site building procedures
10:30	15 mins	Break	Give your eyes a rest.
10:45	1 hr 15 mins	**Session 5 continued**	**More functionality and interaction tutorials** • Advanced site building activities, step-by-step • Come up with your own unique idea and see what you can do with Drupal.
12:00	1 hr	Lunch	
1:00	45 mins	**Session 6**	**Customizing appearance with themes** • What are themes? • Customize a theme
1:45	5 mins	Short break	Make sure you get away from that computer!
1:50	1 hr 40 mins	**Session 7**	**Content editing and site maintenance** • WYSIWYG & Workbench • Consider the experience for content editors • And a test!
3:20	10 mins	Short break	Just a short break before the final review
3:30	1 hr	**Review**	**You've got a new client!** • Work in small group or pairs. • How would you build that in Drupal? • Look at wireframes for a new client. • Think up new creative ideas for the site. • Solve the puzzles in Drupal.

Before we get started…

By the end of this course, you will understand how many Drupal sites are built. If you have some time before the class starts up today, check out some Drupal sites that you like.

Review Drupal sites

Take a look at popular Drupal sites listed at http://drupalshowcase.com



Pick a site you really like. Explore how the site operates, and how pages are assembled and laid out. On a blank page in this manual, draw a wireframe of one of the site's pages. Write down any questions you have.

- **Consider functionality:** What kind of functionality does the site offer you as a visitor? Can you login? What additional abilities do you have? How can you interact with the site?
- **Consider content:** Can you see portions of the content, such as a title or summary on one page, with a link to a full page? How is the content displayed?
- **Consider the navigation and layout:** How do the menus and areas of the pages divide content and attract your attention? How did they arrange the content on the pages?
- **Consider the look of the site:** How is the overall design unified? How does the use of graphics or colors make the site pleasing and unique?

As a review at the end of this course, you will come back to the sites you identified to *see if you can answer your own questions!*

Improve the developer experience

There are a number of ways you can greatly improve your developer experience. You do not need to install these now,.Your instructor will show you his or her favorite developer tools.

Recommended modules

- **Admin menu** http://drupal.org/project/admin_menu
  Improved drop-down navigation and quick links to functionality such as clearing cache
- Make sure you **disable the core Toolbar module** when you enable Admin menu.
- **Masquerade** http://drupal.org/project/masquerade
  It allows a user with the right permissions to switch users.

*Recommended modules to **use only during development:***

These modules should be used during development and **disabled on a production site.**

- **Devel** http://drupal.org/project/devel (installed earlier)
  This is a suite of tools to assist in development, including automatic content generation.
- **Environment indicator** http://drupal.org/project/environment_indicator
  A clear message of whether you are working on a staging or production site.
- **Module filter** http://drupal.org/project/module_filter
  Improves the user interface for module listing page; locate modules quickly.
- **Permission select** http://drupal.org/project/permission_select
  Allows for quicker editing of groups of role permissions.

*Recommended to use only during **theme development**:*

- **Theme Developer** http://drupal.org/project/devel_themer
  This inspector shows you file template suggestions and more for theme development.
- **Do not enable while site building!** Due to conflicts with other modules (such as Views).

Professionalize your development workflow

Your instructor(s) will do a demo of their development environments. You can discuss tools that work best for your own situation.

Tools to help installing modules, maintaining your site… and much more

Drush http://drupal.org/project/drush is called the “Swiss Army knife” of Drupal.

You can download/enable/disable/uninstall, any modules/themes/translations and more. If you’re familiar with CLI (command line interface) you’re going to love the speed with which you can maintain your site. There are some great resources for learning Drush. Visit http://drush.ws the homepage for the Drush project.

Key resource: Acquia Network

We will use the Acquia Network in the class today to take advantage of some useful tools, such as the faceted search and Mollom subscription keys for some optional exercises included in this course.

Depending on the context of your training today, you may be taking part in Acquia's private client training or a public training. If this is a private training, we'll help you get set up to get the most out of your subscription.

You can also get a free 30 days trial so you can do some of those activities if you choose.

As an Acquia Network subscriber you get access to these resources.

- The Acquia Library: Edge cases and best practices documented here. Useful search makes it easy to find resources. https://library.acquia.com
- Drupalize.Me is included with Acquia Network subscriptions. http://drupalize.me/
- Build a module http://buildamodule.com is also included.

More information at https://www.acquia.com/products-services/acquia-network/whats-inside

Session 1: Matching requirements to functionality

This session focuses on the concepts of Drupal site building. At this stage, you are familiar with the essentials of Drupal. You may have been working already on a Drupal site but never built one before. Or you may have learned the basics, but don't know how it fits together. Now you want to know how to put the building blocks together to make new, unique websites or applications.

In this session you will learn:

- How to build a site in Drupal.
- Module selection.
- How to plan and model content types while considering input and display.
- The page model in Drupal.
- Some decisions you'll need to make before you can plan your site.

Unit 1.1: What is Site Building?

What is site building?

Your instructor will compare Drupal to some other systems you might know, and explain how site building works. Site building requires that a Drupal developer (YOU!) is familiar with a wide range of contributed modules.

Unit 1.2: Your client, GlobalTravel

In this course we'll build a travel site called GlobalTravel to show the power of Drupal as a content management system.

About our client

The original travel group was a mailing list which grew through word of mouth between friends and colleagues who loved to travel, and they trusted each other's opinions on the best services and opportunities. They brought the community online with a basic website, and we'll be extending the website today. GlobalTravel aims to supply travel enthusiasts with up to date information on all things travel.

Each activity will help make this a great resource for these travel enthusiasts.

Establishing requirements

- What is the minimum viable product?
- Ensure each feature considered is leading back to the **measurable goals.**
- Review current systems in place
- What is the current status of those?
- Get a list of all current URLs or landing pages.
- Research the actual staff member profiles:
- Who is going to edit the site?
- Who is going to create the content?
- Who are the users?
- Clarify a minimum number of user roles.
- Assign permissions on a restricted basis.

Understanding requirements

Creative requirements

- Colors, mood, branding. How is the site's identity presented?
- Deliverables: Mood boards, collages, "Style tiles". Not a mockup.

Technical requirements

- Needs for users and devices.
- Accessibility.
- Integration with third party tools.
- Hosting on existing infrastructure.

Content Requirements

- What content needs to be displayed on the site.
- Who is responsible for content?
- Standardization of content across the site.
- Standardization of roles for maintenance.

Audience analysis

At the early stage of discovery and site planning it's important to establish roles and permissions.

Ask your client

- Who are the administrators?
- What kinds of permissions do they need?
- How do these roles relate to each other?
- What editorial workflows are needed?

Audience analysis

- Identify the types of users who are most important for the new site to reach.
- Develop personas: Use photos and personal backstories
- Use real people: Identify actual customers to interview who match these profiles.

User stories

- Action-specific tasks that a user will perform on the site.
- Test the development against user stories during development.
- User stories
- As a *Persona* I want to be able to *Action* so that I can *Benefit*
- As an *editor*, I want to *see all recent conten*t so I can *moderate submissions quickly.*

Our site's audience needs two user roles.

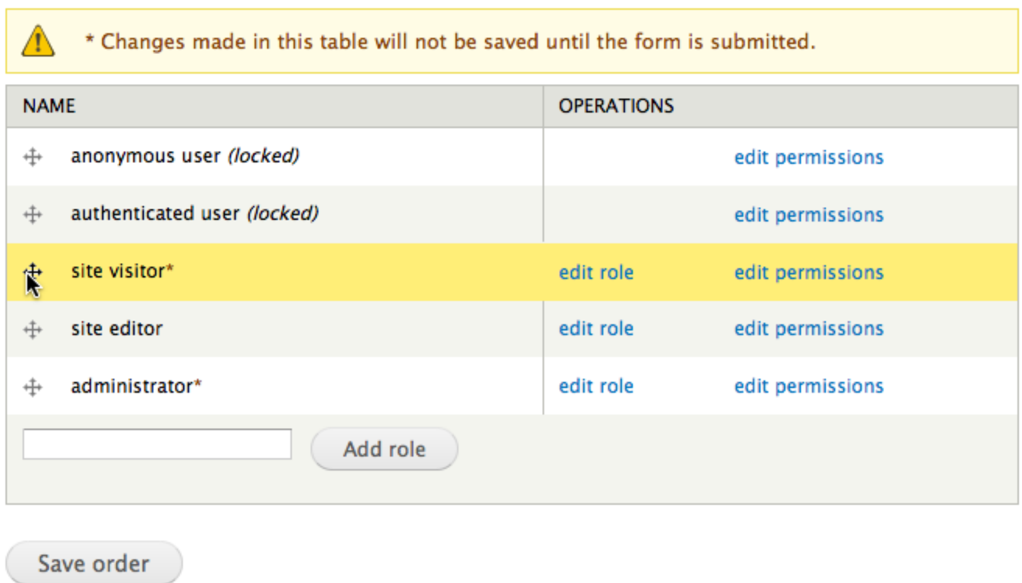
- Site Editors: These are appointed trusted individuals who have the ability to make quick judgements on content and fix accordingly.
- Site Visitors: These are regular site users with accounts who can create some content and participate in online discussions.

Exercise – Add new roles and users

Now, let's create our two new roles – *Site editor* and *Site visitor.* We will add the appropriate permissions as we develop the site.

A. Create two new roles

1. Go to People > Permissions > Roles.
2. Add a two roles "site visitor" and "site editor".
3. Drag to re-order the roles so they appear in order of least to most permissions.
4. Click **Save order.**



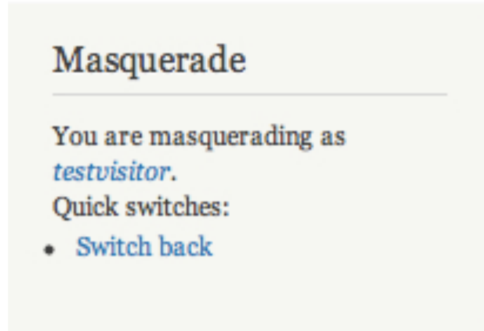
B. Add users

1. Go to People.
2. Add two test users:
   - "testeditor" - assign the Site editor role.
   - "testvisitor" - assign the Site visitor role.

C. Test user roles

The next and final step is to test each of the new roles by logging in as the test accounts.

- **Option 1:** Logout of the superuser user/1 account, and log back in again as testeditor or test visitor.
- **Option 2:** Open another browser and login as one of the test users.
- **Option 3:** You can install and enable the Masquerade module to switch between users.



Tips for setting up Masquerade module:

1. Download Masquerade at http://drupal.org/project/masquerade
2. To enable the block, go to Structure > Blocks and locate the “Masquerade” block under the Disabled blocks. Place it in the sidebar.
3. Later, when you have additional users you will be able to type in their usernames. After you’re done testing you can “switchback”.

Challenge exercise – Configure account settings

Ensure the site is set up to allow user account creation according to your client's policy.

1. Go to Configuration > People > Account settings.
2. Check under "Who can register accounts? Make sure this aligns with your site policy.
3. Edit the various emails used for welcoming new users, account activation and password recovery, etc. Use **tokens** for setting email content. This is often overlooked, but it's a great place to set a good first impression with new site members.

Recommended modules to improve login and account creation

Password policy http://drupal.org/project/password_policy

If you allow account creation, you might want to establish a password policy on your site. The Password Policy module gives you more control over the passwords allowed on your site.

Login Toboggan http://drupal.org/project/logintoboggan

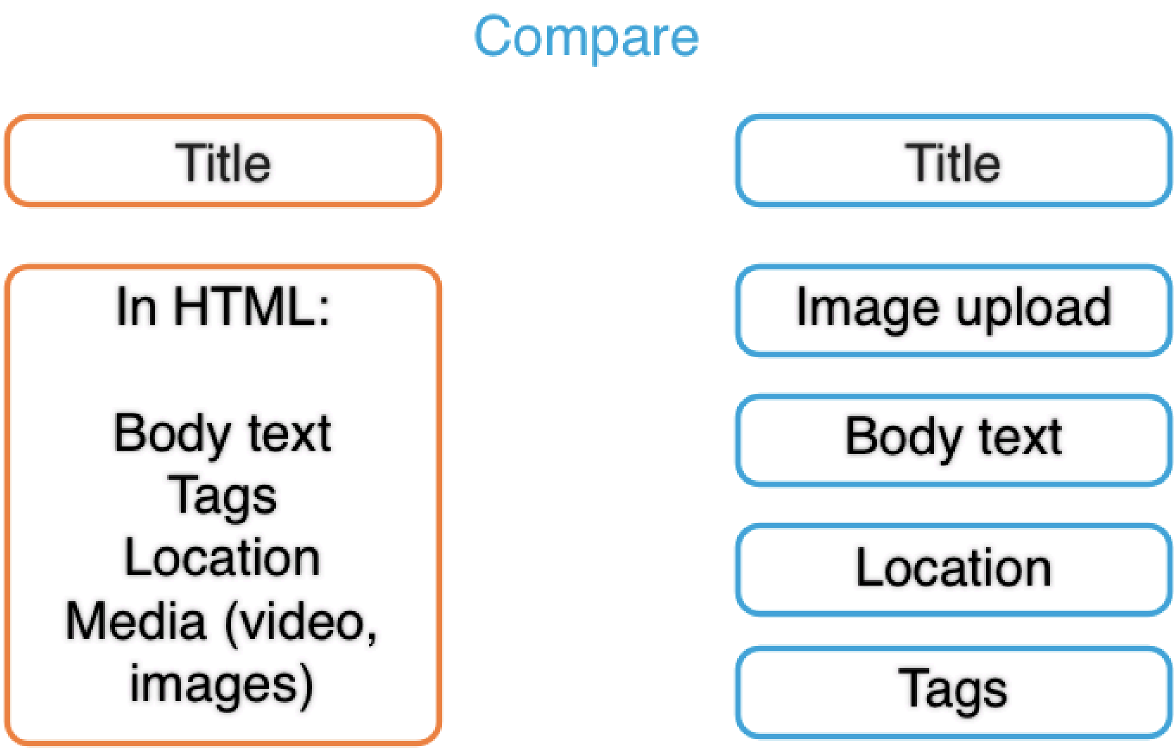
Allows users to login with a username or password. Makes improvements to the account creation process.

Unit 1.3: Content types

In this unit we'll learn about structured content, and planning content types. We'll take a quick look at what Drupal gives us out of the box.

Content types

Your instructor will do a quick presentation about structured content in Drupal.



Exercise – Compare content types out of the box

Let's add content using the core content types. In case you haven't seen it before, carefully compare the default settings and the results.

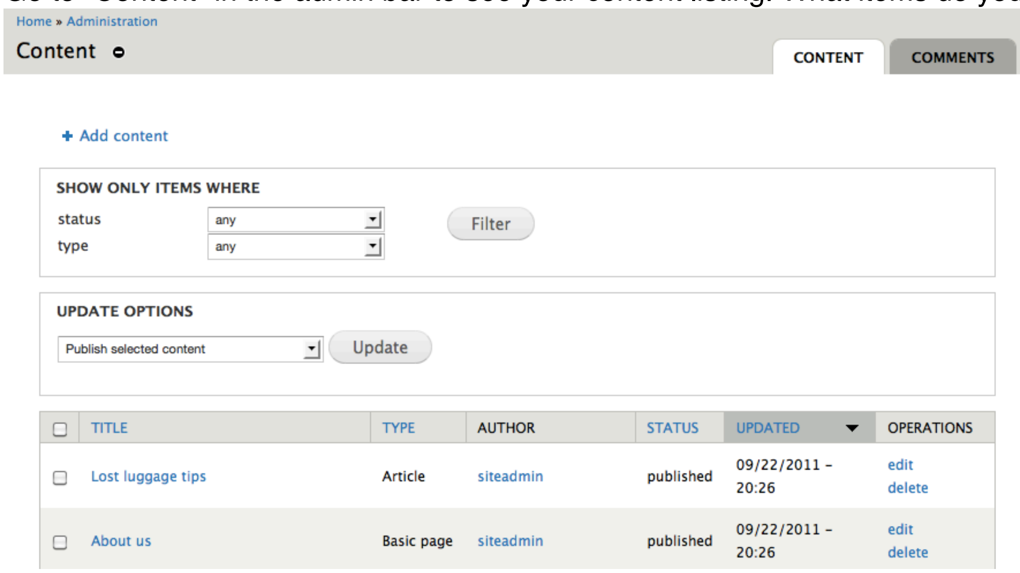
A. Add content

1. Click "Add content".
    - a. Create a **basic page** titled "About us".
    - *Use a Lorem Ipsum generator for some place holder text. Do not add it to the menu. Keep remaining defaults and Publish the page.*
    - b. Create an **article** titled "Lost luggage tips".

- *Again, Use a Lorem Ipsum generator for some place holder text. Do not add it to the menu. Keep remaining defaults and Publish the page.*

B. *Compare content types*

1. Go to “Content” in the admin bar to see your content listing. What items do you see?



2. Compare the editing forms, and the results. These two content types: Articles and Basic Pages come with default settings.
   - What happens to comments?
   - Go to the front page of your site. What appears?

Unit 1.4: Anatomy of a Drupal page

Anatomy of a Drupal page

Your instructor will do a quick presentation about the anatomy of a Drupal page.

Optional Exercise – Build the welcome message block.

Site editors want welcome message block on the front page of their site to welcome visitors.

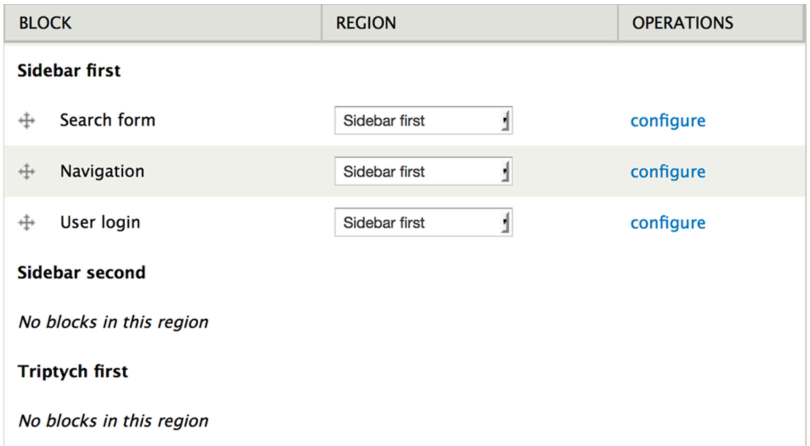
What are blocks?

There are various systems for controlling placement of content on areas of your pages. Blocks, the default system in Drupal are contained sections of content or data. Blocks can be positioned into areas of your pages called regions. Blocks are often used to display sidebar information and menus. Blocks can be defined by modules such as the menu system, or they can be created with custom content defined by you.

A. *Block administration review*

Go to Structure > Blocks at /admin/structure/block Let's get familiar with this page.

The block admin page gives you an overview of all the blocks used on a site and the region in which each one will be displayed. Notice that in the default theme, Bartik, the search form, navigation, and user login blocks are displayed in the first sidebar region.



BLOCK	REGION	OPERATIONS
Sidebar first		
Search form	Sidebar first	configure
Navigation	Sidebar first	configure
User login	Sidebar first	configure
Sidebar second		
No blocks in this region		
Triptych first		
No blocks in this region		

You can change the order in which these are displayed by clicking the four-way arrow icon next to the block's name and dragging the block to a new position. After you have done this you will need to save your changes by scrolling to the bottom of the page and clicking **Save blocks.**

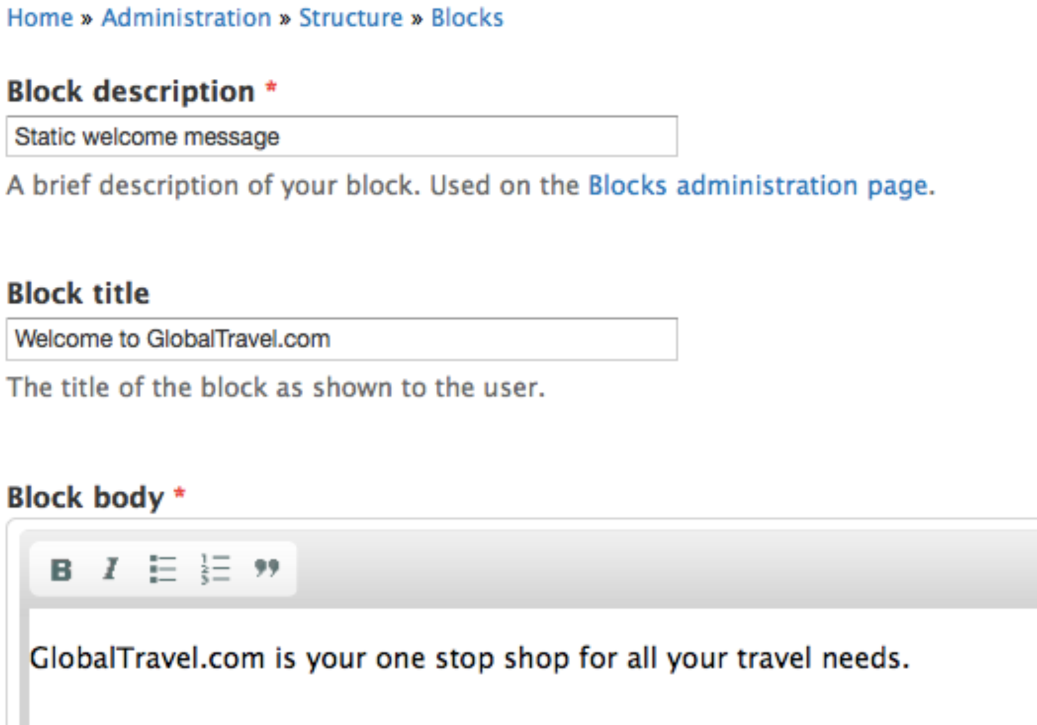
Disabled blocks

Depending on what modules you have installed, various new blocks will appear at the bottom section of the blocks admin page under "Disabled". It's always good to check back as you experiment with new modules to see if they are offering you any new blocks of content. You can take a block such as Recent comments and use the drop-down menu to place it in the sidebar, or you can drag it.

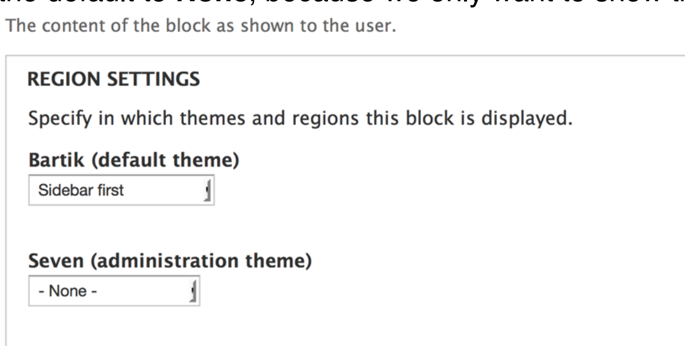
B. *Add a block*

1. Click the **Add block** link at the top of the block admin page to access the block creation page at /admin/structure/block/add.
2. Fill out the form.
    - **Block title**: *Welcome to GlobalTravel*. In the case that you do not want to add a title to your block, enter - *<none>* in the block title field, or leave it empty.
    - **Block description**: *Static welcome message.* This helps site administrators know what the block's purpose is on the site. This text will appear alongside the block on the block admin page and will not be displayed to users.
    - **Block body:** *GlobalTravel is your one stop shop for all your travel needs.* This will be the actual welcome message text in the block.

3. Review your block form, it should look like this now.

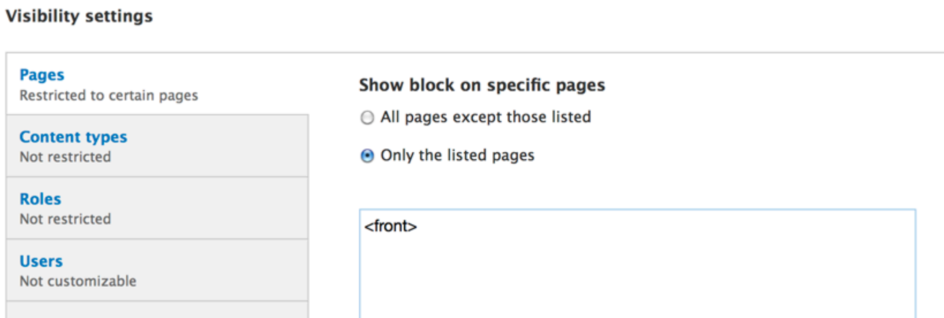


4. Next assign the block to a region on the site. Scroll down to the **Region Settings** section. For the **Bartik** theme select the **Sidebar first**. For the Seven administration theme, leave the default to **None**, because we only want to show this to site visitors.



5. Finally, configure the **Visibility settings** for the block. We only want our Welcome Message block to appear on the front page.
6. Under the **Pages** section of the visibility settings.
   - Select the **Only the listed pages** radio,
   - Enter the text *<front>* in the space provided. This ensures that the block will only ever show up on the front page of the site. We do not want to restrict block visibility in any other way, so we will leave the other settings at their defaults.

7. **Save block.**



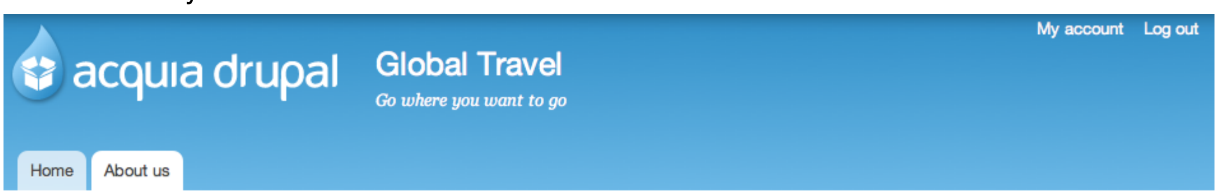
8. Navigate to the front page of your site to see the new welcome block in the first sidebar section of the page.

Tip: Blocks are not content

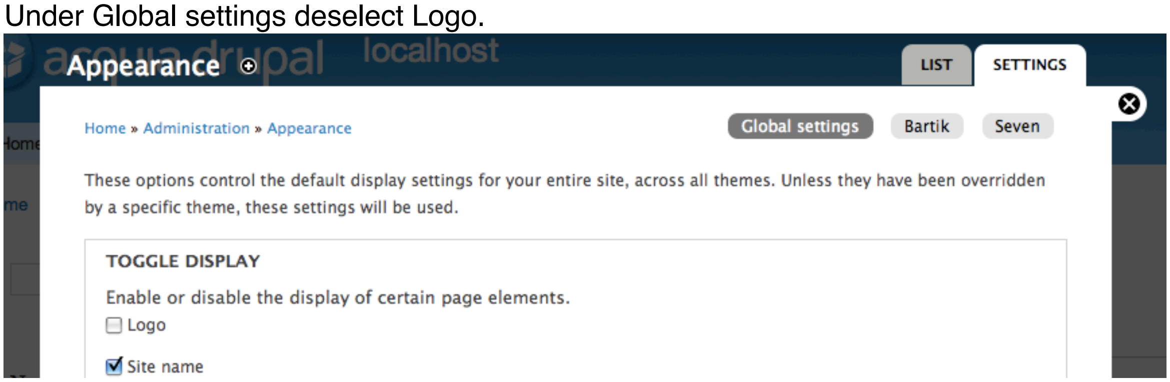
Check! Is the block in the content listing? It's a common misconception. You may have expected to see something like the Welcome message in the content listing.

Optional Exercise – Theme settings: Hide the logo

By default, if you used Acquia Dev Desktop to set up your site, you have a logo appearing in the header of your site. We'll remove this now.



1. Go to **Appearance** and click the Settings tab.
2. Under Global settings deselect Logo.



3. Click **Save configuration.** Close the overlay.

Session Summary

In this session, you reviewed some basic site building steps to set up a new website. If you were familiar with Drupal 6 but new to Drupal 7, you have seen how administration has changed quite a bit. We've also enabled and installed some helpful modules for this course.

Session 2: Designing and planning content

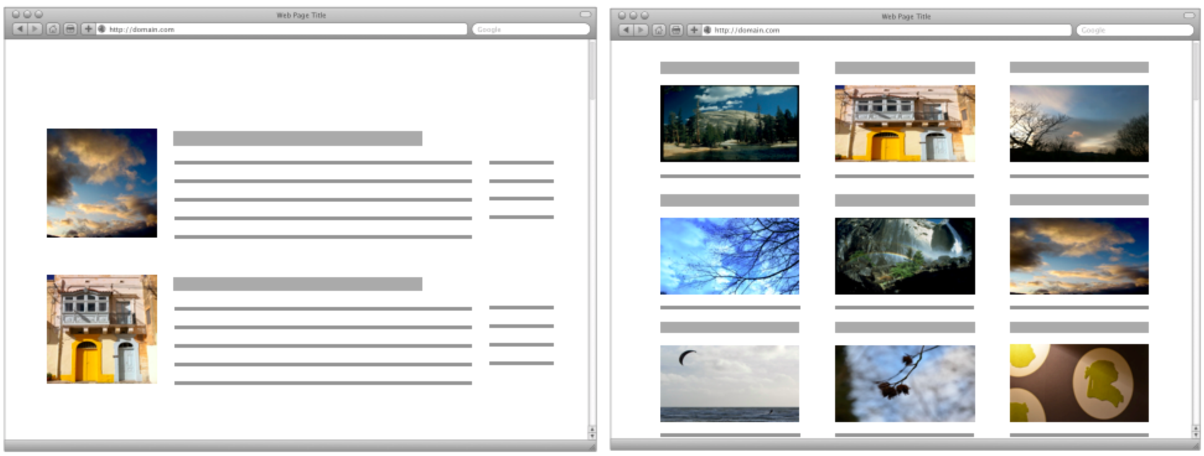
Unit 2.1: Planning content types

Your instructor will do a presentation about planning and building content types in Drupal. In this session you will learn how to:

- Create and plan content types.
- Extend content types with media and files.
- Extend with taxonomy for categorization of content.

Plan for content entry and display

Here is an example of how two different content types might display in certain situations.

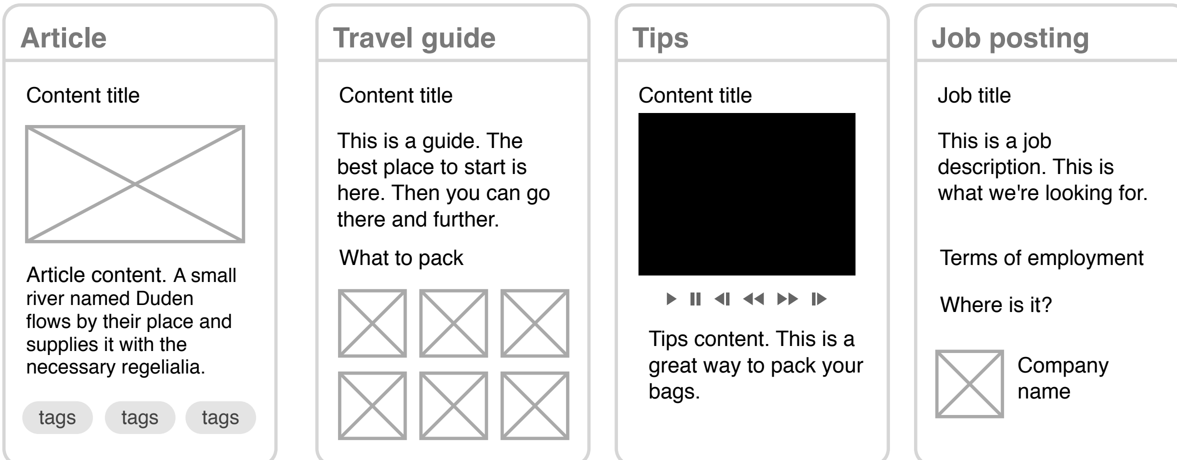


Content strategy

- Conduct a content audit. What existing content is there?
- Conduct requirements analysis.
- Consider both audience and production of content.
- Design for both content entry and display, and share both with the client.
- Analyze existing content
- Audience: Does content engage specific users undertaking their key tasks?
- Process: How is content delivered according to a schedule? Skill set required to deliver content?

Discussion

- What content types do we need on this site?
- What content types exist and how could we change them?



Exercise: Quick draw! Content type in 2 mins!

- Design your own content type.
- Use the blank page provided, and draw the content entry form.
- What fields MUST be filled out? * asterisk on required fields.
- Bonus: Draw how the content should be displayed on the front page versus the full page.

BONUS! Draw how the content might display under two different conditions.

Unit 2.2: Create a content type

Site editors and visitors would like to add content to the site that is managed in a consistent way. For example, instead of placing all the content into an unstructured text field, Site editors and visitors will use pull down menus or check boxes to input specific information about opportunities.

Steps to create a content type:

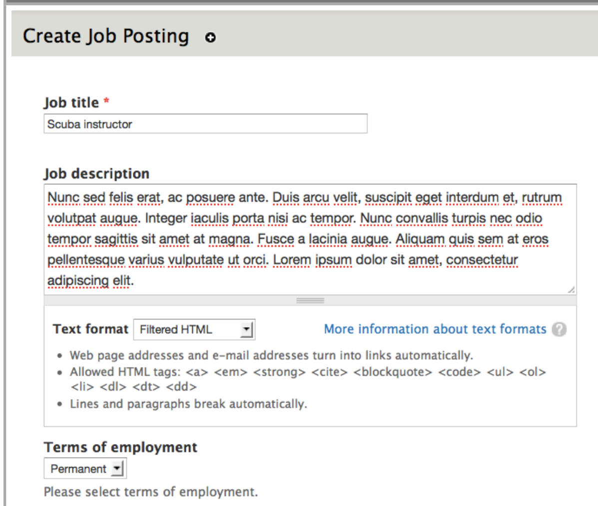
Content types are the basic building blocks of any Drupal site. You can follow these same steps each time you make a new content type.

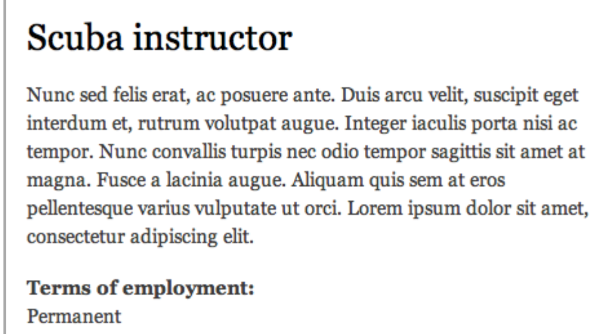
Steps	Questions	Answer (in this case)
Create a content type.	Title and purpose? Default settings? Comments, show author and date?	• Job posting. • Post a work and travel job posting to the jobs section of the site. • Don't show author. • Comments not allowed.
Add custom fields. Add vocabulary/ terms.	What custom data and field types? How is content entered? Using terms or multi-value fields?	• Job type: Select list. • Job Description: Text, Long text field. • Terms of employment: Text, list. • Region: Term reference.
Configure default settings.	Content entry defaults, requirements and values.	• Set required fields. • Allow one value for each.
Manage display.	How should the content display?	• Should any labels be hidden? Should it display all fields in the teaser?
Set permissions.	Who can add, edit and see this content?	• Anonymous can see jobs. • Site visitors can add jobs. • Site editors can edit all content.
Test adding content.	Test as various users.	• Anonymous • Site visitor • Site editor

Exercise – Create a content type

As the name suggests, the *Job Posting* content type will be used to post jobs on the website. Traditionally, GlobalTravel site administrators had to post job openings as static HTML pages and as such, were required to have a working knowledge of HTML.

Create job posting form	Individual job posting

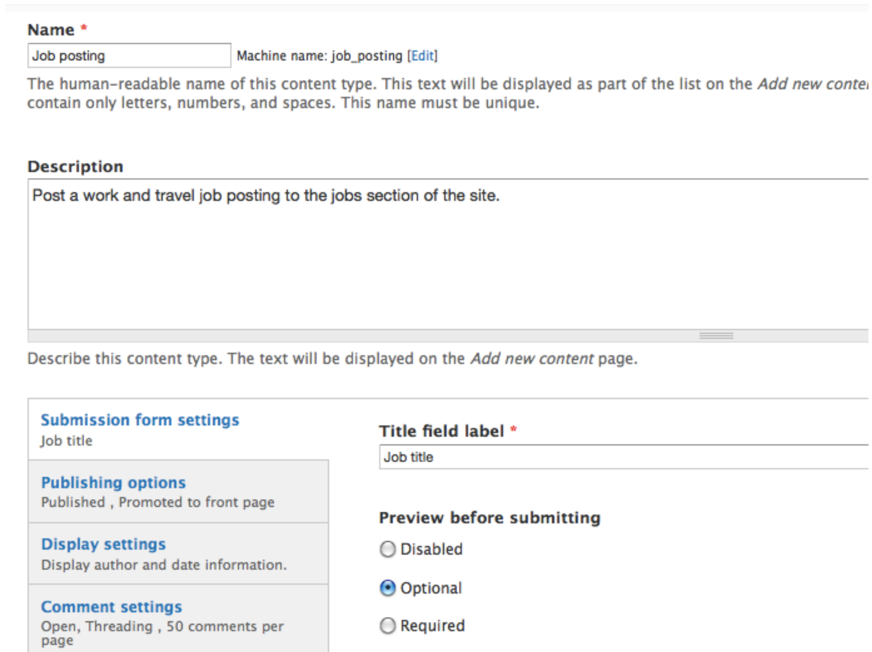




A. *Create a content type*

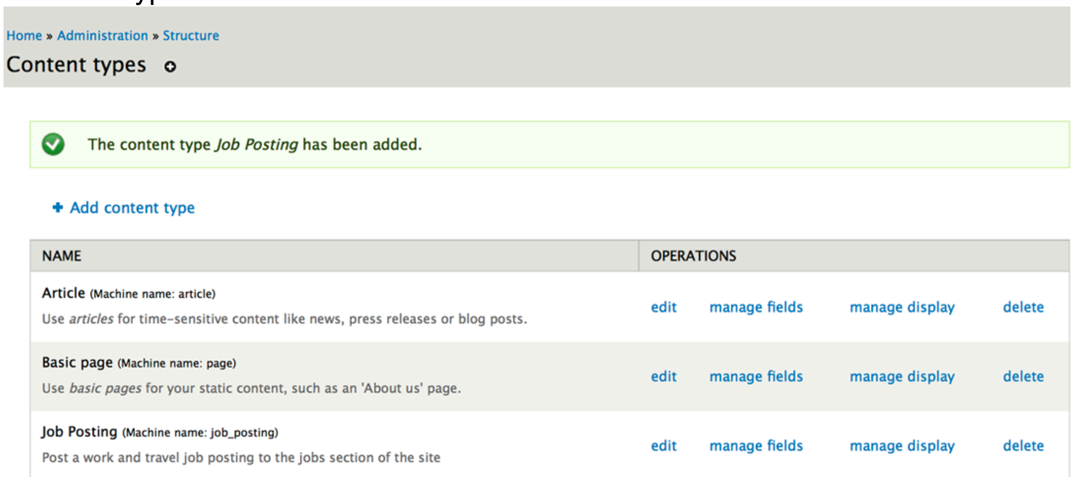
Let's start by creating our new content type.

1. Go to Structure > Content type. Click + Add content type.
2. Name our content type by entering –
    - **Name:** *Job Posting*
    - **Description:** *Post a work and travel job posting to the jobs section of the site.* (The description should explain the content type to site administrators.)
3. Next, configure the content type. Scroll down to the configuration tabs in the bottom of the form. Under **Submission form settings:**
    - **Title field label:** *Job title*
    - **Preview before submitting:** Optional
    - **Explanation or submission guidelines:** Leave this empty. This is provided for listing any special instructions relating to the content type.



4. Under **Publishing options**, set the default publishing settings for the content type. Site editors, with the right permissions can override these defaults when creating content. In this case, we want jobs to be published by default, but not be automatically promoted to the front page.
    - **Published:** Leave selected.
    - **Promoted to front page:** Deselect.
5. Under **Display settings**, deselect the *Display author and date information* option, as we don't want to publish the content author's name or the date that the content was published on, along with the content.
6. Under **Comment settings,** change Default comment setting to *Closed*.
7. The default **Menu settings**, de-select Main menu because we don't want users to add job listings to menu navigation.

8. Click ***Save content type***. This brings you back to the content types admin page - /admin/structure/types.



B. Review your content type.

Go to Content > Add content and choose the “Job posting” option. At this stage you have a working content type. Review the form as it is.

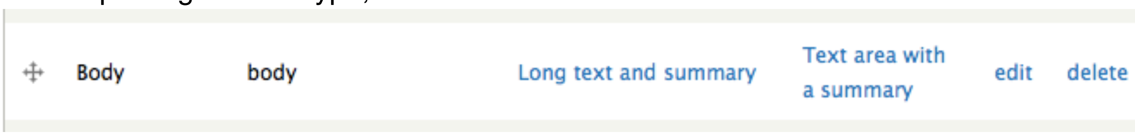
Challenge exercise – Plan a new content type

Look back to the start of this unit. Consider adding a new content type such as "travel tips". What fields would be needed? Use paper to plan it out.

Unit 2.3: Add and customize fields

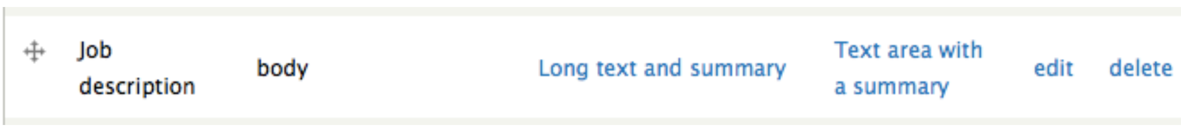
Exercise – Modify an existing field

1. Go to Structure > Content types > Job posting > Manage fields.
2. Click the "edit" link on the body field. This will only change the way this field appears in the Job posting content type, and not others.



- Change the **Label** to "Job description".
- **Rows**: Change this to 10 to make the input form shorter and encourage brevity
- De-select **Summary input**

3. Click **Save settings.** Your field listing should show the new label.



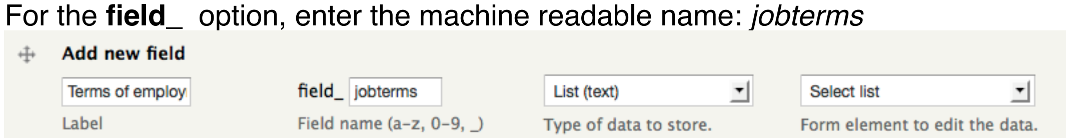
Exercise – Add custom text field

Site visitors would like to filter job offers by the terms of employment, whether it's part time or full time. We can add this value in now, and use it as a way to filter content later.

A. *Add a field*

Let's start by adding our first field – *Terms of employment*

1. Under **Add new field**, enter *Terms of employment* in the label text field
   - For the **field_** option, enter the machine readable name: *jobterms*



   - **Select field type**: List (text) - This field will be a select list.
   - Leave the *Widget* setting at the default - *Select List*.
2. Click **Save**. This will take you to the Settings page for the *Type of posting* field.

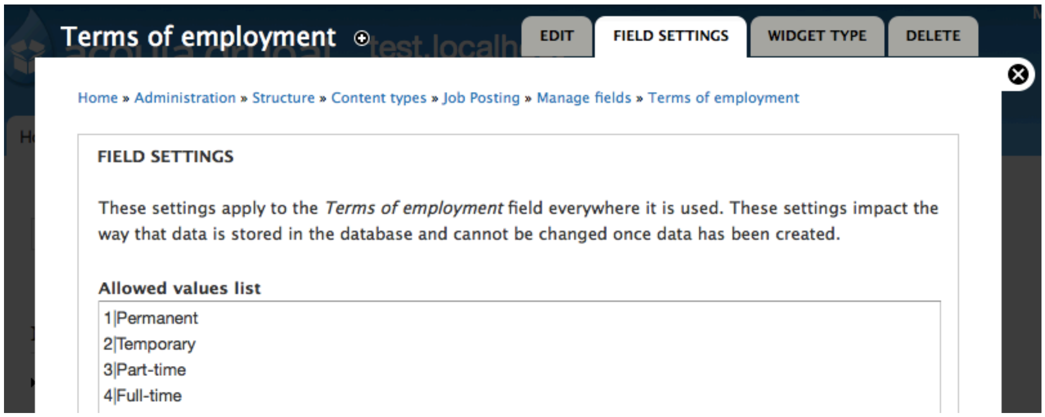
Field naming conventions

The Field name is not changeable later on. You can only use lowercase letters, integers 0-9, hyphens and underscores. You may wish to scope your fields by using naming conventions. You could for example, prefix a field with the name of the content type. Such as field_**jobterms**. However if you might use the field in another content type, this might be confusing. As you work, you can see the fields you create at Reports > Field list.

B. *Configure field settings*

1. Now we will define the values that will be included in our select list. Add the following values to the **Allowed Values list** text area:

    1|Permanent
    2|Temporary
    3|Part-time
    4|Full-time



2. The numbers before each entry are important. They provide a numerical key for the value. This way if you need to change the name of the items in the list you can do so without losing content.
3. Click **Save field settings.**

C. *Configure default settings*

This brings you to the field default settings (the Edit tab).

1. Select **Required Field.**
2. **Help text**: *"Please select terms of employment"* . This will be displayed to site administrators when they are creating or editing Job Posting content.
3. **Default value** for Terms of employment: leave this as None.
4. **Number of values**: 1. This allows **only one item** from the list to be selected.
5. Click **Save settings**. After saving, this will return you to the Manage fields page.

D. *Review your content type*

After saving your last field, you should be taken to Job Posting "Manage fields" page. Here you can see all the fields you added to your content type.

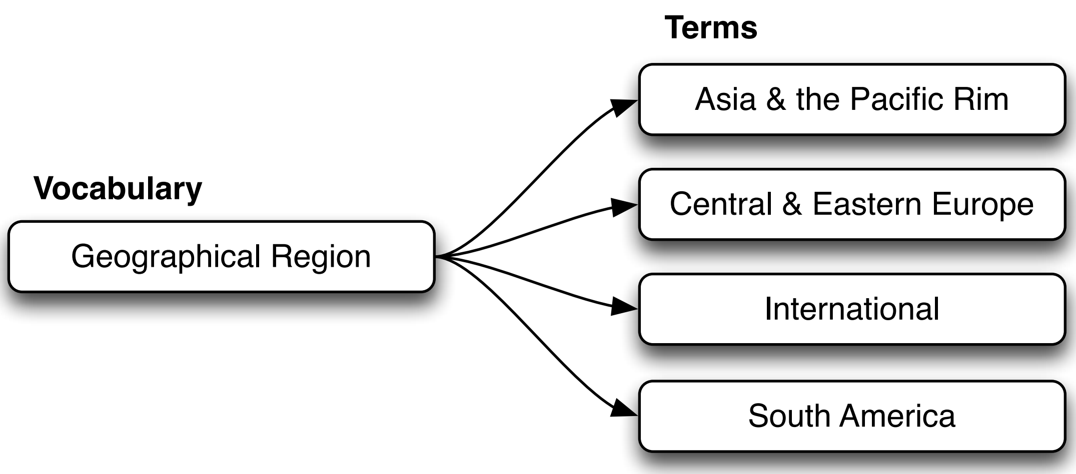
Test the content type. Go to Content > Add content and choose the "Job posting" option. How does the form look now? Create a test job posting for a part-time job as a "Beach side Bartender" or "Scuba instructor". Note the URL path of your new content.

Unit 2.4: Add taxonomy field to categorize content

About taxonomy

Drupal ships with a powerful tool for categorizing and classifying content – Taxonomy.

- You can have multiple vocabularies that hold various Terms.
- Terms can have multiple words.
- Terms link automatically with pages listing any content associated with a specific term.
- Those pages also provide an RSS feed.



Content type list field versus taxonomy?

You may notice you can add a "list" field to a content type. What difference does a taxonomy field afford? Say for example you decide to offer t-shirts. These will have attributes specific to that t-shirt such as a slogan or an image. They will also have color, size and sleeve length. By using taxonomy terms you make it easier to browse across all t-shirts on the site.

Taxonomy is very flexible and can also be used to limit the amount of content types you need. If content types are similar in the kinds of data they store (articles, press releases, white papers; etc) you can use taxonomy to differentiate them. This simplifies the content editing experience.

Better for content editors

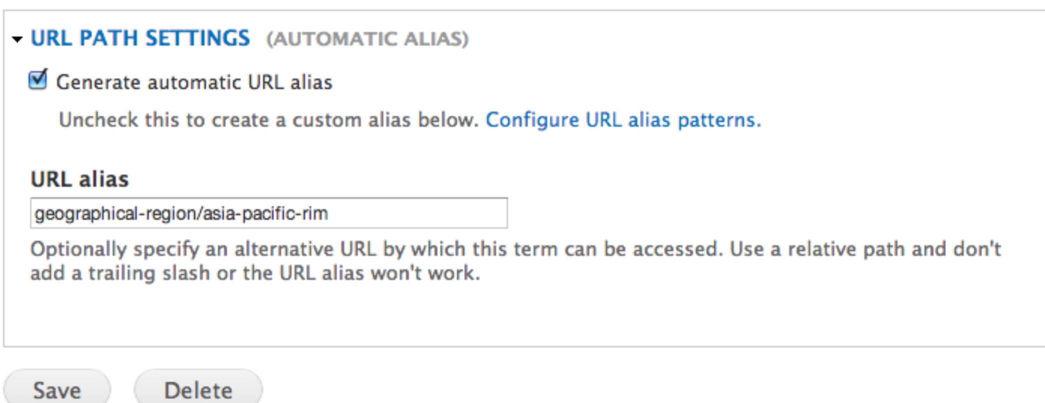
Also, from a content editing point of view, taxonomy has an additional advantage because a content editor can be given permissions to add terms, without needing access to edit the content type fields.

Exercise – Add new vocabulary and terms

Site visitors would like to see related articles and jobs available to a specific geographical region they are interested in, such as South America. They would also like to subscribe to the RSS for a specific region. All content on the site should be categorized by geographical region.

A. *Create a vocabulary and add terms*

1. Go to the taxonomy section of the site – Structure >Taxonomy > Click **Add vocabulary**.
    - **Name:** Geographical region
    - **Description:** Areas for travel
    - **Save**.
2. Our new *Geographical region* vocabulary is now listed on the main *Taxonomy* page. The next step is to add terms to the vocabulary. Clicking **add terms** link listed under *Operations.*
3. Let's add our first term – Asia & the Pacific Rim
    - **Name:** Asia & the Pacific Rim
    - **Description:** From the archipelagos of the Philippines or Indonesia, to the arid plains of Mongolia, this region offers some of the best food on the planet, and a diverse range of cultures and traditions.
    - **Text format:** As we are not using any HTML, change the Text Format to Plain text.
    - **Relations:** leave all defaults
    - Select **Generate automatic alias.** If you don't see this option, it is because you don't have **Path Auto module** installed and enabled. This comes with Acquia Drupal 7.



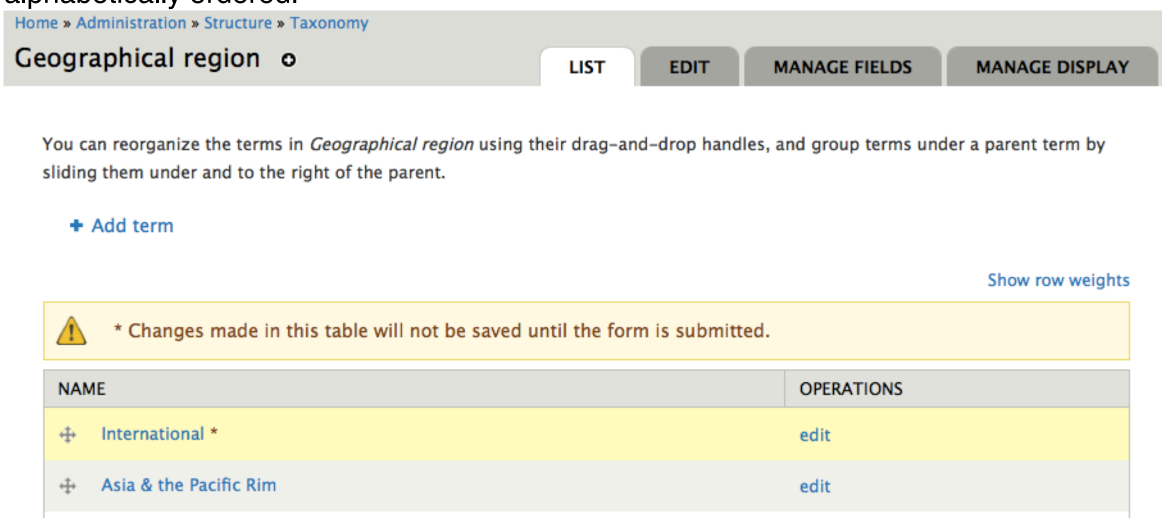
4. Click **Save.**

B. *Enter terms and re-order*

1. Enter the remaining terms. Saving reloads the form for entering more terms. Repeat the process entering the following terms with a short description for each:
    - Central & Eastern Europe

- Central & South America
- Indian Subcontinent
- Middle East & North Africa
- North America
- Russia
- Sub-Saharan Africa
- Western Europe
- International

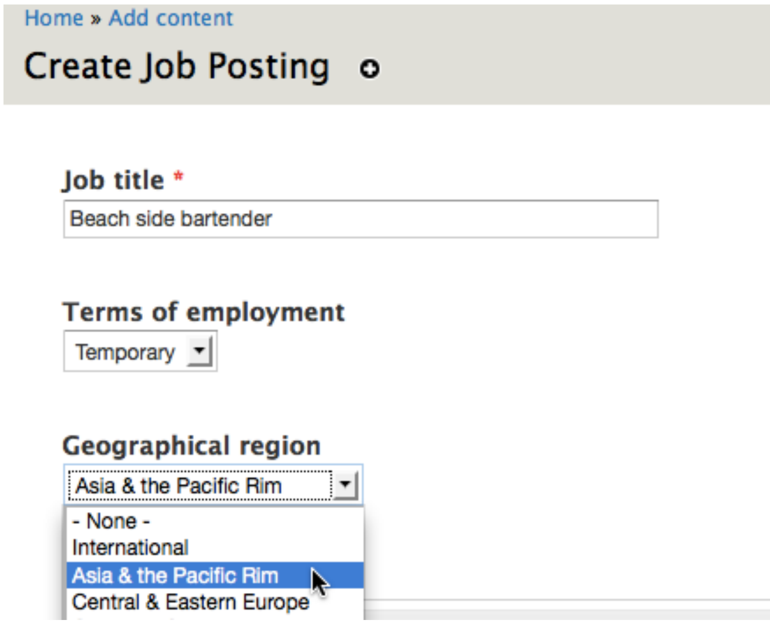
2. Go back to see the **list** of all terms in the vocabulary. Now, drag “International” to the top of the list. You can reorder or nest hierarchically in any arbitrary way; by default they are alphabetically ordered.



3. Click **Save**.

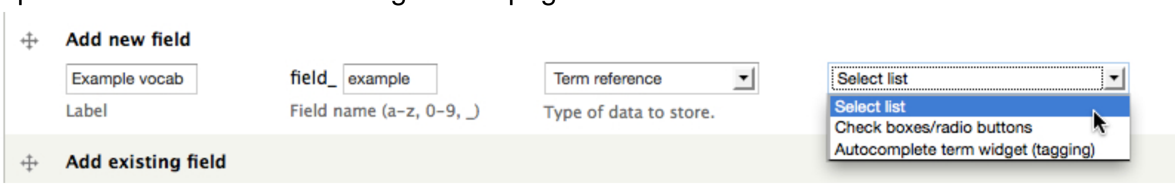
Exercise – Add the taxonomy fields to the Job posting content type

As a Site administrator, I would like to force Site editors and visitors to select a geographical region when they add new content.



About input options

The input options control how you can use the terms on your site. Here is an example of the options available on the Manage fields page:



- **Controlled vocabularies -** You can set the specific terms as an administrator and restrict the options. You can provide a select list (or checkboxes/radio buttons) to limit input.
- **Tagging** - Users with the appropriate permissions can add new terms as needed. Or you can have a Autocomplete text field.

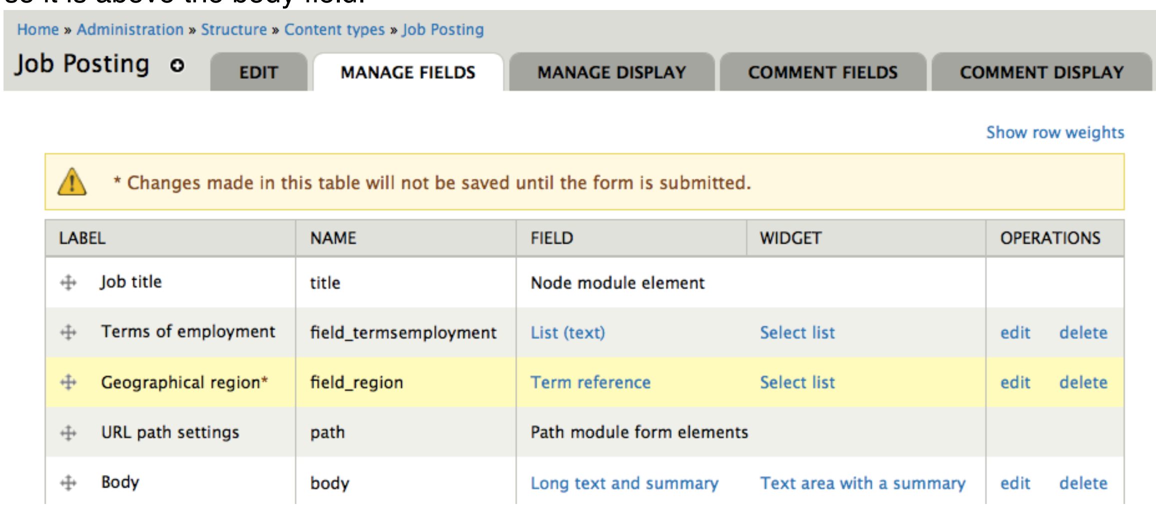
Because we have a *controlled vocabulary*, limiting input to one Geographical region, we'll use a *select list.*

A. Add the geographical region field to Job postings

1. Go to Structure > Content types and click on the *manage fields* to the right of the *Job posting* content type name.
2. We now need to add our new *Term reference* field in order to associate the *Job posting* vocabulary with this content type. Under **Add new field**, complete the fields as follows:
    - **Label:** Geographical region
    - **Name: field**_region
    - **Field:** Select *Term reference*
    - **Widget:** Select *Select list*

- Click **Save.** This reloads to the field settings page.
- Keep defaults.
- **Save field settings.** This reloads to the Article settings page.
- Select **Required** field.
- **Help text:** None
- **Default value:** Geographical region - Select “International”
- **Number of values:** 1
- **Vocabulary:** Keep default, Geographical region.
- Click **Save Settings.**

3. This takes you back to the Manage fields page. Re-arrange the Geographical region field so it is above the body field.



4. Click **Save.**

B. *Add the existing Geographical region taxonomy field to Article.*

Now that job postings can be categorized by geographical region, site builders would like articles to use the same geographical region vocabulary. Follow the instructions above, but add the ***existing*** taxonomy field to the Article content type.

C. *Try out the new vocabulary*

To test out our new vocabulary on a Job posting or an Article, navigate to and article that we created earlier and edit. You should now see a new taxonomy field on the edit page called “Geographical region”. Select *Asia and the Pacific Rim.*

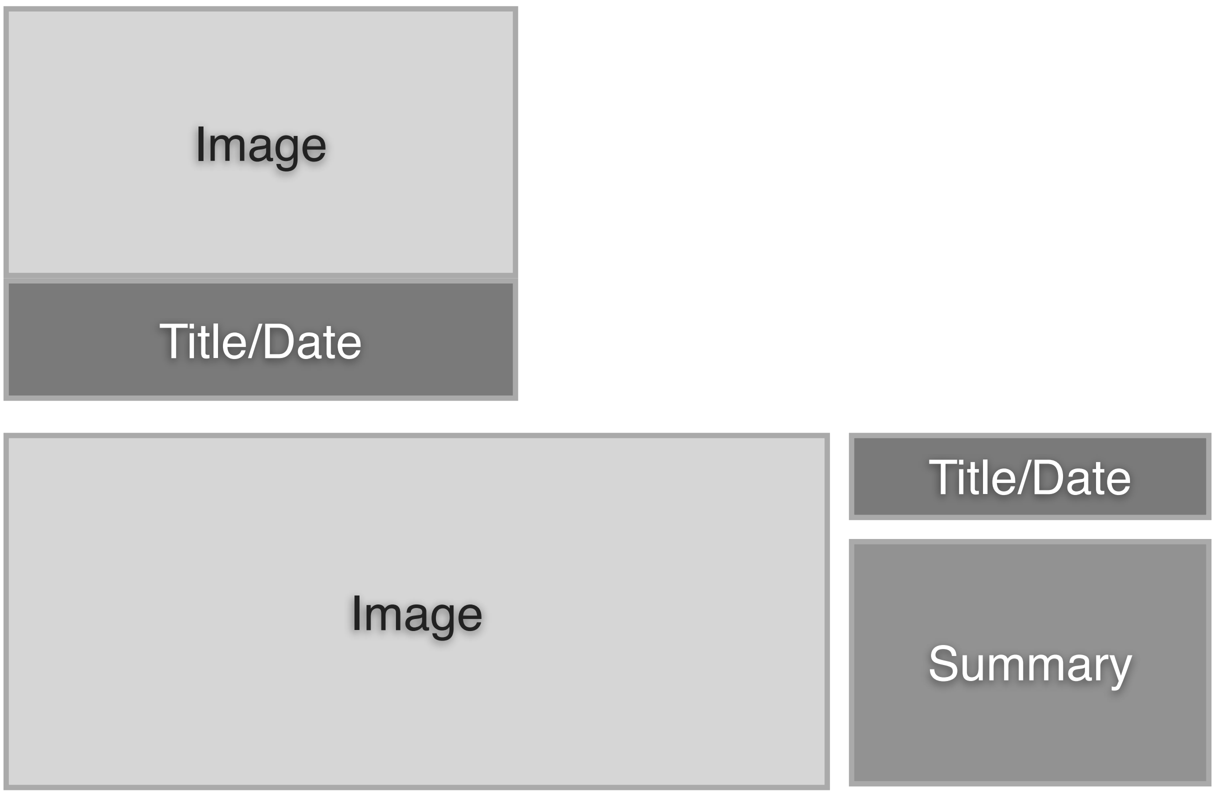
Unit 2.5: Manage display

Managing display

Your instructor will give you an introduction to managing display. You'll see a case study of a website and consider how view modes are used to control how the content appears in different conditions. Later you'll see how to add your own view modes using **Display suite.**

Consider view modes

You may need to use CSS in your theme to be able to get total control of the layout. Yet you



Demo: Quick look at the interface

Go to Structure > Content types > Job Posting.

Click MANAGE DISPLAY tab at the top of the page. The *Manage Display admin page* allows you to alter field display settings such as the order in which fields are displayed on nodes.

There are no changes necessary at this time. We will explore this further soon.

Unit 2.6: Set permissions

Security note:

The basic rule of thumb when it comes to users is to apply "Least privilege"

Give as few permissions as possible to get the job done.

Only grant the roles that a user needs.

Permissions check!

It is extremely important that you make use of Drupal's *User Role* and *Permissions* features to eliminate the possibility of unscrupulous users taking advantage of security vulnerabilities on your site.

1. Earlier, you added two roles “Site visitor” and “Site editor”. If you have not added them previously, add them now. Go to People and click **+ Add user.**
2. Go to People > Permissions. Review all the permissions listed under “node” and follow these rules.
    - **Administrators**: Should have all permissions for content editing.
    - **Site editors**: Can add content, and edit or delete any content.
    - **Site visitors**: Can add content, and only edit their own content.

PERMISSION	ANONYMOUS USER	AUTHENTICATED USER	SITE VISITOR	SITE EDITOR	ADMINISTRATOR
Job Posting: Create new content	☐	☐	☑	☑	☑
Job Posting: Edit own content	☐	☐	☑	☐	☑
Job Posting: Edit any content	☐	☐	☐	☑	☑
Job Posting: Delete own content	☐	☐	☑	☐	☑
Job Posting: Delete any content	☐	☐	☐	☑	☑
Basic page: Create new content	☐	☐	☐	☑	☑
Basic page: Edit own content	☐	☐	☐	☐	☑
Basic page: Edit any content	☐	☐	☐	☑	☑
Basic page: Delete own content	☐	☐	☐	☐	☑
Basic page: Delete any content	☐	☐	☐	☑	☑

3. Save permissions.

Unit 2.7: Content type test drive

We're going to test our content entry forms and display now.

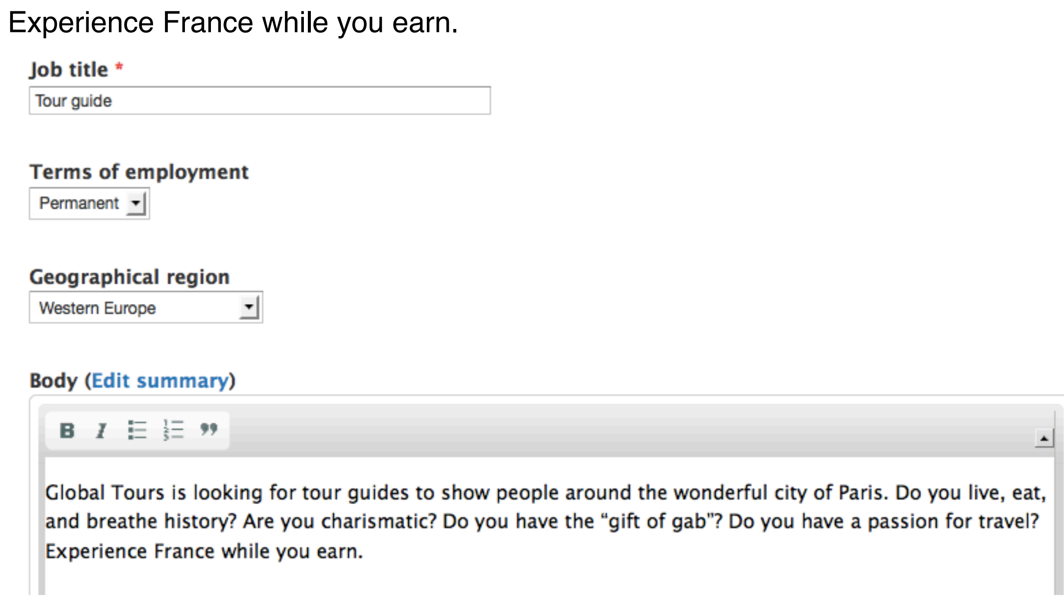
> **Important: Your client must test content input early**
>
> Clients tend to focus on visual design and often leave the content to a much later stage. This problem is compounded by the fact that the team who had input on the design are not the same people who will manage the site in the future.
>
> Placeholder content is useful, however, it can cause problems with clients if you use dummy content in an early stage of content type development.
>
> It's important that clients test out the content creation forms with real content, to ensure the right fields are included, that they are displayed properly, and that the fields are sequenced properly.

Exercise – Create and generate content

A. *First - manual test*

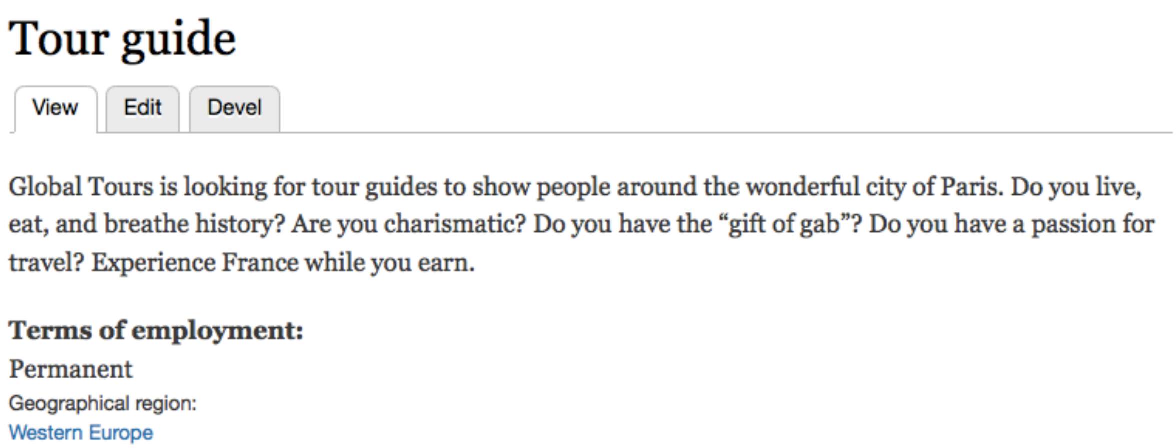
Now that we have created our Job Posting content type and have finished configuring it, we're ready to test it to ensure that everything is working as intended. Let's create a job posting manually and test the form.

1. Go to Add content > Job posting.
2. On the Add job posting form, enter the following information:
   - **Job Title** – Tour Guide
   - **Terms of employment** – Permanent
   - **Geographical Region:** Western Europe
   - **Job Description** – Global Tours is looking for tour guides to show people around the wonderful city of Paris. Do you live, eat, and breathe history? Are you charismatic? Do you have the "gift of gab"? Do you have a passion for travel?



3. Leave all remaining default settings.
4. **Save**.

You should now see your newly created Job Posting.



B. Second - Automatically generate content

By generating a number of items manually we can see how the content works in bulk. Follow the instructions in the **Appendix** on installing modules to install http://drupal.org/project/devel. Enable both "Devel" and "Devel Generate".

DEVELOPMENT

ENABLED	NAME	VERSION	DESCRIPTION
☑	**Devel**	7.x-1.0	Various blocks, pages, and functions for developers. Requires: Menu (enabled) Required by: Devel generate (disabled)
☑	**Devel generate**	7.x-1.0	Generate dummy users, nodes, and taxonomy terms. Requires: Devel (disabled), Menu (enabled)

1. Go to Configuration > Development > Generate content.
2. Deselect all but **Job Posting** (In other words, leave only Job Posting selected)
   - **How many nodes would you like to generate?** 20
   - **How far back in time should the nodes be dated?** 1 year ago.
   - **Maximum number of comments per node.** 0
   - **Max word length of titles** 2
   - Select **Add an url alias for each node.**
3. Click **Generate.**
4. Go to **Content** listing**.** Now you have a number of randomly generated content items. You can see a number of generated jobs with Latin names. In this way you can create nodes to test how your site handles more content.

The Developer module

The Developer module http://drupal.org/project/devel should be in every Drupal developer's kit. Devel has a number of developer tools. This module allows you to analyze every query on a page, or inspect access permissions on a page. One tool is a sub-module "Generate" which you can use to create a number of dummy nodes, images, and give them taxonomy terms. As we begin site building, we'll use it as a handy way to automatically create content.

Disable and remove on live sites

It's important to ensure you do not keep Developer enabled on a production (live) site! This module will put a burden on resources to and slow down your site.

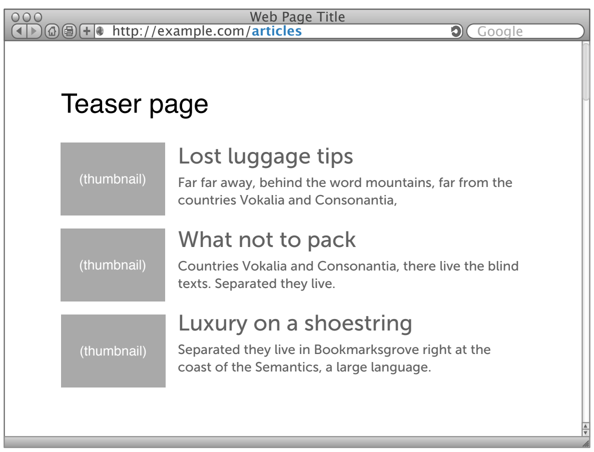
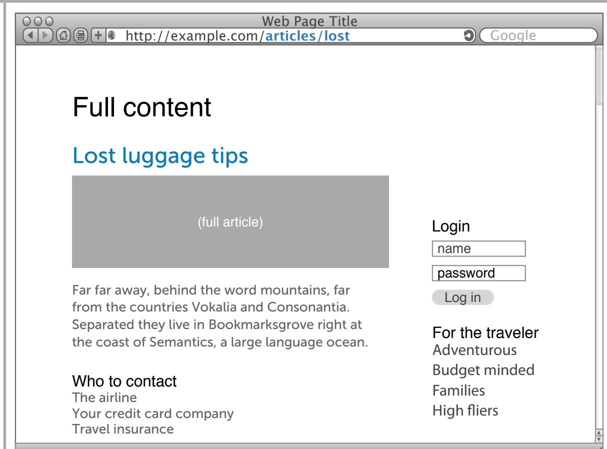
Unit 2.8: Modify image styles and display

By default, anyone who can add articles can upload images. Site administrators would like to restrict the display of images to 400 x 350 pixels to keep a consistent layout.

A mini review!

This is also a review of the steps you have done so far for customizing a content type and adding new fields. You are modifying a field, configuring the default settings, configuring display and checking permissions.

Examples of image styles

Example: thumbnail	Example: Full content image
	

Naming image styles

Every image style must have a name, which will be used in the URL of the generated images. Therefore, Image style names can only contain lowercase alphanumeric characters, underscores, and hyphens. Conventionally, image styles are named in one of three ways:

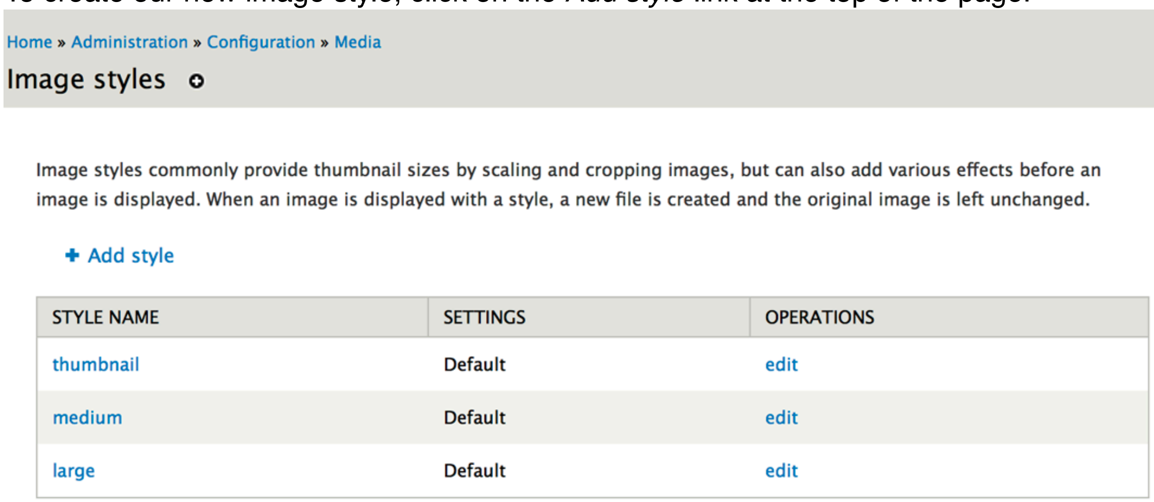
- By a generic style such as “slideshow large” or “thumbnail”. This is most flexible and you can reuse it in several locations.
- Where it will be applied, “front-page-slideshow”. This provides a scope for a stye.
- Or size of the image such as “rectangle-350x150”.

Exercise – Create and modify image styles

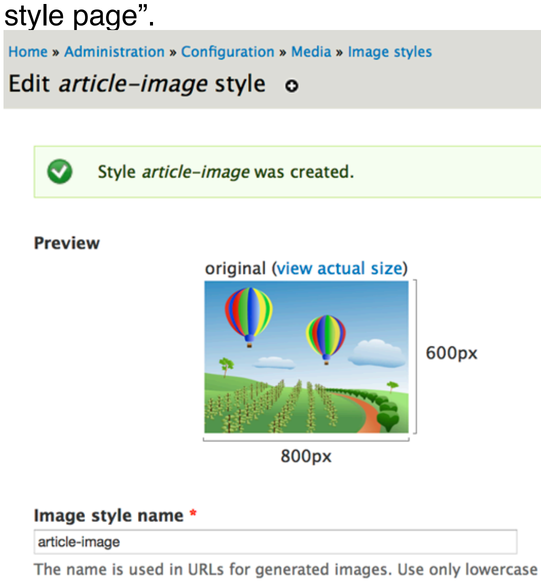
Image Styles allow you to scale, crop, resize, rotate and de-saturate images without affecting the original uploaded image. Image styles are set and configured via the *Image styles admin page*.

A. *Create an image style*

1. Go to Configuration > Media > Image styles
2. To create our new image style, click on the *Add style* link at the top of the page.



3. As our image style will be applied to the Article image field, name it – **article-image**.
4. *Create new style* to save our new image style. This takes you to the “Edit article-image style page”.



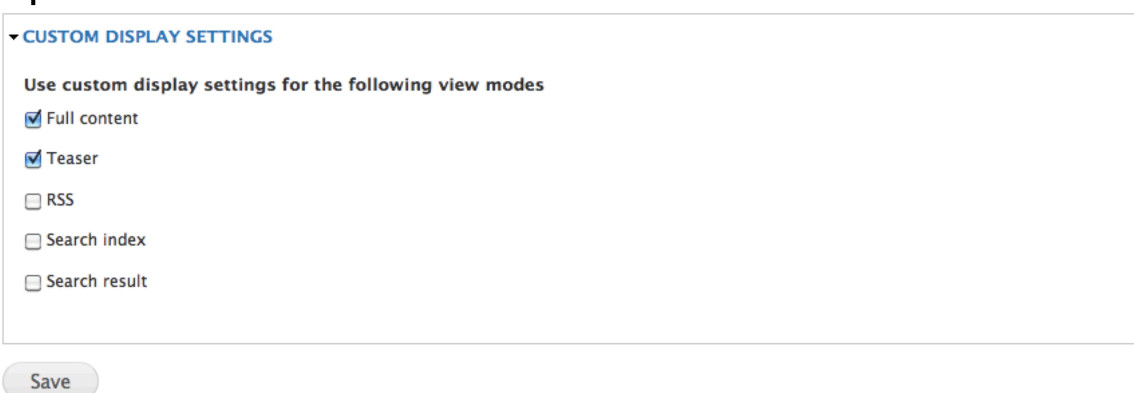
5. Next we’ll add the *Scale* effect. Under Effects select *Scale* from the drop-down menu at the bottom of the page. Click **Add**. This takes you to the Add scale effect page.

6. Enter the following settings.
    - **Width:** 400
    - **Height:** 350
    - Leave the **Allow Upscaling** checkbox unselected. If this is selected, the Image module will increase the size of smaller images to 400 x 350 pixels. This is undesirable in our case, as it will cause the raster images to become blurry.
    - Click **Add effect.**
7. Now your image is saved. If you made any additional changes you click **Update style.**

B. *Manage display settings for an image field*

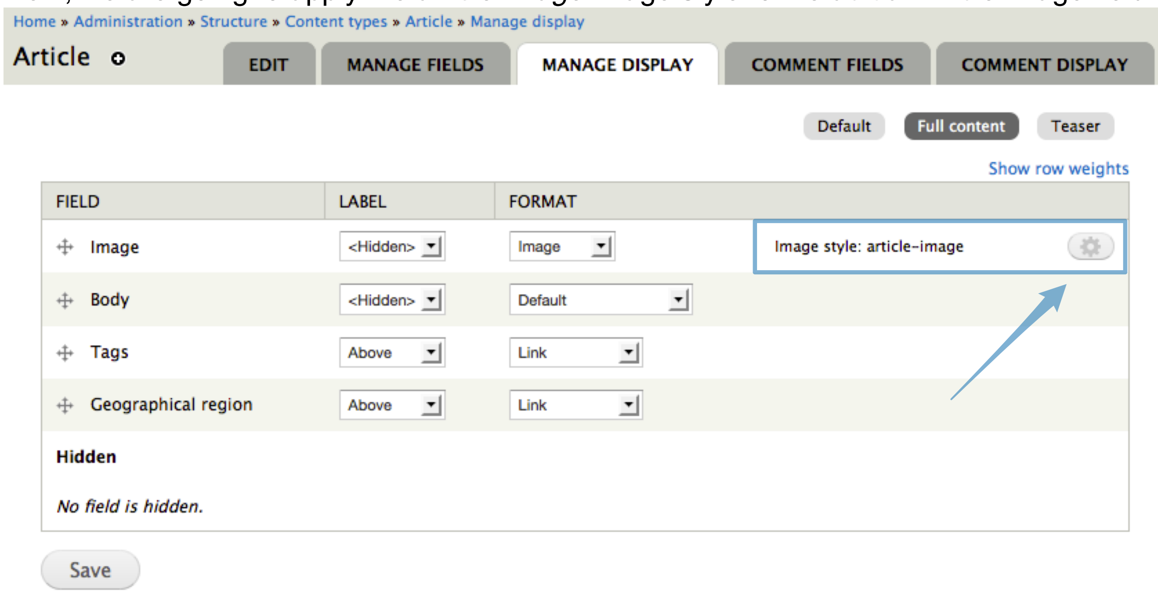
Now that we have our new article-image image style, we can to apply it the Article content type image field.

1. Go to Structure > Content types.
2. Click on the *manage display* for *Article* content type.
3. Click to expand CUSTOM DISPLAY SETTINGS. This section allows us to define which node *view modes* should be assigned Custom display settings – i.e. Teaser, RSS, etc.
4. **Explore the View modes**



    - **Full Content:** Customize how fields display when content is displayed on its own page.
    - **Teaser:** This is a usually a brief version of content type used on listing pages.
    - **RSS:** You can limit which fields will be output to the syndicated feed of content.
    - **Search index:** This controls what information is indexed by the search tool.
    - **Search result:** You can control which fields display in the search results.
    - We want to edit the content type so our image style to be applied to the node when it is being viewed in *full content* mode. Select *Full content* mode
5. Select **Full Content.**
6. Click **Save**.
7. You should now see a **Full content** tab in the top-right corner of the screen. Click on this tab to switch to the *Full Content View Mode Settings* page for the Article content type.

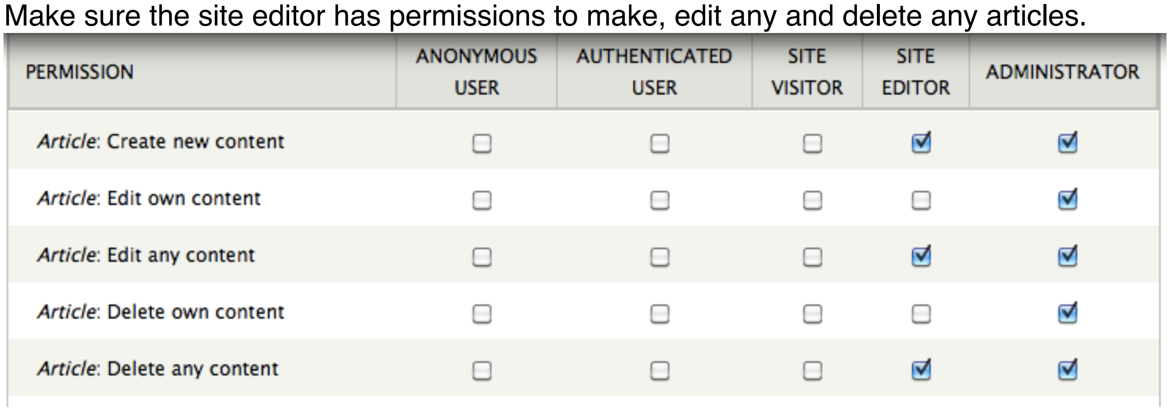
8. Next, we are going to apply the *article-image* image style to the actual Article image field.



- Click the **cogwheel** to the right of the Image field to modify settings.
- **Image style:** Select *article-image*
- **Link image to:** Nothing. This setting allows you to link the image to either the image file or the full content. We are editing the *Full content view mode*, so this won't be necessary.
- Click **Update**.
- Click **Save**.

C. *Check permissions*

1. Go to People > Permissions and double check the permissions for the content type: Article.
2. Make sure the site editor has permissions to make, edit any and delete any articles.



PERMISSION	ANONYMOUS USER	AUTHENTICATED USER	SITE VISITOR	SITE EDITOR	ADMINISTRATOR
Article: Create new content	☐	☐	☐	☑	☑
Article: Edit own content	☐	☐	☐	☐	☑
Article: Edit any content	☐	☐	☐	☑	☑
Article: Delete own content	☐	☐	☐	☐	☑
Article: Delete any content	☐	☐	☐	☑	☑

3. Click **Save permissions**

D. *Test it out! Manually and using Devel Generate*

Follow the instructions in the “Content type test drive” unit to test out the Article content type both manually and using Devel Generate. When testing manually, make sure you upload an image larger than 400 x 350px. You should notice that your image has been scaled to a size smaller than or equal to 400 x 350 pixels on the *full-page view* of the article.

Challenge Exercise – Change the sizes

Challenge change either the dimensions of this image style or choose a different image style in the display settings and see how Drupal updates the article images.

Want to change the image size?

The original image version is saved as a backup, and can be changed in the future. If you were to change the article-image style later- for example, to change the dimensions of the image to 200 x 200 – Drupal will automatically resize all article images you have previously uploaded. You can also edit the content type display settings, and change to a different image style completely. This will also flush all the cached versions of that image, and create new resized versions.

Unit 2.9 Session 2 Review

Take some time to consider what you learned about the content type building workflow. Do you have any questions about any of the steps?

- Create a content type.
- Add custom fields.
- Add vocabulary/terms.
- Configure default settings.
- Manage display.
- Set permissions.
- Test adding content.

Exercise – Check your field report

- Go to Reports > Field list to see a list of fields added to your site.
- You can use fields across multiple content types, which can offer some advantages because you can edit some global settings and values in one place.
- **Delete** unused fields as a final check on your site.

Exercise – Design your own content type

Think about a new content type you would like to add to this site.

- What display settings suit your content type?
- What fields does your content type need?
- When would you use a multiple choice text field, and when would you use a taxonomy vocabulary with terms?
- What would be the advantages of either choice?
- What advantages does Drupal offer when you upload images into a field, instead of linking to an image directly in HTML?
- What other field types are available?

If you have time, try to create the content type in Drupal.

Session Summary

In this session you saw the differences between the basic content types, and how you can customize your own with additional fields. The bulk of planning and work you will do on your site is carefully mapping out content types and how they are displayed on your site.

Then, ensuring your clients test out the content creation forms to be doubly sure the content types you designed model the data correctly and are flexible enough to be expanded.

There's always a surprise when you see the real content added!

Session 3: Content display and organization

In this session, we'll focus on Views, one of the most popular contributed modules. It's used to select, sort and display content in various ways. Examples of what you can do with Views:

- Create HTML lists of article titles linking to a full page for each article.
- Create a table content with multiple columns for only selected fields such as Job title, location and salary range.
- Create lists of taxonomy terms, users and comments, and sort in various ways.

Modules used in this session

- Advanced Help http://drupal.org/project/advanced_help
- Views, Views UI http://drupal.org/project/views
- Chaos tools http://drupal.org/project/ctools

Unit 3.1: Introduction to Views

Using Views

Your instructor will go over some essentials about Views. Views is capable of building filters based on dynamic input (conditional filters), and joining one piece of content with another if they share a piece of information (relationships).

For additional help, download and enable the *Advanced Help* module - http://drupal.org/project/advanced_help, then navigate to -/admin/advanced_help/views.

The important thing to keep in mind is that you are *limiting a data set* by using filters and selecting the appropriate, and only the necessary fields. Considering that, it may seem obvious, if you have a huge website and attempt to display full nodes on one page, you will destroy your poor site. As long as you keep this in mind, you can avoid trouble.

Further information available at http://drupal.org/project/views.

Basic steps:

1. **Choose what to query**. Choose your base table, content, users, taxonomy, comments, etc.
2. **Filter to limit your selection**. Published content, by content type, by taxonomy term, etc.
3. **Specify what and how to format.** Tables, lists, maps. You can specify what and how to display.
4. **Choose a display.** A page? A block? An RSS feed?

Unit 3.2: Create lists of content using Views

Site visitors would like to see lists job postings on one page, and articles on another. Your instructor will guide you through a quick introduction to Views. The exercises themselves are designed to give you a thorough tour of the functionality and terminology.

We created two new content types (Article and Job Posting) back in Session 2 for the GlobalTravel website. However we did not provide a way for this content to be displayed on the website. To achieve this, we are going to use the Views module to create two new views, one that will display a list of Travel articles on the site, and another that will display a list of Job postings.

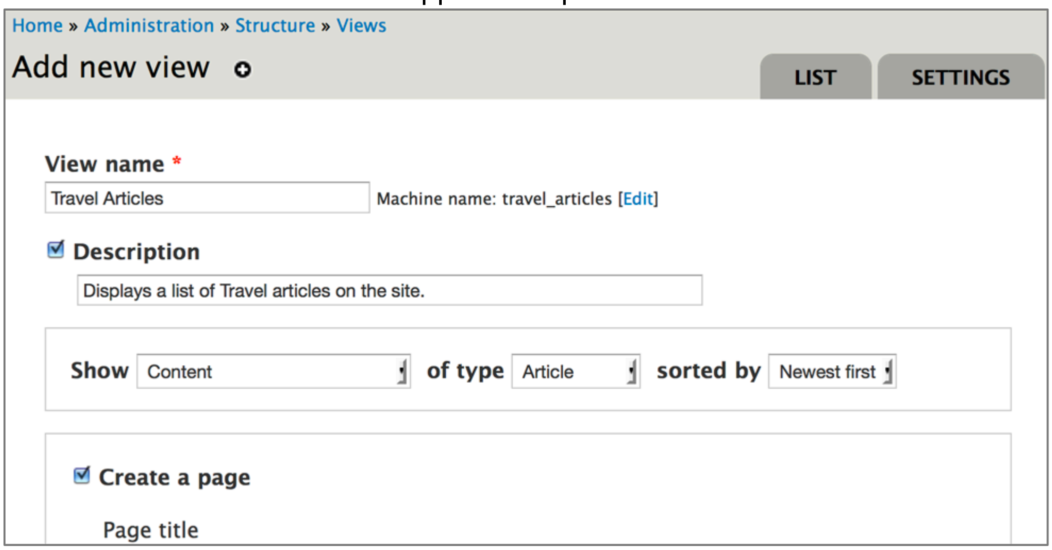
Exercise – Build the GlobalTravel article and job posting views.

A. Create the view using the wizard

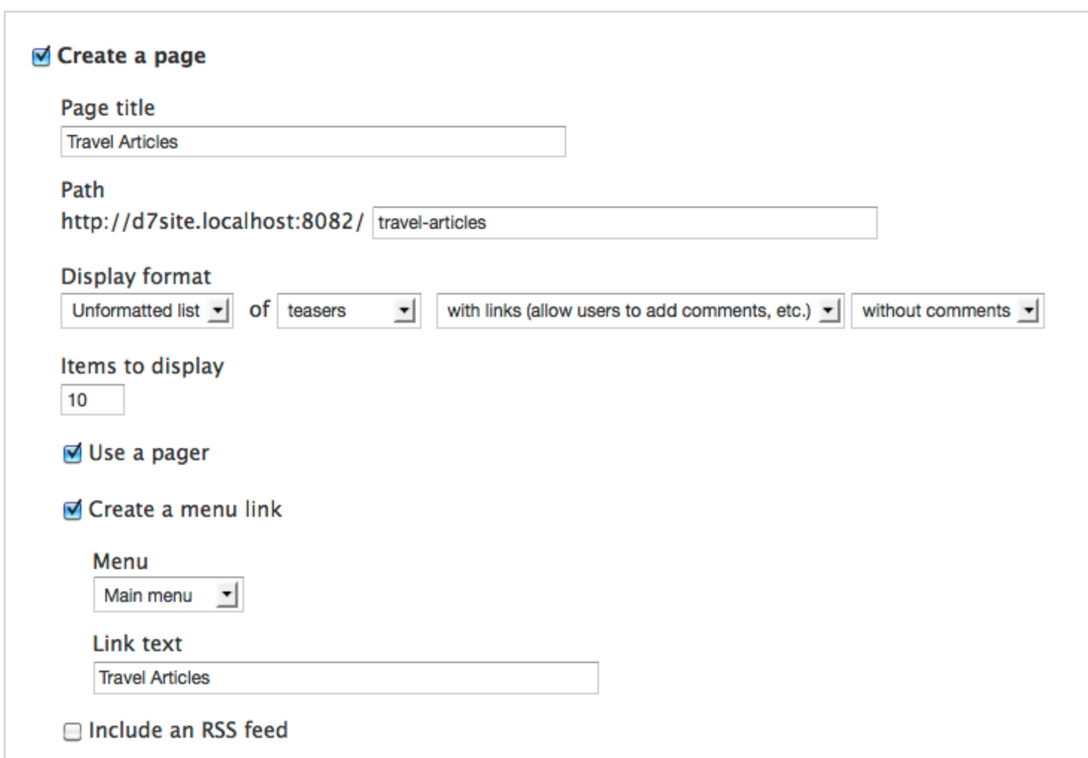
1. Go to Configuration > Development > Performance. Click Clear all caches.
2. Go to Structure > Views to see the *Views* admin page - /admin/structure/views.
3. Click the *Add new view* link at the top of the page. This will take you to the view creation wizard. We are going to create the Travel Articles view first. Enter:
   - **View name**: Travel Articles

- Select **Description** and enter: Displays a list of travel articles on the site. This is so *Site administrators* can easily see what the view does.

4. We want to show Article content, so in the next section select the following options:
   - Show *Content of type Article* sorted by *Newest first.*
     These settings ensure that only Travel content will be displayed within the view and that the newest article will appear at top of the list.



5. We want to create a views page to display our Travel article content, so leave the Create a page checkbox checked. The Page title and Path fields should already contain the name of our view – *Travel Articles* – so Let's leave these as is.
6. Next, Display format: *Unformatted list* of *teasers without links* and *without comments.*



- Items per page: 10
- Select **Use a pager**
- Select **Create a menu link** to expand options.
- **Menu**: Main menu
- Leave default **Link text**: Travel Articles

7. Click **Save & exit.**

B. Review your changes

1. After saving the view, you will be redirected to the view page on your site. Only see one article? Create several more Travel articles so you can see how Views takes care of listing them.

Challenge exercise – Practice creating views

Repeat steps 1 through 6 to create the Job Posting view swapping out information to show the jobs available. If you need to, create a few more job postings on your site.

You will extend this job listing in a later session.

Another view or just a display?

If you have two views which load similar fields, you will be able to speed up your site, as well as making your views easier to maintain. With Views you can cache both the query and the rendered output. This means each subsequent display on a view can reduce the loads on your database.

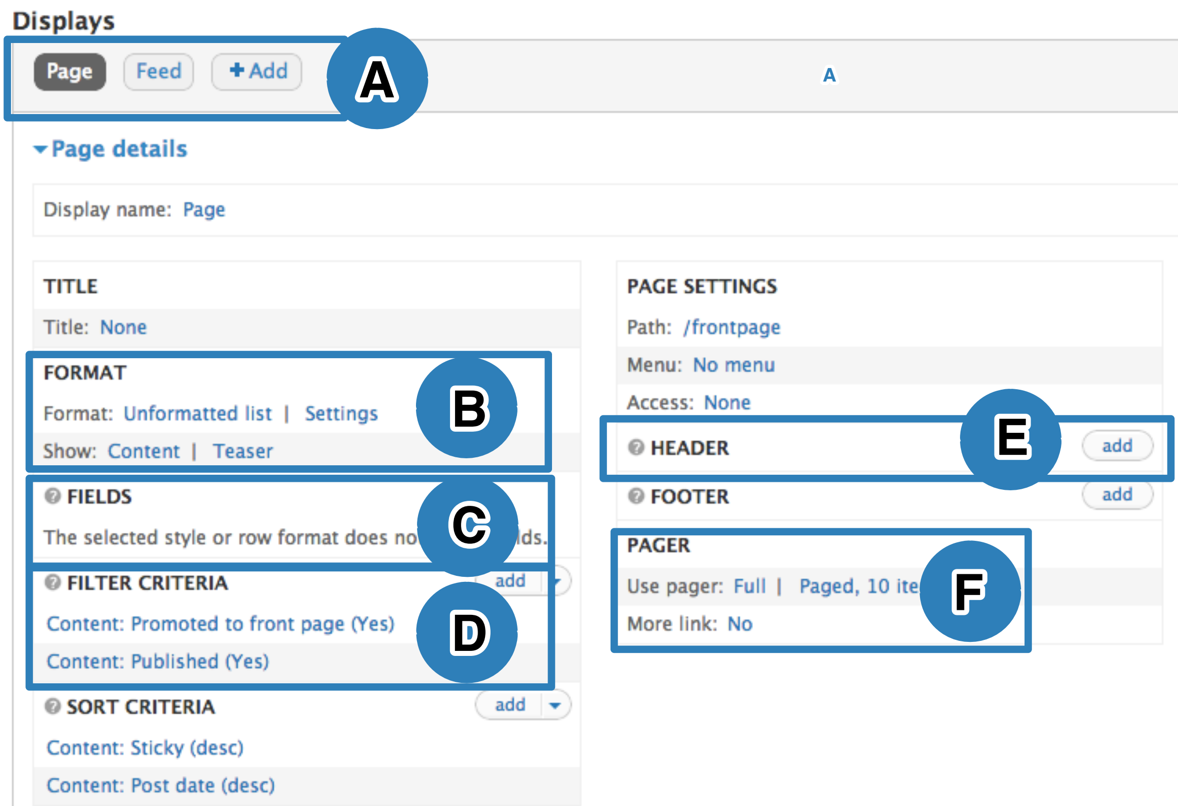
You can learn more about Views caching in the notes at the end of this session.

Unit 3.3 Views templates and views attachments

Views comes with a variety of pre-built templates which can make your job a bit easier. You can enable and edit these templates to suit your needs.

The Views editing interface

In this unit you'll become familiar with the full Views editing interface. After it's done its magic, the Views wizard is gone. These are the elements we'll be focusing on in the following exercise. Refer to this diagram if you're not sure where to start.



A. **Displays**: Create multiple output displays from the same view. This might mean multiple pages with different filters or blocks, RSS feeds, etc.
B. **Format**: Output content into lists, tables, or show the full content (node) display.
C. **Fields**: Specify specific fields such as title, date, taxonomy, etc.
D. **Filter criteria:** This is the most important aspect, since you limit the selection this way.
E. **Header**: Add arbitrary HTML to the top and bottom of your views.
F. **Pager**: Specify how many items to display or whether or not to show a "previous/next" pager.

Exercise – A customized front page

We will make a customized front page which shows 3 items of recent content, then a bulleted list of titles of 10 recent articles.

5 words you need to know in every language

Submitted by testeditor on Fri, 10/21/2012 - 23:04

Consectetuer dolor dolore exputo meus premo typicus utinam. Capto gilvus humo jumentum usitas validus. Aliquip huic iriure tego vindico. Brevitas causa lucidus metuo nibh ut. Commodo haero praesent verto. At olim scisco vulputate. Acsi meus utrum. Erat pneum utrum. Appellatio caecus conventio gilvus haero. Consectetuer enim incassum inhibeo ludus macto plaga wisi.

Tags:
budget

Read more

More articles from our contributors

- Survival language skills
- Beat the queues
- We put 3 suitcases to the test
- Article with no image
- Staying safe on the road

What does Drupal do out of the box?

1. The front page of a typical Drupal site simply displays the teasers of any content which has been promoted to the front page.

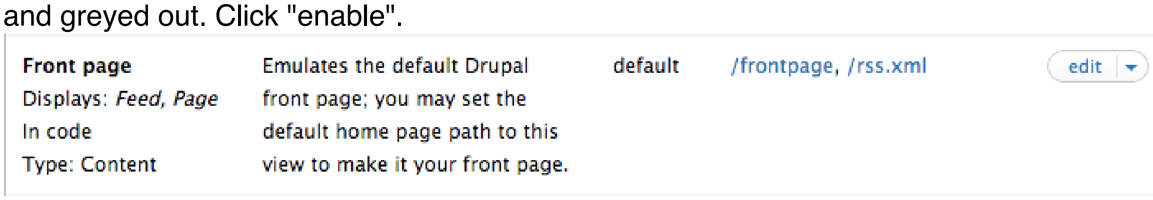
2. Go to Configuration > System > Site information. Scroll down to "Front page". You can change two settings.

- Number of posts.
- Specify a page.

3. No changes are needed at this time.

A. Enable the view template for the front page

1. Go to Structure > Views and locate the Front page template. This is towards the bottom and greyed out. Click "enable".



2. Click "edit" for that view.

B. Add a filter

1. Scroll down to see the preview of the content. It's similar to what you'd see on your front page by default. Review the filter settings. This shows all content which is promoted to the front page. It sorts with the most recent on top, and allowing any items marked "sticky" to rise to the beginning of the list.
2. Under Filter criteria (D in introductory diagram) click add.
3. Search for and select "Content: Type". Apply the changes.
   - Operator: Is one of "Article". This will exclude any future content types we add, no matter what the content settings are.
   - Apply the changes.

C. Change the number of items to display

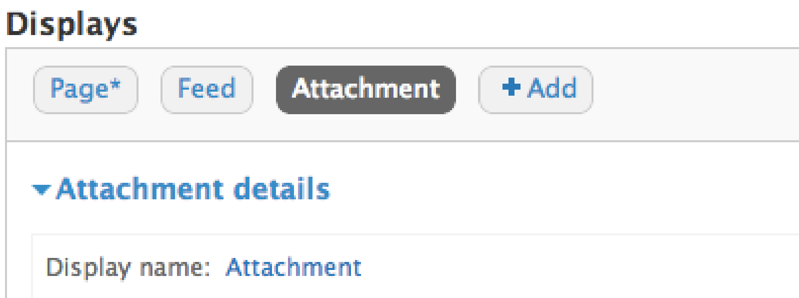
1. Under Pager (F in diagram) click "Full" to change the settings.
   - Select "Display a specified number of items".
   - Click Apply.
   - Change Items per page: 3

- Click Apply.

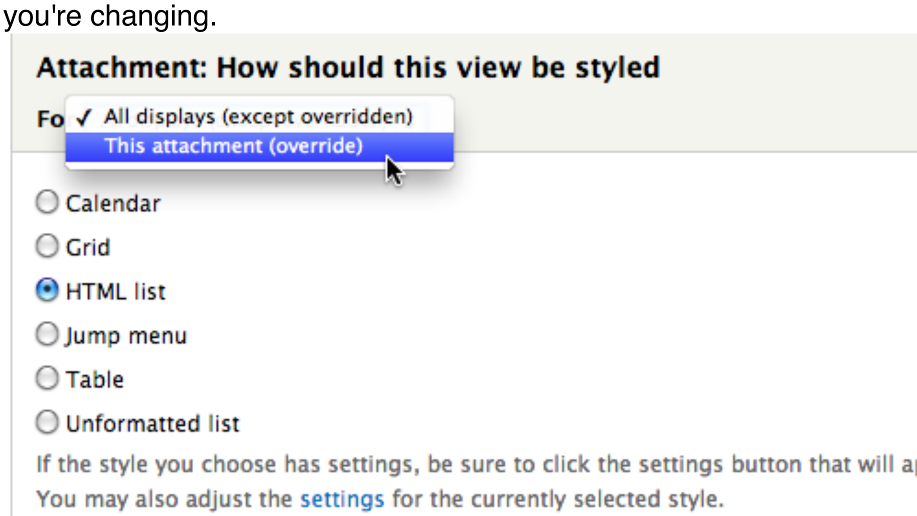
2. Check your preview. You should see 3 items displaying.

D. Add a new display: an attached list

1. Next we'll add a list of 10 more recent articles to the bottom of this view. At the top (A in diagram), click to +Add a display, and select "Attachment".
2. Now you can see you have more than one display available. The highlighted display indicates which one you're editing. Keep an eye on that when you're editing views.

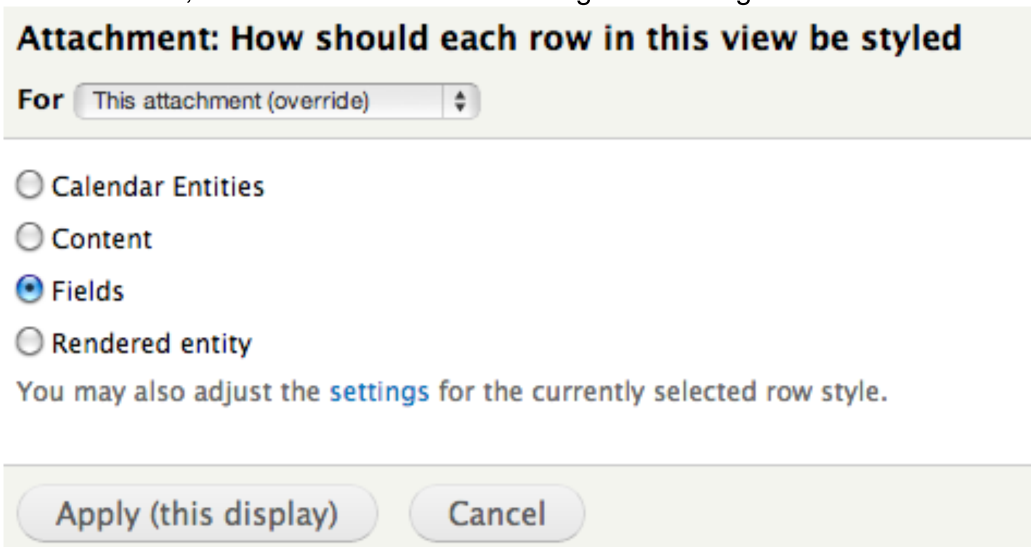


3. Under Format in the left column (B in diagram), click "Unformatted list" to change the settings. Notice, when the window pops up you have an option to select which display you're changing.



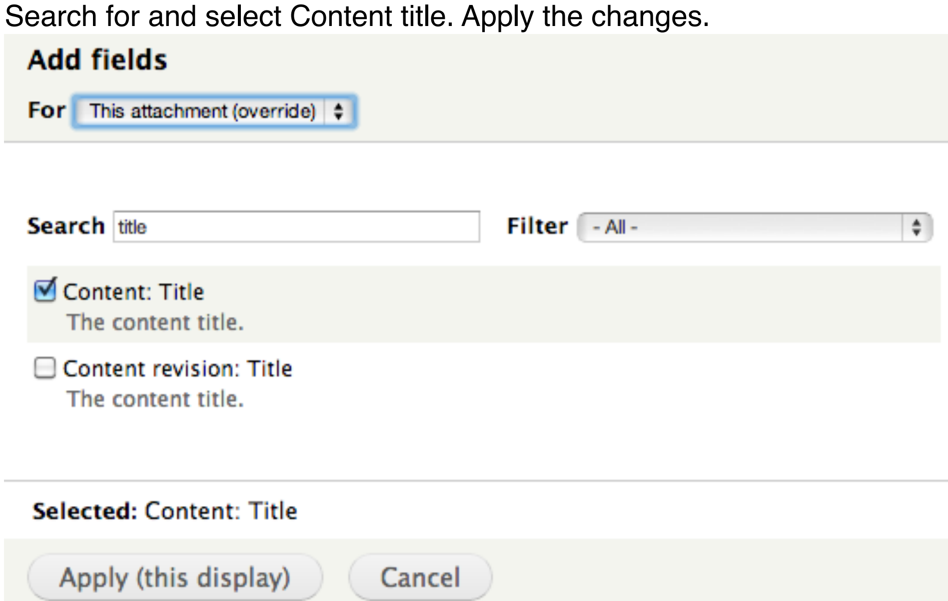
- Select "This attachment".
- Select "HTML list"
- You'll notice the button now reads "Apply (this display). Click it!

4. Under Format, Show click "Content" to change the settings.



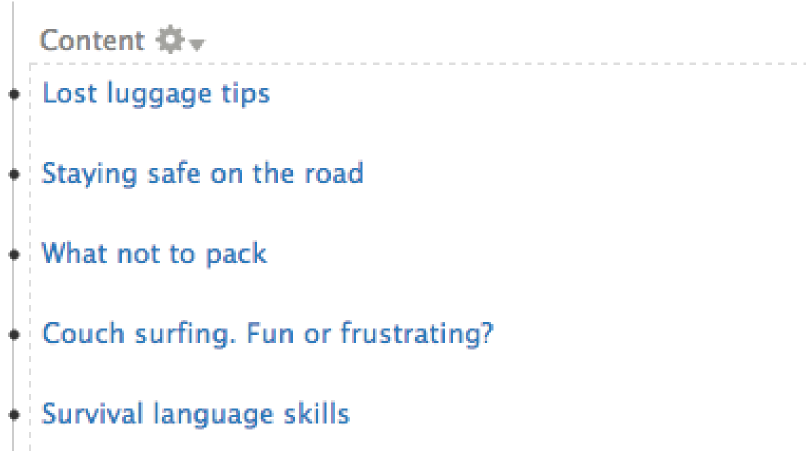
  - On the next window, select "Fields" and apply the changes.
  - Then click apply on the final screen.

5. You'll see an error since we haven't selected any fields. Under Fields (C in diagram) click "add".
  - Make sure you have "This attachment" display selected.
  - Search for and select Content title. Apply the changes.

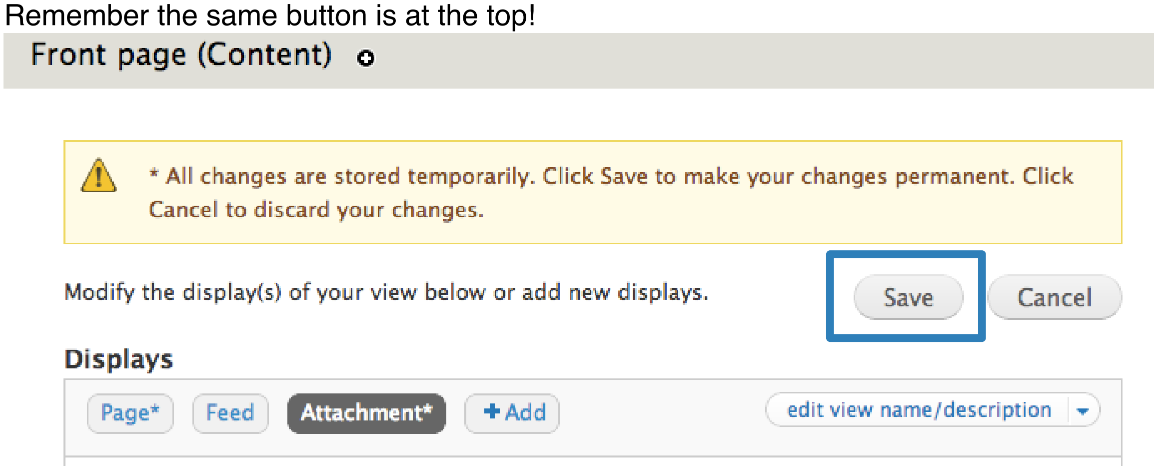


  - Configure the field: Content: Title. De-select "Create a label"
  - Apply the changes.

6. Check your preview! You should now see a bulleted list of article titles.



7. At this point you Save and view the status of this exercise at your site /frontpage Remember the same button is at the top!

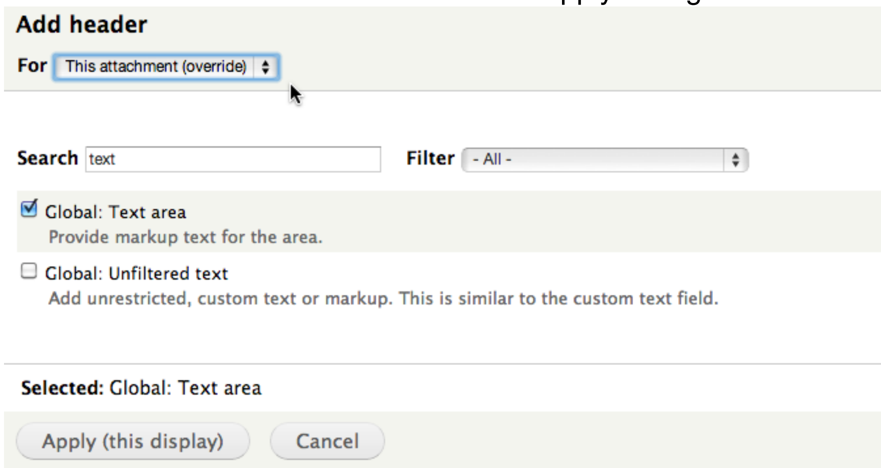


8. Check out your page at /frontpage … Notice anything strange?

E. Add a header to the attachment

1. Under Header (E in diagram) click "add".
2. Check you are editing "This attachment".

- Search for and select "Global: text area". Apply changes.

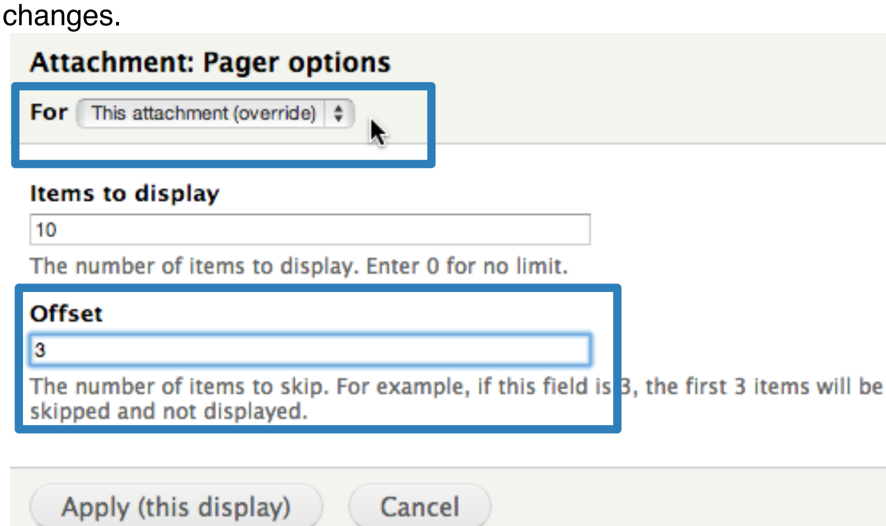


- Type in the text field.
- <p>More articles from our contributors</p>
- Apply the changes.

3. Check the preview, you now have one line above the list.

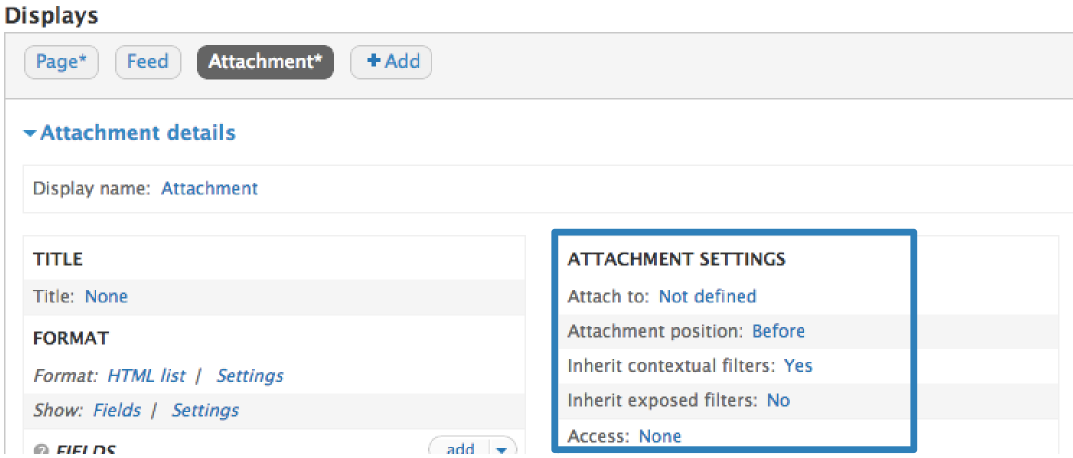
F. Change the off-set to exclude the first 3.

1. On the /frontpage hover to expose the gear. Click to **edit the view.**
2. Ensure you're editing the **Attachment** display (A in diagram). Under the Pager settings (F in diagram) in the center column, click "10 items" to change the setting.
3. Change the "Offset" to 3. Again, ensure you're editing "This attachment". Apply the changes.



G. *Change the attachment settings*

1. In the center column, under "Attachment settings" click the option for "Attach to: "Not defined".



   - Select "page". Apply the changes.
2. Click the option for "Attachment position:Before" to change the settings.
   - Select "After". Apply the changes.

H. *Set /frontpage in your site settings*

1. Click the "save" button to save your changes.
2. Return to Go to Configuration > System > Site information. Scroll down to "Front page". Set the path to "frontpage" (without the quotes.
3. Click "Save configuration".
4. Now when you return to your site's front page, you see the view you've just edited!

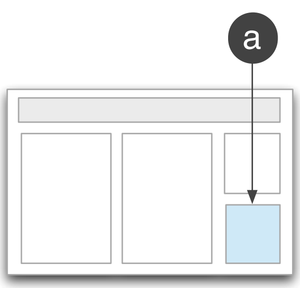
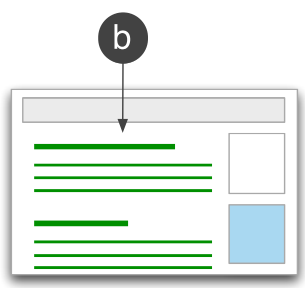
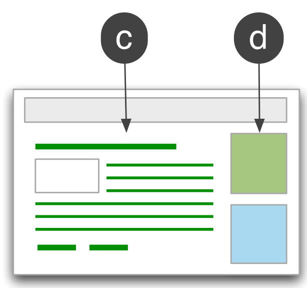
Unit 3.4: Related content with Views (contextual filters)

About contextual filters in Views

As you've seen, we use filters in Views to limit the set of data, for example to limit to only show content of a certain type, or categorized with *a specific term*. In our case, we want to show related content when we view a job listing marked in a specific geographical region. However, we don't want to have to build a new view for each new term. Instead, we can use the context to determine what to display. In this case, it will check the taxonomy terms from the article, and dynamically pull in related content with the same term.

Our client: Related content by term

Site visitors would like to see content related to a specific region they are interested in. The illustrations below show the various pages we'll be working with.

A list of terms block	A term listing page	A full node page
		
`<front>`	`category/term`	`content/path-to-node`

a. On each page - users want need auto-generated **list of terms in a block**. (a) Shows this block on the front or home page.

b. When you click on a term such as “Western Europe” you go to a **term listing page** all related content which is tagged or categorized with that term.

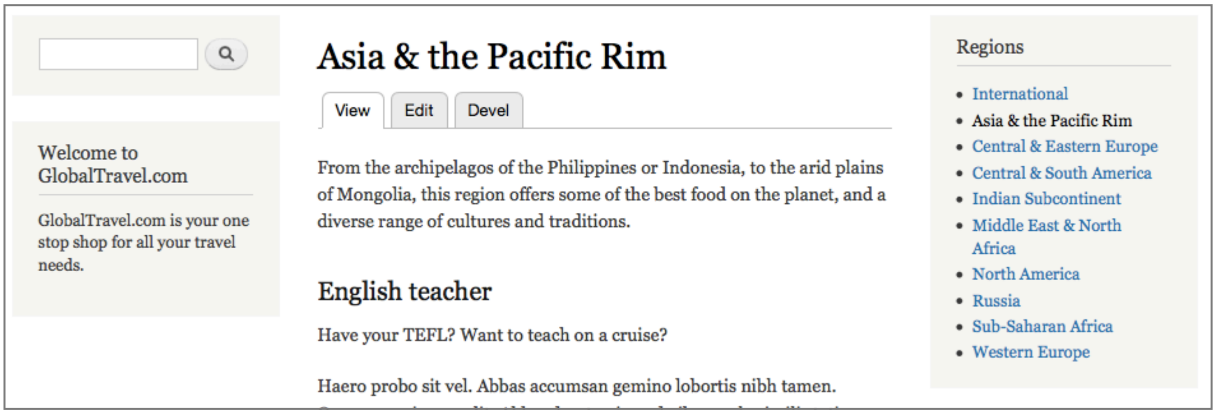
c. When you select a specific article such as “Dancing in Ibiza” you see the **full node page.**

d. In the sidebar of the “Dancing in Ibiza” full node page you also see a **block of “related content”** titles. This will pull in a list of nodes of any content type which are also tagged or categorized with the same term.

In the next exercises, first we'll make the list of terms block (a) and then we'll make the related content block (d).

Exercise – Make a list of terms block

We'll add a list of the regions in the sidebar. (Marked as "a" in the introductory illustration).



1. Go to Structure > Views. Click + Add new View. Configure with these settings:
   - **View name**: Geographical region
   - Select to enable **Description**: A list of geographical region terms.
   - Show *Taxonomy terms* of type *Geographical region* sorted by *Unsorted.*
   - Deselect **Create a Page** and select **Create a block**.
   - **Block title**: Regions
   - **Display format**: HTML list
   - **Items per page:** 20
   - **Use a pager:** Leave unselected.
   - Click **Save & exit.**
2. Go to Structure > Blocks.
3. Under "Disabled" Locate Views: Regions block and use the pull-down menu to place the block in "sidebar second".
4. Click **Save blocks.**

Exercise – Make the related content block

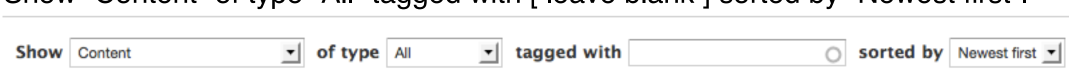
We'll add the related content block. (Marked as "d" in the introductory illustration).

A. *Prepare the site*

Make sure you have some content which is tagged with the Regions terms. If you have used Devel generate, you should have some tagged content.

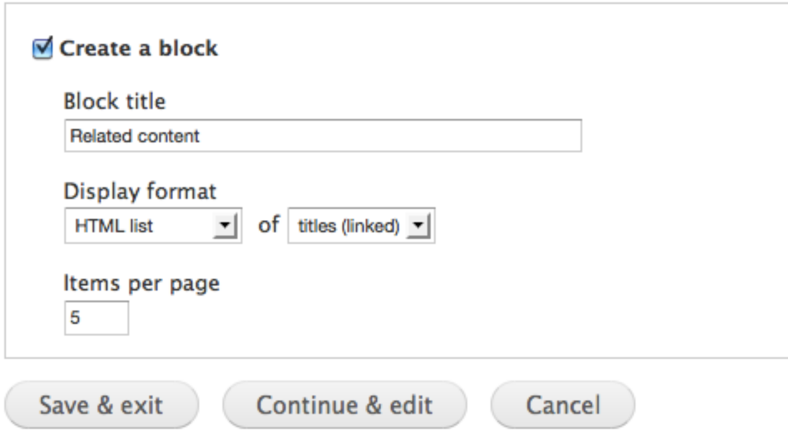
B. *Create the View*

1. Go to Structure > Views. Click + Add new View. Configure the View with these settings:
    - View name: Related content
    - Show "Content" of type "All" tagged with [leave blank] sorted by "Newest first".



    - De-select "Create a page"
    - Select "Create a block".

- Leave defaults except for **Display format**: HTML list.

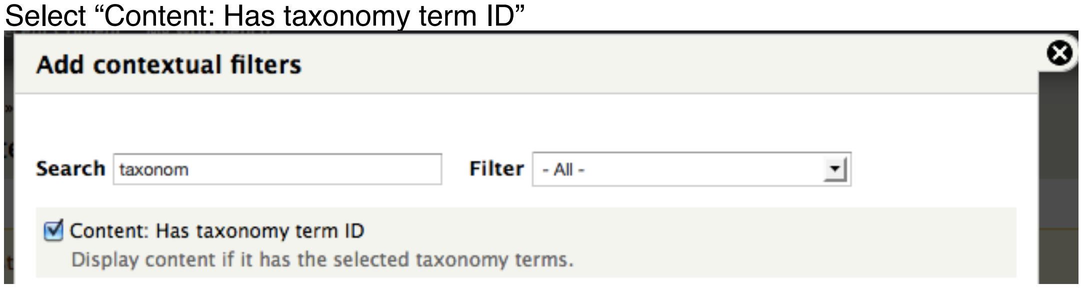


2. Click **Continue & edit.**

C. *Add dynamic filter*

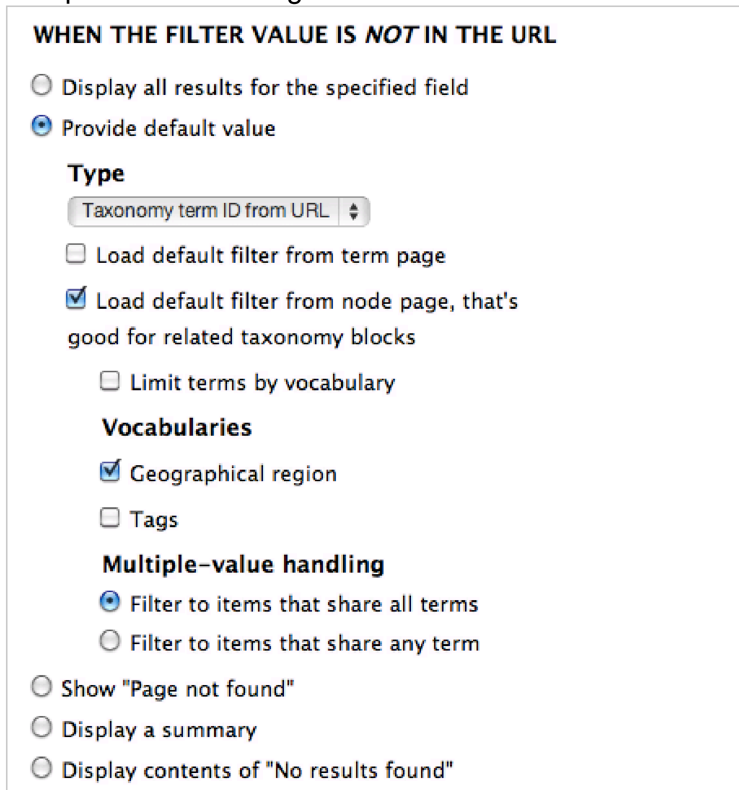
We only want to show a list of content which has the same tags as the current content.

1. Add the contextual filter. Click to expand “Advanced” options to the right of the Views screen.
   - Under **Contextual filter** click Add. This opens a pop-up window.
   - Search to filter the options for Taxonomy terms.
   - Select “Content: Has taxonomy term ID”

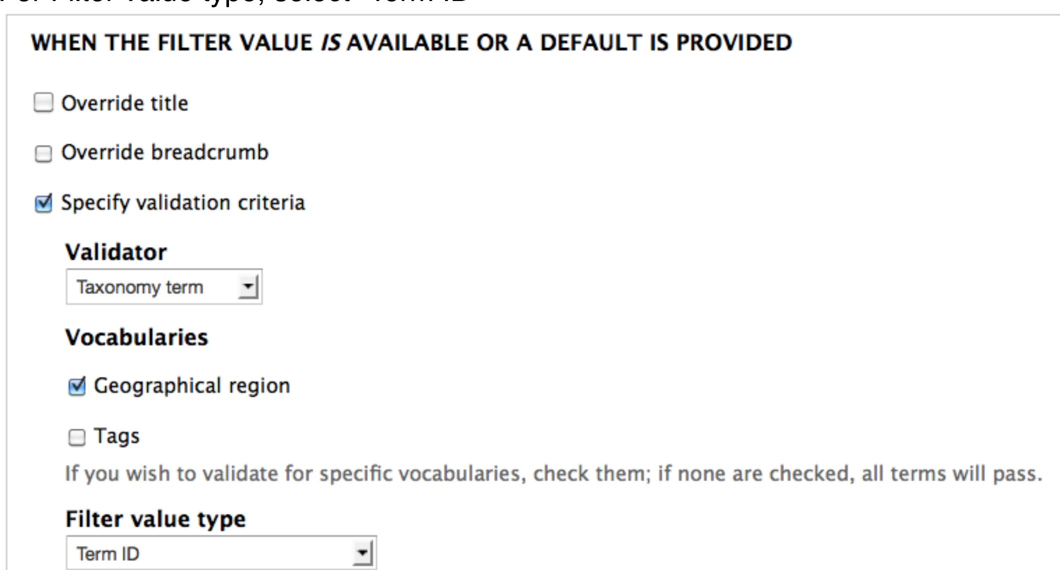


   - Click **Apply (all displays)**. This goes to the next screen.
2. Configure filter
   - Under **When the filter value is NOT in the URL**. Click “Provide a default value”,
   - Select Provide default value. Under type choose "Taxonomy term ID from URL" and "Load default filter from the node page…"
   - Under Vocabularies: Select "Geographical region"

- Multiple-value handling. Select to "Filter to items that share all terms"



- Scroll down to **When the filter value IS available or a default is provided**, select "Specify validation criteria".
- Validator: Taxonomy term
- Vocabularies: Geographical region
- For Filter value type, select "Term ID"



- Click **Apply (all displays)**

3. **Save** the view. Reminder: The save button is on the top right of the views page.

D. *Place the block*

1. Go to Structure > Blocks and scroll down to locate the “View: Related content” block.
2. Using the region pull down menu, select “Sidebar second”. Drag to place the block to the top of the sidebar.
3. Click **Save blocks.**
4. Scroll to locate the block "View: Related content" and click to **configure** it.
5. Under Visibility settings, click the **Content types** tab. Select these options:
    - Article
    - Job posting
    - **Keep in mind, if you add new content types, re-set this for each!**

6. Click **Save block.**

E. *Review and test*

Take a few moments to make sure you have some content in certain regions, such as Asia or Russia, so you can see how the block works.

- When you click on a tag on a specific article you should see a listing of related content, listed by the taxonomy term, and the block should not appear.
- When you view a job posting or article you should see related content.

Session Summary

In this session you began to see how powerful Views is, and how you can extend it to create wholly unique websites. If you're familiar with database administration, Views is going to seem very familiar. It's an easy way to click through building fairly complex queries of your site data. Later we'll see other ways to make the most of Views.

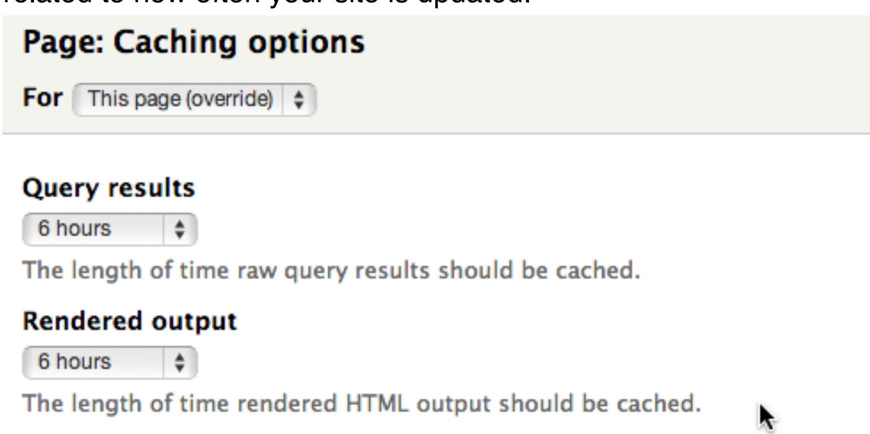
Views checklist

A useful checklist, by Jody Hamilton of Zivtech is available at https://www.zivtech.com/blog/views-quality-checklist

Always use a caching strategy with Views

A view provides a live display of the results of the query of your database. However, if one visitor has loaded that page before, why not save it for the next visitor? Use caching to save the results of the query, and/or the rendered output. All views have the ability to have a time based cache that is built into the views module. All views should have a cache of at least 5 minutes to help alleviate load on the database.

In the right hand column, you can change settings to a time-based cache. Choose a setting related to how often your site is updated.



All done? Turn off the Views UI

Each module you run enabled on your site takes a small part of your server's memory. By disabling just the "Views UI" module you can lighten the load. When you're not developing Views directly, you can safely disable the UI and the Views will still work.

Recommended modules for extending Views

Many modules exist to integrate with Views, change the output of Views HTML, or to enable further configurations options as we demonstrated with the Slideshow module.

You can browse some of these at http://drupal.org/project/modules?filters=tid%3A89

These are some most useful Views related modules, to give an idea of what is available. There will be a number of dependencies for some of these modules.

Select and install a module to extend Views, refer to the list below. See what options are available to you and how it works with your existing site data. Refer to the documentation for your selected module.

Calendar	http://drupal.org/project/calendar This module will display any Views date field in calendar formats, including CCK date fields, node created or updated dates, etc.
Open Layers	http://drupal.org/project/openlayers This module is in beta at the time of writing. This is used to plot location dta on a map.
Quicktabs	http://drupal.org/project/quicktabs Creates blocks with tabs to Views, often seen on news style websites.
Views Bulk Operations (VBO)	http://drupal.org/project/views_bulk_operations Create powerful batch processes on multiple nodes. This thing is an awesome timesaver.
Views Slideshow	http://drupal.org/project/views_slideshow There are many modules for managing slideshows using Views. This is one of the most popular.

Session 4: Site structure and layout

Drupal layout control is handled in a variety of ways depending on your needs. We can briefly touch on some methods here. We also have a full course on Drupal Layout and Theming, and a course on Drupal Panels, a tool for a drag-and-drop layout.

Resources

Design resources

- Style tiles http://styletil.es/ A design approach by Phase2 a Drupal agency.
- Style guide module http://drupal.org/project/styleguide
- Greyboxing template for Drupal by Floor Van Heerweghe http://www.chapterthree.com/greyboxing
- Drupal CMS components template (BMML) for Balsamiq Mockups http://j.mp/balsamiqdrupal

Layout modules

- Panels http://drupal.org/project/panels
- Context http://drupal.org/project/context
- Display suite http://drupal.org/project/ds
- Boxes http://drupal.org/project/boxes
- Bean http://drupal.org/project/bean

Menu modules

- Documentation on working with menus: http://drupal.org/documentation/modules/menu
- Comparison of drop-down menus modules: http://drupal.org/node/990154
- http://drupal.org/project/menu_block
- http://drupal.org/project/superfish

Faceted search module

- http://drupal.org/project/apachesolr

Breadcrumb modules

- Comparison of breadcrumb modules http://drupal.org/node/533448
- http://drupal.org/project/menu_breadcrumb
- http://drupal.org/project/custom_breadcrumbs
- http://drupal.org/project/crumbs
- http://drupal.org/project/hansel

Unit 4.1: Patterns, Paths and URL aliases

Site visitors would like to access content from memorable URLs. We can also use the paths to set conditions for site layout.

Understanding Drupal site structure

Your instructor will do a short presentation about how Drupal sites are assembled based on conditions you set. This may be in the content type, based on the paths, or various conditions such as whether a user is logged in or not.

Modules used in this unit:

Before we begin enable the following modules. Because you are using Acquia Drupal, these are installed by default. They are not part of Drupal core installation.

- **Pathauto** – http://drupal.org/project/pathauto
- **Token** - http://drupal.org/project/token

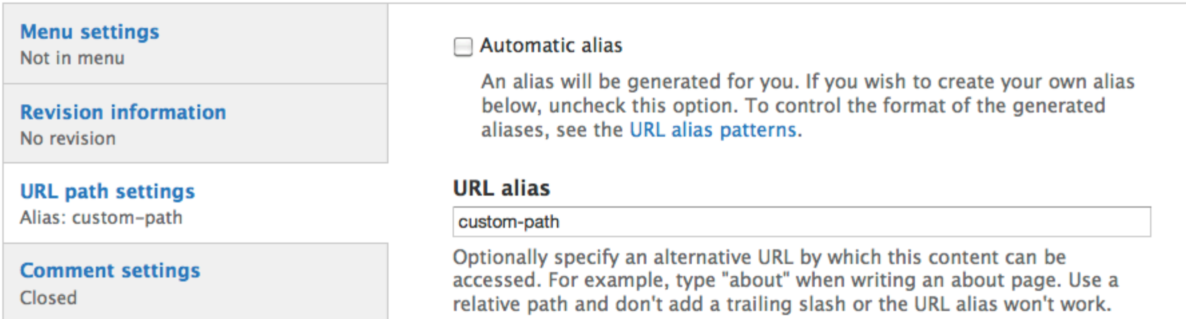
When you add content to your site, Drupal automatically assigns a URL to it that uses the following format “content/item-title”. This may be useful for many generic purposes, but perhaps you could like to customize the paths.

The *Path* module adds a *URL path settings* tab to the node creation form that allows you to optionally create URL aliases for your pages. This not only makes your URLs more user-friendly, but also scores you SEO points as search engines give better rankings to pages that have user friendly URLs.

Let Drupal handle URL aliases.

Each new item of content has a permanent URL: node/123. You can find this path in the address bar when you click to "edit" content. This link will not change even if you change the title.

When you add content as an administrator you may have noticed you can set a custom URL alias, and override the settings. (This may look slightly different if you're not using Acquia Drupal.)



If you had used the content's menu settings to add this to the Main menu, the link would automatically be updated. However, if you added a link to the path directly such as http://example.com/old-path to http://example.com/custom-path then the menu link would be broken.

Patterns and the Pathauto Module

The Path module serves our needs well for individual nodes. However, what if we need to apply a specific URL format to all posts of a specific content type? For example you may prefer different patterns depending on the content type.

Examples:

Views - teaser pages	Example Pathauto generated link	Pattern token
http://example.com/article	http://example.com/articles/article-title	articles/[node:title]
http://example.com/jobs	http://example.com/jobs/job-title	jobs/[node:title]

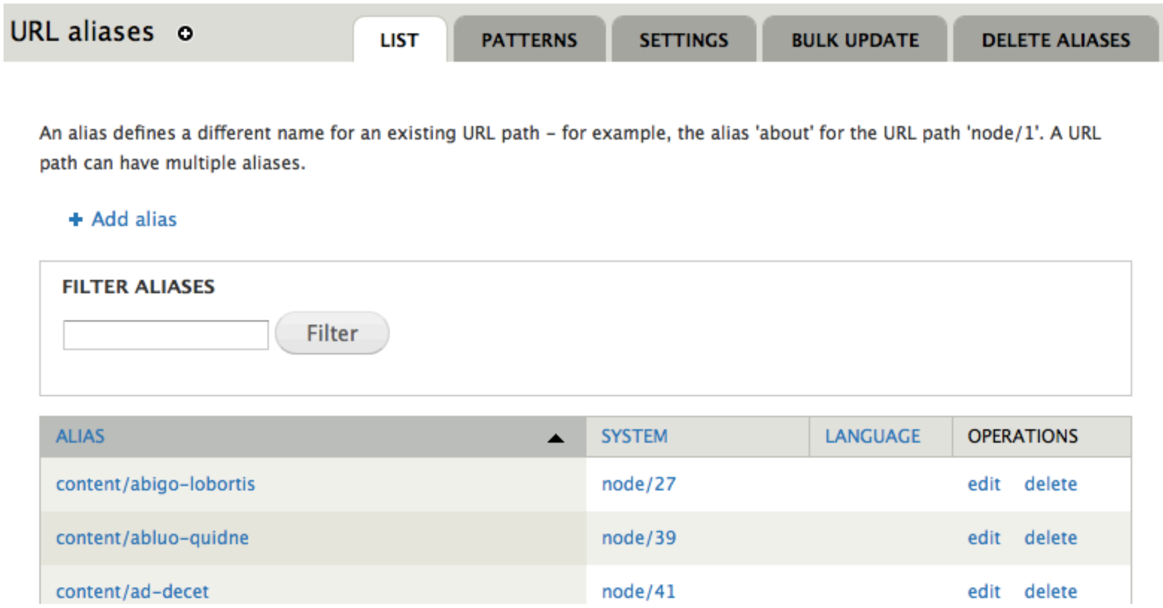
Lots of aliases?

Exercise – Step-by-Step URL alias patterns

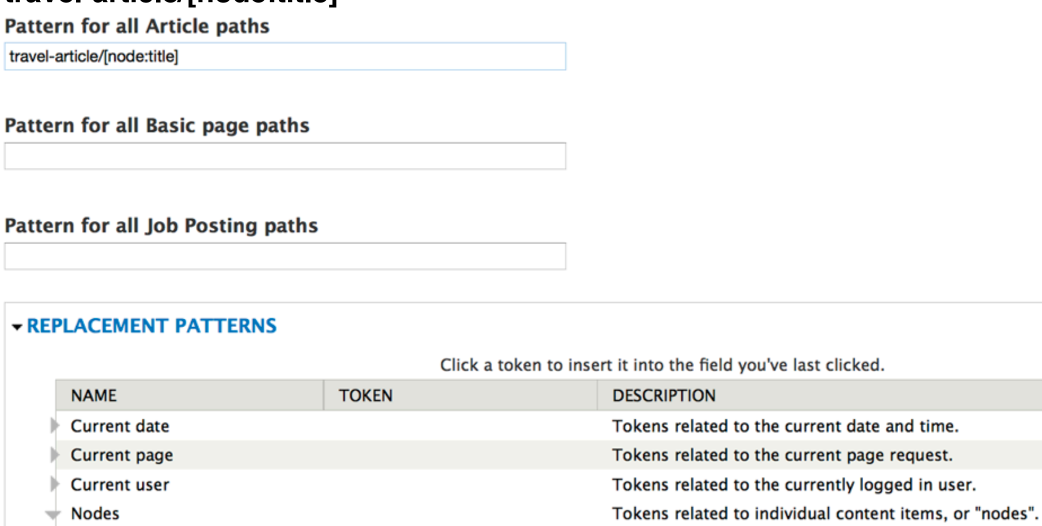
We are going to automatically assign a URL alias pattern to the Article content type so that all Travel Article nodes will be assigned the URL alias format - http://example.com/travel-article/article-title.

A. *Add a new path alias pattern*

1. Go to Configuration > Search and metadata > URL aliases.



2. Click on the **Patterns** tab at the top of the page. Under the **Content Paths** section, you'll see the *Pattern for all Article paths* field – we are going to enter our Article URL alias pattern here.
3. First, we need to find the correct token to use for *node titles*. Click to expand **Replacement patterns**. Click to expand **Nodes.** This section lists all of the tokens that are available to us for nodes. Locate the *title* token – [node:title]. We will use this in our URL alias pattern.
   Tip: You can either copy and paste the pattern, or click on the text field, then click on the pattern and it will populate the text field for you.
4. Modify the pattern for the *Pattern for all Article paths* field, so that it looks like this – **travel-article/[node:title]**

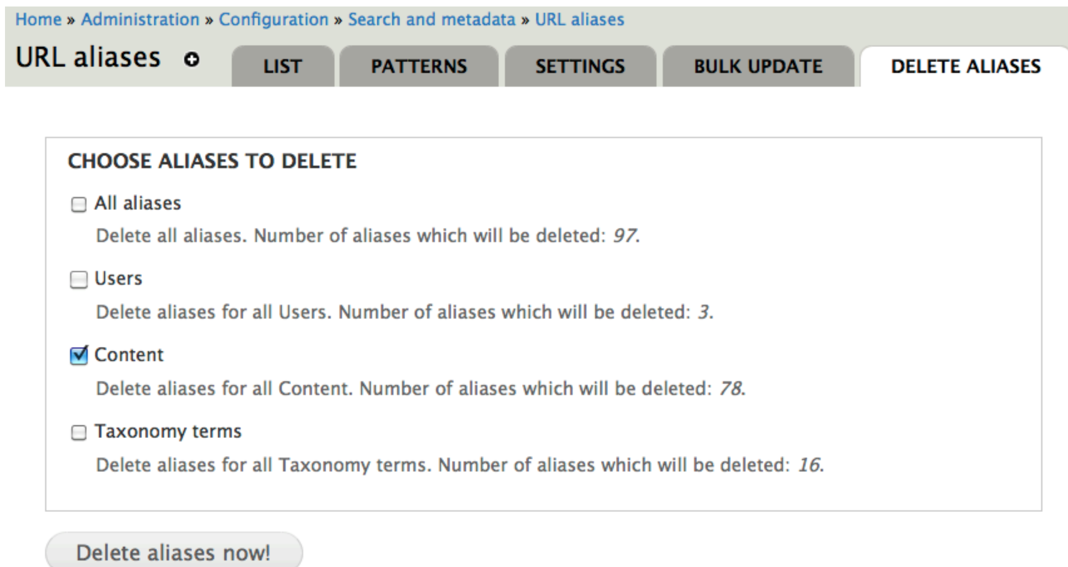


5. Click **Save Configuration**.

B. *Update existing paths*

So that our new pattern will be applied to existing Article nodes that were created before we defined our new URL alias pattern, we are going to update all nodes on our site.

1. Click on the Delete aliases tab at the top of the URL alias admin page.
    - Only follow the next steps on a test development site. For a scary few moments all the links on your site will be broken.
    - Select **Content**.
    - Click **Delete aliases now!**



2. Click on the **Bulk update** tab at the top of the URL alias admin page.
    - Select Content paths.
    - Click **Update**.
3. Your new URL alias patterns are now applied to the existing content on your site.

Go ahead and create a few more Travel Articles so that you can see Pathauto automatically adding the new URL alias pattern to the articles once they are saved.

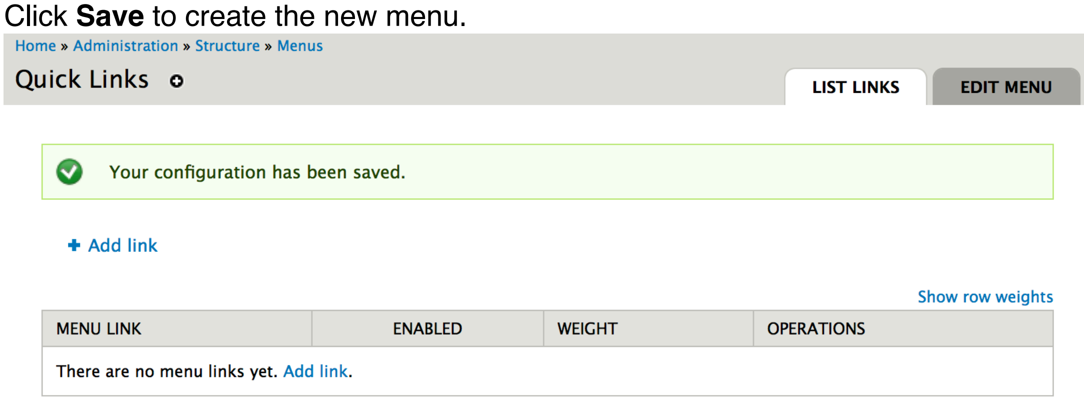
Unit 4.2: A custom menu

Site visitors need a quick menu to get to pages which describe the company behind GlobalTravel. The sidebar menu will contain links to the basic page content of the GlobalTravel website (FAQs, Our Philosophy, etc.).

Exercise – Build the quick links menu.

A. *Add the custom menu*

1. Head over to the menu administration page – /admin/structure/menu - and click on the *Add menu* link at the top of the page.
2. Enter the name of our menu "Quick Links" In the menu *Title* field.
3. Enter a description for the menu in the *Description* field. This will be displayed to site administrators only, and is an optional step. However, it is advisable to add a description, especially if you plan on adding a lot of menus to your site.
4. Click **Save** to create the new menu.



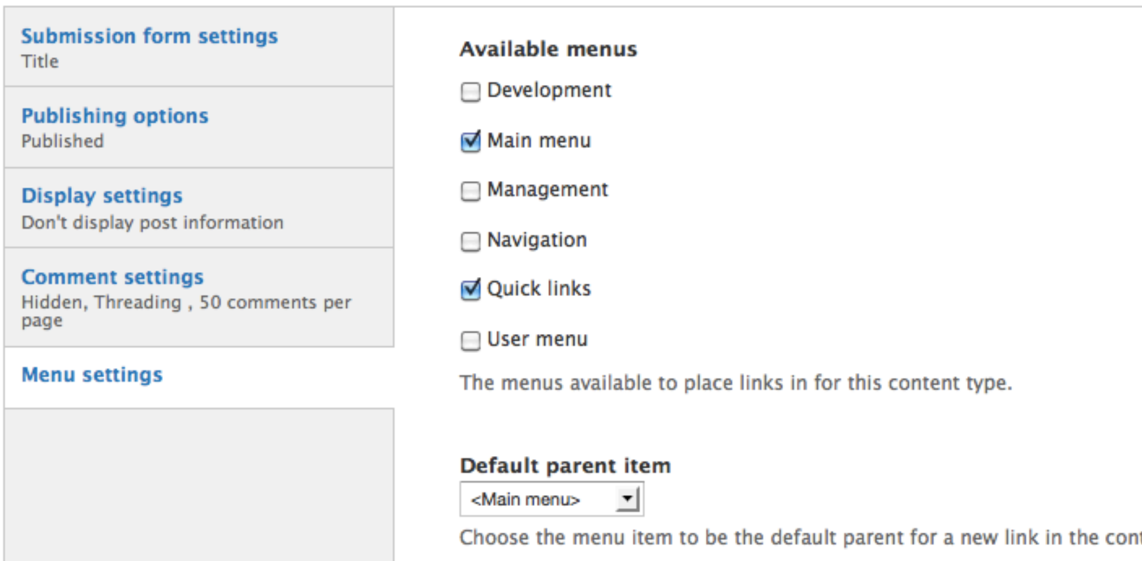
B. Add menu items to the quick links menu

Next, you'll assign link items to your new menu. We want to add links to existing pages to our quick links menu. We can do this in one of two ways.

- Add links to the menu when you edit the content.
- Add the items manually through the menu interface.

C. Add Quick links menu option to Basic page content type

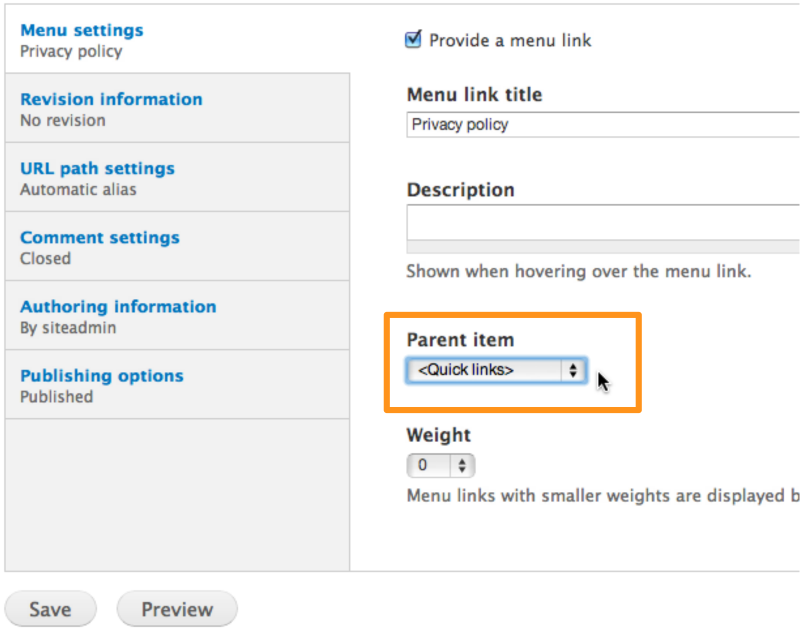
1. Go to Structure > Content types > Basic pages to "edit"
2. Scroll down to Menu settings. Under Available menus, enable Quick links.



3. Click **Save content type.**

D. Add several new Basic pages to build menu links.

1. Go to Add content. Select "Basic page". Following the steps we saw earlier for adding a basic page, create the following new pages.



Make sure select "Provide a menu link" and select the parent item "Quick links" for:

- Our Philosophy
- FAQs
- Advertising
- Privacy policy

2. Go to Structure > Menus > Quick links. Click **List links** tab. You can see the new pages you just added appear in the admin area here.

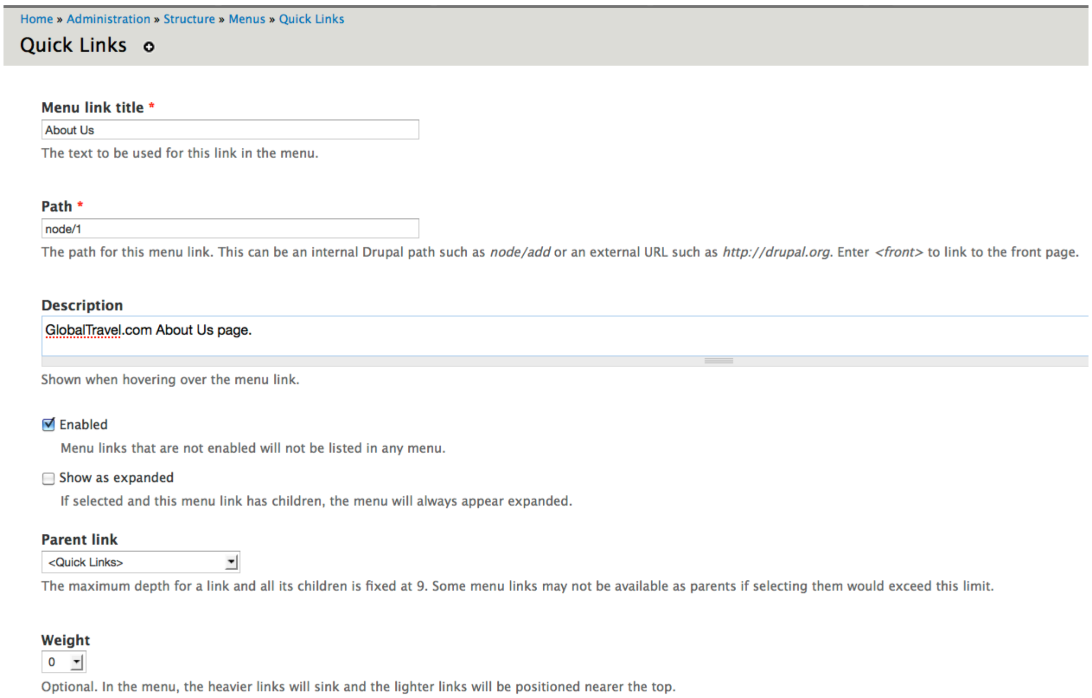
MENU LINK	ENABLED	OPERATIONS	
Advertising	☑	edit	delete
FAQs	☑	edit	delete
Our Philosophy	☑	edit	delete
Privacy policy	☑	edit	delete

E. Add links manually

1. Get the path. To add a link manually, you need to know the paths of each of these pages in order to add them to our new menu. Go to Find content and locate links to existing content, such as the About Us page. In this example the link is **node/1** - What is the path to your About page? Go to your About page and click to edit it. You will see a path in your browser like: **node/1/edit.** Copy **node/1** and this is your permanent URL path which won't change even if the page title is changed, or if you modify the custom path.
2. From the menu administration page, click *Add link* at the top of the Quick links menu administration page. This will take you to the menu link creation page. Enter these settings.
    - **Menu link title:** About us

- **Path:** Paste in the URL
- **Description:** GlobalTravel About Us page

3. Leave all other settings at their defaults and click *Save* to create the new menu link.



4. Repeat steps for any remaining menu items.

F. *Re-order links on your menu*

Once you're done, go to the *Menu* admin page at Structure > Menus to see a list of all menus on your site.

1. Click on the *list links* option to the right of the Quick Links menu entry. If we have done everything correctly, you should see a list of the menu items we just created.
2. Drag and drop to re-order the menu items, and click **Save configuration** when you are done.
3. You can also change the order by editing the "weight" of the menu item when you edit a content item.

* Changes made in this table will not be saved until the form is submitted.

MENU LINK	ENABLED	OPERATIONS	
About Us	☑	edit	delete
Our Philosophy	☑	edit	delete
FAQs*	☑	edit	delete
What We Do	☑	edit	delete
Advertising	☑	edit	delete
Privacy Policy	☑	edit	delete

Exercise – Assign the quick links menu block to a region

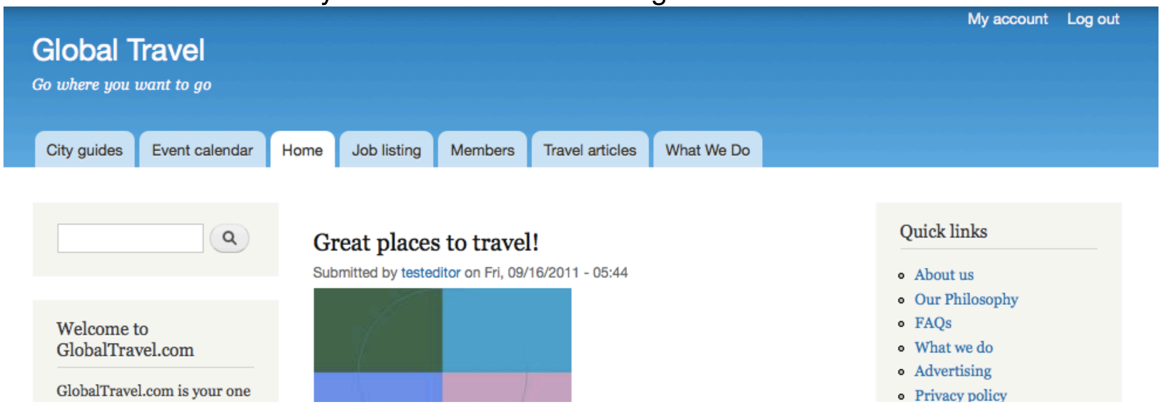
We have created our Quick Links menu and assigned menu items to it. When you create a new menu, Drupal automatically creates a menu block for your menu and places it in the *Disabled* section of the *Block Administration* page. Next, we'll assign this menu block a region on the site.

1. Go to Structure > Blocks – /admin/structure/block. Scroll down to the *Disabled* section. Locate your new Quick Links menu block.

BLOCK	REGION	OPERATIONS
Disabled		
Main menu	- None -	configure
Management	- None -	configure
Quick Links	- None -	configure
Recent comments	- None -	configure

2. For Quick links block **Region** select **Sidebar second**.
3. Click **Save blocks** to save the changes.

4. Check your site. The Quick Links menu block in the Sidebar second region of the site. Next we'll restrict visibility so it doesn't show throughout the site.

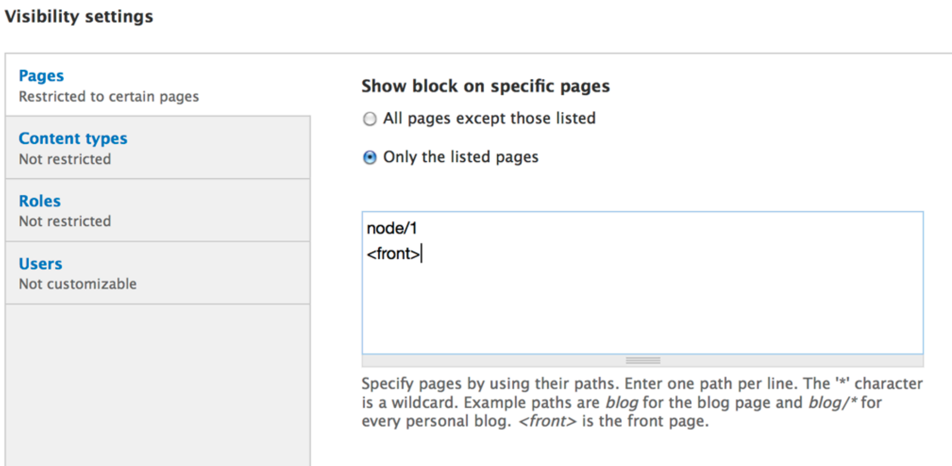


Exercise – Configure the quick links menu block

The next and final step is to configure our menu block. A menu block is configured in exactly the same way as any other block on the *Block* admin page.

1. Go to Structure > Blocks and locate the Quick Links block. Click **configure**.
2. Configure the block title, in this case - leave it to the defaults, but you may note your options.
    - You can override it by entering a new title here.
    - You can enter <none> to remove the block title.
    - You can leave it empty to save the default.
3. Moving down to the *Visibility settings*, you'll notice four options:
    - **Pages** - display the block on specified pages.
    - **Content Types** – display the block alongside specified content types.
    - **Roles** – display the block to specified roles.
    - **Users** – allow users to customize block visibility.
4. Often you will alter the block's *Page visibility* settings. We want the Quick Links menu to appear *only* on the *About us* page we created earlier, and the *front page* of our site.
5. In another browser window, get the About us page URL in the same way you did for the menu item. You should see the URL for this page for example - http://example.com/node/1 Take note of the *node/1* section of that URL.
6. Go back to the other browser window to the *Block configuration page* for our Quick Links menu block. In the *Pages* section, Under **Show block in specific pages,** check the *only the listed pages* option, and enter the internal node path we got from the previous step into the *Paths text area* – i.e. *node/1.*
7. On a new line in the *Paths text area*, enter *<front>*. This tells Drupal that you want to display the Quick Links menu block on the front page of your site.
8. Click **Save block.**

The Quick Links menu will now only be displayed when the front and About us pages are being viewed.



Challenge - Re-arrange the main menu

Go to edit the Main menu. Put the items in an order you think is more suitable.

Session Summary

In this session you learned how you can get more control over where content appears on your site. You created and managed blocks of text and controlled where they are placed. You also learned how to make your site easier to locate and navigate with improved paths and menus on your site, as well as search engine improvements.

Menu check

As you noticed, you can disable menu items temporarily. Ensure you remove any hidden and unused menu items you won't use again. Keep the menu links list tidy.

Day 1: Review

In the Day 1 review, your instructor will guide you through a discussion on planning new functionality for the site.

An architecture workshop

In this review, you'll collaborate on a plan for the Global Travel site. We'll review some of the principles of content type design, how to locate useful contributed modules and map functional requirements to implementation.

The client has requested the following new features on the site.

- Company reference link
- Filtered Job listing
- Add content ratings and make a page listing by rating
- "About this author" block
- Custom profiles and a member list
- Configure advanced search and a "related content" block

Develop your own ideas

The ideas above are just a start. If time allows, work in pairs or small groups to come up with new functionality for the site. You will be able to challenge yourself with the tasks on Day 2.

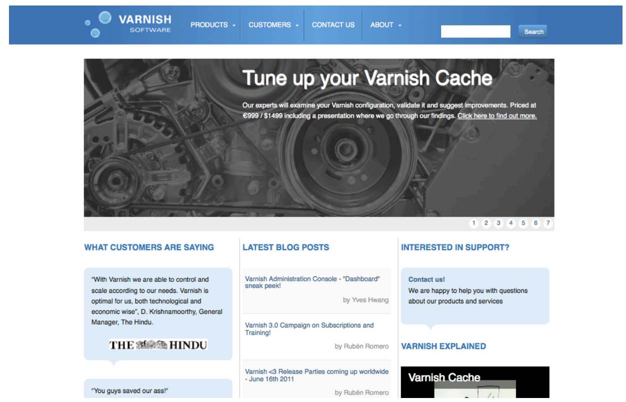
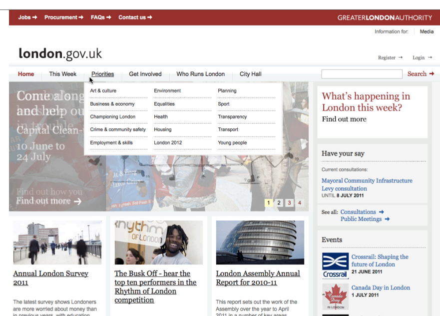
Collaborate

Use paper to sketch out your ideas. Work in pairs or small groups.

Case Studies: How did they do that?

Looking at example Drupal websites can give you ideas on how Drupal websites were put together. To some extent, through inspecting source we can gather some information about how the site was assembled. You will work in small groups (or pairs). You will choose one case study to look at, and within that pick one aspect of the site. This may be some functionality, or a particular page. Using what you know so far, try to think about how it was done.

- **Modules?** Do some research about any additional modules you think could be used.
- **Content types?** What fields are on those content types?
- **Display and layout?** How is information selected and displayed?

Yahoo Style Guide http://styleguide.yahoo.com/	Varnish Software http://www.varnish-software.com/
 	
Greater London Authority http://www.london.gov.uk/	Pick your own...
	Go to http://showcase.acquia.com/ to choose a site to discuss.

Summary

By taking a closer look at these websites, we thought about how it was assembled and practiced our site building skills through discussion. We reviewed the techniques we have practiced up until now, and then the instructor or your peers were able to give you feedback on your ideas.

Session 5: Functionality and interaction workshop

In the next session, we'll follow a series of step-by-step tutorials to show you how to select modules and configure them to work with the tools you're already familiar with.

The contributed modules puzzle

We'll introduce a variety of contributed modules combined with the tools you already know. As you come up with ideas for new functionality you may be tempted to search for a specific module that does exactly what you need.

For example, you may want to use a "staff list" module or an "events" module as an all-in-one solution. Instead, these exercises will show you how to extend the core functionality with abstract modules which can be reused in different ways.

Key indicators for module selection

- Reputation: How well known are the maintainers? What else have they contributed? Are there blog posts about it? What do people on IRC say?
- Reach: Is there a community around this module? Are there a lot of users, it is trending up? Does it integrate with other modules?
- Currency: Are there recent commits? Recent releases? Is the issue queue well maintained?

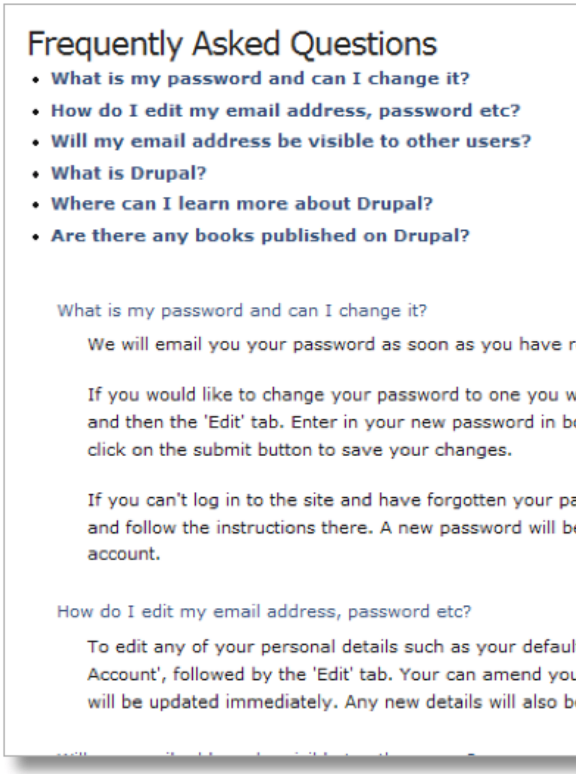
Reading a project page. What can you learn?

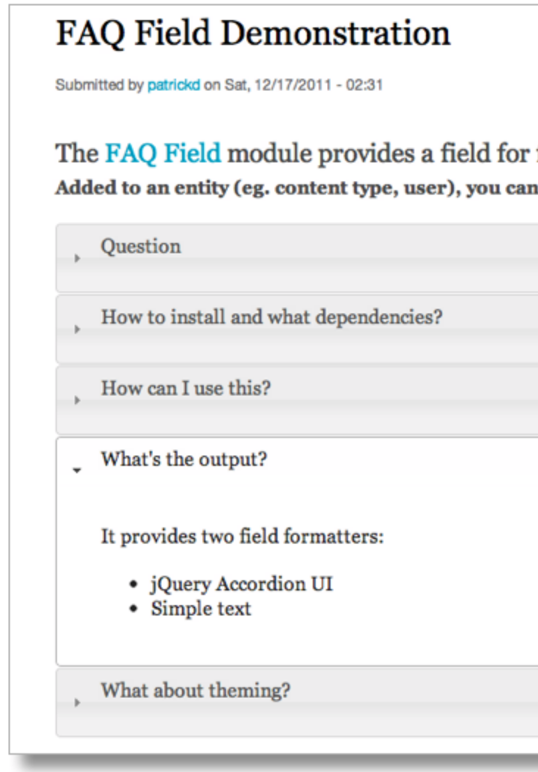
- 1. Compatible version?
- 2. How many installations?
- 3. Who maintains this?
- 4. What are current issues?
- 5. Is Documentation available?

Discuss: FAQ module and FAQ field module

Compare these two modules. Which might be right in a specific situation? Base your analysis of the modules on the project pages and documentation. You don't have to install these modules to compare them.

- FAQ http://drupal.org/project/faq
- FAQ field http://drupal.org/project/faqfield



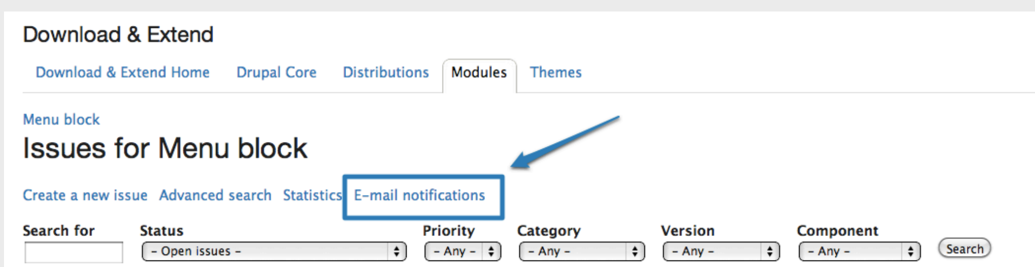


Tip: Subscribe to the issues for contributed modules

To keep up to date on any issues and fixes related to the modules you use, make sure you have an account on Drupal.org and subscribe to the issue queue for that module.

http://drupal.org/documentation/install/modules-themes/modules-7

In the sidebar click the links under "All issues" to get to the issues search page. From there, click "E-mail notifications" and set to receive emails.



Step-by-step 1: Extend content types with new field types

In this activity, we'll add a link field, but keep in mind, you can also create your own field types as to extend your development skills in Drupal. Below are a selection of modules to extend content type fields. These may include validation, formatting and uploading widgets.

Countries	http://drupal.org/project/countries List of countries
Date	http://drupal.org/project/date Adds a user friendly date field to content types
Email	http://drupal.org/project/Email Adds an email field to content types
Entity Reference	http://drupal.org/project/entityreference Creates a way to associate nodes to one another or nodes to users. (Requires Entity API and CTools)
FiveStar	http://drupal.org/project/FiveStar Modules that give the ability to create simple voting interactions attached to content. (Requires Voting API)
Link	http://drupal.org/project/link Adds a link field to a content type with optional or automatic titles.

Search for additional field types here: http://drupal.org/project/modules?filters=tid:88

Read more at http://lin-clark.com/blog/drupal-7-field-modules-popularity

Modules used in this unit:

- **Link** http://drupal.org/project/link

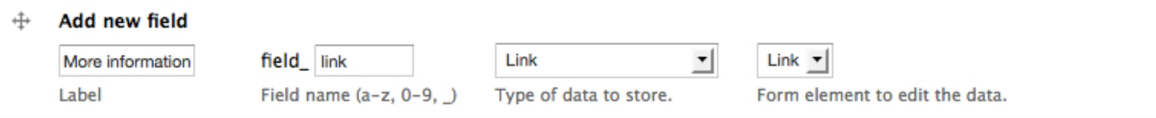
Exercise – Add an external link field

There are many modules which can allow you to extend your content types by creating additional fields. Link, for example, allows user to enter in HTTP addresses.

A. Add the link field

Using what you know about adding new field types, add a link field to the Job Posting content type. This link will go to "More information" in an off-site link.

1. Go to Structure > Content types > Job posting > "Manage fields" tab.
2. Add a new field with the following settings:

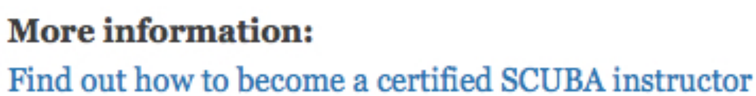


3. Click Save which takes you to the Field settings page, there are no changes to make so click *Save field settings.* This takes you to the settings for this field on the Job posting content type.
4. **Label**: This will appear in the form.
5. **Link title** allows for the link to have some descriptive text.
    - A custom link title can be *optional* or *required*. Example "Click here for read about this tour guide job."
    - Alternatively, you can have a *Static title*. You can provide text or use Place holder tokens.
    - Example: "More about this job posting" and all links on job postings would have the same text.
    - With *No title*, you will see the full path such as http://example.com/job-posting-info-site. The *URL display cutoff* setting will trim long links.
    - Select "Optional Title".
6. Leave the remaining default values. Click **Save settings.**

B. *Test it out!*

1. Edit an existing job posting, and add a link. Here's an example:

2. Save your job posting and view the change at the bottom of the content type. You'll see how the custom title created the link text.



Step-by-step 2: Company reference link

Each company offering a job on the site should have its own page, and display a company logo. Job postings should show the company who is offering the job.

Modules used in this unit:

- **Entity Reference** http://drupal.org/project/entityreference
- Requires Ctools (previously enabled) and **Entity API** http://drupal.org/project/entity
- **Tip:** Entity Reference doesn't work with stable version of Devel Generate, you need to use the dev version of Devel.

Important file directory settings:

In the next exercise, we'll create a new content type for a "Company". This will include an image file upload so companies can place in logos. When planning media uploads for content types, consider these two important settings.

1. File path settings

When you add a file type field, you will configure the “file directory”. This is painfully difficult to change in the future, so do take some time to consider these settings.

From the point of view of server organization, this is important so you can keep track of where files came from, and why they were uploaded. Later if you need to do any server maintenance it will also make it easier to query folders with a smaller amount of files.

Whenever you add another file field to your content types, make sure you add in a file path for each field. This will help keep your directories organized. By using the Token module, you can gain additional automated paths, such as a user ID.

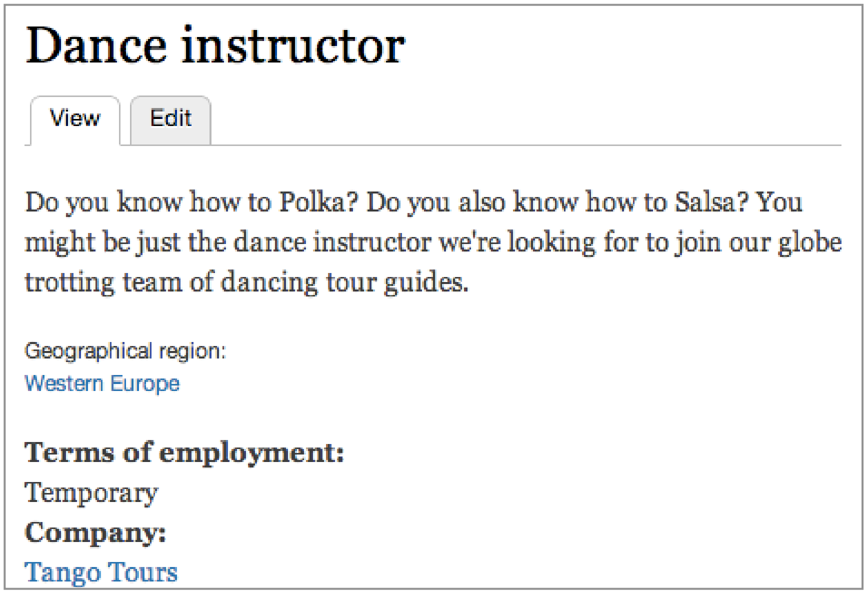
2. Public versus private files

Go to Configuration > Media > File system

Here you can locate the directory to which your files are uploaded. Keep in mind, public files are not controlled by the Drupal access system. Say for example, you have a file that you want only authenticated users to download at http://example.com/sites/subsite.com/files/articles/document.pdf This file could be accessed by anyone who knows the link.

To protect the file you will need to put the directory outside of Drupal’s publicly accessible web root. Visit your File system configuration and change this. For more details on securing private file uploads see this tutorial: http://drupal.org/node/344806

Exercise – Create company References



A. *Create the company content type*

Using the tutorials earlier about content types, use these settings, and "Save and add fields".

Name	Company
Description	A company listing jobs or services on this site.
Title field label	Company name
Publishing options	NOT Promoted to front page
Display settings	Don't Display author and date information.
Comment settings	Closed
Menu settings	No menu

Check permissions!

Now, as with any time you create a new content type, check permissions. Allow **site editors** to create companies.

B. *Add company logo image field*

Add an image field to the company content type.

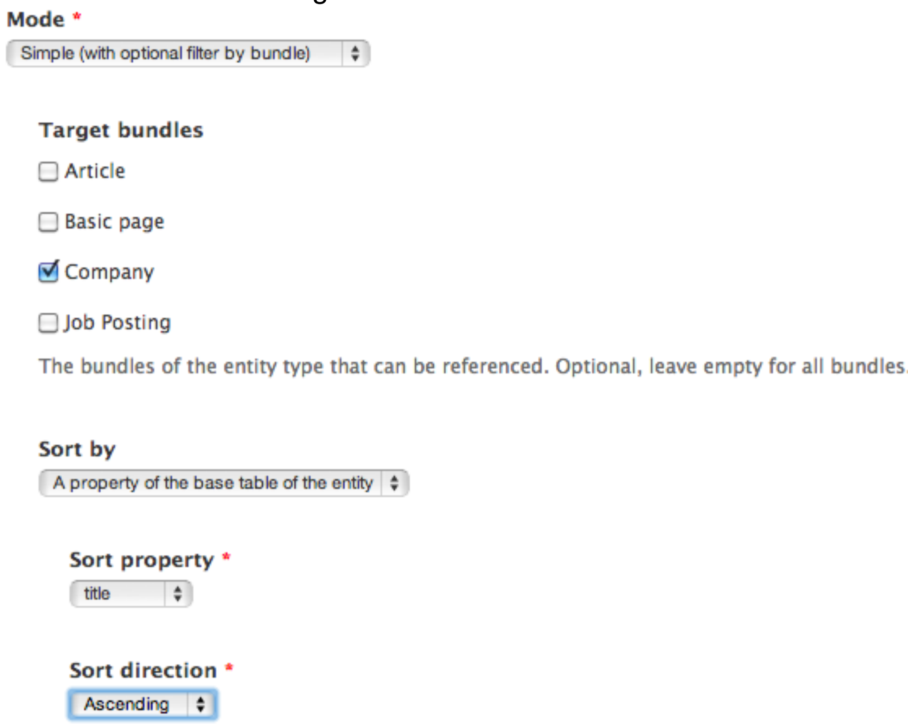
- **Label:** Company Logo
- **Field name:** company_logo
- **Field type:** Image
- **Widget**: Image

- **Save.** This loads the general field settings. If you have a default image you could use it here.
- Keep defaults and click **Save field settings**
- **Required:** Leave unselected
- **Help text:** “If available, please upload a logo for this company.”
- **Allowed file extensions:** png, gif, jpg, jpeg
- **File directory:** logos
  - (Remember the note about file directory settings from the start of this unit!)
- **Maximum image resolution:** 150 x 150 pixels
- **Minimum image resolution:** Leave Empty
- **Maximum upload size:** Leave empty
- **Enable Alt field:** Select
- **Enable Title field:** Deselected
- **Preview image style:** medium
- **Number of values:** 1
- Click **Save settings**

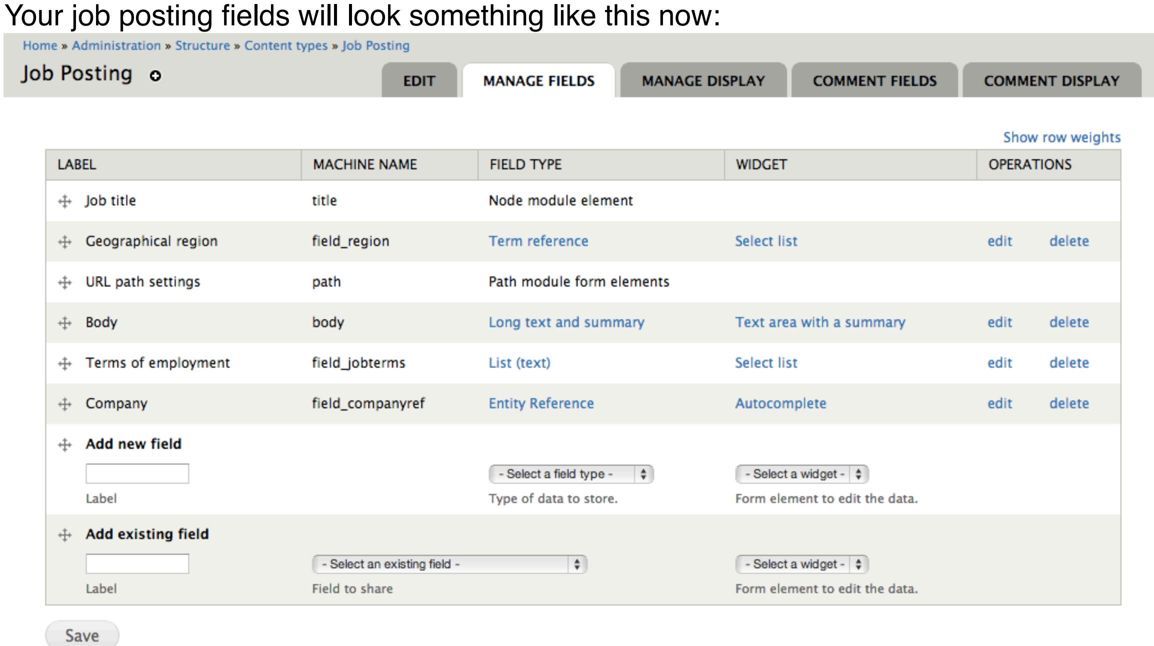
C. Add references field to job posting

1. Go to Structure > Content types > Job posting, and Manage fields.
2. Add new field with these settings:
   - Label: Company
   - Field name: companyref (click to edit the machine name)
   - Type: Entity Reference
   - Widget: Autocomplete text field.
3. Click **Save.**
4. This loads the general field settings used everywhere the field appears. Configure the **field settings.**
   - Target type: Node
   - Mode: Simple
   - Target bundles: Company
   - Sort by: "A property of the base table of the entity"
   - Sort by "title"

- Sort direction "Ascending". As shown here:



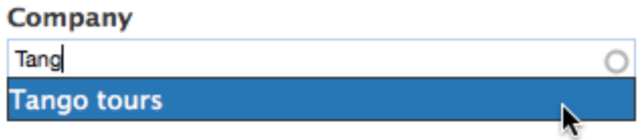
5. Click **Save field settings**.
6. This loads the specific company field settings on the Job content type. Configure with the following settings.
    - Help text: “Start typing in the name of a company.”
7. Keep all remaining defaults, and click **Save settings.**
8. Your job posting fields will look something like this now:



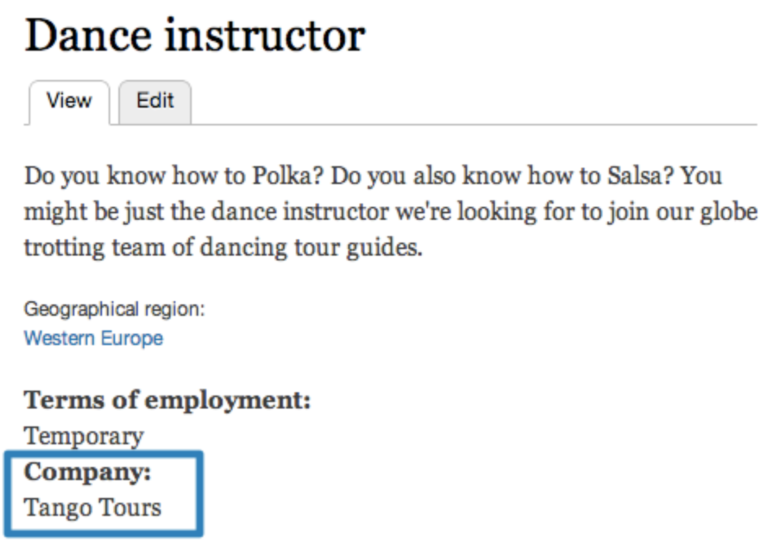
LABEL	MACHINE NAME	FIELD TYPE	WIDGET	OPERATIONS	
Job title	title	Node module element			
Geographical region	field_region	Term reference	Select list	edit	delete
URL path settings	path	Path module form elements			
Body	body	Long text and summary	Text area with a summary	edit	delete
Terms of employment	field_jobterms	List (text)	Select list	edit	delete
Company	field_companyref	Entity Reference	Autocomplete	edit	delete
Add new field Label		- Select a field type - Type of data to store.	- Select a widget - Form element to edit the data.		
Add existing field Label	- Select an existing field - Field to share		- Select a widget - Form element to edit the data.		

D. Test!

1. First create two companies, such as “Tango tours” and “Scenic Scuba Co”.
2. Edit or add a new a job posting such as "Dance Instructor", and where the company field appears, select one of the companies. You will start typing and see the options appear.



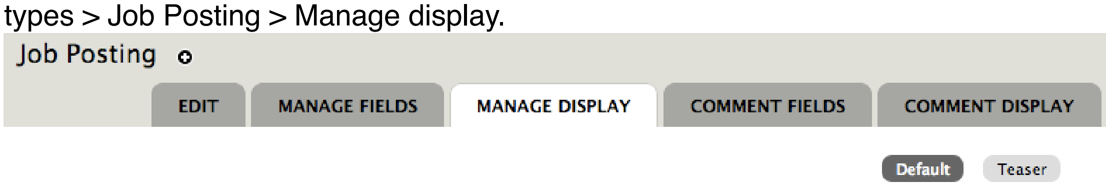
3. Save the job posting. You will see your company reference appear on the job now:



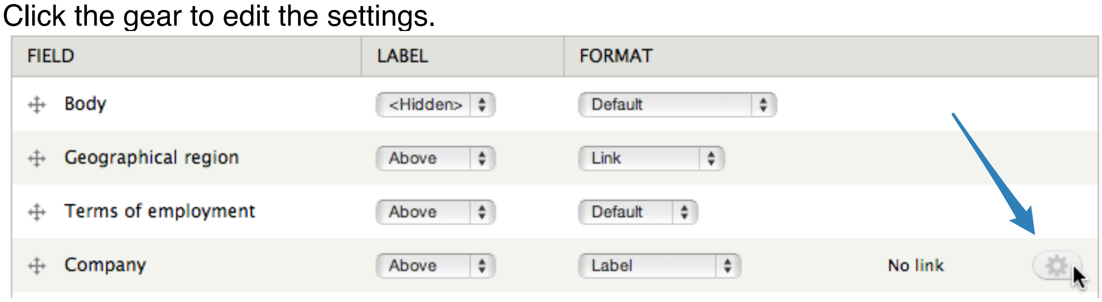
4. The Company name is there, but it's not a link! We need to change the display.

E. Change the display

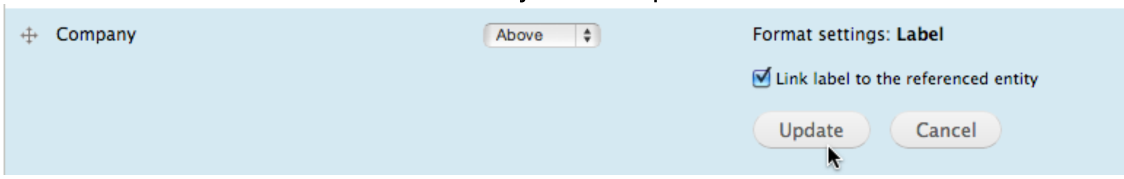
1. At this stage we need to change the way this field displays. Go to Structure > Content types > Job Posting > Manage display.



2. Click the gear to edit the settings.



3. Select " Link label to the referenced entity". Click Update.



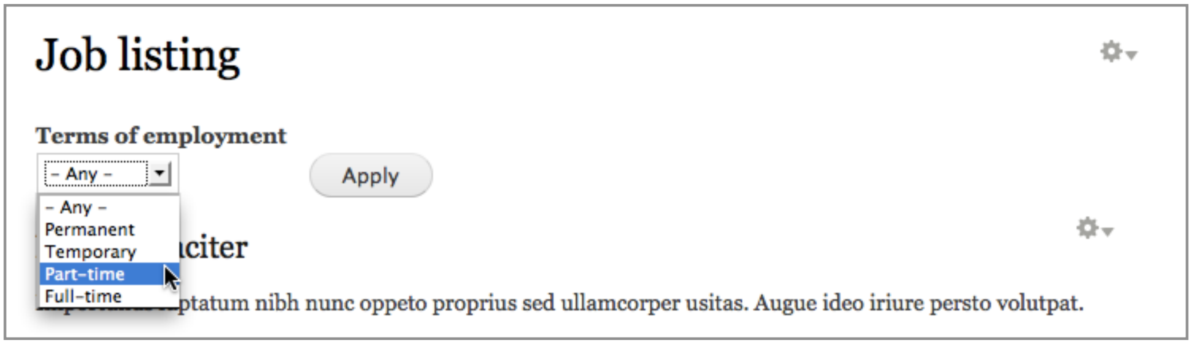
4. Now go and check your job posting. The company name should be a link now.

Unit Summary:

Entity Reference is a useful module which helps you create new relationships between content. There are many ways to leverage this connection with Views. For example, when you're viewing a company page, you could show which jobs "refer" to that company. We've just scratched the surface.

Step-by-step 3: Job list with drop-down filter

Scenario: Job seekers would like a quick way to sort job postings listed on the site.



Exercise – Configure the job listing

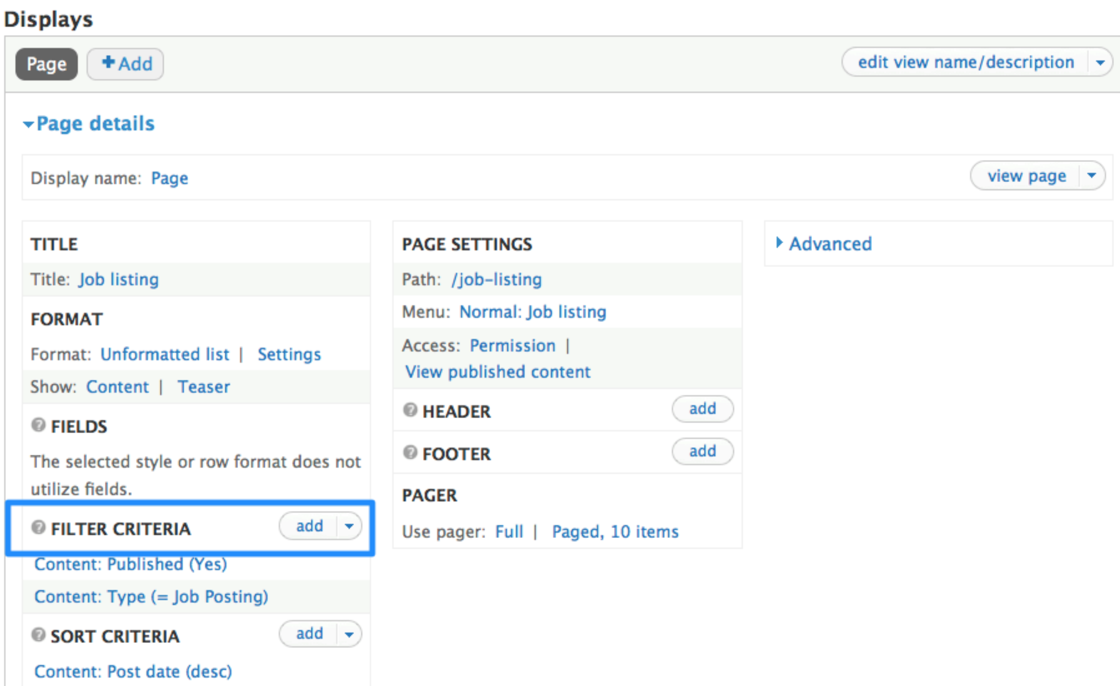
A. Edit the job listing (or create if you didn't make it already)

1. You may have created the Job list view already. If so, go to edit the job post view.
2. If you don't have this view, we'll add the view, and set the filter criteria.
   a. Go to Structure > Views > Add new view. Configure with these settings:
      - View name: Job listing
      - Show "Content" of type "job posting" sorted by "Newest first"
      - Keep the defaults for the page setting.
      - Select "Create a menu link"
      - Menu: Select "Main menu". Keep default link text.

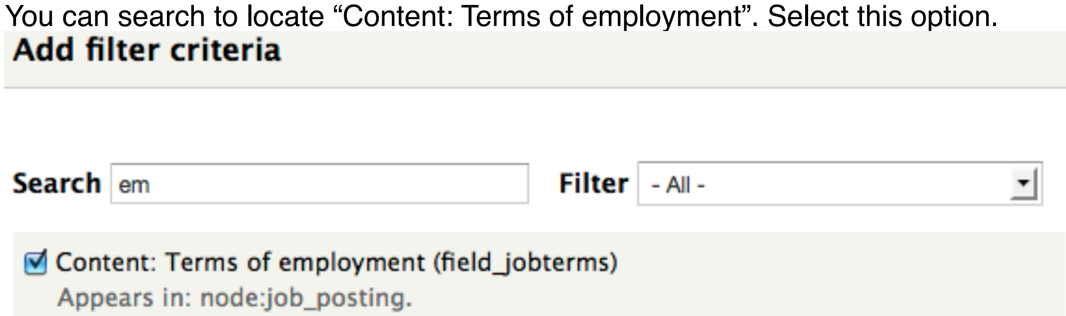
   b. Click **Continue & edit**

B. *Configure the view*

1. When editing the view, under **Filter criteria** click **add.**



- You can search to locate "Content: Terms of employment". Select this option.



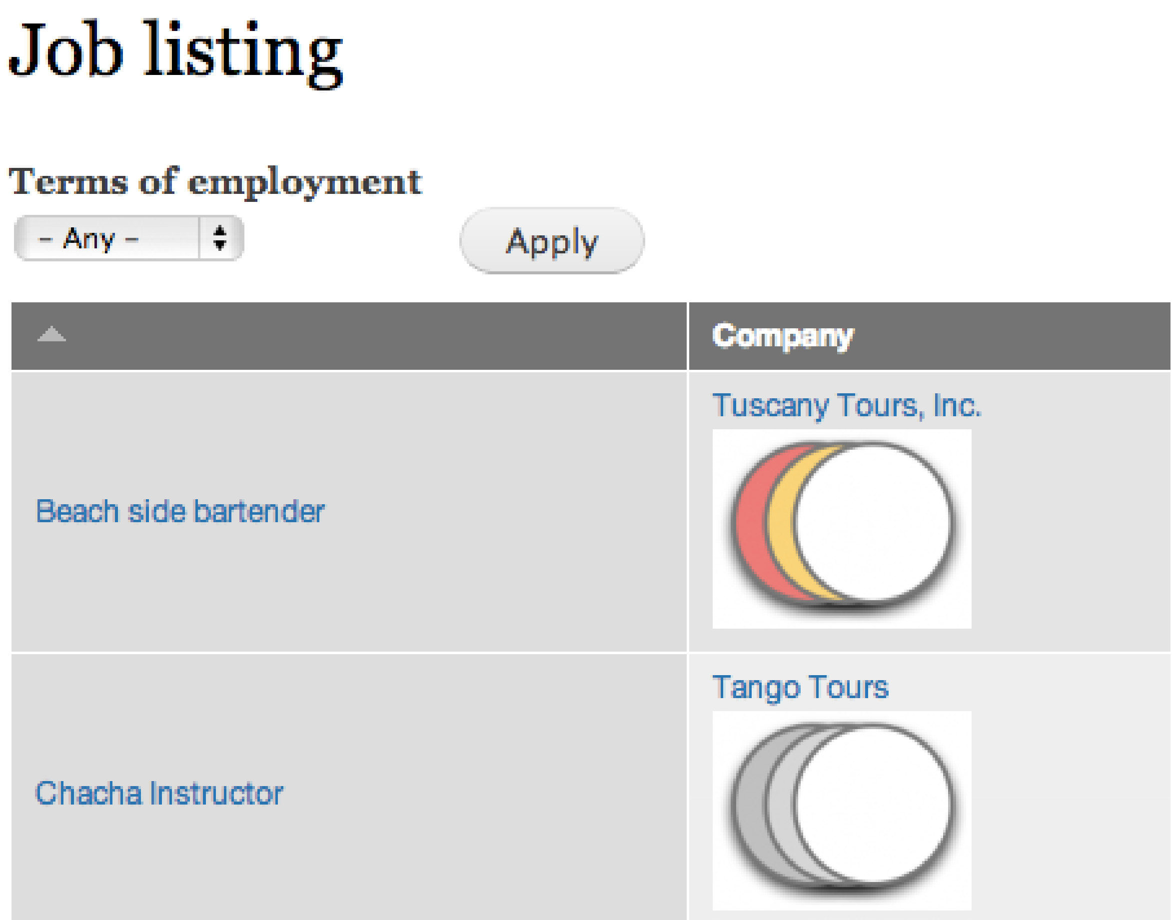
2. Click **Add and configure...** This loads the next screen.
    - Select "Expose this filter to visitors, to allow them to change it "
    - Label: Terms of employment
3. Keep all remaining defaults and click **Apply...**
4. Save the view!

C. *Review your changes*

1. Go back to your home page. Because you added this to the menu, you will see the "Job listing" option in the main menu. There is now a drop-down menu to filter the listings on the page.

Step-by-step 4: Job list with logos (Views relationships)

The first time you set up your view you select your base table, such as content, users or taxonomy. Problem is- if we make a view based on a specific content type, information from other tables is not available. This might be on a shared taxonomy term, based on author, or in our case, the shared reference link to another content type. To get that information we can add a relationship. By doing that we can pull in data saved to another content type, such as an image field.

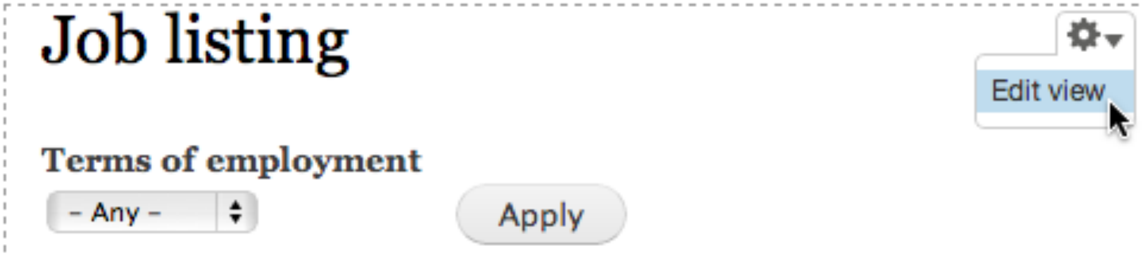


Exercise – Company logo in job listing

In this exercise, we will display the logo of the company that is offering the job.

A. Edit the view, change the format.

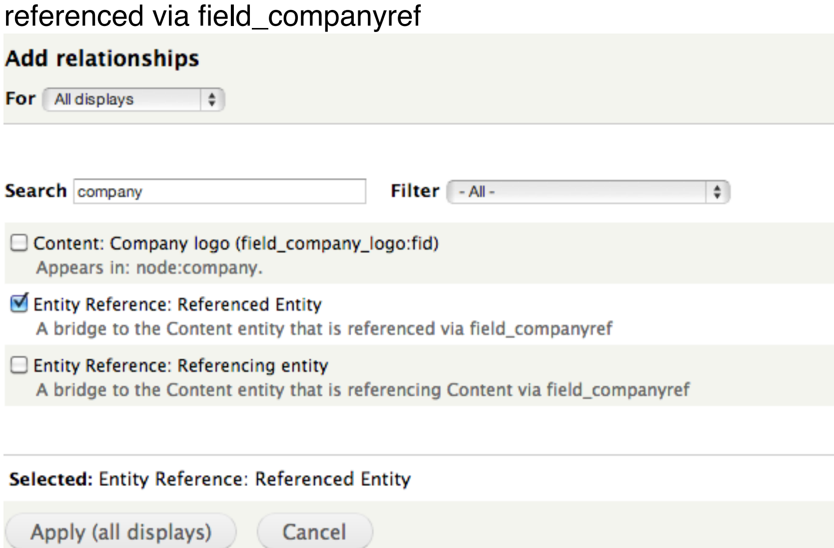
1. Return to your job posting view. Click the gear to "Edit view".



2. Under Formats click to existing setting to change format from **Show: Content I Teaser** to **Format: Table.** This converts the setting so you get a table with just fields. Check your preview to see.
3. Also prepare your site: If you don't have company logos added yet, add them to some sample company content.

B. Add a relationship.

1. Click to expand the right column "Advanced". Under "Relationships" click Add button.
2. On the next screen, search for "company".
3. Select Entity Reference: Referenced Entity. A bridge to the Content entity that is referenced via field_companyref



4. Click Apply.
5. On the next screen titled 'Configure Relationship: Entity Reference: Referenced Entity', enter for the Identifier: Company reference.
6. Click Apply.

C. *Add fields*

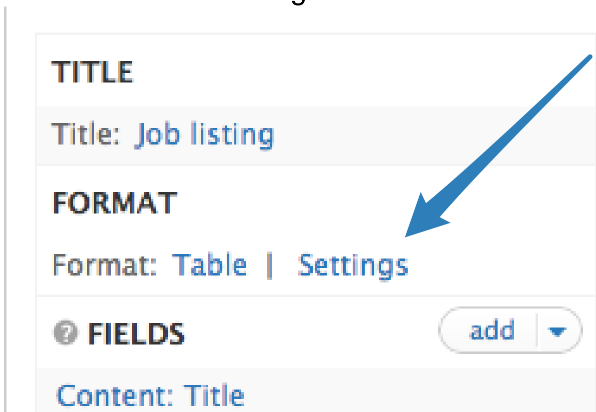
1. Now add the Company and Company logo fields. Under the fields section in the left column, click "Add".
2. Select:
    - Content: Company
    - Content: Company logo
3. You can now configure both fields in turn. Click to "link label to the referenced entity". Click Apply.
4. Next you go to the screen to "Configure field: Content: Company logo."

- Relationship: Select "Company reference"
- De-select Create a label.
- Image style: Thumbnail
- Link image to: Content
- Click Apply.

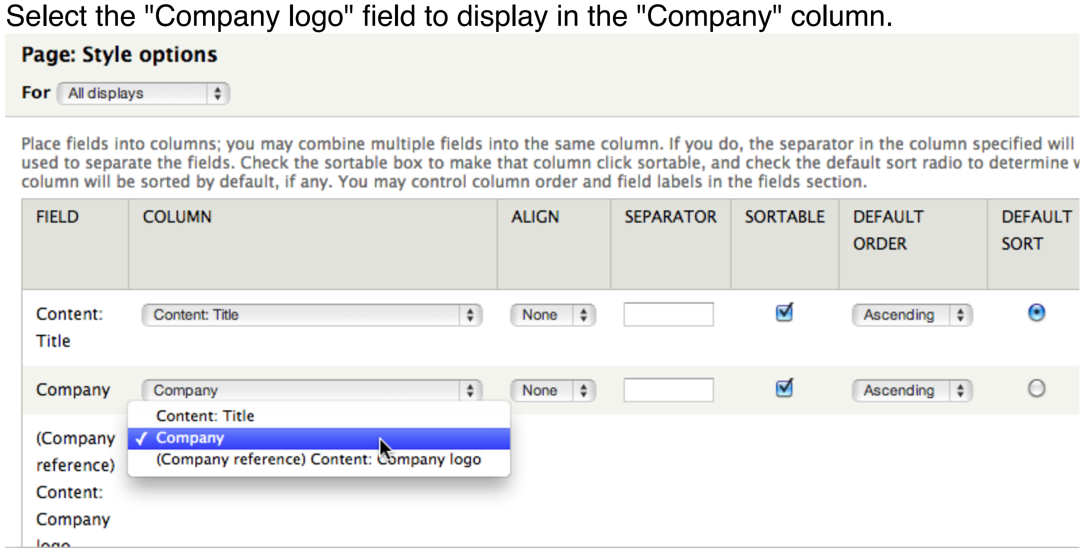
D. *Adjust format and output*

1. Now you see the table shows the job title and the company name. However, the linked image is in another column.

2. Under Format click "settings " to edit the table settings.

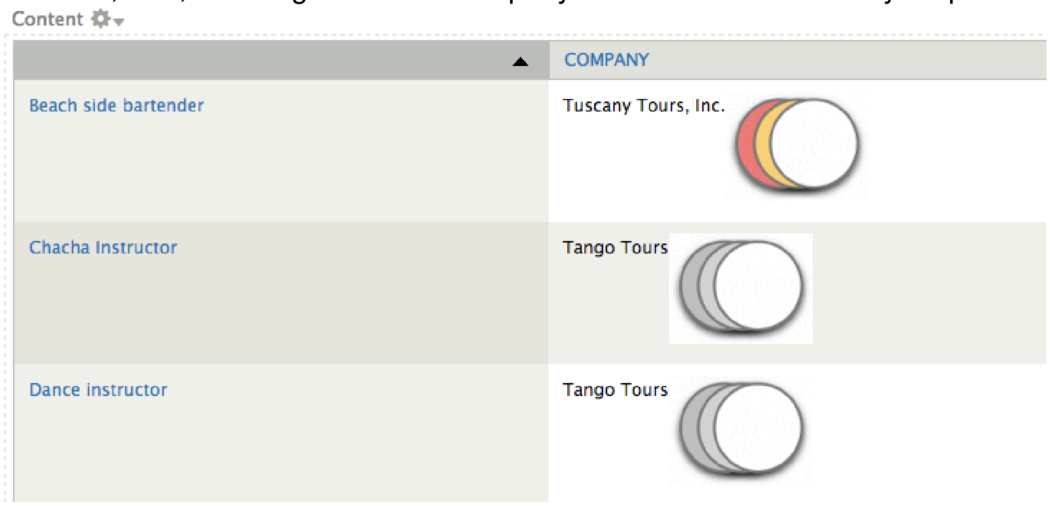


3. Now you can make the columns sortable, and specify a default sort choice.
   - Select the "Company logo" field to display in the "Company" column.

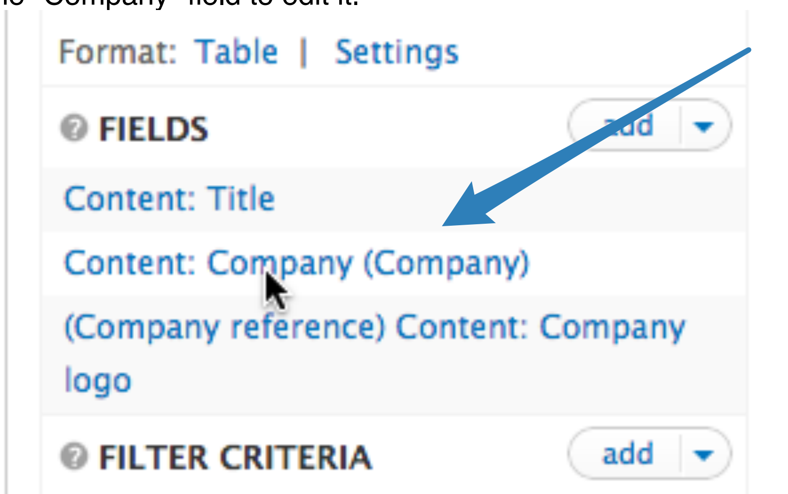


   - Apply the changes.

4. However, now, the images and the company fields are inline. Check your preview.



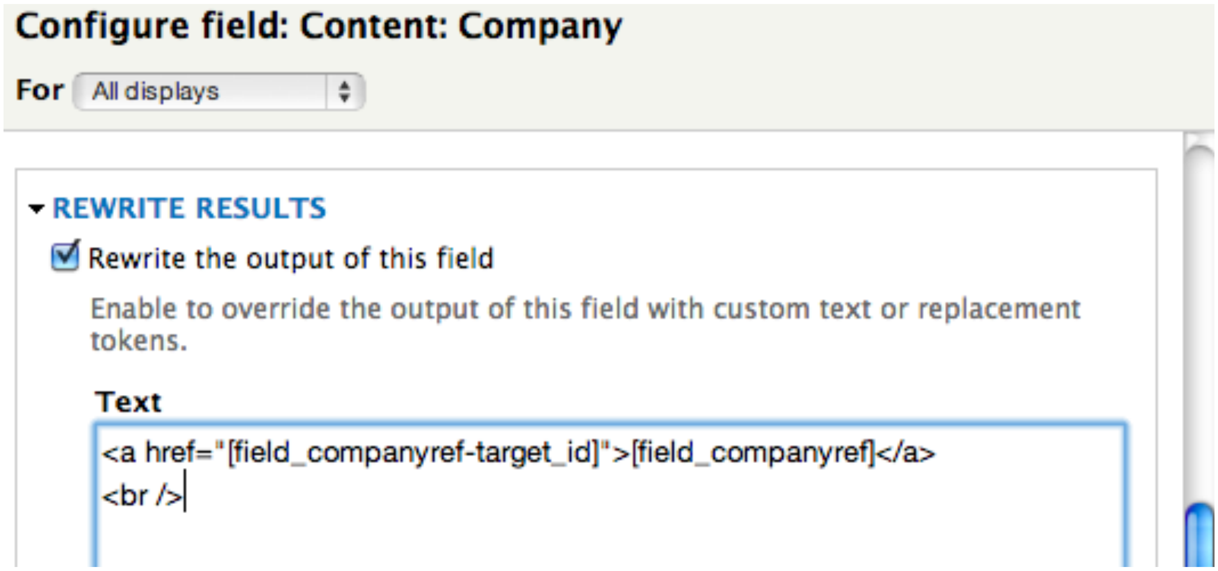
5. We'll change the output so we see the company name above the image.Under fields click the "Company" field to edit it.



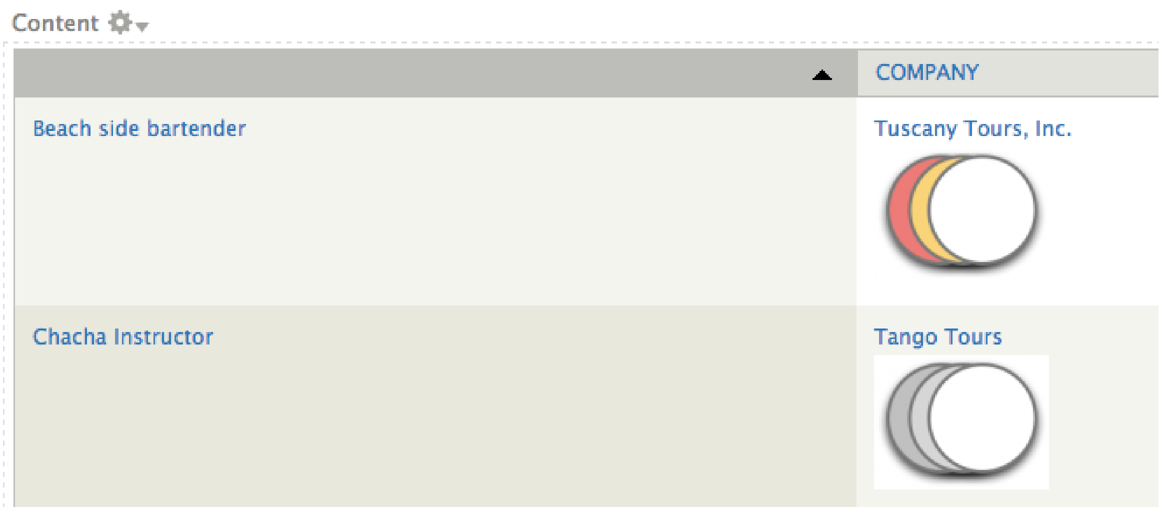
6. In the popup window, scroll down and click to expand "Rewrite results".
    - Select "Rewrite the output of this field".
    - Click to expand replacement patterns.There you can see the tokens available.
    - Change the output to be

```
<a href="[field_companyref-target_id]">[field_companyref]</a>
```

`<br />`



7. Apply the changes and save your view. Now your display should look like this!



Challenge exercise – Sort by date

- Try adding a "post date" to this listing to show how recent the job is.
- Add field to show the region of the job.
- Make post date the default sort for this table and make the column sortable.

Unit summary

In this unit we saw that you can expand the fields available to a view by using relationships. We also saw more about the formats available with views. Tables allow for quick sorting of content. You also saw how to use tokens to get fine grained control over the markup output.

Step-by-step 5: About this author (contextual filters)

Note: If you completed the “Drupal in a Day” course, you can skip this activity.

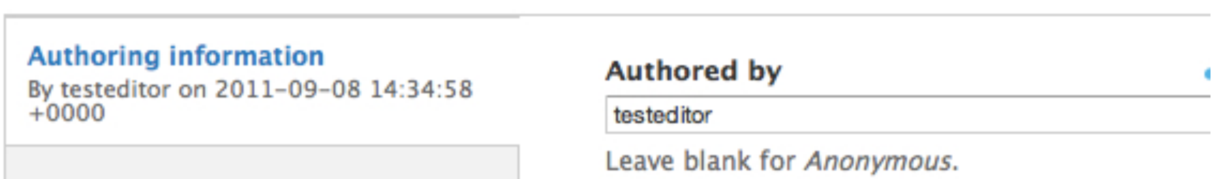
Site editors would like to promote a little more information about authors on the articles. An “about this author” block should appear in the sidebar when viewing the full article.

Exercise – Create the author block

A. *Prepare the site*

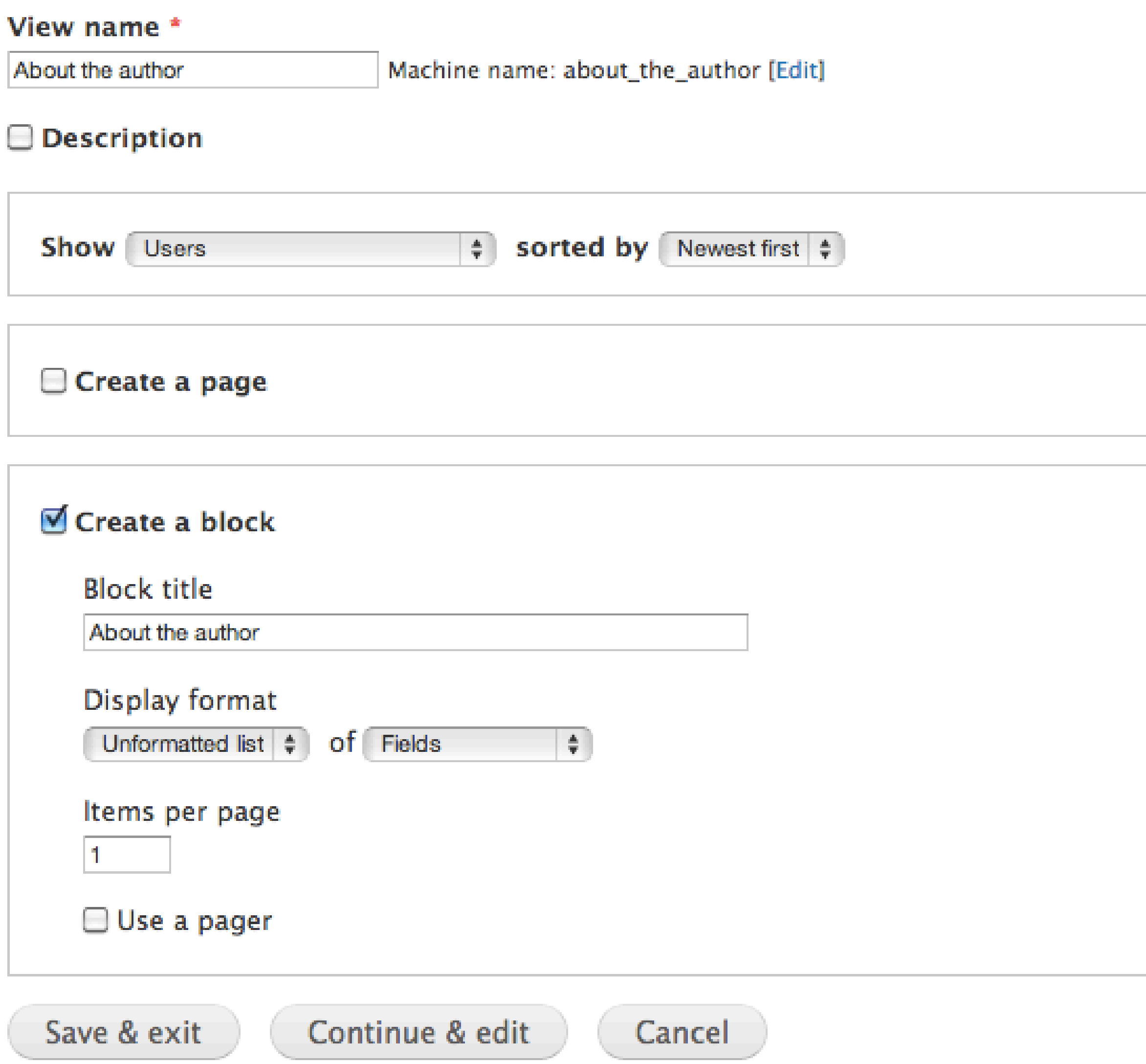
You will get more out of this activity if the user accounts also have profile images. Edit the profiles of the Site admin, the Testeditor and Testvisitor, giving them images for their profile.

Next, modify the authors so there is some variety. To do this, edit the existing articles and city guides. Scroll down to the “Authoring information” tab. And type in the names of the other users.

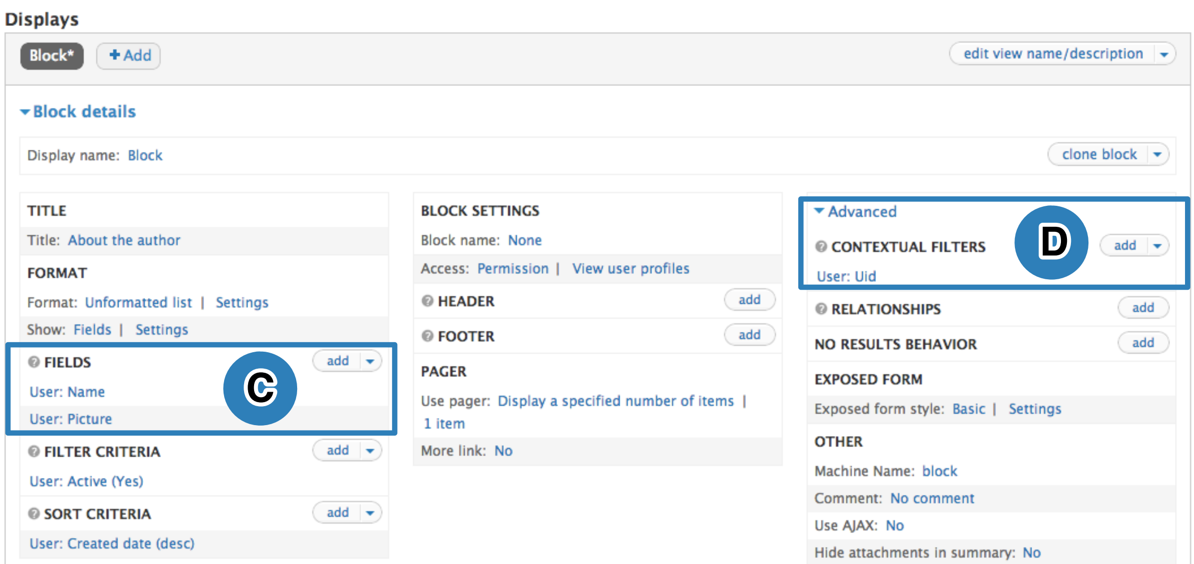


B. Add a new View

1. Go to Structure > Views and click + Add new View
2. Fill out the form with the following options:
    - View name: About the author
    - Show “Users” sorted by “Newest first”
    - De-select “Create a page”
    - Select “Create a block”.
    - Keep the defaults. (Ensure the settings are as shown in the image below).
    - Click “Continue and edit”



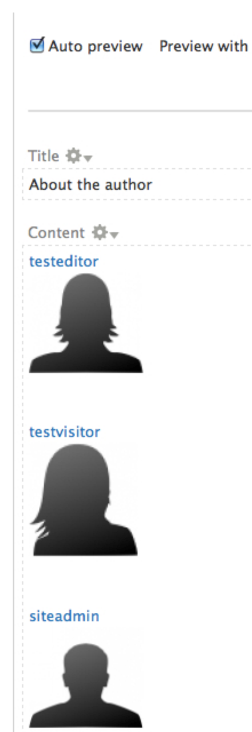
This loads the full Views editing screen. This illustration correlates to the steps outlined below.



C. Add fields to the View

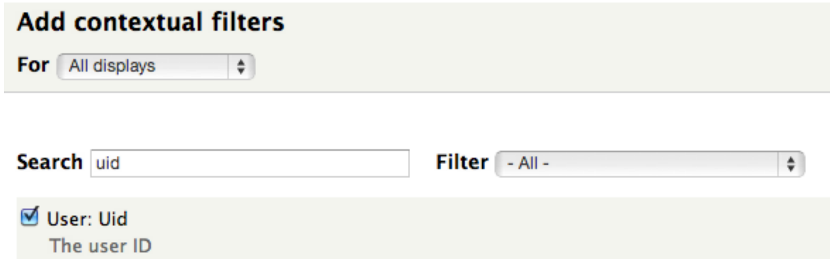
This is now your first time seeing the “advanced” options available in Views.

1. On the left, locate the options to edit fields. Click “Add”
2. Select User: Picture
3. Click the “Apply (all displays)” button. This loads the next screen to Configure the field.
4. De-select: "Create a label".
    - Image style: You can override the default size of user image here. Select "thumbnail"
5. Keep remaining defaults.
6. Click “Apply (all displays)”. This closes the popup window.
7. Look down in the Preview. Check if a user profile and image appears.



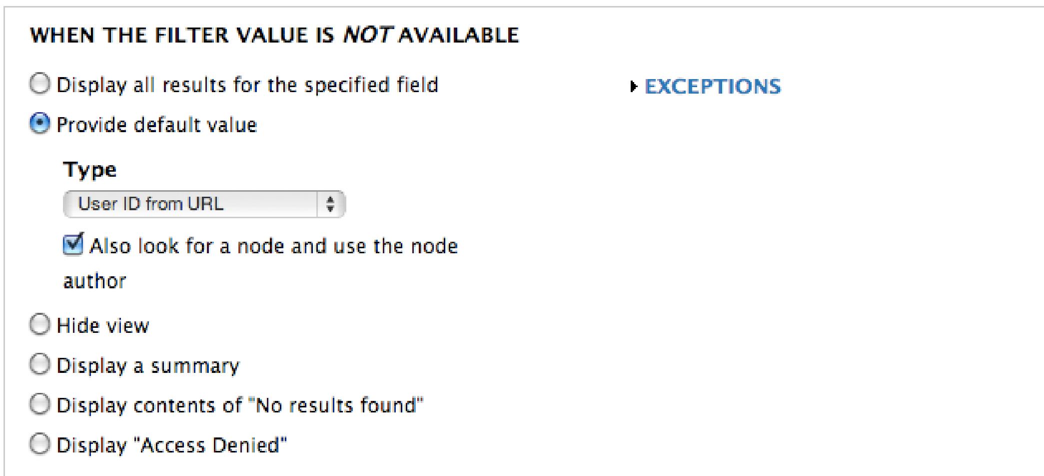
D. Make display dependent on author of content (contextual filter)

1. On the right hand side, click to expand “Advanced”.
    - Next to Contextual filters click “add”.
2. This loads a long list of options. Use the search field locate “**UID**”



- Select “User: Uid”
- Click “Add and configure contextual filters”. This loads the next screen.

3. Select “Provide default value”. This opens some additional options.
    - Under type: Select “User ID from URL”
    - Select *“Also look for a node and use the node author”.*



4. Click “Apply (all displays)”. This closes the window.

E. Check the preview

1. You’ll notice now that the preview isn’t displaying anything. Type in a 1 and click **Update preview**. This pulls in the profile of user/1
2. Finally click **Save** at the top of the Views editing screen. We’re nearly done.

F. Place the block and test.

Now we can configure the block to display on Articles or Travel guides.

1. Go to Structure > Blocks and locate the disabled block “View: About the author”.
    - Use the drop down menu to place it into the Sidebar second.
    - Click **Save blocks**.
2. Next, scroll back up to the "View: About the author" block and click “configure”.
    - Scroll down to the Visibility settings.

- Under Content types, select “Article”

- Click **Save block.**

3. OK! So go back and check your site. You should see the block appearing next to articles as you planned.
4. Logout and test: Can anonymous users see the block?

G. Grant anonymous users the ability to see user profiles.

Everything looks fine until you logout of the site or check the site as an anonymous user. Can they see the block?

1. Go to People > Permissions.
2. Scroll down to locate “View user profiles”.
3. Select to allow *Anonymous* and *Authenticated users* to View user profiles.

PERMISSION	ANONYMOUS USER	AUTHENTICATED USER	SITE VISITOR	SITE EDITOR	ADMINISTRATOR
View user profiles	☑	☑	☑	☑	☑

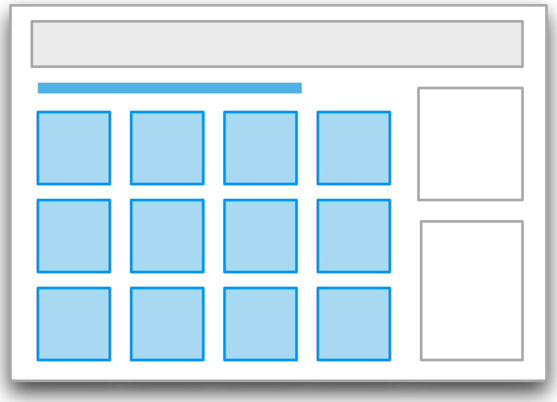
4. Scroll down and click **Save permissions**.

NOW! Go and check your site.

Summary

- Make sure “About the author” block should show only the correct content.
- It should be visible to anonymous and logged in users.
- How could you improve this? Maybe adding additional profile fields to the user’s accounts?
- How could you display this information so it appears above the content?
- What other kinds of related information would you like to show in a sidebar block when viewing a article?

Step-by-step 6: Member list and custom profiles



Site visitors would like to see who else is a member on the site. This also promotes a sense of community. This list should show profile images displayed in a grid and user name, and link to the user's account page.

As you work, consider how you can use similar process to make an image gallery on a site.

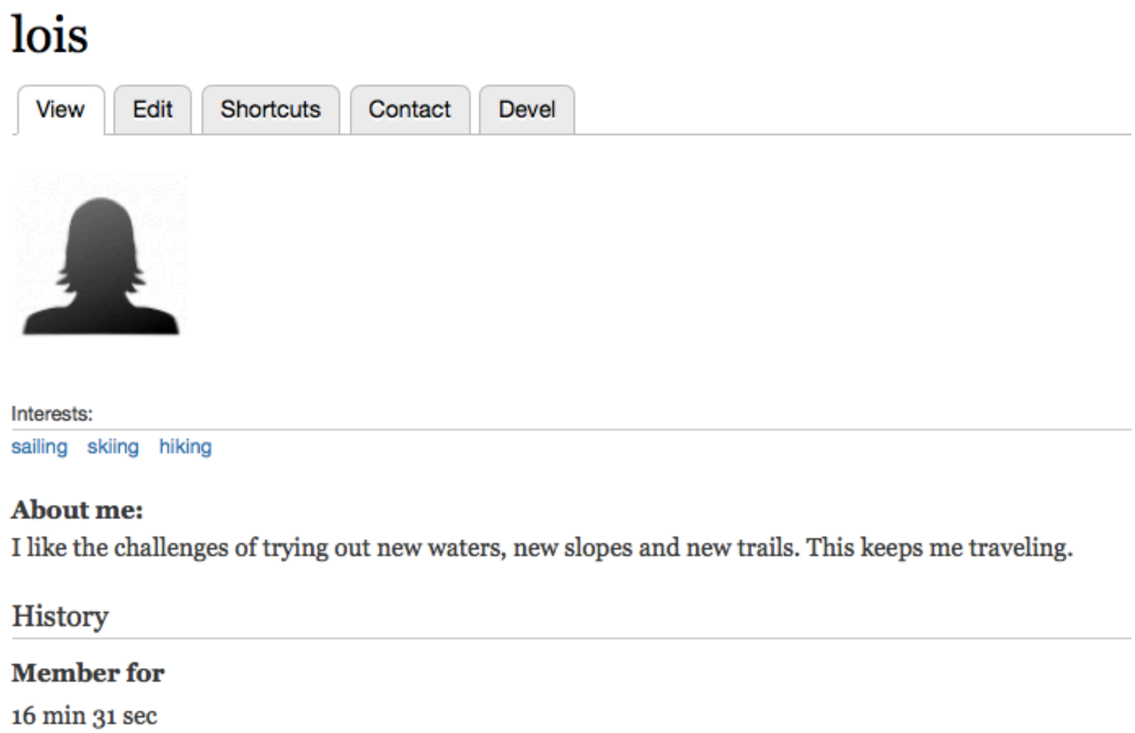
Modules used in this unit.

Display suite http://drupal.org/project/ds

This module gives you some tools to change the layout of some displays of content through configuration, without needing to touch code. For example, you can add new classes to your markup, you can create new view modes beyond the defaults of "teaser" and "full" mode, and you can completely change the layout of certain pages.

Exercise – Set up profile fields

Previously, you added fields to content types. You can also add fields to user profiles. This means you can let users share information about themselves and then you can display it. You can also control permissions so only trusted users can see profiles. Below you can see the profiles will have a text field for description and also a list of interests and a profile picture.



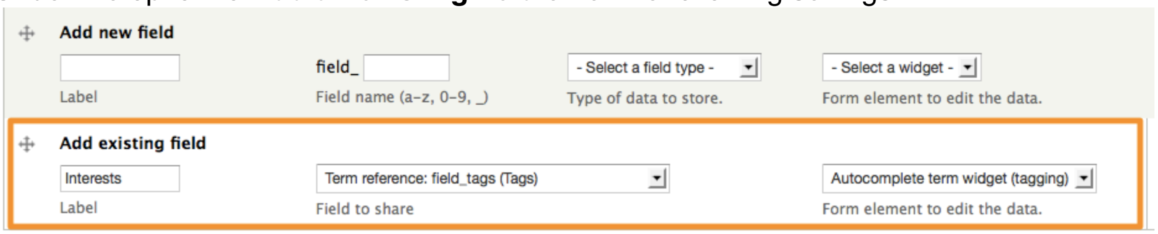
A. *Add a text field for a biography*

1. Go to Configuration > People > Account settings > Manage fields
2. This interface is similar to the one for adding fields to content, now you can Add a new field with the following settings:
   - **Label:** About me
   - **Name: field**_aboutme
   - **Field:** Select *Long text*
   - **Widget:** Select *Text area (multiple rows)*
3. Click **Save.**
4. **Next, Save field settings.** This field has no field settings, just advance to next screen.
5. Review the User settings. We will keep all the default settings, however, review the options before you save. You'll notice you can include "Display on user registration form", this is useful, if you have a required field to ensure they fill it out before they can join. Depending on the context of your situation, best practice may indicate you want as low a barrier to entry as possible. Or you may want to raise the barrier to entry by requiring specific details.
6. Click **Save settings.**

B. *Add a taxonomy field for interests*

We have an existing "tags" vocabulary we can use in this case.

1. Go to Configuration > People > Account settings > Manage fields.
2. Under the option to **Add an existing field** enter the following settings:



   - **Label:** Interests
   - **Name:** Select *Term reference: field_tags (Tags)*
   - **Field:** Select *Term reference*
   - **Widget:** Select *Autocomplete term widget (tagging)*
   - **Save.**
3. Next, keep all defaults except the following:
   - **Number of values:** *Unlimited* should be selected by default.
   - **Save settings.**

C. *Test by editing your account*

Return to the front page.

1. Click **My Account**, then the **Edit** tab. At the bottom of the form you can see the options available.
2. Fill in some text for **About me** and type in tags for **Interests**, such as *brazil, sailing, dancing.*
3. Under **Picture**, upload an image if you haven't already.
4. **Save.**

Now you can view the admin profile. Try looking at in another browser if available to see it without the administrative options.

You can also manage the display of the fields, for example hiding the label. As your Drupal skills improve, you can make changes to the site design through *Theming* to alter the way this information looks; or change what displays through *Module development*.

Tip: Configuring the user picture or avatar on a new theme

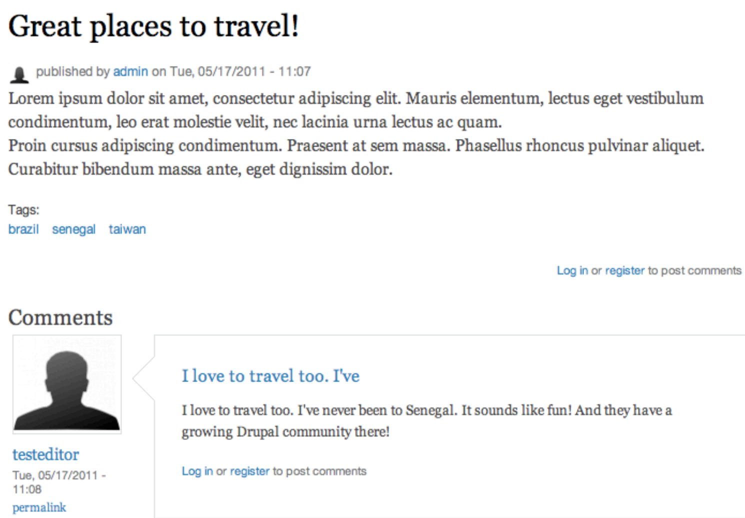
As you have seen, you can add the same types of fields to users as you can to content types. While you could have added an image field, there's an easier way by configuring the Account settings. In the core theme, Bartik, user pictures are enabled to show a user as an author of an article or comment, by default. Make sure to check this with any new theme you add.

Go to Configuration > People > Account settings.

1. Under Personalization, select Enable user pictures.

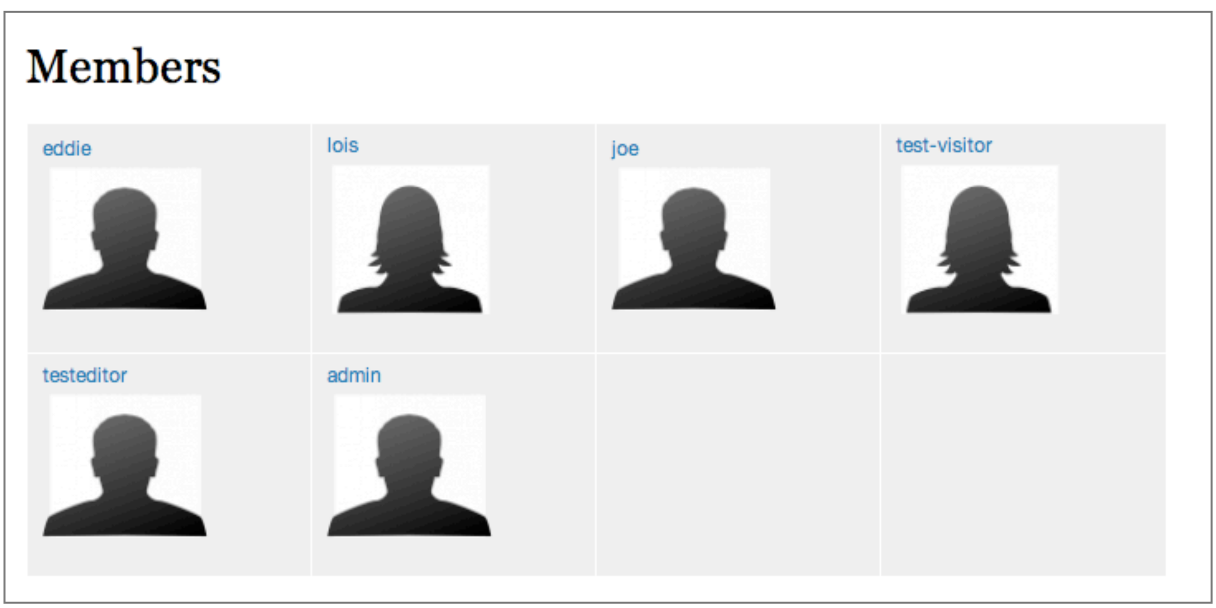
- **Picture directory:** pictures
- **Picture display style:** thumbnail
- **Save configuration.**

2. Next, ensure your user pictures display on your site, per theme.
    - Go to Appearance and click Settings for the theme you have enabled as default.
    - Under **Toggle display**, select: User pictures in posts and/or User pictures in comments.
3. **Save configuration.**



Exercise – Create the list of users

You will make a grid display of user profile pictures like this:



1. Go to Structure > Views and click **+ Add new view.**

2. Configure your view with the following settings.
    - View name: Members
    - Show *Users* sorted by *Newest first.*
3. Keep the remaining defaults and click **Continue and edit**.
4. You are now in the advanced settings. At the bottom, you can see a preview of your new view. What do you see? We will change to show usernames and user pictures.
5. Under Format - Click to "Unformatted list". This opens a dialog window. **Format** to *Grid.*
    - Select *Grid*. Click **Apply (all displays)**
6. Next, we'll add the user picture. Under the Fields settings, click to **Add**.
    - Search for "user" and select *User: Picture*.
    - Click **Add and configure fields.**
    - Deselect *Create a label*
    - Click **Apply (all displays)**
7. Finally, we'll add a link to the main menu. Under Page settings > Menu click the **"No menu"** options to change them.
    - **Type:** Select *Normal menu entry.*
    - Add a title.
    - Scroll down to **Menu** to select *Main menu.*
    - **Weight:** 8
    - Click **Apply.**
8. Scroll down to the Views preview. Now click **Save**.
9. Test your new view. In the main menu, you should have a menu link to "Members", and a page available at http://example.com/members

Exercise – Edit the existing view to add a filter

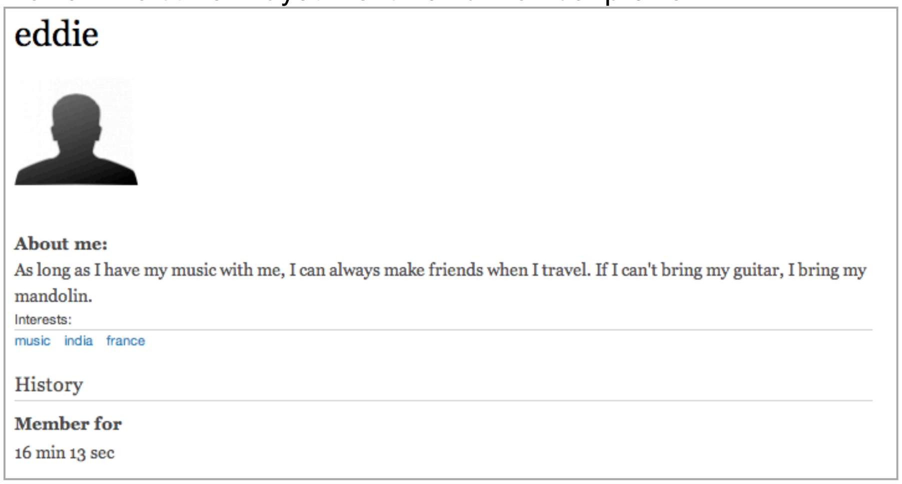
When you tested you may notice your user/1 site administrator user account is listed as a member. Because you will only log into that account in site maintenance, in most member based sites, it's best to hide that account.

1. On the member page, scroll over the gear to locate the "Edit view" link.
2. Under Filter criteria, click "add". This opens a dialog window.
3. Search for User: name. Click **Add and configure...**
4. Under operator select *Is not one of*... Usernames: (type in the name of your user/1 account such as *siteadmin.*
5. Click **Apply (all displays).**
6. Review your changes on the member list. You may also want to hide all site administrator accounts, how can you filter out an entire role?

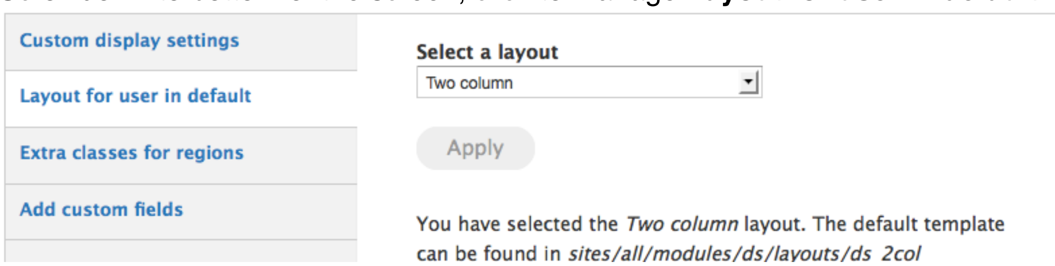
Exercise – Create a custom layout

User profiles currently list all content in one column, this exercise will re-arrange the profile information into two columns. We'll change the layout of user profiles using **Display suite**.

1. Review the current layout. Click on a member profile.

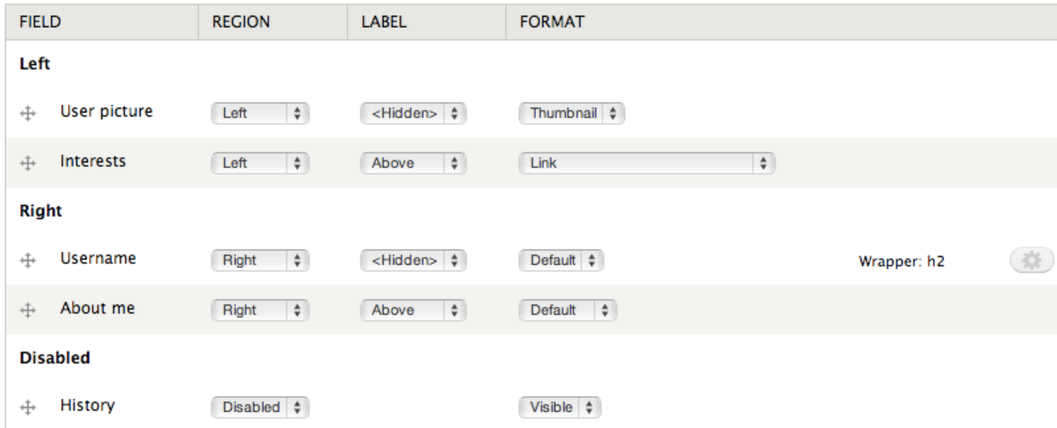


2. Go to Structure > Display suite > Display for the **User** type click **Manage display**.
   - You'll notice this brought you to the Manage display tab for the Account settings.
   - Scroll down to bottom of the screen, click to manage **Layout for user in default**.

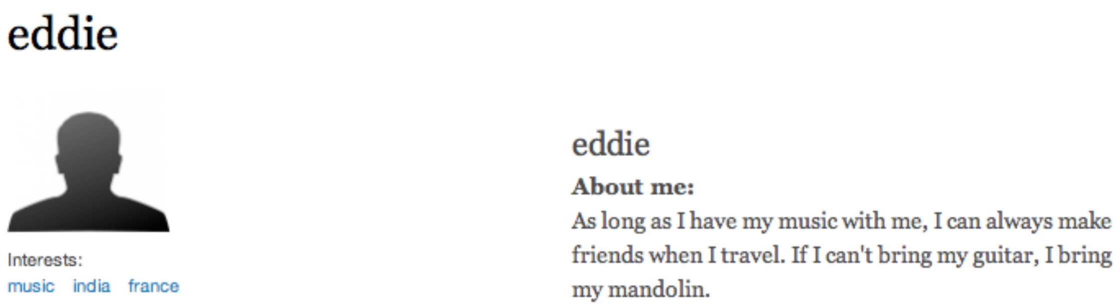


   - Select a Layout: *Select Two column.*
   - Click **Save**.
3. When the manage display page reloads, you can reorder the fields.
   - Into the **Left** region move the *User picture* and *Interests*.
   - Into the **Right** region move the *Username* and *About me*

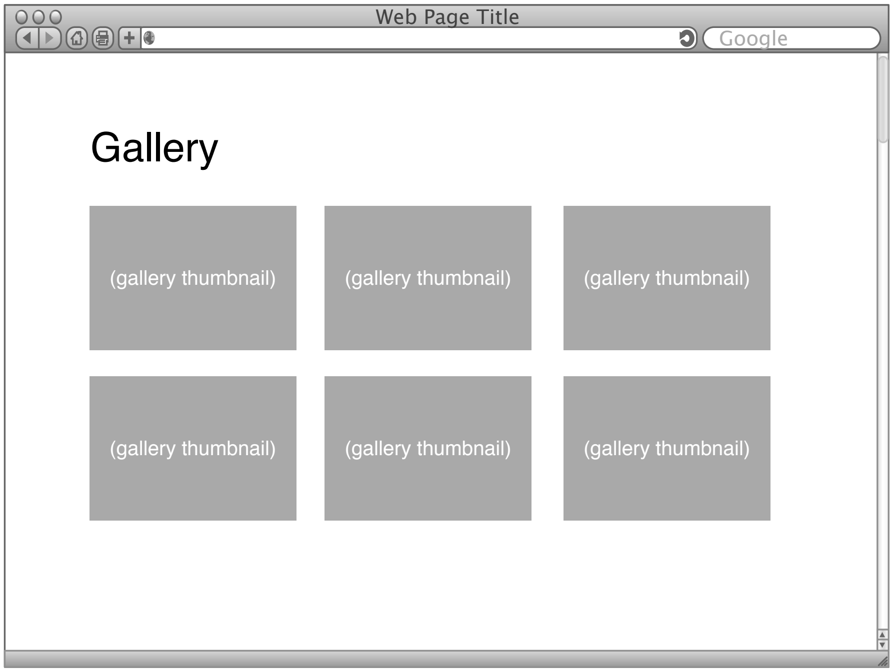
- As you noticed, you can now disable or hide items, such as History.



4. **Save.**
5. Now you can review the changes to the account pages. The pages have a clear left and right regions. You can change the layout later with CSS.



Challenge Exercise – An image gallery



With the member's list you created a grid based view of member's profiles. Now, create a gallery of images from the articles published on your site.

- If you don't have articles with images, use the Devel Generate tool to create them.
- Alter the display of the images to show up as square images.
- Make a view to display the images in a grid to create a simple gallery.

Unit Summary

In this tutorial, you saw how you can create **views of users** instead of content, and you saw a new views display setting which creates a grid of content. Finally, you saw how the **Display Suite** module gives you more control over the layout of your pages.

The way we added fields to user profiles is the same fields system used by content types and taxonomy terms. We benefit when we want to make references between these items, share fields, create lists or control the output and display.

- Think of a website you would like to make. What Account settings would you use? Do you want people to be able to create an account and begin to use your site?
- With many roles, the management can become tricky. What is the least amount of roles you could use on your own site?
- What are some things that can go wrong with permissions when you are adding new content types to your site?

Recommended modules for configuring layout

There are several other popular systems for controlling layout through configuration. As your Site Building skills improve you may also like to try:

Panels	http://drupal.org/project/panels The Panels module allows a site administrator to create customized layouts for multiple uses. It is a drag and drop content manager that lets you visually design a layout and place content within that layout.
Context	http://drupal.org/project/context Set contextual conditions and reactions for your site. This is useful if you want to have "sections" of your site and different content to appear in those sections. You set conditions, which are a set of rules to check on each page load.

Step-by-step 7: Event calendar and event listings

Modules used in this unit

The following modules are required:

- Date module http://drupal.org/project/date
  - Enable: Date, Date API, Date Views
- Calendar http://drupal.org/project/calendar
- Views, Ctools (enabled from earlier)

The instructions for this exercise are hints. Try to configure this new content type and view without looking back at previous instructions. Keep note of where you get stuck.

We'll show first a simple view which filters out past events using a content date field, then we'll make an event calendar quickly with templates.

Online tutorial

Here is a link to a more in-depth tutorial about event listings. http://shar.es/5yXyS

Exercise – Add and configure an event content type

A. Add the event content type

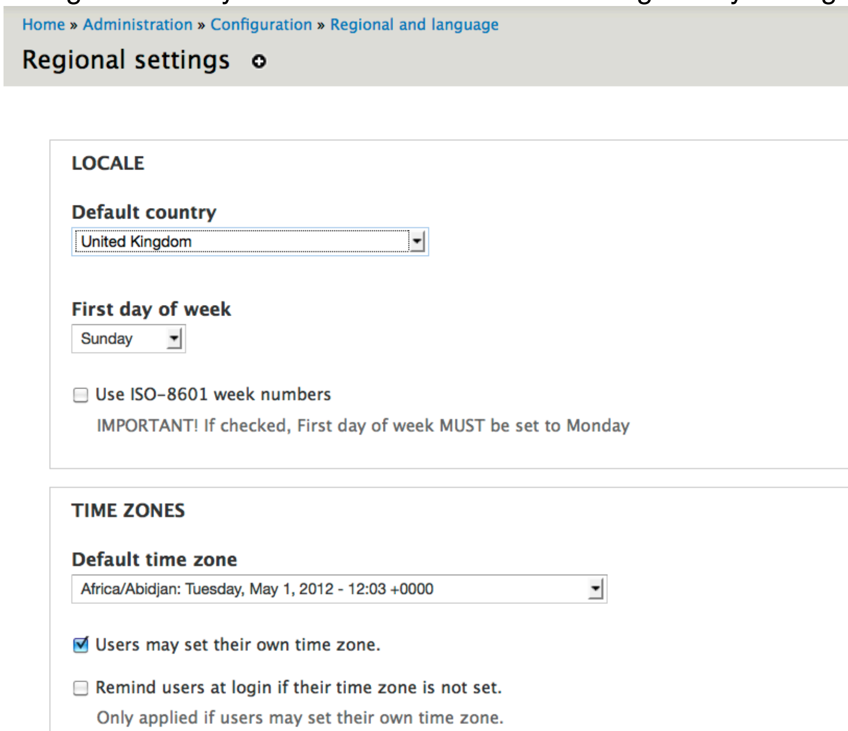
1. Using the tutorials earlier about content types, use these settings, and "Save and add fields".

Name	Event
Description	Add event details to share on the site
Title field label	Event title
Publishing options	NOT Promoted to front page
Display settings	Don't Display author and date information.
Comment settings	Open
Menu settings	No menu

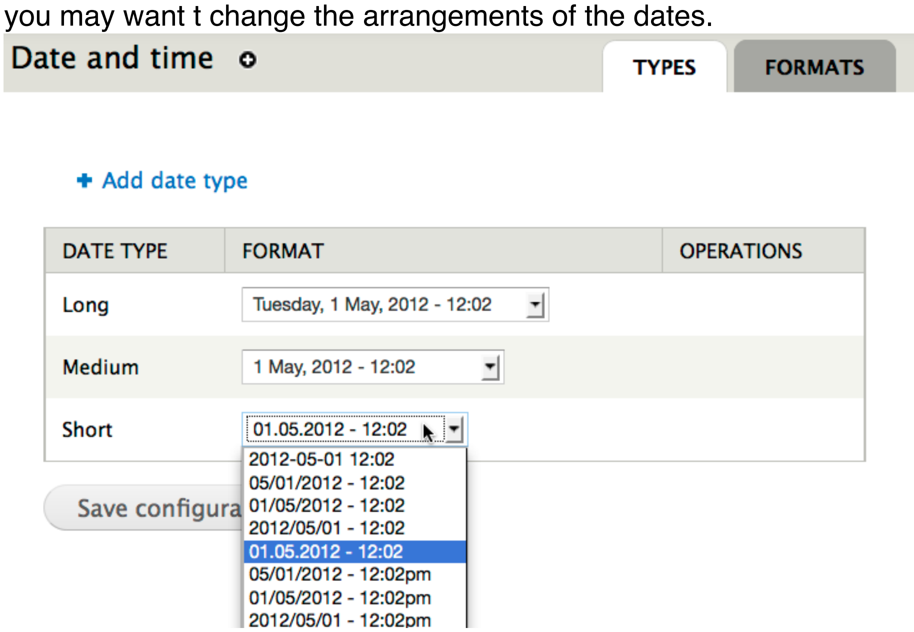
2. **Check permissions!** Now, as with any time you create a new content type, check permissions. Allow site editors to create events. Ensure that site visitors can leave comments.

B. Configure the date settings on your site

1. Go to Configuration > Regional and language > Regional settings. Check the date configuration on your site. Ensure the local settings suit your region.



2. Go to Configuration > Regional and language > Date and time. Depending on your region you may want t change the arrangements of the dates.



- Notice you can also add custom data formats. You apply the date formats when you configure field display in a content type, view or other places.

C. Add date field

1. We can't use the authored date to list events. We need an additional date field. Follow instructions from earlier activities to add a new field.

Label	Event date
Field name	field_**event_date**
Field type	Date
Widget	Select list

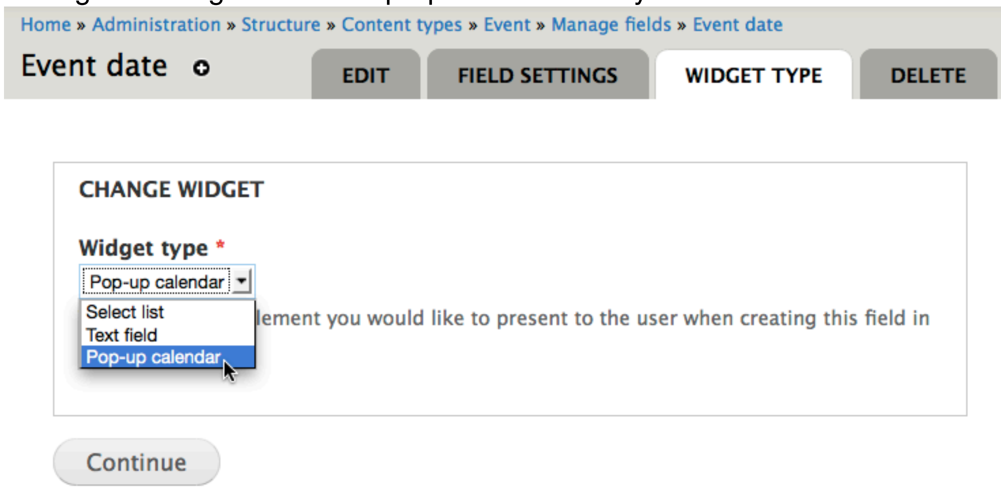
2. Set the event date field settings to collect the following:
    - Number of values: 1
    - Year, Month, Day, Hour, Minute. (not second)
    - Don't collect an end date.

D. Test and improve

1. Test event entry. There are a few things we can improve.
    - The date field is at the bottom of the form, but it's the most important item of information.
    - You may find the user interface is clunky for browsing dates and times.

2. First: Change the order of fields so the date is under the title.
3. Next: Improve date entry
    - Enable the **Date popup** sub module included under the Date Module.

- Change the widget to the "Pop-up calendar" entry.

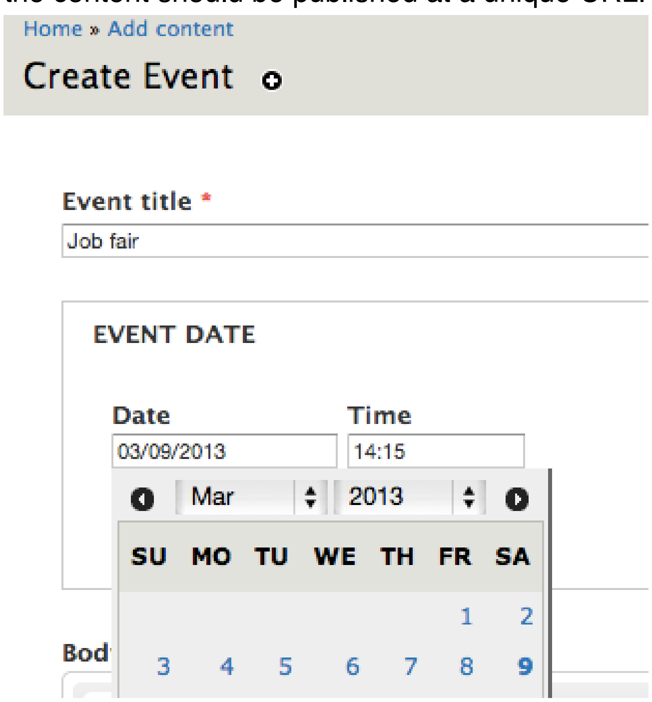


E. *Change the URL alias*

- We'd like all events to be under a main /events/ path on the site.
- An example URL path would be /events/job-fair
- Tip: Follow instructions earlier for editing URL alias patterns. Use a pattern such as events/[node:title]

F. *Re-test!*

Now create another event and test your new settings. The form should be easier to use and the content should be published at a unique URL.



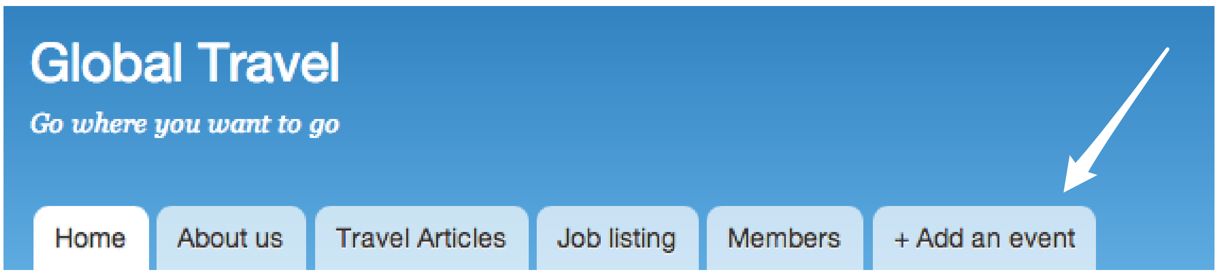
G. Ideas to extend the event content type

If you have extra time, challenge yourself to try and extend this content type.

- Modify the event content type so you can also add external links to registration pages.
- Or add images about the event.
- Or add a related field to specify what company is sponsoring this event.

Challenge exercise – Add a link to the main menu

- Add a link to the main menu for contributors to + Add an event.
- **Hint:** Add the link in the main menu manually. The path is node/add/event



Exercise – Create an event listing for future dates

Depending on the frequency of events, you will want to choose the right way to list events. In the case for this exercise, there are very few events, so we'll just make a simple view which shows upcoming events.

A. Add sample content

1. Add some sample content, or use Devel generate to add in 10 new events.
2. Make sure you have some dates under the same month and year.
3. Make sure you have an event in the past which you don't want to show up in your upcoming events listings.

B. Add the view

1. Follow earlier instructions for adding a new View. Use the following settings as a guide.

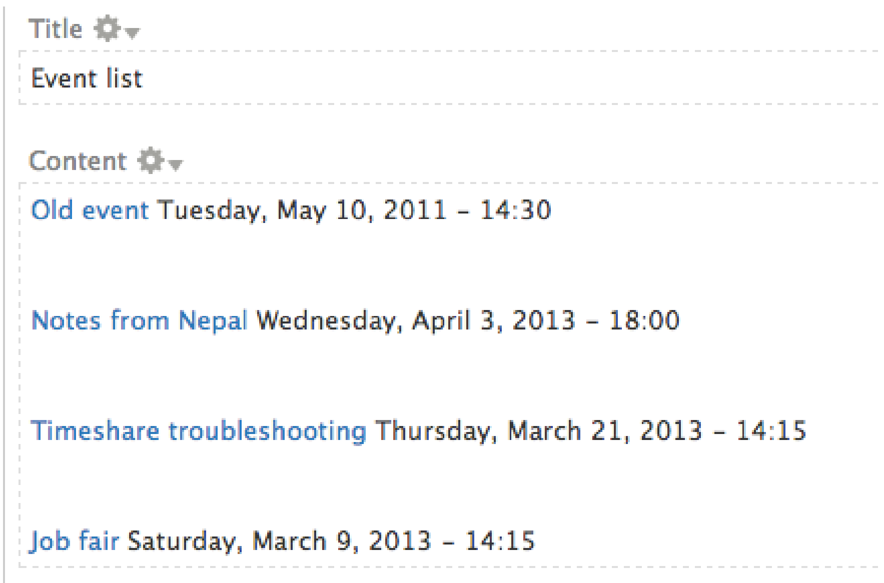
View name	Event listings
Show:	Content of type: Event
Page title	Upcoming events
Page path	events
Display format	Unformatted list of fields
Use a pager	Selected

Create a menu link	Events
Create a block	No

2. Click **continue & edit** to get to the main Views editing screen.

C. *Add a date field*

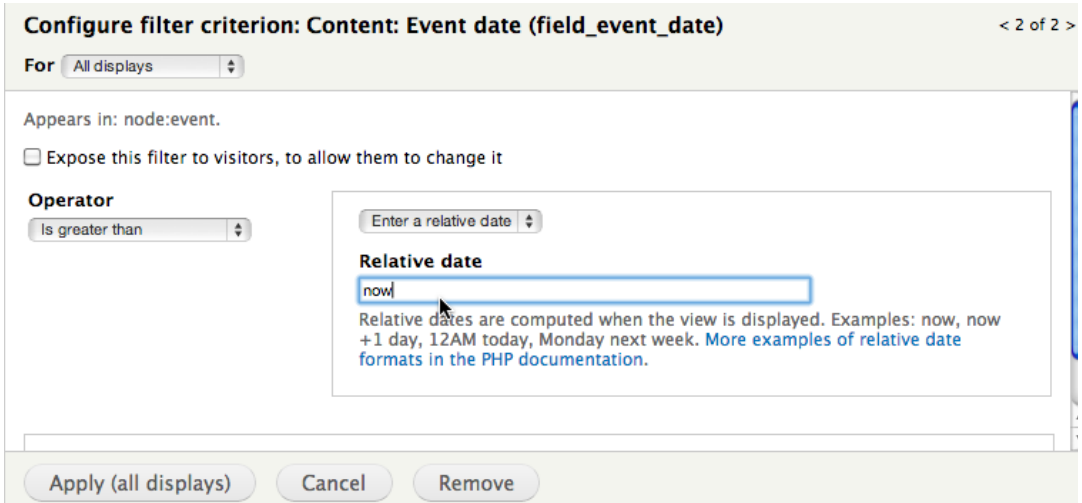
1. Add a Content: Event date field to the display.
    - No label. Ensure you display the long format with day and time.
2. Ensure the field displays inline with the title. Tip: Under Format, edit the Show: Fields | Settings
3. Check your preview. You should see something like this. We want to hide that old event!



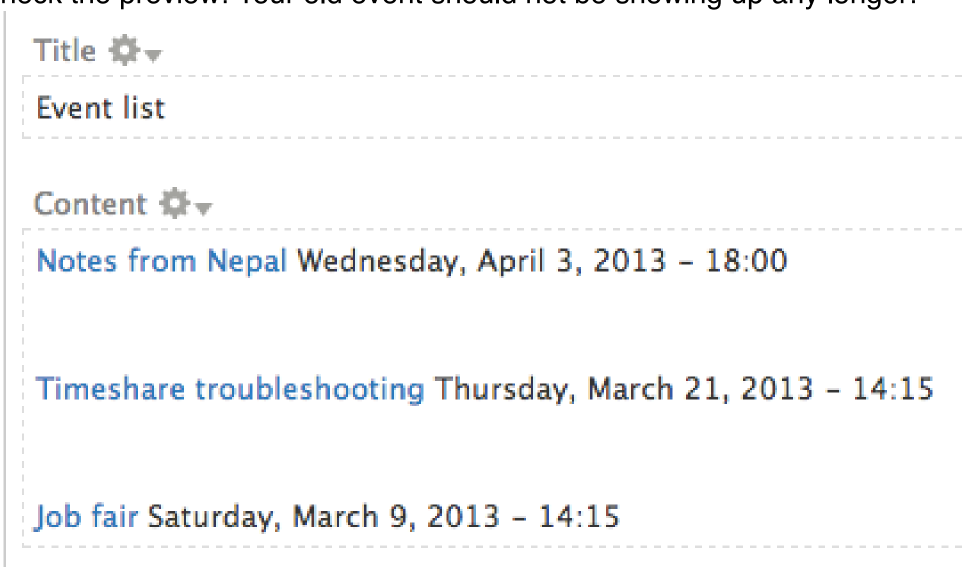
D. *Filter out old events*

1. Add a new filter.
    - Add filter criteria > Search for and select "Content: Event date (field_event_date)"
    - Click "Apply (all displays)"
2. Next screen is "Configure extra settings for filter criterion Content: Event date (field_event_date)". Just keep these defaults and click "Apply and continue"
3. Next screen is "Configure filter criterion: Content: Event date (field_event_date)"
    - Operator: Select "Is greater than"
    - Select date > Change to "Enter a relative date"

- Relative date: "now"



4. Check the preview! Your old event should not be showing up any longer!



5. Change the sorting so your view is sorting on your event date and not the post date.
6. **Save your view!**

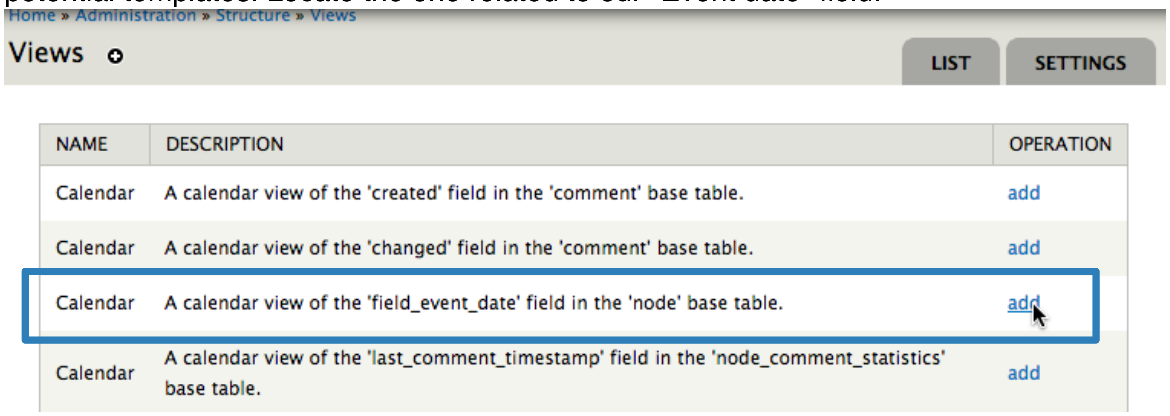
Exercise – Use Calendar views templates

In the previous exercise, we imaged we had a site with a low-frequency of events. Now we'll imagine we have a very active event calendar with events on nearly every day of the week. In that case you will want something like a month by month date browser to make it easier to specify a date. This is what we use in the sidebar on training.acquia.com.

A. Add the view from Calendar templates

1. Enable the Calendar module.
2. Go to Views listing and click + Add Views from template.

3. Calendar module searches for all date related fields you have on your site, and offers potential templates. Locate the one related to our "Event date" field.

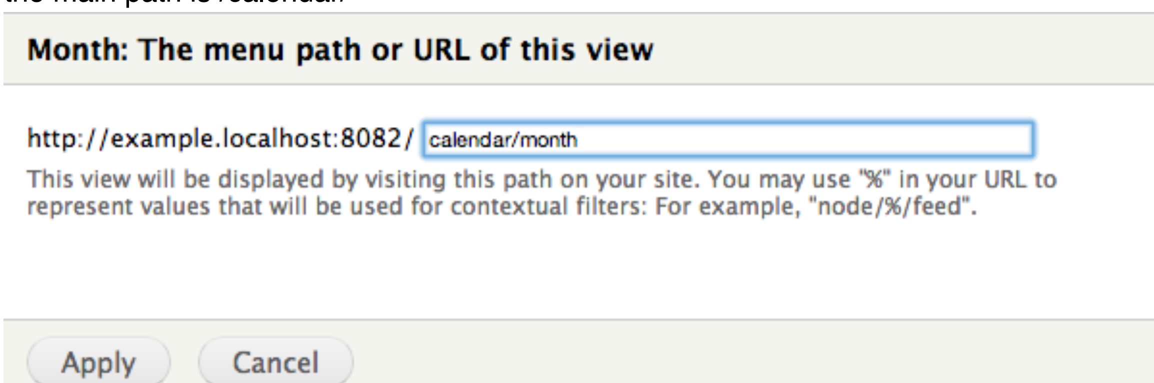


- Click "Add"

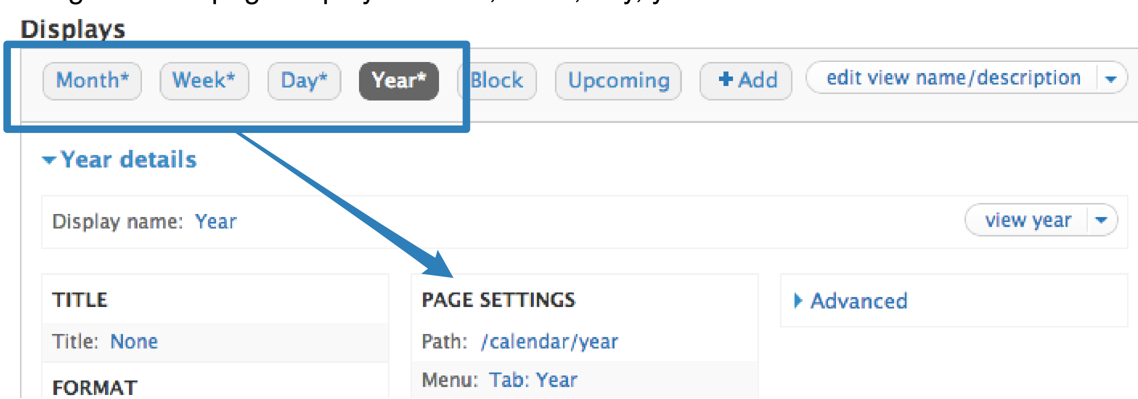
4. Click through to configure by keeping all the default view title "Calendar".

B. Configure the view and displays

1. On the Views editing screen, change the page settings on all the displays of the views the main path is /calendar/



2. Change it for all page displays: Month, week, day, year.



3. Click "Save" on the View.

C. Review the results

1. Visit your site /calendar.As you can see the Calendar module works with views to make easily configured date displays that work right out of the box.

Challenge exercise – Place the block

Place the calendar block (provided by the Views template you've just configured). Make sure it doesn't show on any /calendar/ paths.

Unit Summary

As we saw this this tutorial, the way you display events depends on the frequency of your events. You also got a more in-depth look at how Drupal handles date configuration, and how you can use that to group displays in Views. Keep in mind: You can group content by any fields in Views.

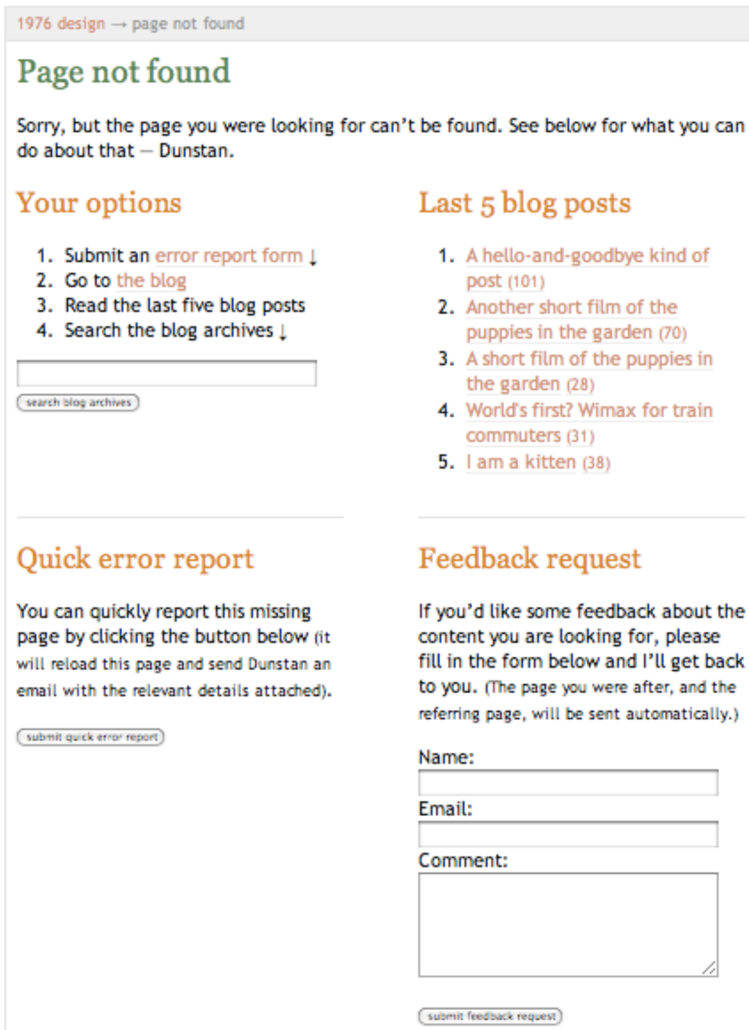
Step-by-step 8: Set custom error messages

This step is often overlooked on a typical Drupal site.

Fast 404!

It's also recommended to use the Fast 404 module http://drupal.org/project/fast_404 This ensures 404 pages do not have to fully bootstrap Drupal in order to be served. This module can help to alleviate stress on the server.

Make sure to customize this experience which is simple and quick to do! See: http://www.1976design.com/gimme-a-404 as an example.



Exercise – Create a friendly error page

Site administrators would like to offer a friendly and useful error message.

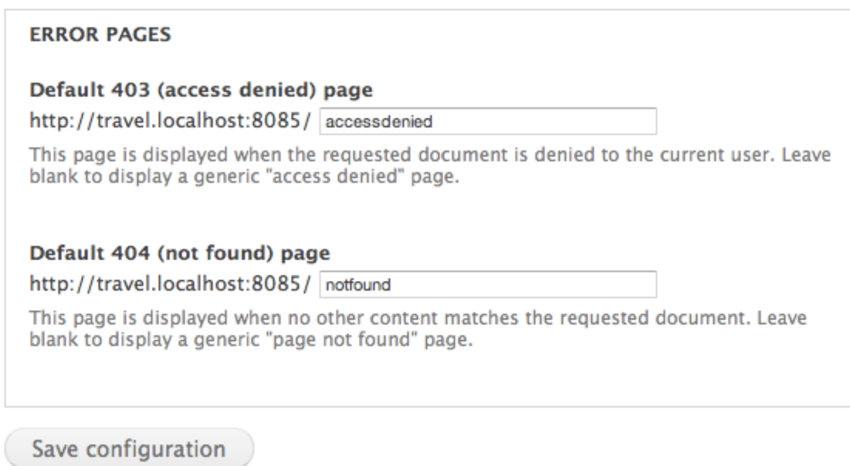
You can have a friendly, simple graphic like Twitter's famous "fail whale", or you can provide a useful response.

A. Create the error page

Create a **basic page** with an appropriate message.

Create one page for each situation; http://example.com/notfound and another with http://example.com/accessdenied

B. Specify the error page



1. Go to Configuration > System > Site Information.
2. Type in the paths in the bottom section on **Error pages**.
3. **Save configuration.**

Challenge exercise:

Use Webform http://drupal.org/project/webform to create a simple to allow people to fill out a quick contact form to explain what they were looking for.

Here is a quick tutorial explaining how to use Webform module

http://www.ostraining.com/blog/drupal/reusing-webform/

Step-by-step 9: Search and related content

Site visitors need a way to find related content more quickly. They have requested a faceted search tool to help “drill down” into search results.

Exercise – Explore the default search

First, let’s explore how the default search works.

A. Configure permissions for search

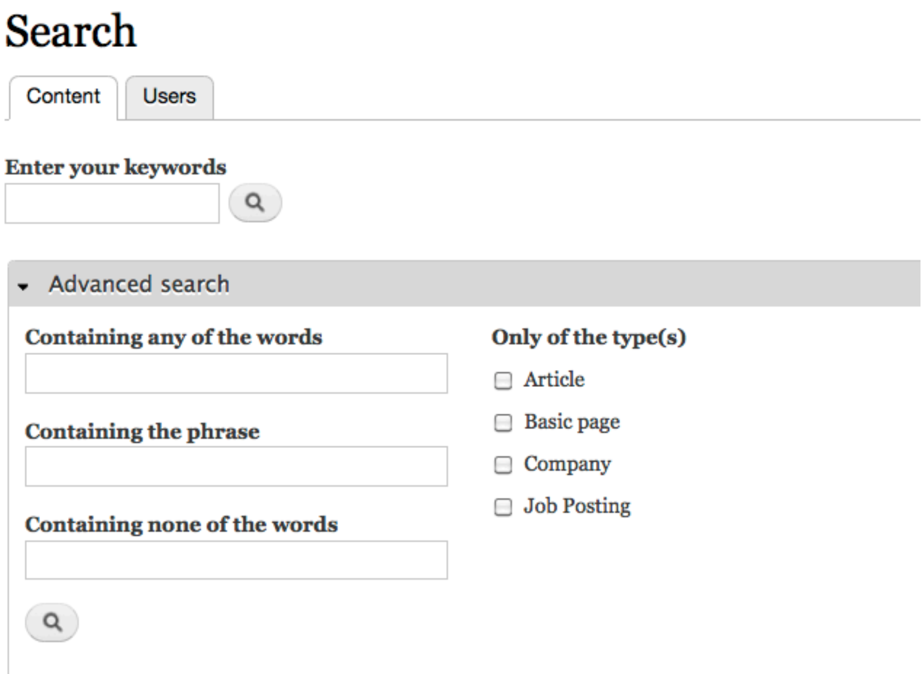
1. Go to People > Permissions.
2. Select permissions to allow Anonymous and Authenticated users to *Use search.*
3. Select permissions to allow only Authenticated users to *Use advanced search.*

PERMISSION	ANONYMOUS USER	AUTHENTICATED USER	SITE VISITOR	SITE EDITOR	ADMINISTRATOR
Search					
Administer search	☐	☐	☐	☐	☑
Use search	☑	☑	☑	☑	☑
Use advanced search	☐	☑	☑	☑	☑

4. Click **Save permissions.**

B. Advanced search

Enter a search term for a common keyword. You’ll notice on the full search page you can modify **Advanced search** options. This works pretty well for many cases. With Advanced search, you can narrow down the options to specific content types and control what kind of search you do.

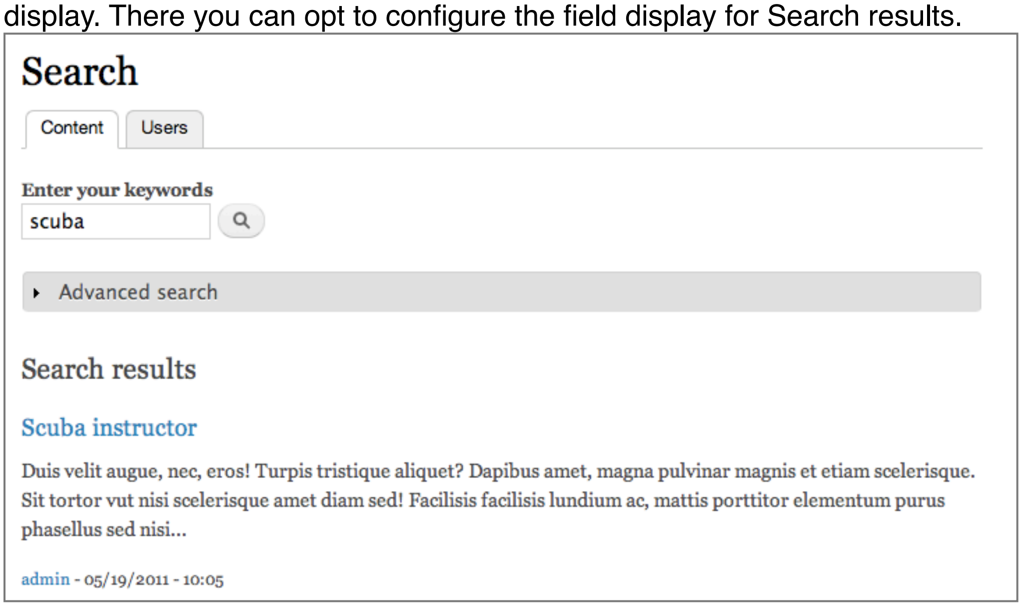


C. *Default search results.*

You should have a search block in the sidebar. Or you can visit your site at [http://example.com/**search**](http://example.com/search) Type in a word you know is on your site.

Below, you see what your default search result may look like.

- Notice that default search finds only full words, so a search for "beach" won't find "beachside".
- You can control this in Structure > Content types > (choose a content type) > Manage display. There you can opt to configure the field display for Search results.



D. *Understanding the index*

1. Try adding a new article with a word you haven't used before, such as "bodyboarding".
2. Conduct a search for this word. You'll notice that the search did not update instantly.
3. Keep in mind that this is a cached index of content, which makes results appear more quickly, requiring less resources on your server. The search will be updated the next time you run cron.
4. We can run cron manually at Reports > Status report. Scroll down to Cron maintenance tasks and click "run cron manually".
5. Now conduct the search again.

What is cron?

If you're new to server configuration and hosting, you may not know about cron. This is a method for scheduling specific tasks to run on your site. This clears the site cache when you run it. Because building a search index is costly and time-consuming, you don't need to rebuild your index very often. You can schedule tasks using cron to run as frequently as you need to, or based on certain actions on the site. Cron is set to run every 3 hours by default.

Read more http://drupal.org/cron

Optional Exercise – Connect to the Acquia network

In order for the search service to work, you will need to connect to the Acquia network first, and ensure your account is enabled.

A. *Install and enable before we start:*

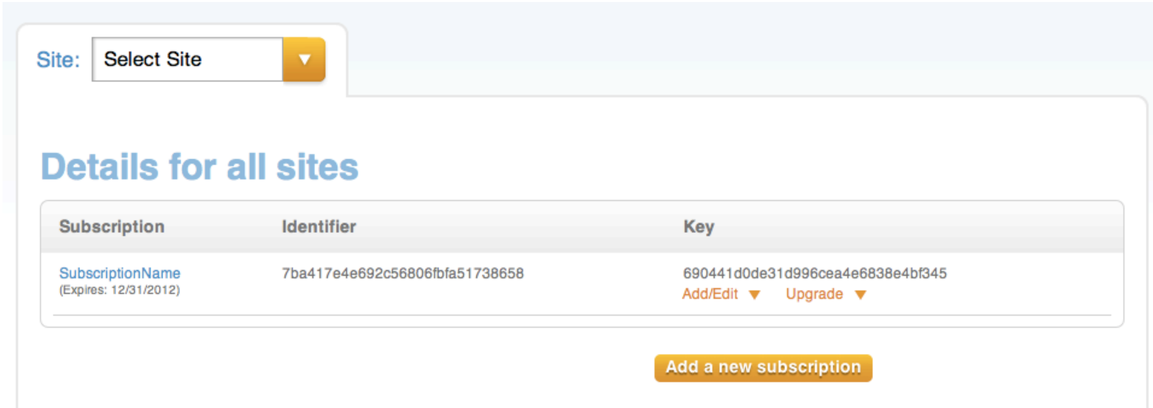
This activity requires a free 30-day account at Acquia.com http://acquia.com/trial Then you will need to connect your Acquia subscription keys. You don't need to download these modules because they are included with Acquia Drupal.

- Acquia agent
- Acquia search
- Apache Solr framework
- Apache Solr search
- Search (part of core, and enabled by default)

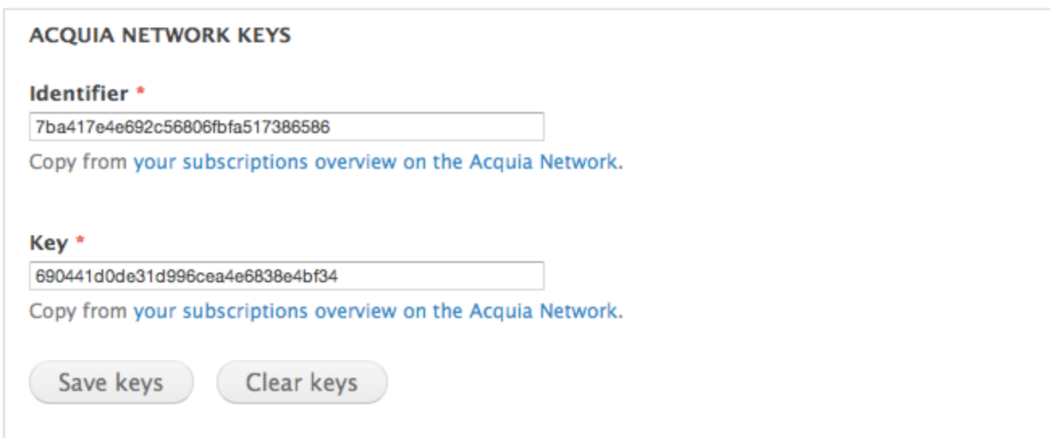
B. *Connect your site to the network*

1. Login to Acquia Network, and visit the Subscription page at: https://network.acquia.com/network/dashboard/subscription

2. Locate the Identifier and Key details for the selected subscription.



3. Copy these details so you can place them into the Acquia Network settings for your new site.
4. Go to Configuration > System > Acquia Network settings or click "Connect now"
5. Paste in Identifier and Key.
6. Click **Save keys**.



If you get lost along the way, visit the documentation pages here: http://network.acquia.com/documentation/getting-started/introduction

You'll need to run cron to ensure Acquia is connected. The network service begins to provision a search slice for you soon as you request it, though it may take a few moments. You may get an error such as "Your site was unable to contact the Apache Solr server." This error will go away after a few minutes.

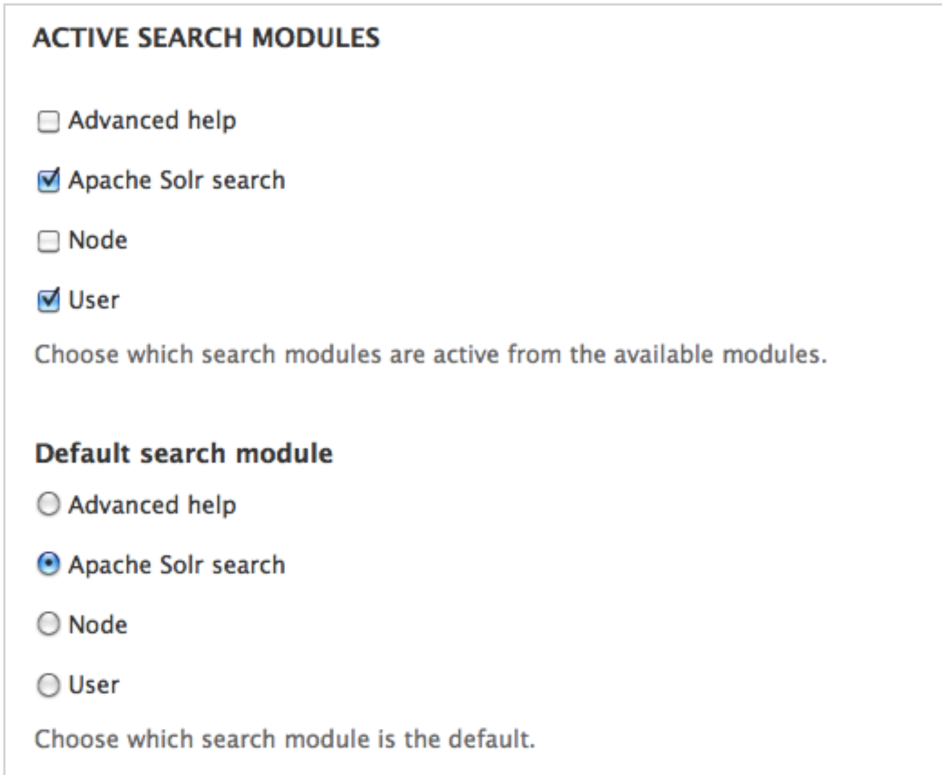
Exercise – Configure search

Next, we'll create our own index of our content and make a related content block.

A. *Configure Apache Solr as default*

1. Go to Configuration > Search and metadata > Search settings.

2. Under **Active search modules** select *Apache Solr search* and deselect *Node* .
3. For **Default search module** select *Apache Solr search.*



4. Click **Save configuration**.

B. *Explore Apache Solr search*

Let's see how this works.

Go to Configuration > Search and Metadata > Apache Solr search

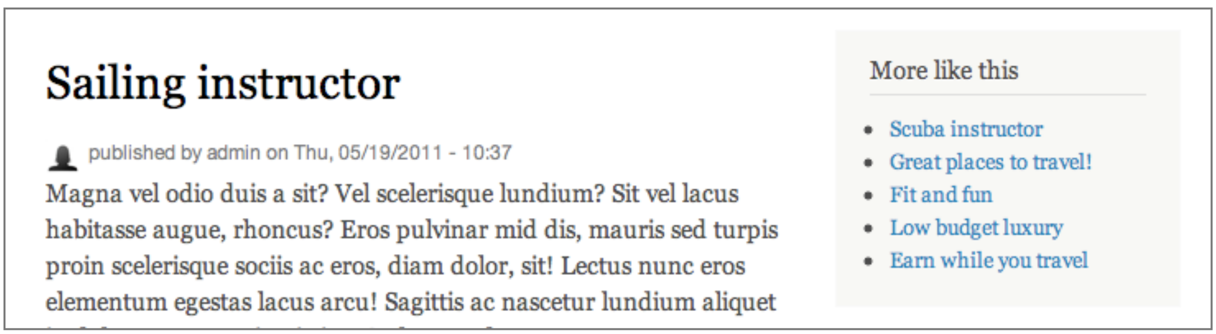
Here you should see a message that "Search is being provided by the Acquia Search network service." If you were using a local Apache Solr instance, you would change your host settings here.

1. Click on the **Enabled Filters** tab. By default, Apache Solr offers a filter by author and content type.
2. Select *Taxonomy Field: Filter by Article category (field_article_types)*
3. **Save.** You will see a message with a link to the Blocks administration page.
4. Go to Structure > Blocks and locate the **Apache Solr Core: Sorting.** Place that block into *Sidebar last,* and **Save blocks.**
5. Go to your front page and conduct a search for which you know there are multiple items. Now you will see options to change the sorting of the results.

Optional exercise – Add a content recommendation block

Go to Configuration > Search and Metadata > Apache Solr search

1. Click **+ Add a new recommendation block** and configure with these settings:
2. **Block name:** *More like this*
3. Keep the remaining defaults, but notice that you can specify what kinds of relationships.
4. Go to Structure > Blocks and configure the "Apache Solr recommendations: More like this" block to appear in Sidebar last. Now, when you browse an article or a job posting, you can see related content.



Challenge exercise – Add an author block

Follow the instructions for adding a content recommendation block. Title the block "*More by this author"* and deselect all options except for **Author name.** Place the block in sidebar last.

Unit Summary

Earlier we saw there are several ways to allow your site visitors to browse or search through your content. You can create Views, which directly query your content; or you can use third party search crawlers to build indexes of your site's content (such as Google's custom search); or you can use search tools to create your own indexes of your content.

Managing your own index gives you the chance to set your own biases for relevance, and also provide faceted search to filter results. Powerful indexing software, Apache Solr, requires a Java-based Lucene server, which isn't always feasible. In this activity, we'll use Acquia's remotely hosted Acquia Search service.

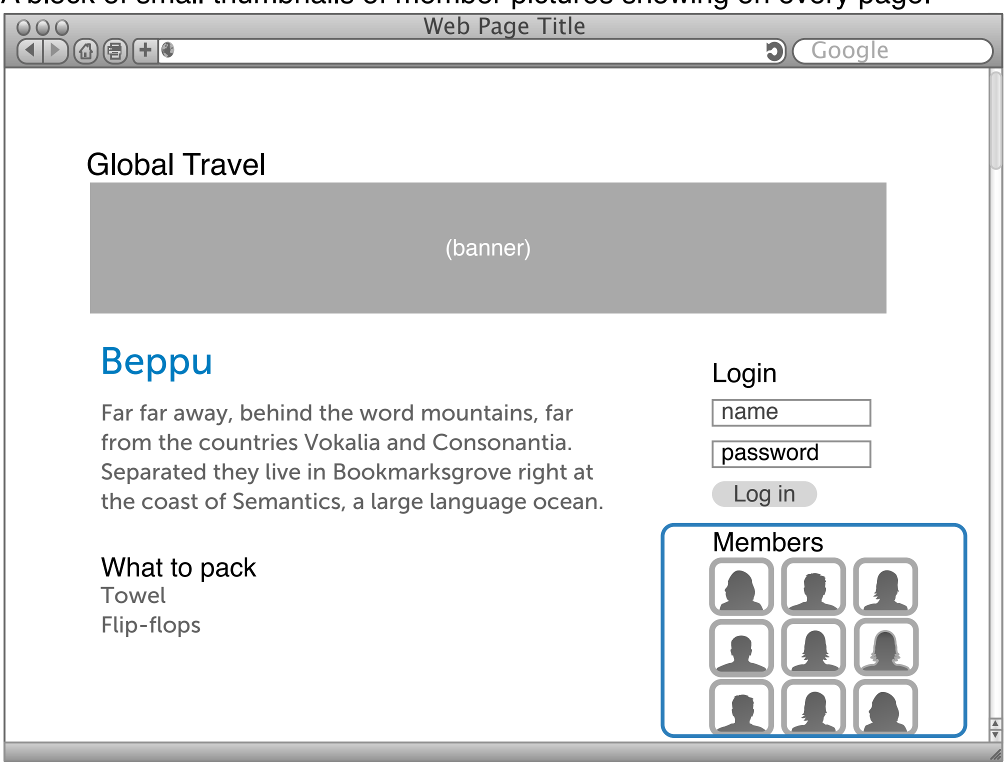
Step-by-step Challenges! A review

In this session, we've been extending the model of making new content types, adding and configuring fields, and making custom displays using Views. We also saw how there are some modules to gain even more control over display and layout. As a final challenge, you will add a new feature to your site.

Choose a challenge!

Use ideas from your earlier discussions or try one of the challenges listed below. You may like to consider searching on Drupal.org to see if a module already exists for your idea. Be sure to ask your instructor's opinions and experience with any new module to identify.

1. A list of editor-curated "featured" content for the front page. Hint: "sticky" content.
2. Schedule content to display in the future. 5 minute tutorial here: http://www.youtube.com/watch?v=G7VfhGI4aoE
3. A block of small thumbnails of member pictures showing on every page.



4. Try making a list of content by a specific user showing on their member page.

Eddie

Eddie likes to travel with his mandolin. Or sometimes the ukelele. In a pinch, he'll travel with just his tambourine.

By this contributor...

Best in Beppu

Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts. Separated they live in Bookmarksgrove right at the coast of the Semantics, a large language ocean.

Paris excursions

Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts. Separated they live in Bookmarksgrove right at the coast of the Semantics, a large language ocean.

Mali music

Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts. Separated they live in Bookmarksgrove right at the coast of the Semantics, a large language ocean.

5. Choose one of the ideas you developed in the architecture workshop.

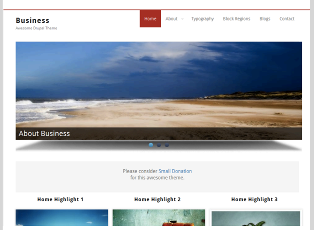
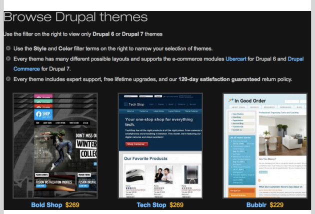
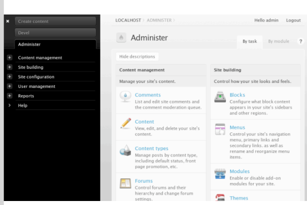
Session 6: Customizing appearance with Themes

Unit 6.1: What are themes?

Working the Drupal way often means working in an iterative way, and fine-tuning the design at a final stage of development. Now that we have the site functionality in place we can drape the appearance over the structure of the site.

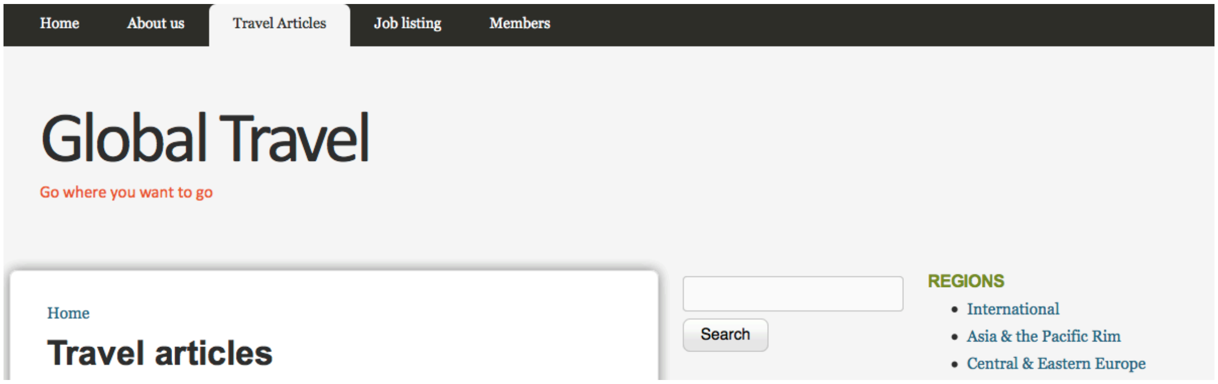
Compare contributed themes

We can consider of the different kinds of themes available: Complete themes, base or starter themes, commercial themes. You can search for themes directly at http://drupal.org/project/themes In the sidebar, locate the “Most Installed” list of themes.

	**Contributed themes**	Busy, Domicile, Corolla
	**Commercial themes**	Top Notch, Adaptive, Worthapost, More than themes
	**Base themes**	Zen, Omega, Mothership, Adaptive
	**Admin themes**	Rubik, Seven

Unit 6.2: Step by step - Install and configure themes

Site administrators would like new visual design for the site.

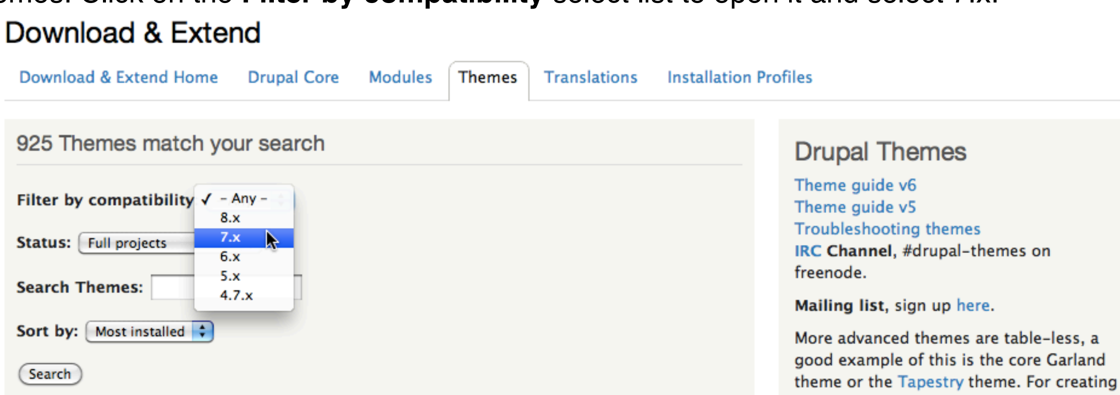


Exercise – Download, enable, and configure a theme.

The following exercise will walk you through the process of downloading, enabling, configuring, and switching a theme.

A. *Download a theme*

1. Search for the Corolla theme from the Drupal.org themes page - http://drupal.org/project/themes. At the top of the page you'll notice a themes search box.
2. Themes are only compatible with the version of Drupal they were made for – we can't use a Drupal 6 theme with Drupal 7. Filter the theme results to only display Drupal 7 themes. Click on the **Filter by compatibility** select list to open it and select 7.x.



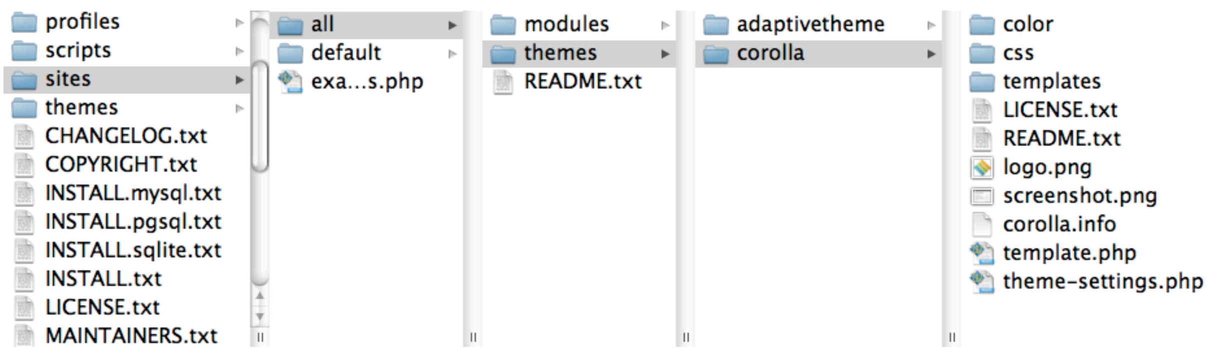
3. In the **Search Themes** text field, enter *Corolla* and click *Search*.
4. Locate the Corolla project, and click to go to http://drupal.org/project/corolla. Theme project pages provide information such as documentation, updates and *requirements.*
   - Scroll down to the Downloads **section** and locate the 7.x version of the theme. Download the compressed archive.
   - Open the archive. Then open the folder "corolla" that is created to locate the README.txt file. Notice a section "-- REQUIREMENTS --".

- Corolla is a subtheme of a theme system called Adaptivetheme. This must be downloaded and installed first. Always check dependencies for a theme.

5. Go to http://drupal.org/project/adaptivetheme and download this base theme system too.

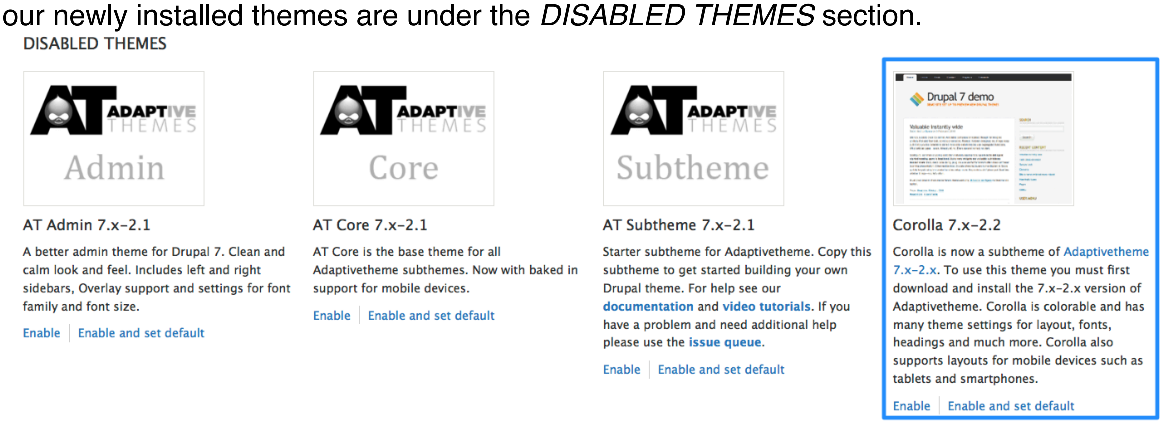
B. *Manually install the theme*

Technically, themes are a combination of template files written in PHP, with additional script and CSS files as well as images. Like contributed modules, you place them in your “sites” folder, in a special "themes" directory like this: **sites/all/themes/corolla**



By doing so, we ensure that our contributed themes are kept separate from the default core themes that come with Drupal. Core themes are stored in the root themes directory - ***themes/corethemename***, whereas contributed themes are stored in the *sites/all/themes* directory.

1. Go ahead and move both the Corolla and Adaptive theme folders that we downloaded before, into the *sites/all/themes/* directory.
2. Drupal should now recognize the themes. Go to Appearance and check to ensure that our newly installed themes are under the *DISABLED THEMES* section.



C. *Enable and switch themes*

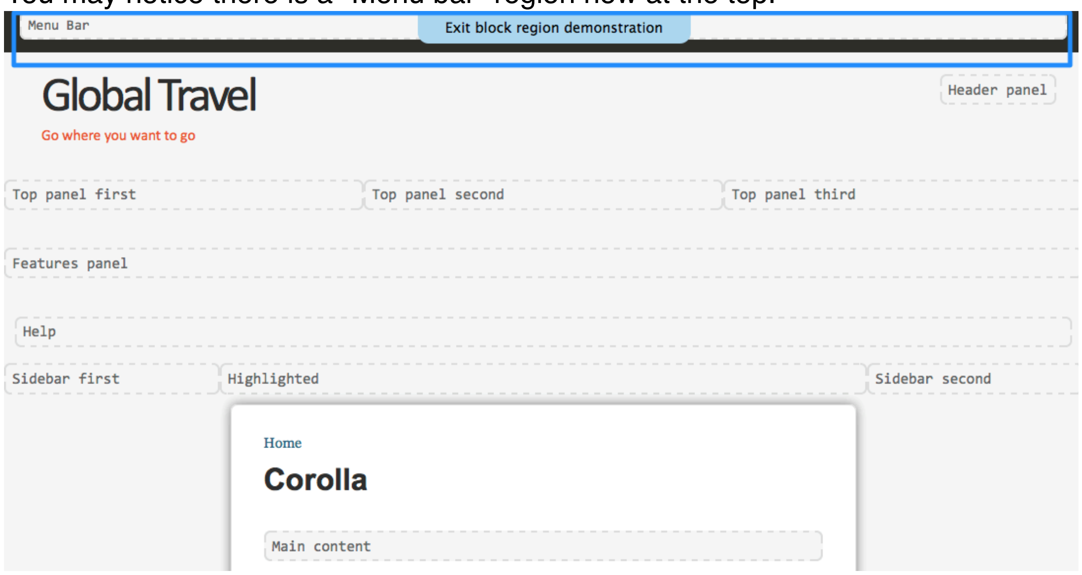
1. Click *Enable* link under the Corolla theme description. You do **NOT** have to enable the AT theme. The Corolla theme should now be listed under the **Enabled Themes** section. This means it’s available for those users who have the “switch themes” permission.

2. To set it as the default theme for the site, click **Enable and set default** link to the right of the Corolla theme.
3. Navigate to the site's front page. What looks different about your site now?
4. In the future, to switch themes, visit the Appearance admin page. Click **Set default** next to the theme that you want to set as the site default theme, and **Save configuration.**

D. *Explore the theme*

The Corolla theme has a different layout compared to Bartik, and it offers a variety of options.

1. Go to Structure > Blocks.
2. Click **Demonstrate block regions (Corolla)** and look at the different regions available.
    - You may notice there is a "Menu bar" region now at the top.



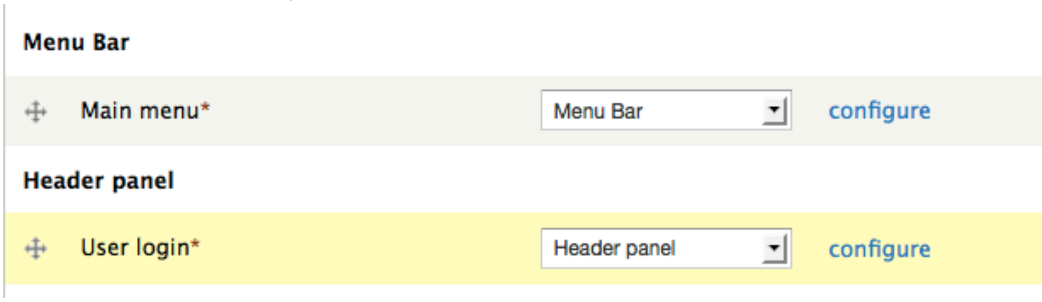
3. Click **Exit block region demonstration**.
4. Click on the Bartik tab and click **Demonstrate block regions (Bartik)**. What other differences do you see?

E. *Check position of blocks*

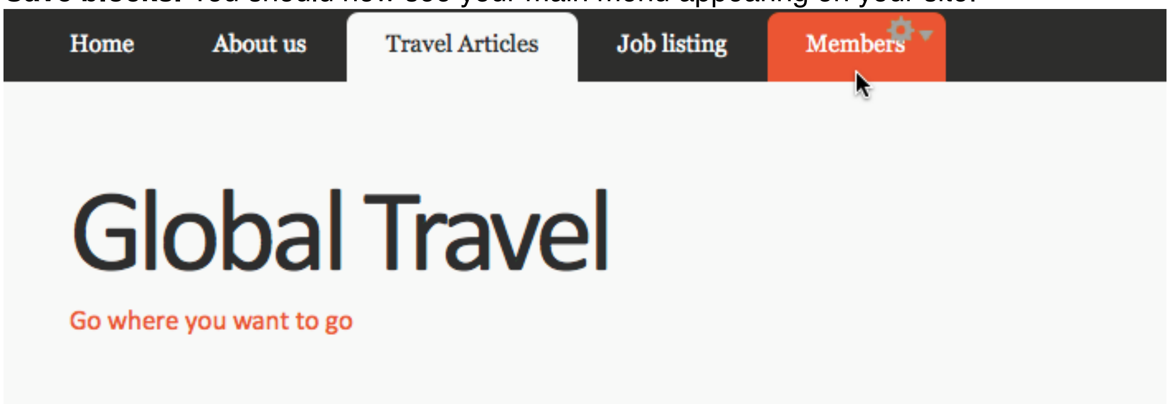
Because different themes have different regions you often have to adjust block positions when you try new themes. For example, because Corolla's main menu isn't hard coded into the theme, you have to position the Main menu block.

1. Go to Structure > Blocks. Check the positions of your blocks. You may need to adjust some, though some may be OK.
    - **Sidebar first:** Place the Search form, Static welcome message.
    - **Sidebar second:** View: Regions, View: Related content
    - **Menu Bar:** Place the Main menu block in the "Menu bar" region.

- **Header panel:** User login.



2. **Save blocks.** You should now see your main menu appearing on your site.

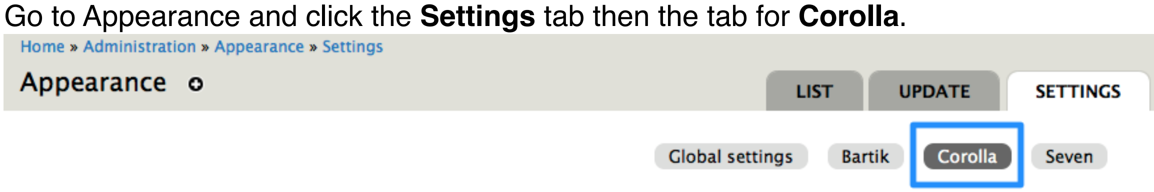


Exercise – Change theme settings

Whenever you install a theme, always check the theme settings. There may be additional configuration options available.

A. Edit theme settings

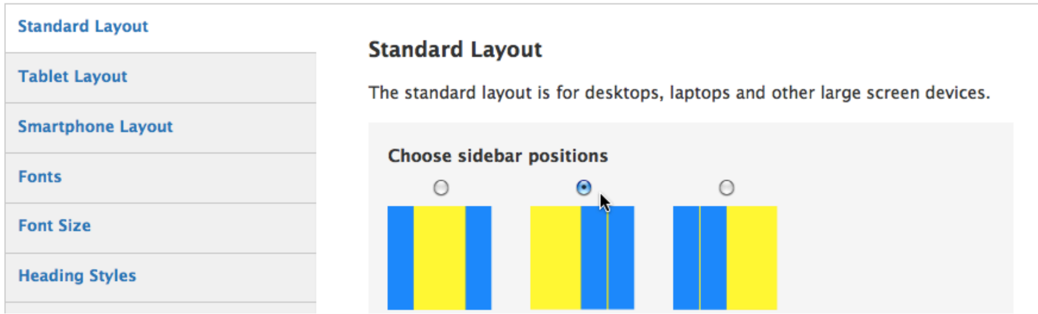
1. Go to Appearance and click the **Settings** tab then the tab for **Corolla**.



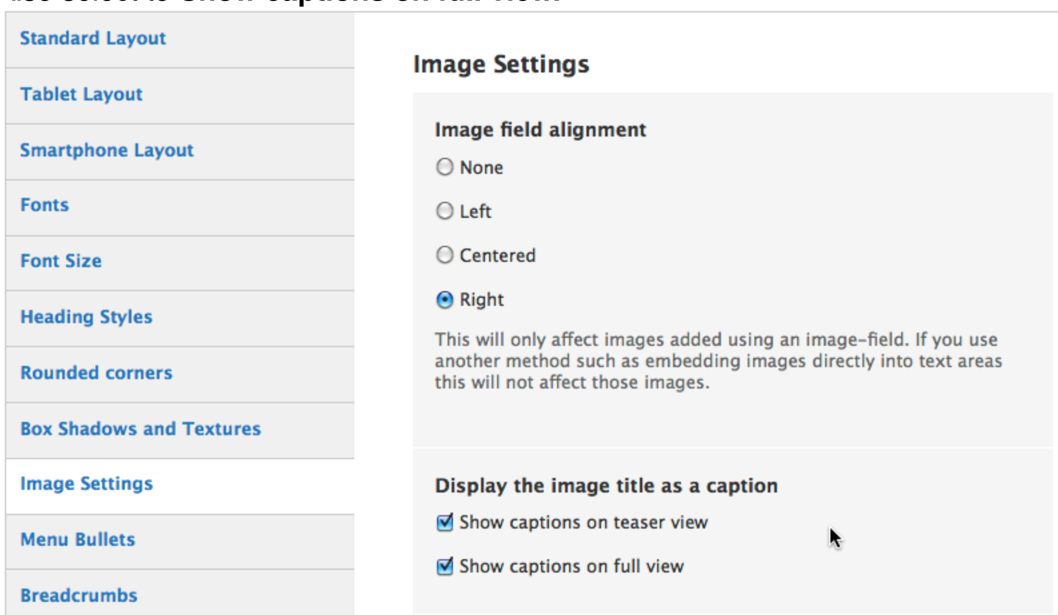
   This takes you to the theme's configuration page. Here, among other things, you can Toggle display for the logo, user pictures in posts or comments, and upload a new logo.

2. The Adaptive theme system gives you some helpful options for configuring the look of your site. These can be changed for any Adaptive subtheme.

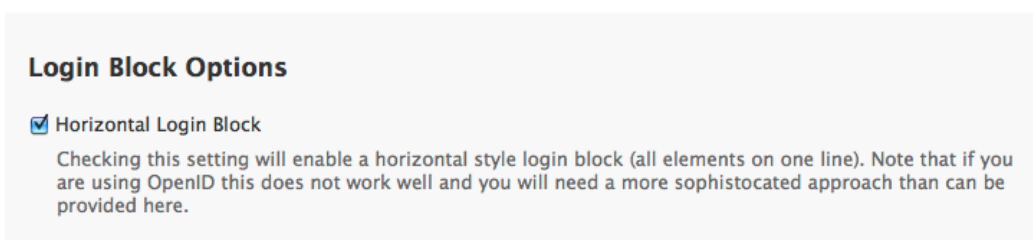
- **Standard layout:** You can choose a different position for your sidebars.



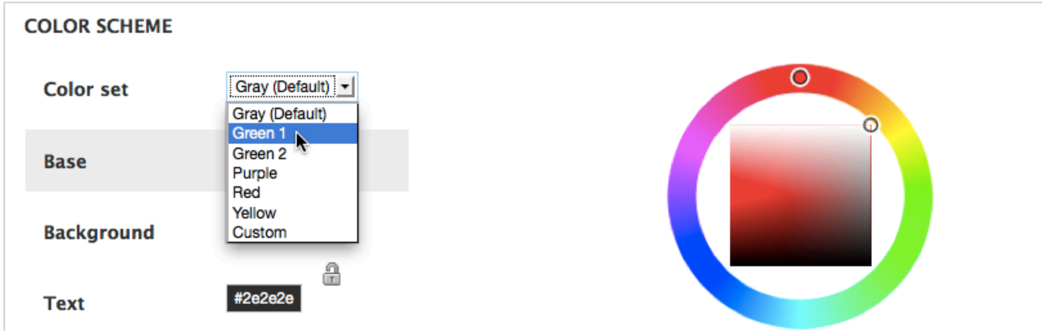
- **Image settings:** You can choose a a specific alignment for your images.
- Also select to **Show captions on full view.**



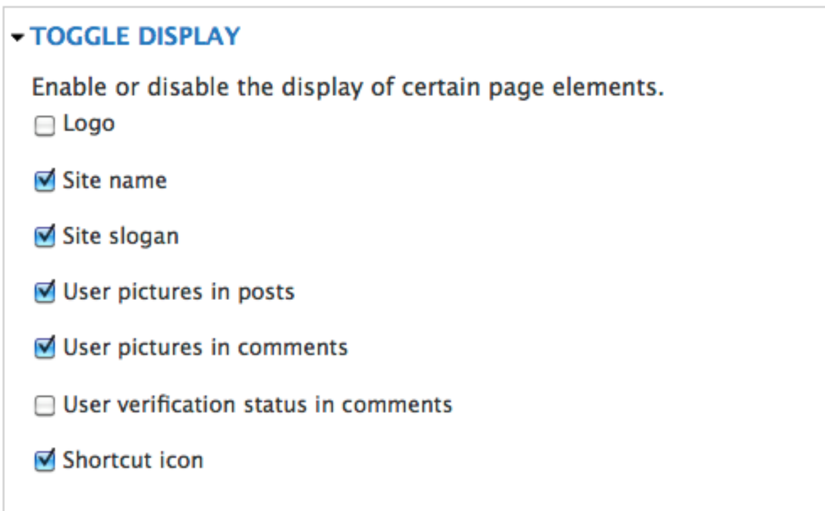
- **Login Block: select Horizontal Login Block**



- Scroll down to **Color scheme** you can choose a scheme you like or try customizing with the color tool.



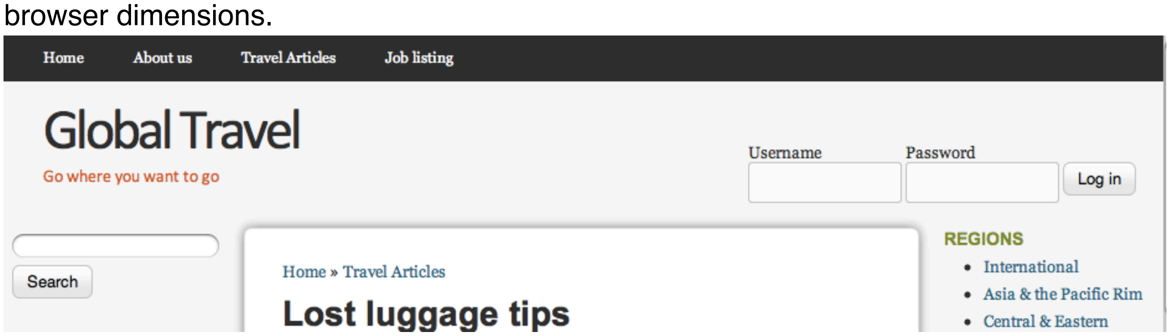
3. Scroll down and click to expand "Toggle display". You'll notice any settings you configured in Bartik are still enabled for this theme. For example, the appearance of the logo, user pictures, etc. No changes are necessary.



4. Scroll down and click **Save configuration**.

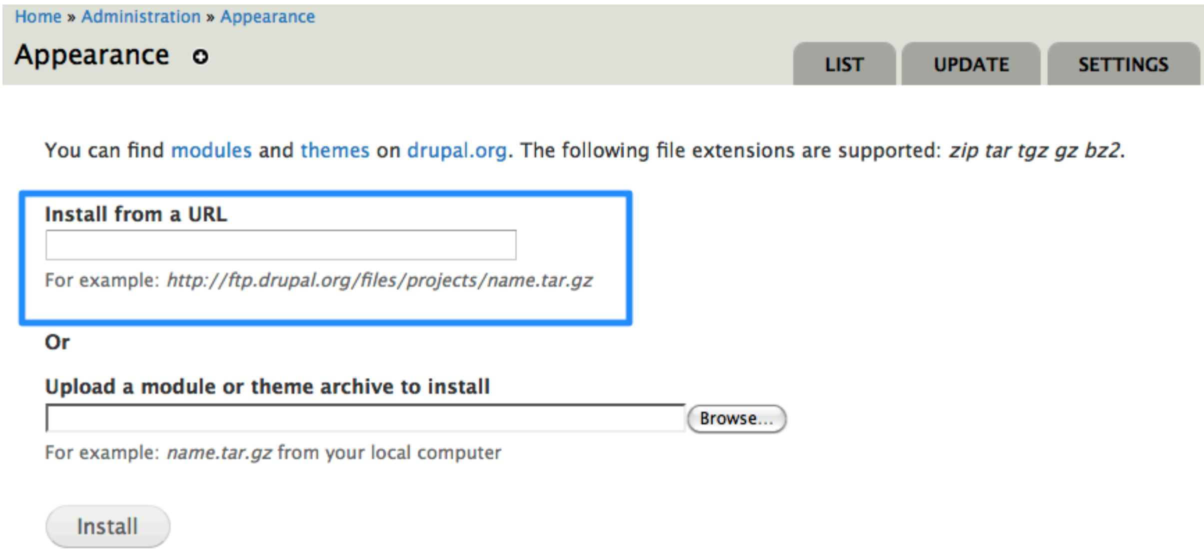
B. Review your changes

1. Review your site. One nice thing about the Adaptive Theme system is that these themes are responsive. Try resizing to a smaller screensize, and watch as the page adapts to the browser dimensions.



Exercise – (Optional) Use the update manager to install themes

You may like to try out another Drupal 7 theme you can find through search. This time, you can use an easy shortcut. If you have the **Update Manager** module enabled, you can install themes right in the browser in the same way. Go to Appearance and click + Install new theme to get to the installation page. Follow the same steps as you did for modules.



Exercise – Improve site performance

You may have noticed, your site sure does have a lot of CSS files! Visit the front page, and view the source code in your browser. Try CTRL click or Right click “View Page source”. Check out how many CSS files this theme includes.

Some are from core, some from your theme and some from contributed modules. Each one of those files creates another HTTP request. With so many files to download, you can really slow down your site. Let’s fix that.

1. Go to Configuration > Performance and scroll down to **Bandwidth optimization.**
2. Select **Aggregate and compress CSS files.**
3. Select **Aggregate JavaScript files.**
4. Save configuration.

Now return to your front page, and view the source. You can see there are a minimum number of CSS and script files now. Much better!

Important: Because you are continuing to develop your site. Return to Configuration > Performance and **turn the CSS and JavaScript compression OFF.**

Optional: Uninstall themes

Following a similar process with modules, you first must disable the theme you want to uninstall. If your theme is currently the default, you can’t disable it. Therefore, you have to set another as default. After the theme appears in the disabled section, you can safely remove the theme directory from your file system.

Done testing? Delete that theme!

Any unused code, modules, blocks, views and themes should be removed from the site when not being used. Do this as a matter of habit and you'll have an easier to maintain site.

Session Summary

As you have seen the theme system is a power final point where you can gain complete control over the markup and presentation of your site.

In this session you explored how you can adjust the look of your site through the theme system in Drupal. You installed complete themes, and saw how you could extend a base theme to get a unique look for your site.

Explore other base themes

There are several other base themes like Adaptive that can be used to customize the look of your site. Use the same indicators to choose a base theme as you would a Drupal project, and be sure to try them on a test site.

Refer to Drupal.org documentation to see more base themes. http://drupal.org/node/323993

Clean	http://drupal.org/project/clean Provides a solid foundation on which you can a create a bespoke theme in the shortest possible time.
Framework	http://drupal.org/project/framework A user friendly starting point to facilitate theme development.
Fusion	http://drupal.org/project/fusion Fusion is a powerful base theme, with layout and style configuration options built in that you can control through Drupal's UI.
NineSixty	http://drupal.org/project/ninesixty A base theme with all files provided by 960 Grid System.
Omega	http://drupal.org/project/omega A responsive, highly configurable HTML5/960 grid base theme.
Tao	http://drupal.org/project/tao Resets many system defaults in Drupal, provides a lightweight starting point for custom theme development.
Zen	http://drupal.org/project/zen One of the most popular themes for the Drupal project, customizable with CSS changes alone.

Commercial theme providers

In addition to Drupal.org, there are commercial services where you can buy a professionally designed off-the-shelf theme for a reasonable cost. When you weigh the time it would take you to develop the same, these can represent good value. Examples:

- http://fusiondrupalthemes.com/
- http://adaptivethemes.com/
- http://www.morethanthemes.com/
- http://www.worthapost.com/

An up to date list of theme services is maintained at http://design.acquia.com/theme-providers

Session 7: Content and site maintenance

In this session, we'll customize the experience for content editors and maintainers. We'll also talk about best practices for site maintenance and upgrading in different contexts.

Navigation

- Use the 80/20 rule. Site editors and maintainers will spend 8-% of their time on 20% of tasks. Find out what those are.
  - Is the site for a specific audience? Get familiar with their needs and make sure you know what their main goals are for using your application.
  - Is it for an intranet? Get familiar with the jobs and tasks which the staff people need to do. Your application or site should help them be effective at their jobs.
- Build custom menus which are only visible to site editors. Add quick links to main menus to add content.
- Give permissions for "overlay" and "taskbar" modules to users who maintain the site.

Adoption: Prepare documentation

No matter how great your site or application, if the staff and users don't adopt it, then it's not successful. Get the users involved in the process of testing the site as early as possible. Create documentation as you go for typical tasks which staff need to do everyday.

Content creation forms

This was mentioned before, but ensure that you test content editing with the real people who will edit content, and use actual content. Are the fields in the right order? Ensure the content they want to add is suitable with the WYSIWYG library you have chosen.

Useful modules

- Automatic node title http://drupal.org/project/auto_nodetitle Drupal requires node titles, but it's not desirable in all cases.
- Field group http://drupal.org/project/field_group This can help organize related fields into collapsible sets on a long form.
- Total control http://drupal.org/project/total_control This dashboard is a major improvement over the one included with Drupal Core. This requires the Panels module.
- "Save draft" module to allow content editors to make changes in the future http://drupal.org/project/save_draft
- Scheduler allows content editors to assign a specific date for publishing or unpublishing content. http://drupal.org/project/scheduler There is a 5 mins tutorial on this module as well http://www.youtube.com/watch?v=G7VfhGI4aoE

Unit 7.1: Customize content editing - Text formats and WYSIWYG

Site visitors and editors would like an easy way to input content and have formatting control without needing HTML.

Modules used in this unit:

- **WYSIWYG** http://drupal.org/project/wysiwyg.

WYSIWYG and rich text editors

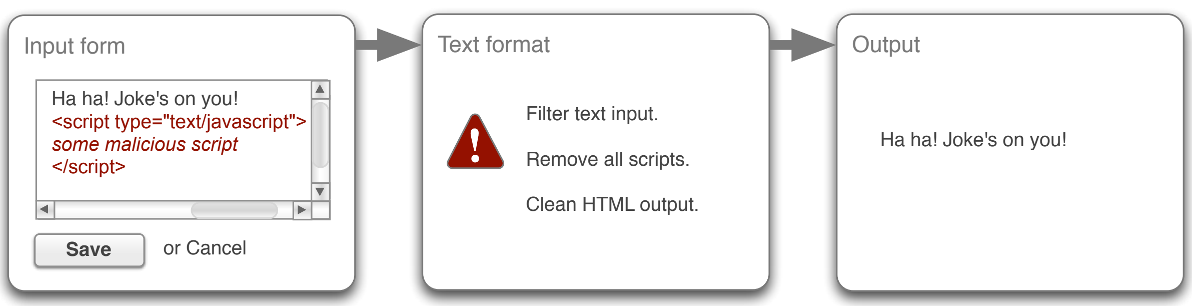
Out of the box, Drupal currently does not provide a rich text (WYSIWYG) editor for writing content. To get this functionality, what do we do? You guessed it, we install a module!

The WYSIWYG module integrates with third party client-side editors such as CK Editor - http://ckeditor.com, or TinyMCE - http://tinymce.moxiecode.com.

Rich text editors are extremely useful for editors or site administrators who are unfamiliar with HTML. WYSIWYG editors provide an array of functionality - such as the ability to bold text, create links, insert images, etc., that would normally only be available to users who are familiar with HTML.

About text formats and filters

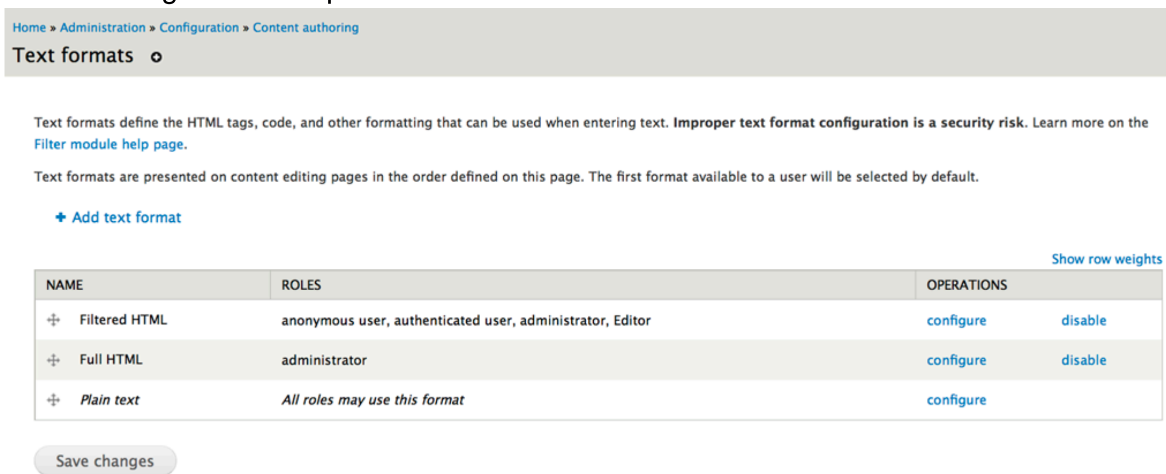
Any text that is being displayed to the browser should be run through the filters in a **text format** first. A **text format** is an ordered collection of text input filters. These input filters are most commonly used to strip certain HTML tags or other security hazards from text. You define the policy of what HTML input is allowed on your site.



Drupal ships with 3 default input formats and you can add your own custom format, and assign these on a per-role basis to trusted or untrusted users.

- **Filtered HTML** - This is the input format that is used most of the time for displaying blog posts, pages, etc. It provides users with a small set of HTML tags for formatting. This is the *default input format* for new Drupal installations.

- **Full HTML -** The Full HTML input format does not strip out any HTML tags, so users are free to use any tags they like when creating or editing content.
- **Plain Text** – This is the most restrictive of the default input formats as it allows users to enter nothing more than plain text.



Two warnings about text format options

1. The tags needed to display certain input such as the ones required to display video properly in a number of browsers are restricted by default on Drupal installations, because they can be used to insert malicious code. Only trusted users should be allowed access to Filtered or Full HTML.
2. If an admin user changes the input format to Full HTML they may lock out the author, if that original author had access to only Filtered HTML, or Plain text.

Exercise – Set up the rich text editor

This exercise requires the WYSIWYG module http://drupal.org/project/wysiwyg Enable Wysiwyg module. For TinyMCE, this is now the only option. For CKEditor, you could/should alternately use the CKEditor module.

A. Install and enable the library

1. Go to Configuration > Content Authoring > WYSIWYG profiles.

2. Scroll down the list of third party rich text editors until you find the TinyMCE editor.

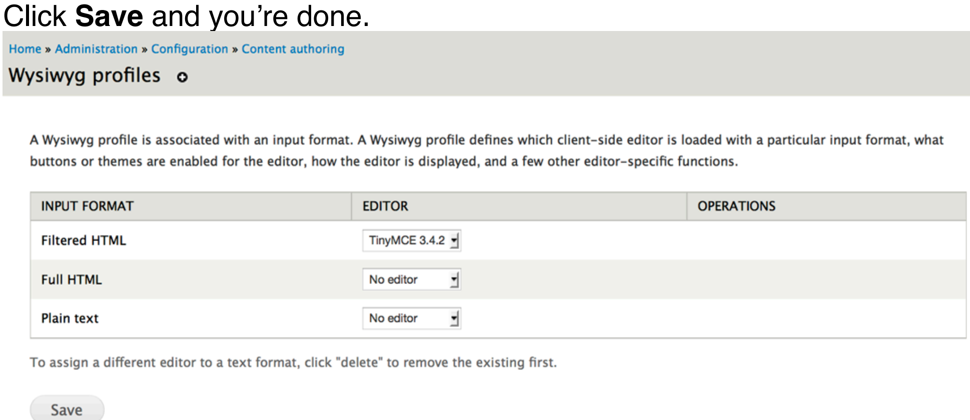
3. Click the *Download* link beside it to open the editor's download page. Download the latest *Main Package* from the TinyMCE download page. Unzip the file and if necessary, rename it - ***tinymce***.

4. Place the tinymce directory in a new *libraries* folder within the Drupal directory. Create the following directory - /sites/all/**libraries** and place the *tinymce* directory in the *libraries* directory so that the file path is - **/sites/all/libraries/tinymce.**

5. Head back to the *WYSIWYG* profiles page - [/admin/config/content/wysiwyg]() and refresh the page. If everything has worked correctly, Drupal should now recognize the TinyMCE editor that we just installed in the *sites/all/libraries* directory, and should present you with three input formats at the top of the page – *Filtered HTML*, *Full HTML*, and *Plain text*.

6. Next, assign the editor to the Filtered HTML Input format. Select TinyMCE from the *EDITOR* select list to the right of the Filtered HTML input format.

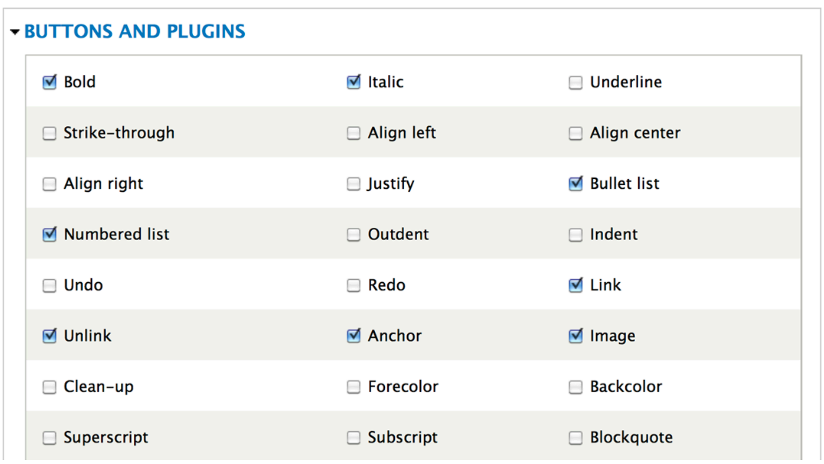
7. Click **Save** and you're done.



B. *Configure the editor*

Next, we need to configure the editor.

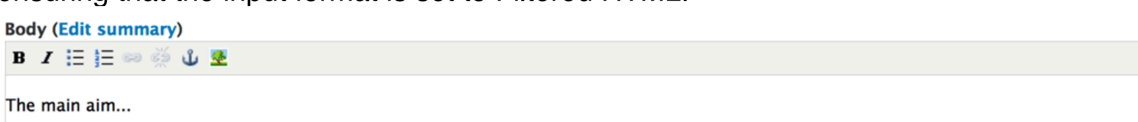
1. Click *Edit* link in the OPERATIONS section next to the Filtered HTML input format.
2. You are in the WYSIWYG admin page for the Filtered HTML input format. Click to expand BASIC SETUP.
    - Leave the *Enabled by default* option selected. This means that every time a user with Filtered HTML input permissions creates new content, the WYSIWYG editor will be enabled by default on the node creation form.
    - Also leave the *Show enable/disable rich text toggle link* option selected, as this will provide users with a means of enabling/disabling the WYSIWYG editor.
3. The BUTTONS AND PLUGINS section allows you to define the functionality of the editor. Give users the bare minimum of options. Assuming that only trusted site editors will have access to the filtered HTML format, assign the following options **– Bold, Italic, Bullet list, Numbered list, Link, Unlink, Anchor, Image.**



    - **As a rule** give users as few buttons as possible, for as long as possible.
4. We are going to leave all the other options at their default settings for now. **Save.**

C. *Test the editor*

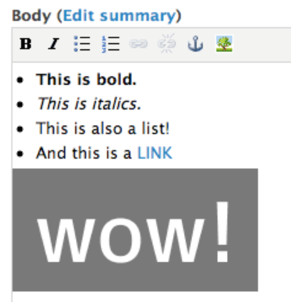
1. With everything now configured, you can test the editor out by add a new Basic page and ensuring that the input format is set to Filtered HTML.



2. Toggle between the standard input field and TinyMCE by clicking the *Disable rich-text* link.

3. Add some text, and make it bold, italic. Try adding lists, and images if you have a link handy.

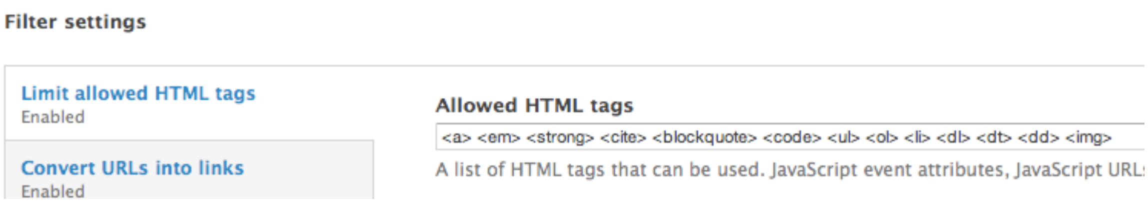
- **Tip:** If you don't have any images on hand you can generate some sample images at Dynamic Dummy Image Generator: http://dummyimage.com/
- Click **Save.** How does your page look? Is it appearing as you expected? Is something missing?



D. Change the allowed HTML tags

Depending on what buttons and plugins you selected, various markup will be generated. For example, the image button will add an <img> tag. However, by default, Drupal filters out this tag to prevent images from untrusted sources. So now, let's allow images, or other necessary markup in this text format.

1. Go to Configuration > Content Authoring > Text formats > Filtered HTML click configure.
2. Add <img> to the Allowed HTML tags list.



3. **Save configuration.**
4. Without making any changes to your page, navigate to the test page you created. Can you see the image now?

Challenge exercise – Create a new text format

Imagine you want to allow only trusted editors to embed YouTube videos using the <iframe> tag. If you added this tag to Filtered HTML you would make it available to anonymous users as well- and that would be VERY dangerous. iFrames can be used to inject malware into compromised websites which can take over visitor's browsers and install viruses onto their computers. When you allow only *trusted users* to input iFrames, you can do fun things, like embed widgets that read the weather in a travel destination, or play music. You can also embed videos from some popular sites.

For this exercise, challenge yourself to make a new text format. It should have these properties:

- Only available to Editors and Administrators.
- Allows a variety of regular HTML tags.
- Allows the editor to place in a video from YouTube.

Unit Summary

We installed and enabled the TinyMCE rich text editor and assign it for use with the Filtered HTML input format. This means that every time a user with Filtered HTML privileges creates content on the site, they will be able to do so using the TinyMCE WYSIWYG editor.

Drupal takes security very seriously. After weak passwords, the next biggest security risk on most websites is cross site scripting, where untrusted users can input malicious code on vulnerable websites. By default, the permissions on Drupal are necessarily strict.

In this tutorial you saw how you can gain control over the input that is rendered on your site. You saw that all the input is saved, and it is the filters which control which HTML elements are rendered on your site.

This can prevent malicious code in <iframes> to be added on your site. And, it can allow trusted users to use <iframes> to embed remote content.

Important information about text formats

- The text format setting then applies all of the filters, in the right order, so that one filter feeds its output to the next, forming a chain.
- Assign text formats on a per-role basis. For example, it's a major security risk to provide anonymous users with Full HTML privileges, so we normally assign the Plain text input format or Filtered HTML to these users. On the other hand, a trusted site administrator will need to be able to add images, links etc. to content, so we normally provide these users with an expanded version of the Filtered HTML text format or Full HTML.
- The HTML filter for example, strips all but an allowed set of HTML tags from text. More tags can be added or removed to this set by the site administrator. By default, the HTML filter only allows the following tags by default –

```
<a> <em> <strong> <cite> <blockquote> <code> <ul> <ol> <li> <dl> <dt>
<dd>
```

- Input filters are administered via Input Format admin pages – Configuration > Content Authoring > Text formats > Filtered HTML. Additional HTML tags can be added to the HTML filter's *Allowed HTML tags* list via the *Limit allowed HTML tags* section of the admin page of the input format you wish to add additional HTML tags to.

A more detailed explanation of Input Formats and Filters can be found here: http://drupal.org/node/213156.

Unit 7.2: Customize the content administration experience

Content editors would like an at-a-glance view of common content management tasks.As a site maintainer they may also want to see a list of new content by others, and new comments, etc. First let's review the options.

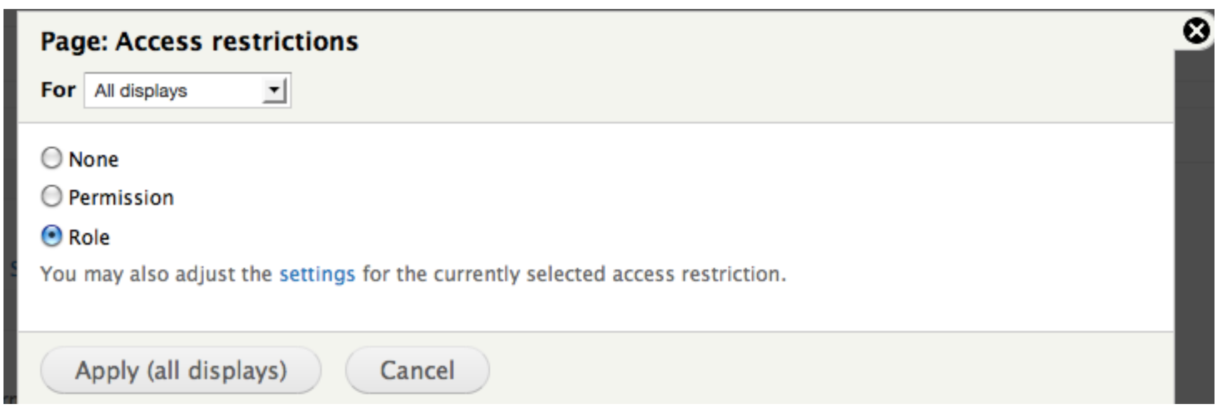
Standard Content list

The standard “Content” list has some useful bulk control functionality. However it can be cumbersome. This is

Create an Access- restricted view

You could make custom views for administrators, using a table layout to have a quick at-a-glance list of content, and quick “edit” links. In this case it would be good to change the default filter criteria to remove the restriction of Content: Published (Yes). That way administrators can also see unpublished content.

You can manage Access restrictions by role and ensure on site Administrators have access.



Views bulk operations: Content lists for administrators

The default content listing allows administrators to select content and perform operations such as delete or unpublish. Sometimes, site administrators need an easier way to bulk manage content, in order to tag content, among other operations.

You can build a restricted administrator views with **Views bulk operations (VBO)** http://drupal.org/project/views_bulk_operations This module makes it easy to create custom listings of content and perform more complex batch editing operations such as changing the author, or modifying terms.

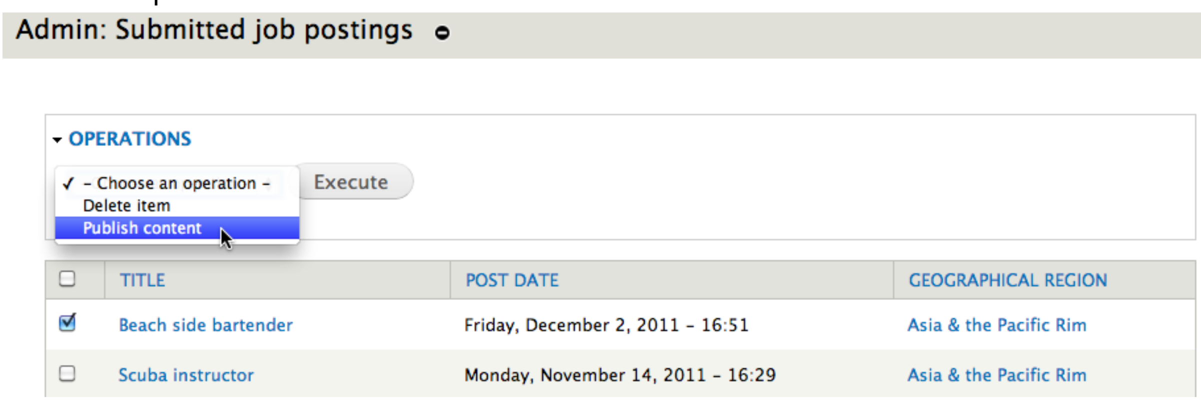
*Workbench (more in the next unit_*

This is an all-in one solution. Workbench http://drupal.org/project/workbench provides a series of pre-built Views which improve the user experience for content administrators.

VIEW NAME	DESCRIPTION	TAG	PATH	OPERATIONS
workbench_recent_content Displays: *Block, Page* In code Type: Content	Content overview page for Wobrkbench.	Workbench	/admin /workbench /content/all	edit
workbench_edited Displays: *Block, Page* In code Type: Content revision	Lists content edited by the user.	Workbench	/admin /workbench /content /edited	edit
workbench_current_user Display: *Block* In code Type: User	Information about the current user.	Workbench		edit

Exercise – Administration with View bulk operations

In this exercise we'll make a view to list newly submitted jobs so site editors can quickly review and publish them.



Modules used in this unit:

- **Views bulk operations (VBO)** http://drupal.org/project/views_bulk_operations

The exercise below focuses on making a VBO view yourself. However there is a module which comes with re-built templates: **Administration Views.** http://drupal.org/project/admin_views provide the following functionality.

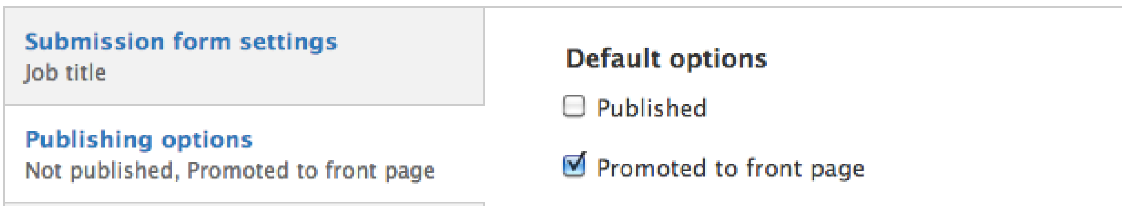
- Filter all administrative views via AJAX.
- Perform any kind of bulk/mass operations on items in administrative views.
- Filter content by title, node type, author, published status, and/or vocabulary.
- Filter comments by title, author, node title, or published status.

- Filter users by name, ban/blocked status, or user roles.

A. *Prepare the site*

Currently site visitors can add job postings. We're going to change the Job content type so new content must get checked by a site editor before it gets published.

1. Edit the job content type. Edit the default options for new content not be published by default.



2. Go to the content admin page and bulk edit some existing job postings so they are unpublished. Or add new ones!

B. *Add the view*

1. Configure the wizard with the following settings

View name	Admin: Submitted job postings
Show	Content of type: Job posting
Page title	Submitted job postings
Page path	admin/job-postings
Display format	Table
Use a pager	Selected
Create a menu link	No
Create a block	No

2. Click Continue & edit.

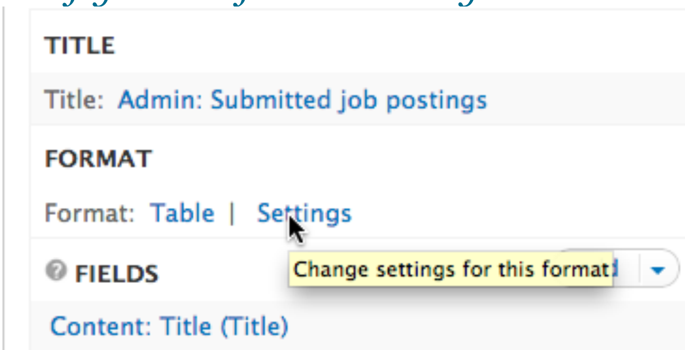
C. *Add fields*

TIP: Remember to select multiple fields at a time and configure them one after the other.

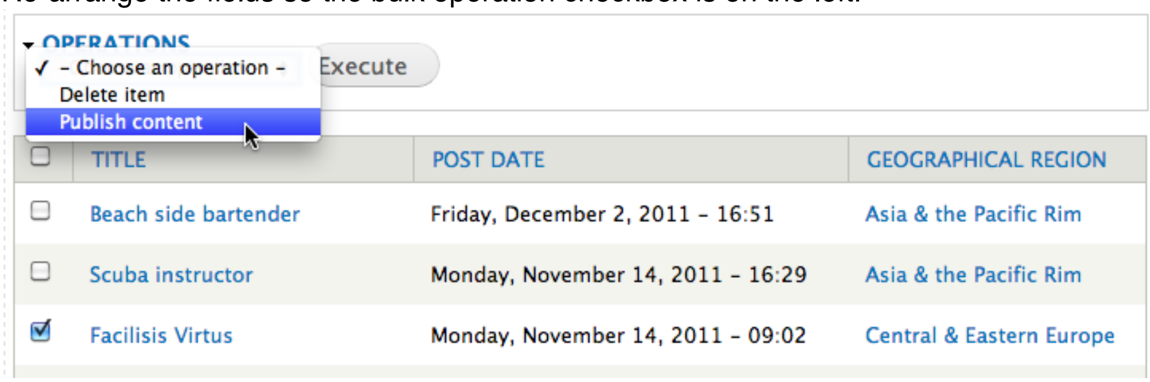
1. Add these fields:
    - Bulk operations: Content
    - Content: Post date
    - Content: Geographical region
2. Configure the Bulk operations: Content
    - Delete item (views_bulk_operations_delete_item)
    - Publish content (node_publish_action)

3. Keep other defaults for the remaining fields.

D. *Configure the format settings*



1. Edit the table settings. Ensure any column which can be sortable is.
2. Re-arrange the fields so the bulk operation checkbox is on the left.

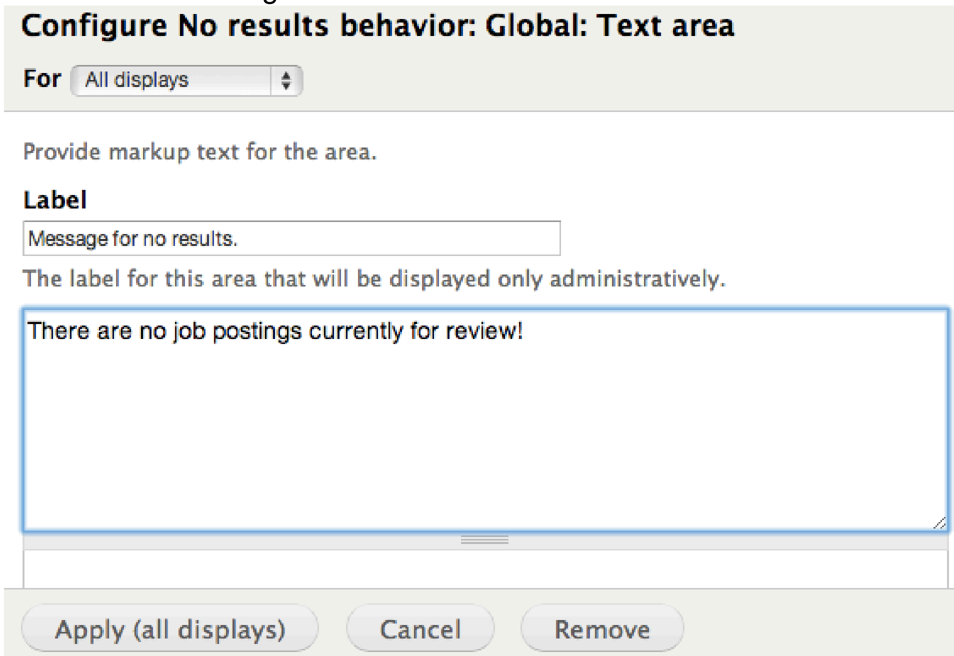


E. *Add a "no results" message*

Without a "no results" message you might wonder if the view is working properly.

1. In the right hand column, under "Advanced > NO RESULTS BEHAVIOR, click "add".
   - Select Global: Text area.

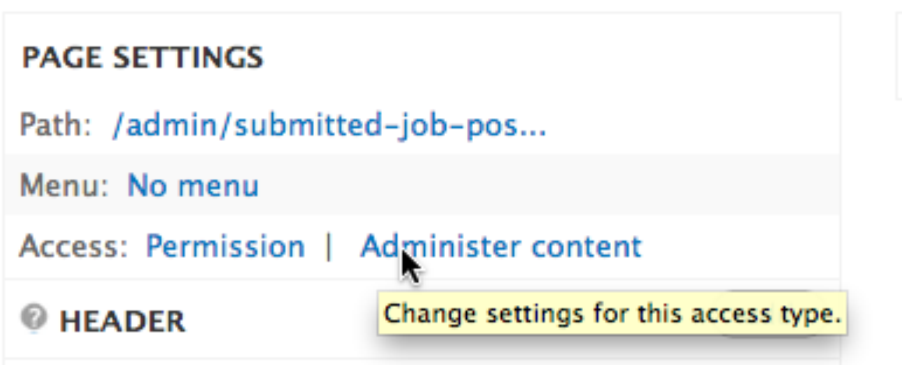
- Then set the message.



- Apply your changes.

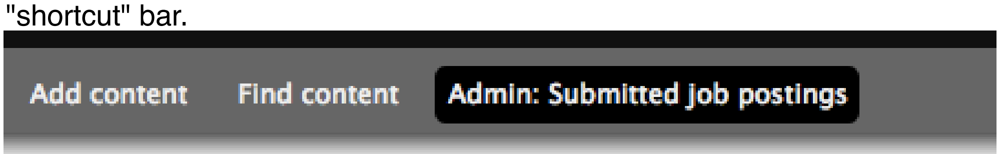
F. Change access settings for this view

Click to change the permission from "View published content" to "Administer content". Set access for a view by permissions, rather than role.



G. Save and review your changes.

- Double check that only site editors can access the view. Perhaps add a link to the "shortcut" bar.



Exercise – Workbench for content administrators

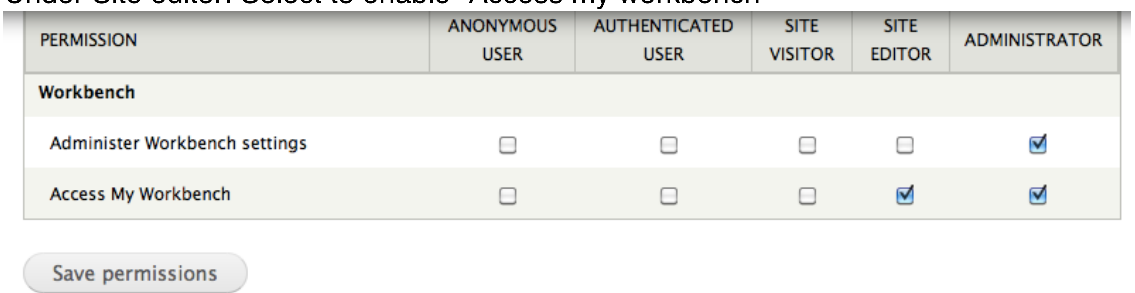
This module comes with pre-built administration templates for searching content.

Modules used in this unit:

- **Workbench** http://drupal.org/project/workbench

A. Set permissions

1. Go to People > Permissions. Scroll down to Workbench options at the bottom.
2. Under Site editor: Select to enable "Access my workbench"



3. Click **Save permissions.**

B. Add shortcuts and test

1. Go to Structure > Views and see the new Views available.
2. Click on link to **workbench_recent_content** at admin/workbench/content/all

3. Click the **+** sign next to the title "All recent content" to *Add to default shortcuts*.
4. Click the **My content** tab and repeat the same for that section as well.
5. Test the other user roles to see if they see the links now as well.

Challenge exercise – Extending workbench.

As we saw, you can build custom Views to improve content administration. However, with Workbench and the related suite of modules, you can save time and share best practices to improve the user experience for content editors.

Go to the project page and look at related modules: http://drupal.org/project/workbench You can customize workflow and content access. Also see the related modules.

- Workbench Access
- Workbench Moderation
- Workbench Files
- Workbench Media

Try out the "Workbench Access" module.

- What configuration options are there?
- What permissions are available?
- What new options appear in other forms the module works with, such as content types forms, user profiles or views?

Unit 7.3: Managing abuse and spam (with a test!)

"Stuff happens" and eventually if you allow interaction on your site, you will at some point find spam or users abusing the service you're developing. It's important to identify at an early stage who will be maintaining the site, and what kinds of tasks they will be expected to perform. In addition to content editing/deletion, they may also have to remove or block users.

First we'll see the Flag module which can help users mark suspicious content. Then we'll see how to use Mollom to block spam. And finally, if it all goes pear-shaped you need to consider the options for removing account access.

Test yourself!

In this unit your instructor will guide you through learning a new module. Then you'll be left on your own with some hints about configuration. Try to manage this on your own, and if you complete the task quickly, go onto the optional activities.

Modules used in this unit

- **Flag** http://drupal.org/project/flag Enable Flag and Flag actions. There is extensive documentation of this very flexible module. http://drupal.org/documentation/modules/flag
- **Mollom** http://drupal.org/project/mollom Manages spam protection with an external service.

Demo – Learning a new module

In this exercise we'll prepare for creating a unique content flag by learning about this new module. Right after you install a module check out three things:

- What configuration options are there?
- What permissions are available?
- What new options appear in other forms the module works with, such as content types forms, user profiles or views?

Example use cases for the Flag module

- Add a flag so users can "recommend" content. The number of recommendations can be counted and used to sort in a view showing most recommended at the top.
- Create a **global flag** and configure it so when something is marked as "abusive" by a moderator it automatically gets unpublished, and put in a queue for review.

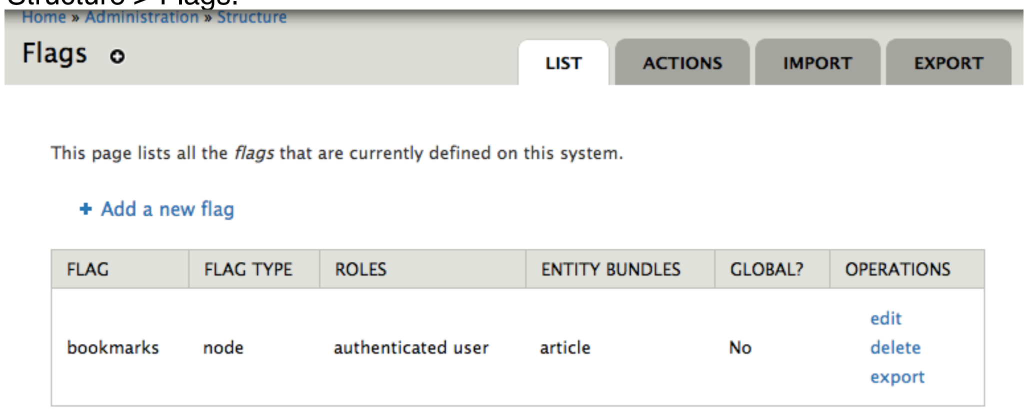
Demo: How does this module work?

First your instructor will do a demo of what Flag does out of the box.

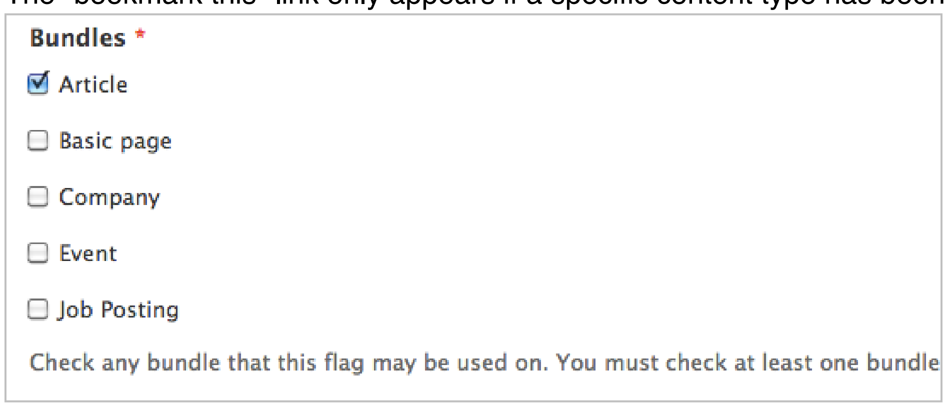
Flag comes configured to allow users with appropriate permissions to bookmark content. You can control who has the permissions to bookmark, and you can control which content can be bookmarked. Flag also supplies a views template you can enable for a quick list of bookmarks.

Flag configuration:

- Users can bookmark content. If one user bookmarked something, the option is still available to bookmark for someone else.
- This is available by clicking "configuration" next to the module list, or it appears under Structure > Flags.



- The "bookmark this" link only appears if a specific content type has been enabled.



What's a bundle?

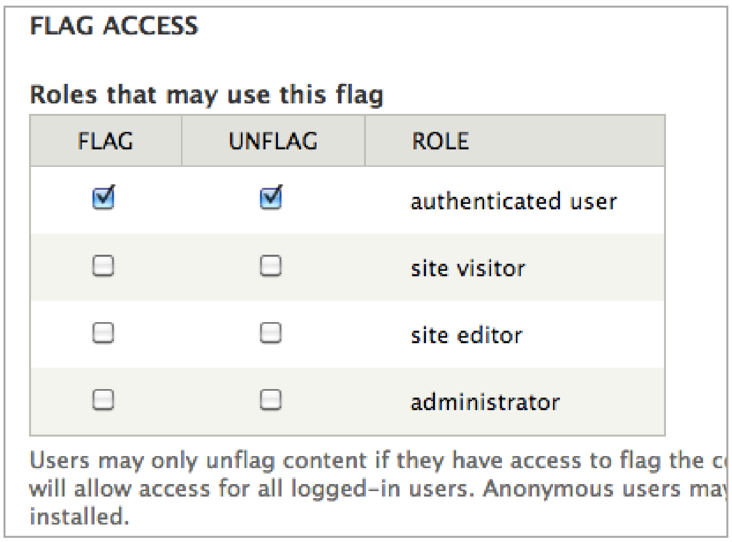
To understand bundles you need to know what entities are. Entity is the generic term which encompasses comments, users, taxonomy terms and content. A new article is an entity. "Article" is the bundle. And "Content type" is the entity type. Still unclear? Read an intro to entities http://drupal.org/node/1261744

Flag link configuration:

- There are alternative text links if the link has been "toggled" on or off, such as "Bookmark this" and "Unbookmark this".

Permissions:

- Users with appropriate permissions can bookmark content. This is set to the authenticated user role.



Content creation:

- When you add an article, you can toggle the flag on by default, but just for yourself.

Display bookmarks:

- At the time of writing, a bookmark tab appears at your user profile page only after clearing the cache.


siteadmin's bookmarks

View | Bookmarks | Edit | Shortcuts

Type	Title	Author	Replies	Last Post
Article	New feature! Bookmarks!	siteadmin	0	Thu, 10/11/2012 - 10:11
Article	5 words you need to know in every language	testeditor	0	Mon, 11/14/2011 - 18:55

Flag actions:

- There are no flag actions configured by default, but click on the actions tab to see what options are available. At the time of writing there is a bug introduced by Pathauto which causes errors when you create actions. If you want to explore Flag actions, install the -dev" version of Pathauto. More information http://drupal.org/node/1356786#comment-6529782

Exercise – Mark for review (and test your skills!)

A good idea is to help your users help you. We'll add a "Mark for review" link onto content so users can identify suspicious content. Then we'll create a view to list flagged content so moderators can bulk manage it.

This exercise is a chance to tie in what you've learned earlier about module configuration, permissions, views and views bulk operations. We'll give you hints along the way, but you should be able to configure this module and create the view on your own!

A. *Add the flag*

- Create a flag on node (content types) to "mark for review", and "unmark this".
- Configure it so when something is "marked for review" it changes the **global** status so everyone else sees something has been marked for review. Only one person can mark an item for review.

B. *Set permissions*

- Allow all user roles to flag content.

- Only allow site editors and administrators to unflag content.
- Make sure to set the text for "Unflag not allowed text" to something like "This has been marked for review".

C. *Configure the content types*

- Choose any content types which site visitors can submit.

D. *Display the link*

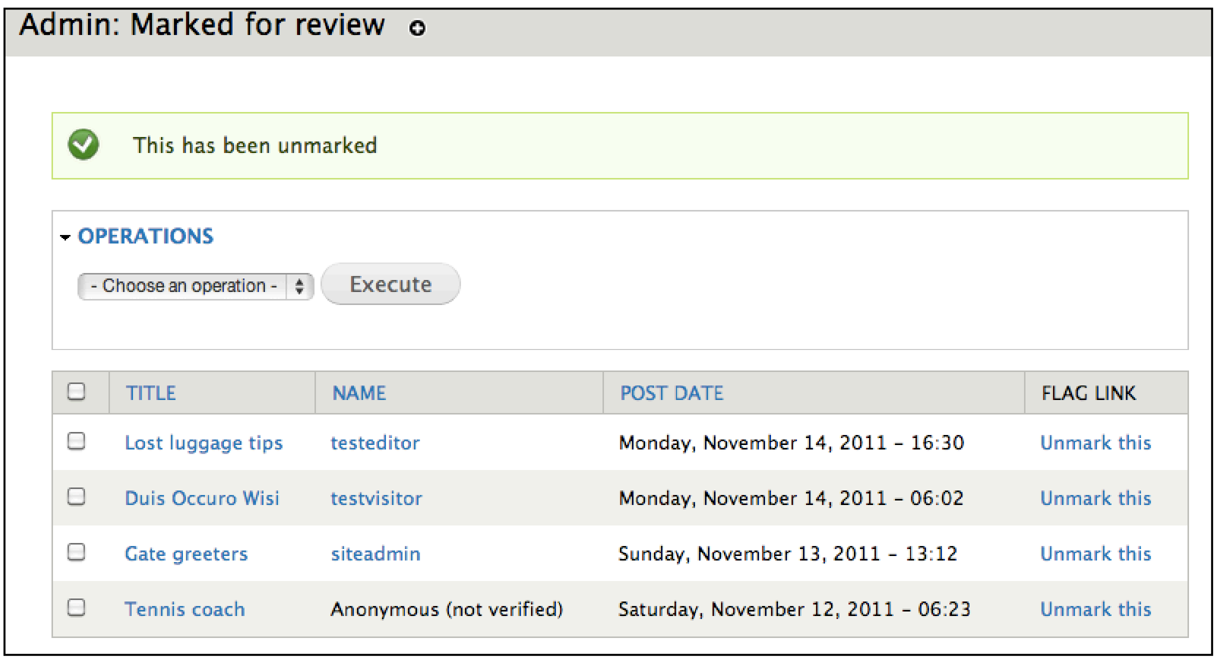
- Choose to display the link only on the full node page.
- Ensure there is a **confirmation form**, because of the implications of marking something for review.

E. *Test!*

- Check some existing content, and mark some items for review.
- Try as a "site visitor". You should be able to flag but not unflag.

Exercise – Admin moderator review list

Now that we have content "marked for review", we need to build the view to help the content admins moderate the content.



A. *Add the view*

- Create a new table formatted view of all content types with a title like Admin: Marked for review.
- Set the path to /admin/marked-for-review

B. *Add fields*

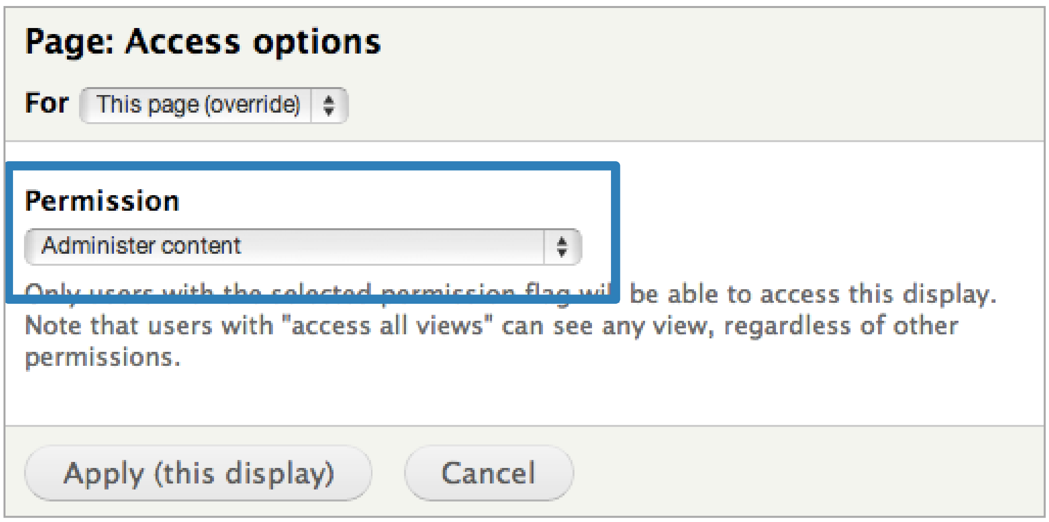
Add the following fields to your table.

- Date posted
- Bulk operations: Content

You'll notice in your field options, currently you can't get the author's name or the flag status without specifying a relationship.

C. *Assign permissions for the view*

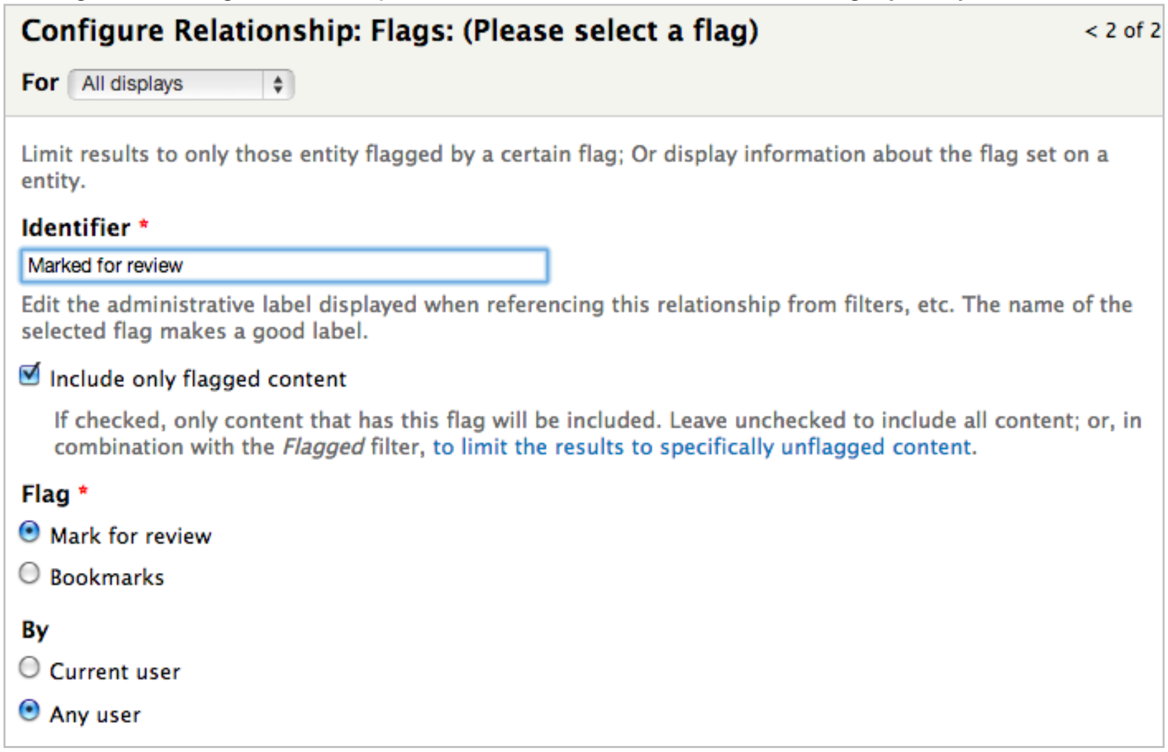
In the center column for Permission click to change the option to "Administer content". This is better than trying to set access by role.



D. *Add relationships for flag and author name*

1. Add these two relationships:
    - Content: Author
    - Flags: Node flag (Limit results to only those entity flagged by a certain flag).

2. Configure the flag relationship to choose the "Mark for review" flag by "Any user".



E. Now add user name and flag fields

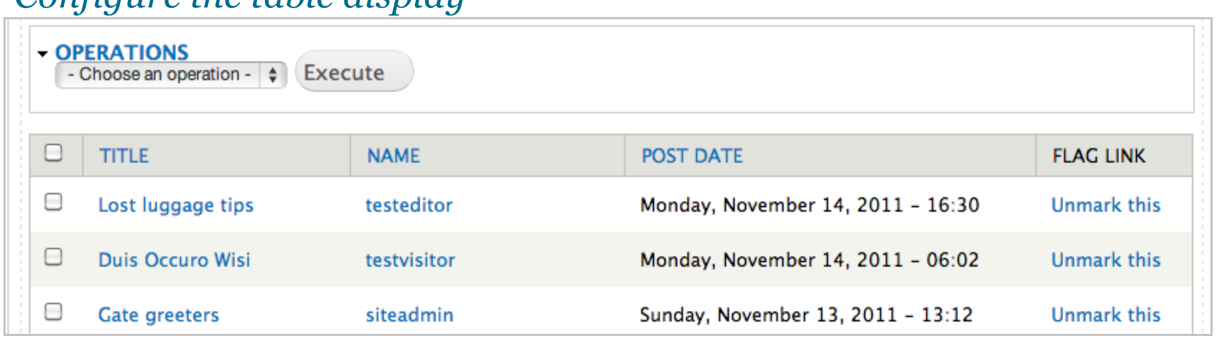
- Go back to add your new fields: User: Name and Flags: Flag link.

F. Configure bulk operations

Click to edit the settings on the Bulk operations field.

- Delete item (views_bulk_operations_delete_item)
- Unpublish content (node_unpublish_action)
- Publish content (node_publish_action)
- Flag (or unflag) a node (flag_node_action)

G. Configure the table display

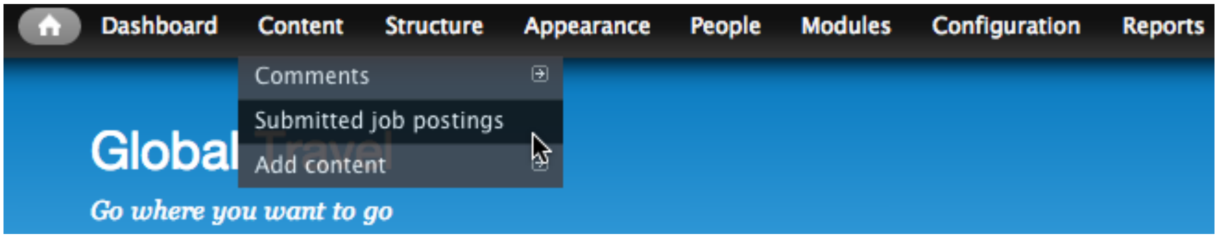


- Ensure the columns are sortable.

- Change the order of the fields so the check mark is on the left.

H. *Add a link to the admin menu*

You can add a link to this custom administration screen to the same menu visible in the admin toolbar. The screenshot below shows what it looks like with the contributed admin menu. **Hint**: The menu is called "Management". Place it in the content section.



I. *Review your changes*

- Now you have a page at your site /admin/marked-for-review
- Try to bulk manage some of the content.
- To help your site maintainers, add a quick link to the shortcut bar to "Review marked content".

Challenge Exercise – Remove account access

You may need to remove account access in the case of abusive users, or members may ask you to delete duplicate accounts for example. How you respond to these situations depends on your site's policy.

Understand blocking (disabling) versus canceling

Blocking (disabling) user accounts is often the best practice: There are times when you need to remove users from your website. Rather than removing their user accounts completely from your site, it is usually best to block them instead:

- You may want to reinstate their membership later. Removing their account and deleting all their content is irreversible.
- If you remove their account, they can use it to rejoin your site. But if you block/disable their account, they cannot rejoin using that account.

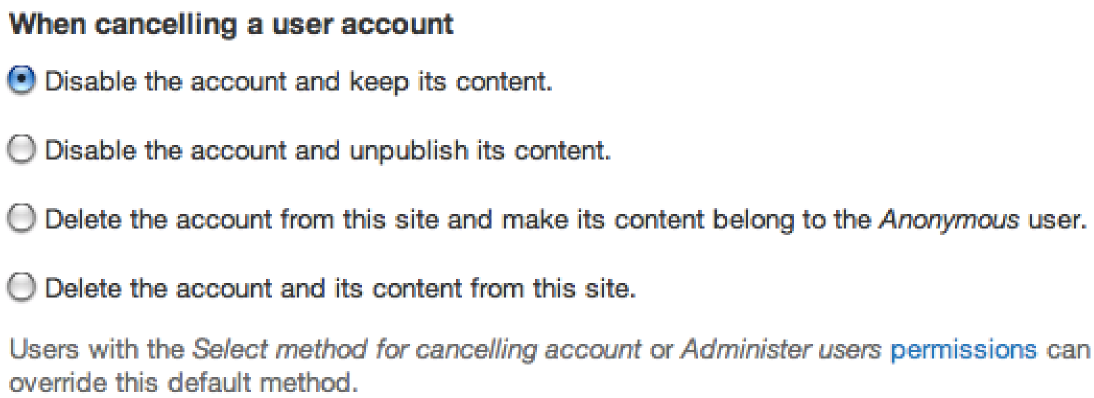
A. *Check your settings for cancellation*

Your Band site may be configured in a different way. Check to see what the actions are when canceling an account.

1. Go to Configuration > People > Account settings.

2. Check under "Who can register accounts? Make sure this aligns with your site policy.

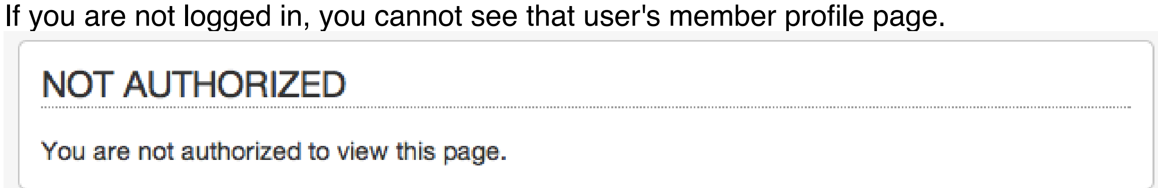
3. Check under "REGISTRATION AND CANCELLATION" for the options selected.



4. In this case, content will be kept, but the user will no longer have access to log in and edit or add content.
5. No changes are necessary at this time.

B. *Block a user*

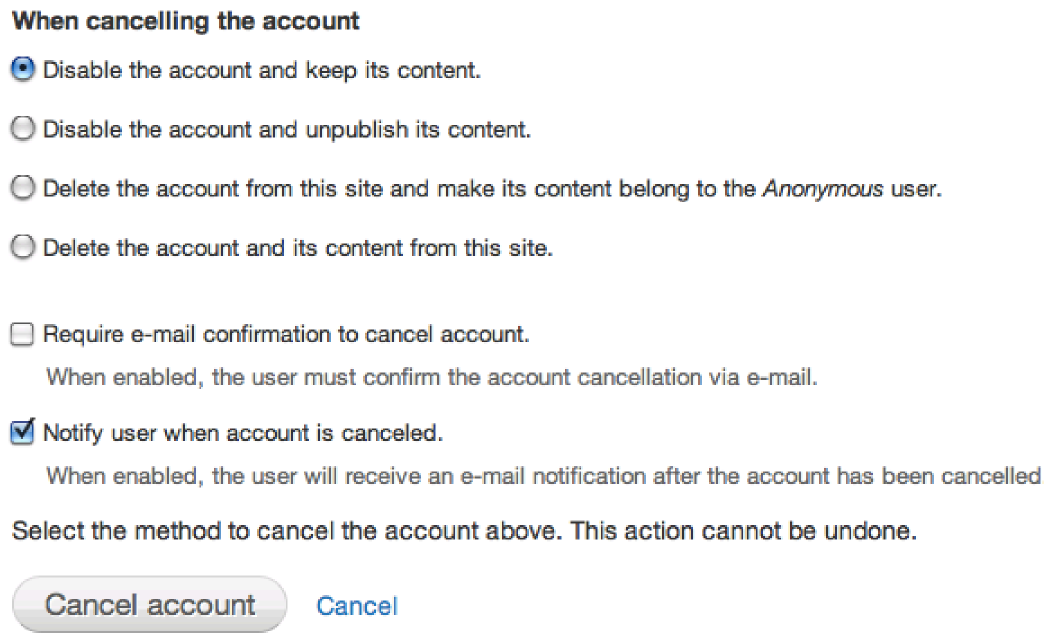
1. Search the user list to locate a specific user. With Drupal's native search you can search by username or email. Edit the selected account.
2. Scroll down to Status. Select "Blocked".
   - Optionally, you could update the username to add [closed] to their username. This depends on your site policy.
3. Click "Save".
4. The user can no longer Log in to their account. Their content is still available.
5. If you are not logged in, you cannot see that user's member profile page.



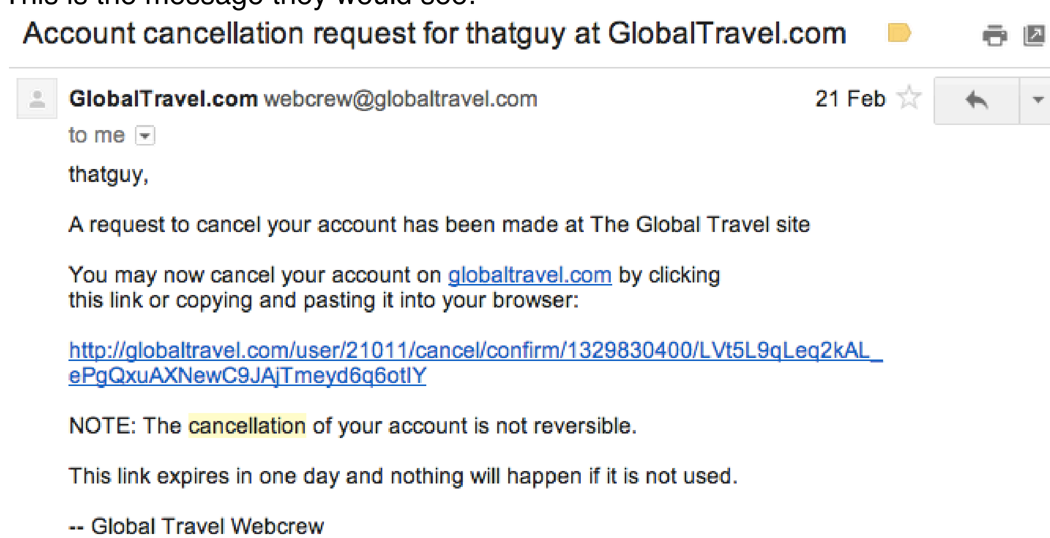
C. *Cancel a user account*

1. Search for and edit the account of a specific user.
2. Scroll down to and click "Cancel account".
3. On the next page, configure what happens when this account is cancelled.
   - Select "Disable the account and keep its content".

- Select "Notify user when account is cancelled."



4. If you opt to "Require e-mail confirmation to cancel account", the user will get an e-mail confirmation to cancel their account. This could be useful in a case that a user requests you delete their account for them.
    - This is the message they would see:



5. Click "Cancel account".

Unit 7.4 - Comment configuration and spam protection

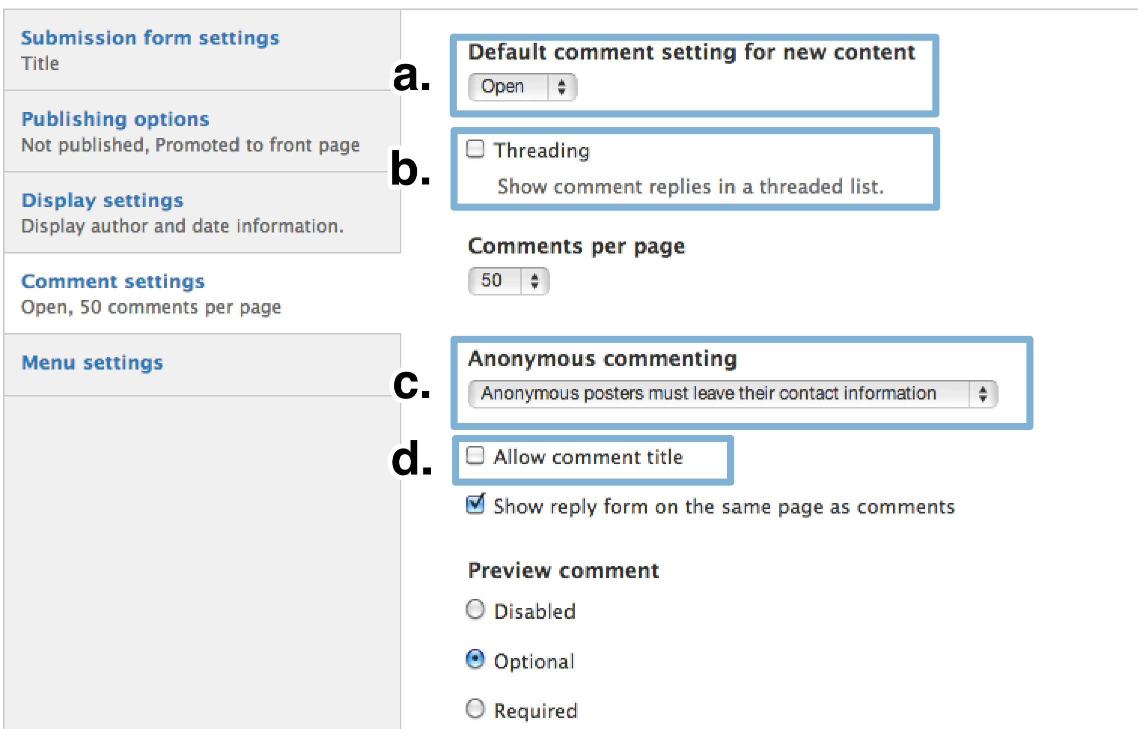
Comment configuration demo

Your instructor will do a quick demonstration of how to manage comments in Drupal.

1. **Set permissions.**
   a. Set permissions first, as some options become available if you allow anonymous users to post comments.

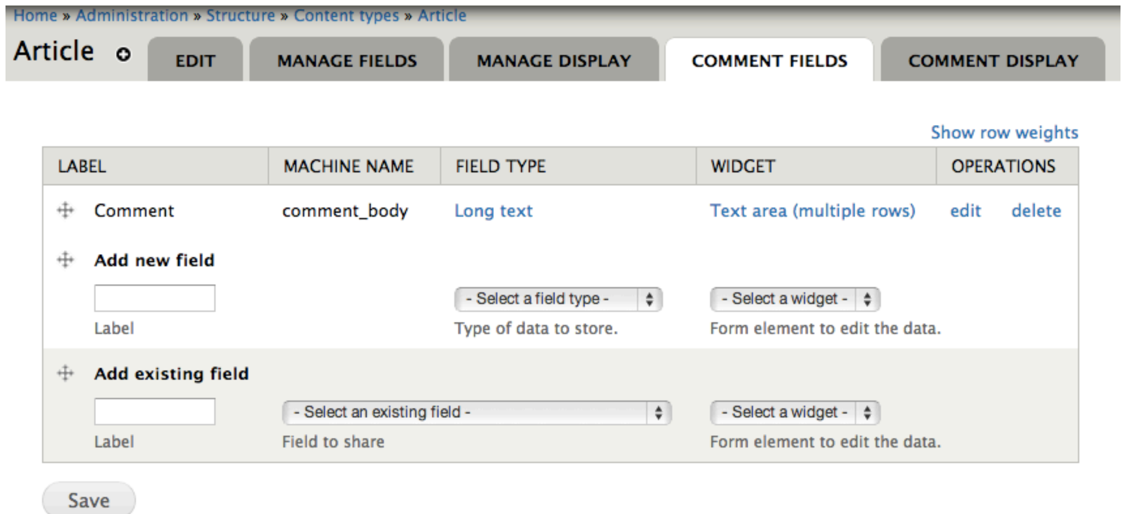
PERMISSION	ANONYMOUS USER	AUTHENTICATED USER	SITE VISITOR	SITE EDITOR	ADMINISTRATOR
Comment					
Administer comments and comment settings	☐	☐	☐	☐	☑
View comments	☑	☑	☑	☑	☑
Post comments	☐	☑	☑	☑	☑
Skip comment approval	☐	☑	☑	☑	☑
Edit own comments	☐	☐	☐	☑	☑

2. **Set content type defaults.** Edit a content type to see these options.

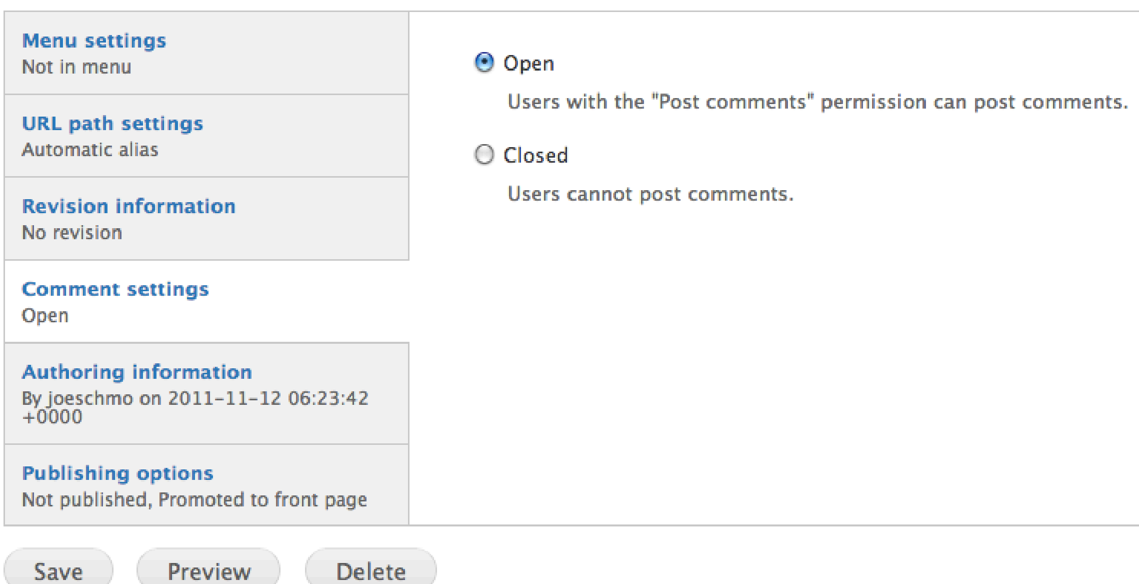


   a. Can be open or closed, but editors with permissions can override this.
   b. De-select threading for a "flat list". Threading indents replies under comments.
   c. This option allows you to force anonymous commentators to leave name, email.
   d. Allow comment title makes a separate field in the form for a title.

3. **Comment fields and display.**
    a. You can add new comment fields per content type.
    b. You can change the display of the comment, for example to hide or show specific fields.

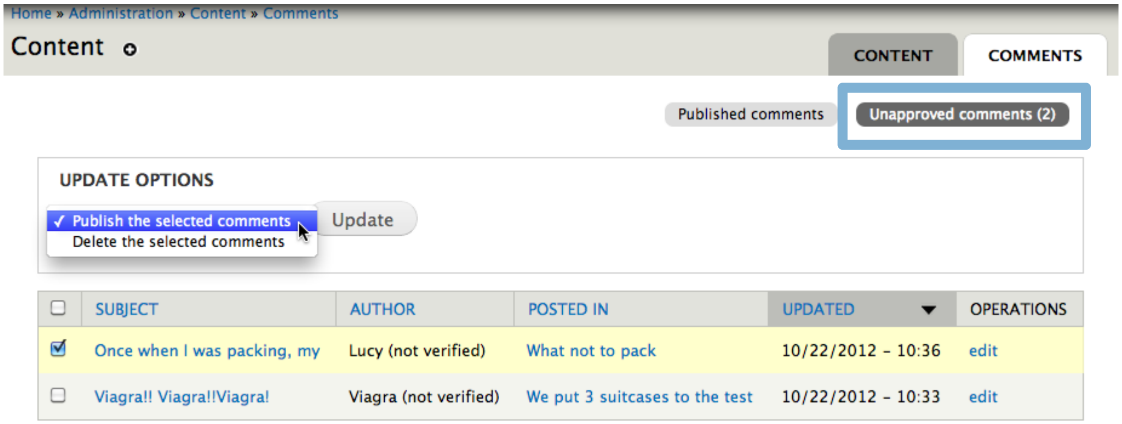


4. **Open/Close comments on content.** Edit an existing item of content to see these options. This option is available if you have the permissions to "administer nodes". Notice, if you had closed comments before, and you change the default to "open" your old content will still be closed.



5. **Comment queue.**
    a. If you don't allow anonymous users to "skip comment approval" they will see a message that their comment has been queued.

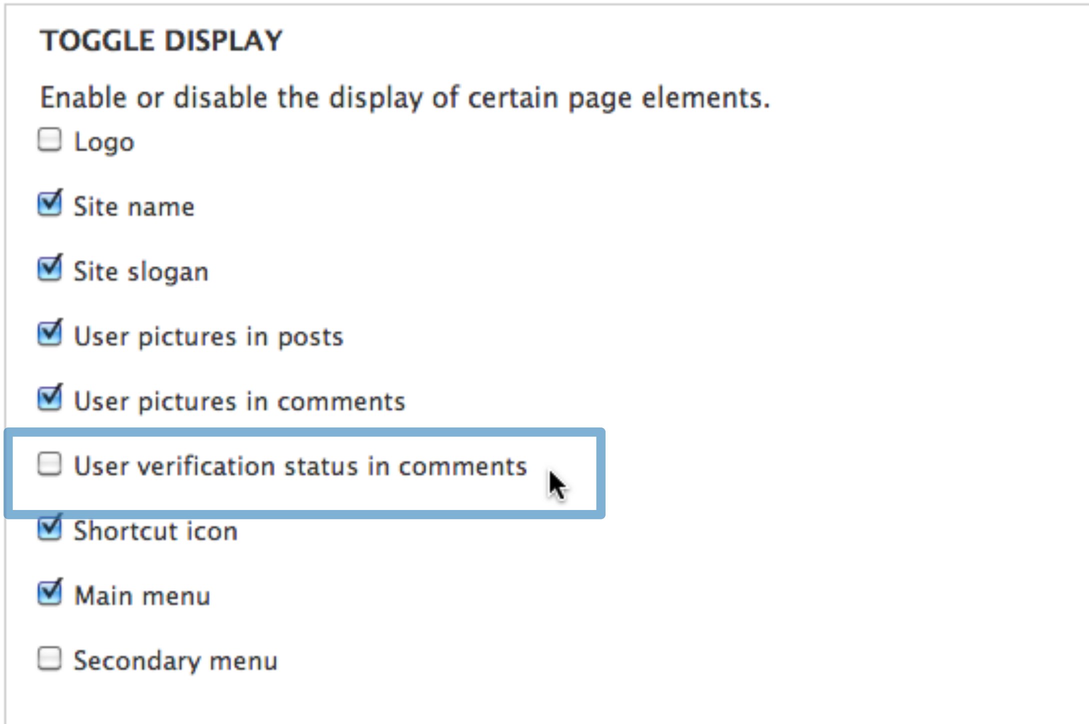
b. Go to Content > Comment queue to see your queued comments. Here you can delete them or publish.



6. Hide/Show the (Not verified) status.

a. By default, unauthenticated user comments get marked as "not verified".

b. You can change this in the Theme Settings under "Toggle display". Deselect "User verification status in comments".



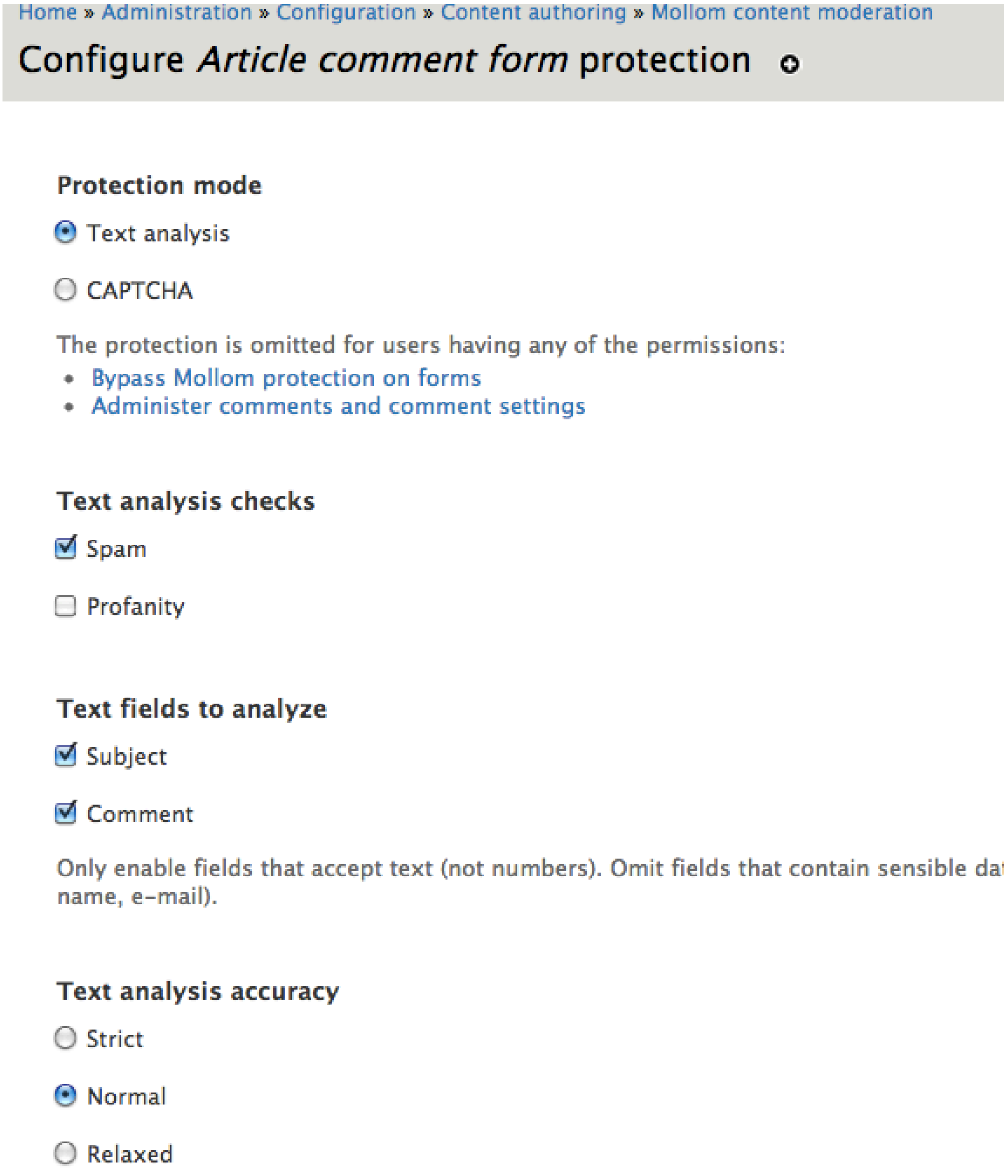
Optional Exercise – Mollom configuration

Managing comments and content manually is really hard if you are barraged with hundreds of submissions at once. Mollom is an external service which has both free and subscription only options. Mollom allows you to add spam protection to comments, content creation forms and webform.

Set up Mollom

- Install the module http://drupal.org/project/mollom
- Create an account on Mollom.com
- Activate your website (requires authentication)

Follow along with the full tutorial on Drupal.org for configuring Mollom. http://drupal.org/documentation/modules/mollom



Check Mollom Permissions

Mollom provides the following permissions for your user roles on the People > Permission tab:

- Administer Mollom-protected forms and Mollom settings
- Bypass Mollom protection on forms
- View Mollom statistics

Session Summary

In this session you saw how you can improve the content editing and site maintenance experience for your users. They will love you for it!

Review!

Please take a moment during the review to provide your feedback for this training event. We appreciate it very much!

http://acquia.com/training-feedback

Celebrate your project's success

Your project is complete! Contribute to Drupal by adding a thorough case studies to Drupal.org or DrupalShowcase.com. Being listed can benefit you and/or your organization by providing exposure, credibility and new connections.

Celebrate!

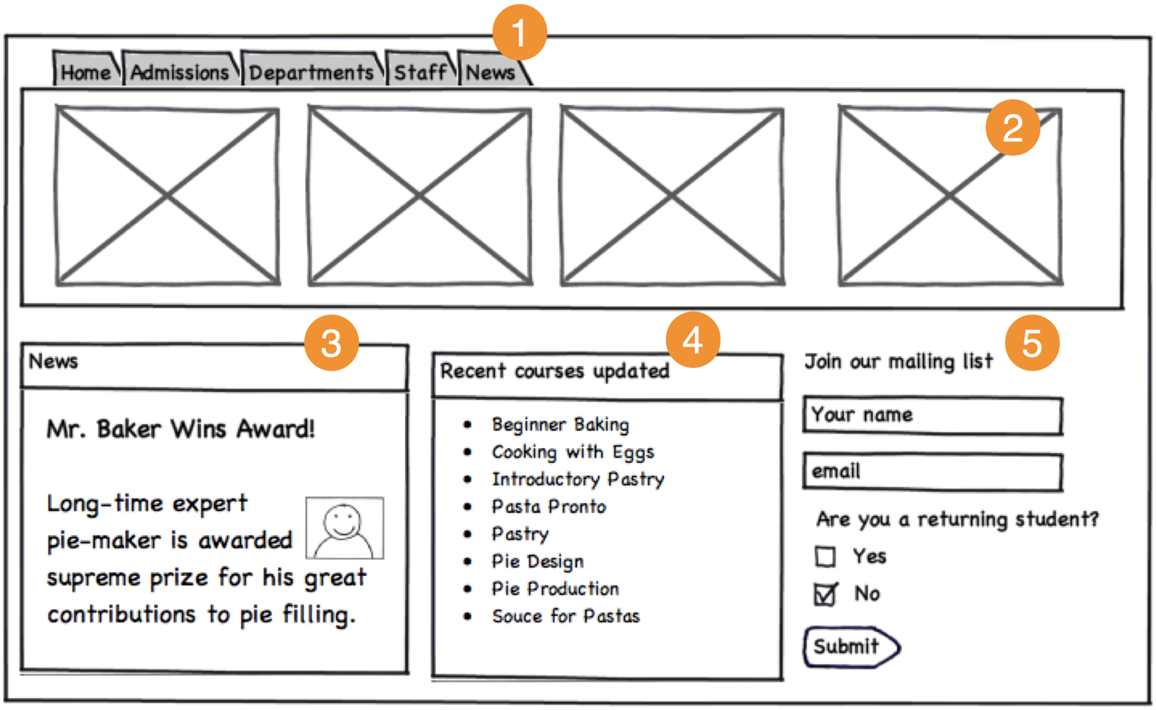
- Publicize your success. Blog about it, tweet about it.
- Propose a session at a DrupalCamp with your client or team!
- Share a case study on http://drupal.org/case-studies
- Submit your site to http://drupalshowcase.com
- Publicize how you gave back to the community http://drupal.org/drupalgive
- Project Application Guide: http://drupal.org/node/539608
- Reviewer Guide: http://drupal.org/node/636570
- Project review queue: http://tinyurl.com/DrupalProjectQueue

Getting started: Your new client!

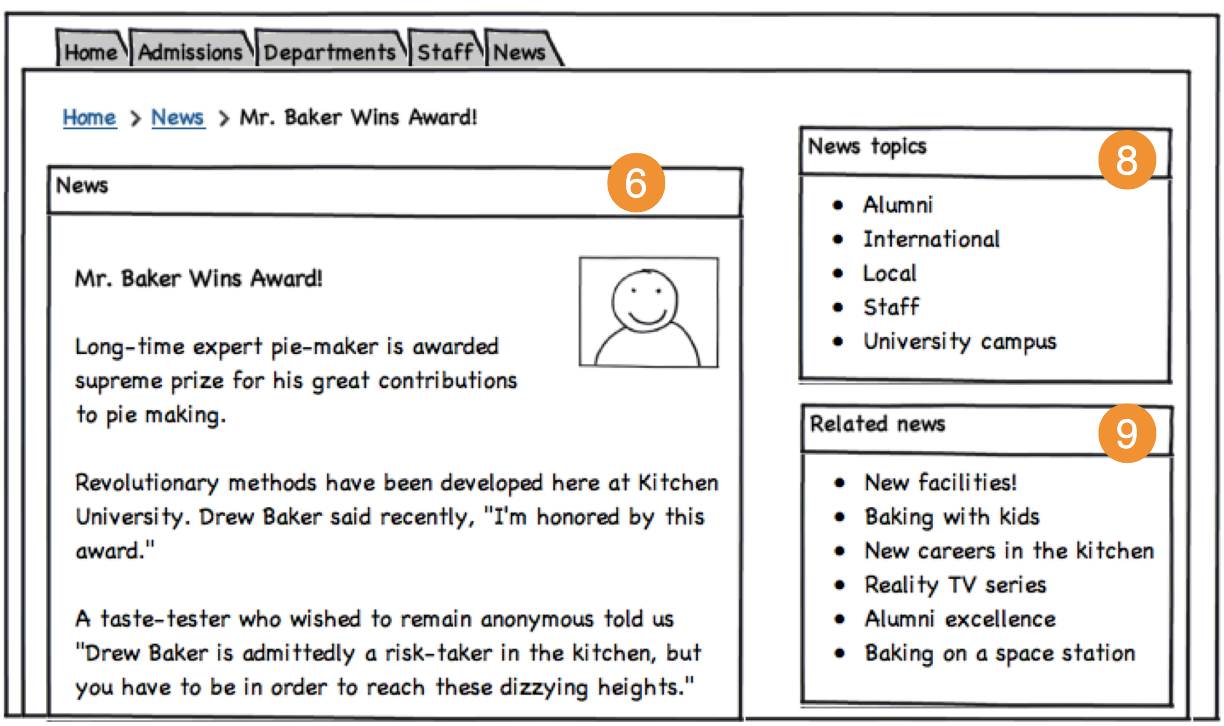
Congratulations, you've done such a great job with GlobalTravel that through word of mouth your agency has landed another client: The Kitchen University. This education sector client has a number of goals. They list courses for prospective students, information about their staff, and get alumni excited about continuing their education and expanding their skills.

In pairs or small groups look at these wireframes and consider these scenarios. Try to think of 2 or 3 different ways you could do something in Drupal. Feel free to look up and try new modules you have never seen before. Here are the scenarios:

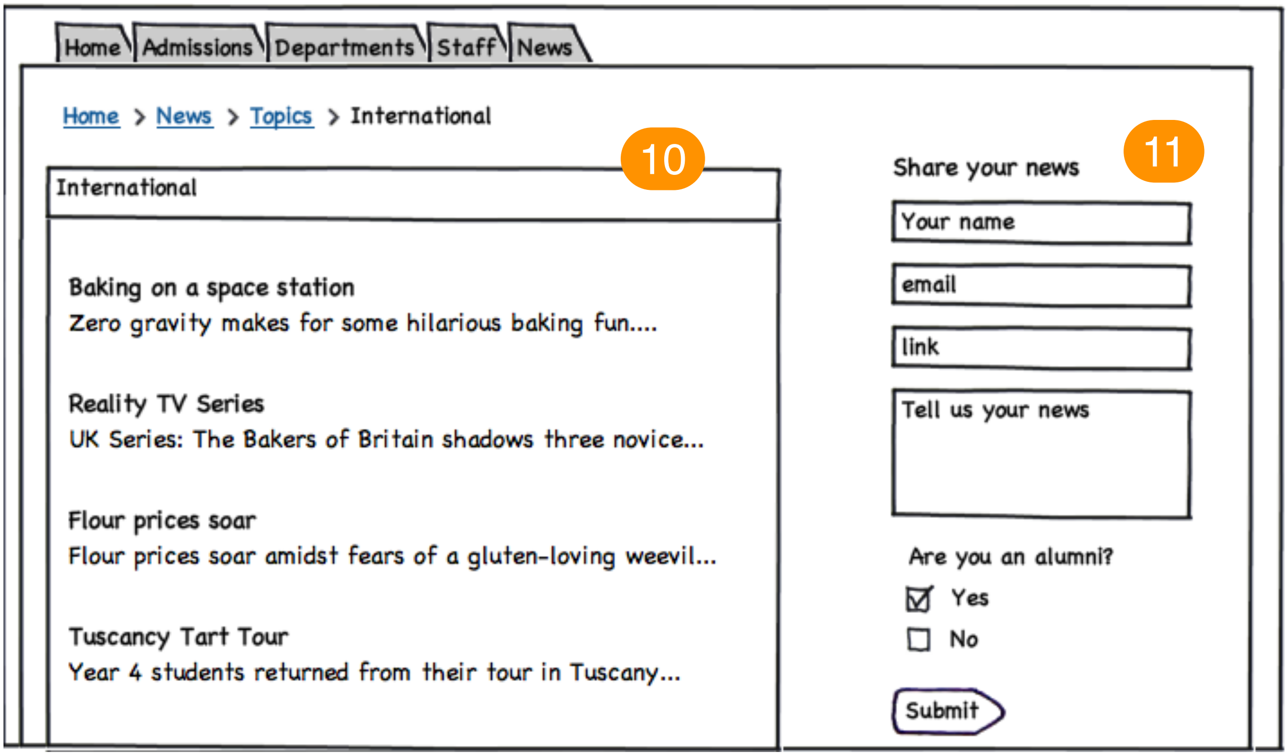
Front landing page



News item



News listing



Appendix

Please download the PDF full appendices available at http://tinyurl.com/trainingappendix

Appendix: Taking a site offline

Drupal-powered websites can be put into offline *maintenance mode*. This is very useful if you need to perform maintenance tasks such as upgrading to a newer version of Drupal or performing code tweaks that will affect user experience. Drupal also allows you to post a *maintenance mode message* to display to visitors while the site is offline.

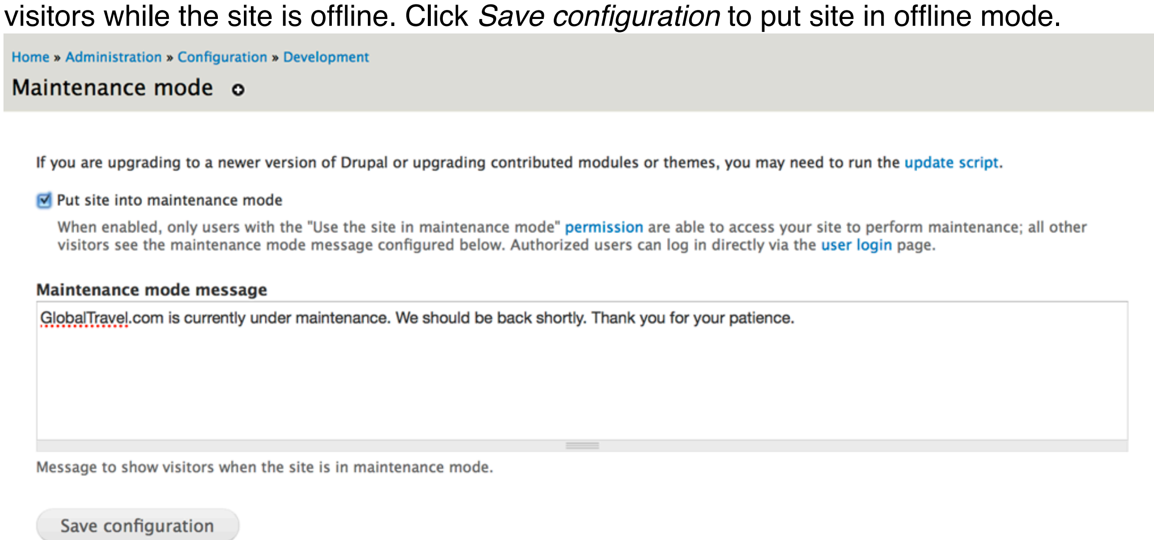
Exercise – Put your site into Maintenance mode

A. *Who can login in maintenance mode? Set permissions.*

- Navigate to People > Permissions, under System. Select “Use site in maintenance mode” for those roles you wish to allow to login during this time.
- **Tip:** Whenever your site is in maintenance mode add /user to the full address of your site.

B. *Put site into maintenance mode*

1. Login to your site as user 1 (the account you created when you installed Drupal) and click on the *Configuration* tab in the admin menu. Under the *development* section, select *Maintenance mode* – this will take you to the *Maintenance mode* admin page.
2. Check the *put site into maintenance mode* checkbox and enter a message to display to visitors while the site is offline. Click *Save configuration* to put site in offline mode.



3. To test this out, logout of the site. You should now be presented with a *Site under maintenance* page displaying the message you entered previously.

C. *Take site out of maintenance mode*

1. To perform maintenance tasks and put the site back into online mode, go to the user login page by entering the following URL into the address bar of your browser http://example.com/user. Login as user 1 to perform whatever maintenance tasks you need to perform. You will notice that Drupal now displays an admin message on every page to inform you that you are in offline mode - *Operating in maintenance mode. Go online.*
2. When you are done performing your maintenance tasks – clicking Go online will take you back to the Maintenance admin page. Deselect the *put site into maintenance mode* checkbox and click *Save configuration* to put your site back online.

Appendix: Backup and local testing

It's important to take periodic backups of the files system and database of your site and test that they can work locally. Before you start updating modules or if you just want to evaluate a module you should make an offline copy of your site that you can experiment with. This can make disaster recovery much easier.

For advice on setting up a Local server, please see: http://drupal.org/node/157602

How to back up?

How exactly this is done will depend on your server environment and the tools you have installed on it. You can consult the official documentation of this process to find out what method is best for your situation: http://drupal.org/node/22281

Alternatively you can install and enable the Backup and Migrate module. http://drupal.org/project/backup_migrate

You can set up a server locally with MAMP, XAMPP, or Acquia's Dev Desktop Installer available at http://acquia.com/downloads Follow the instructions in the previous exercise on how to use the Acquia Dev Desktop to import a distribution. Test a working copy of your site.

What to backup?

A Drupal site consists of two things:

1. The database.
    - You can copy the entire directory of your Drupal site into a location on your local computer that can be found by your local server.
2. The files.
    - You can copy the database over from the live site and import it into your local MySQL instance.

Modules to help with backup and deployment in Drupal

While a Drupal site merely consists of 1. The database and 2. The files - you'll soon find out it's a bit more complex than that.

When you start to make changes on a development (local) site and need to push the changes to a production (live) site- you'll discover some challenges. On the production (live) site, you will have users adding in new data and content, and uploading files. On the development (local or elsewhere) site, you will be making configuration changes that are saved in the database. There are several projects to help improve this process. For example, Features http://drupal.org/project/features turns configuration (of some modules) into code so it can be moved more easily.

Exercise – Backup your site

Your instructor will walk through one method to set up a local copy of your site, which is appropriate for your current set up during the class.

Challenge exercise – Set up a local site

After you have moved your database and files into place, the only other thing you will need to do to create a full working copy of your site is to change the credentials to the database in your settings.php file.

On your local site open the settings.php file in the local site directory */sites/default/settings.php.*

Look for a section of code that look like this:

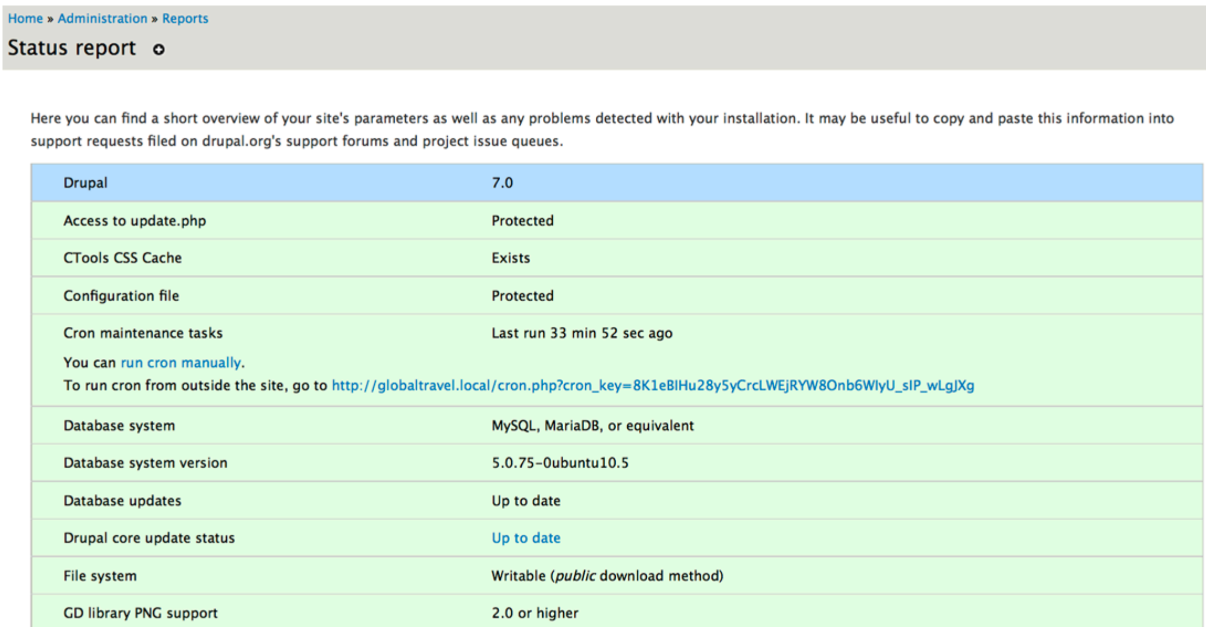
```
$databases = array (
   'default' =>
   array (
     'default' =>
     array (
       'database' => 'mydatabasename',
       'username' => 'databaseusername',
       'password' => 'databasepassword',
       'host' => 'localhost',
       'port' => '',
       'driver' => 'mysql',
       'prefix' => '',
     ),
   ),
 );
```

You will need to change the database name, username, and password to match the credentials used to access your local version of the database. Once you have made this change, save the file and you should be able to access your local version of the site.

Appendix: Updating a module

Site status and the available updates page

From time to time you should check the *Status Report*. Go to Reports > Status Report / *admin/reports/status*. If there are any problems with your site, they will likely be displayed here and you should address these problems for the safety and health of the site.



Home » Administration » Reports

Status report

Here you can find a short overview of your site's parameters as well as any problems detected with your installation. It may be useful to copy and paste this information into support requests filed on drupal.org's support forums and project issue queues.

Drupal	7.0
Access to update.php	Protected
CTools CSS Cache	Exists
Configuration file	Protected
Cron maintenance tasks You can run cron manually. To run cron from outside the site, go to http://globaltravel.local/cron.php?cron_key=8K1eBlHu28y5yCrcLWEjRYW8Onb6WIyU_sIP_wLgJXg	Last run 33 min 52 sec ago
Database system	MySQL, MariaDB, or equivalent
Database system version	5.0.75-0ubuntu10.5
Database updates	Up to date
Drupal core update status	Up to date
File system	Writable (*public* download method)
GD library PNG support	2.0 or higher

You may notice a warning telling you that modules are out of date. Updates and security releases for the modules on your site can be found on the Available Updates Page - /admin/reports/updates/update. Generally you do not need to update a module unless there is a security problem. Security updates to modules should be applied as quickly as is safely possible.

Updating and maintaining your site

In this unit you'll learn about the difference between updating and upgrading between major versions and what the upgrade process entails.

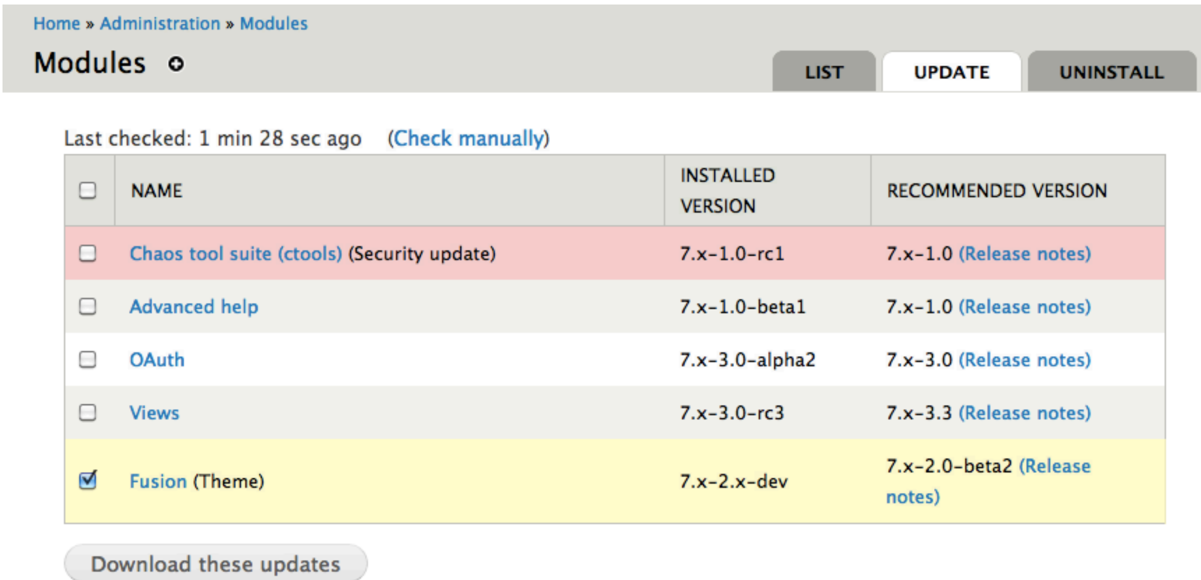
Updating and upgrading facts

- Update: Is a minor change, 7.12 > 7.15
- Upgrade: A major version 6.x > 7.x
- Main principle: "We can break people's code, but not people's data."
- Drupal is not backward compatible. Modules built for 7 will not work on 6.

- Data is maintained when upgrade paths are available for Drupal core and popular modules.

Updates can be done through the administration interface.

You can update both themes and modules from the admin area. However, you should only do this on a test site first to ensure stability of your live site.


Home » Administration » Modules

Modules

LIST | UPDATE | UNINSTALL

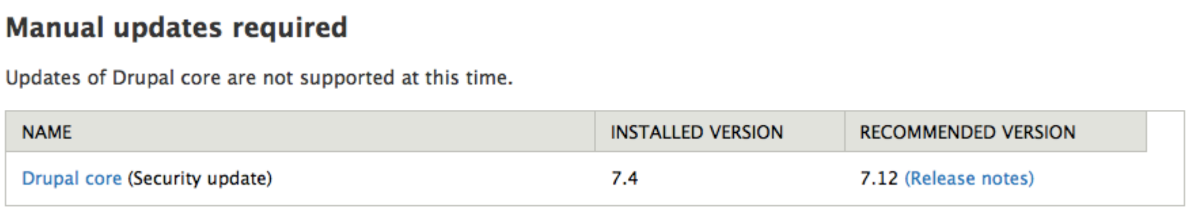
Last checked: 1 min 28 sec ago (Check manually)

☐	NAME	INSTALLED VERSION	RECOMMENDED VERSION
☐	Chaos tool suite (ctools) (Security update)	7.x-1.0-rc1	7.x-1.0 (Release notes)
☐	Advanced help	7.x-1.0-beta1	7.x-1.0 (Release notes)
☐	OAuth	7.x-3.0-alpha2	7.x-3.0 (Release notes)
☐	Views	7.x-3.0-rc3	7.x-3.3 (Release notes)
☑	Fusion (Theme)	7.x-2.x-dev	7.x-2.0-beta2 (Release notes)

Download these updates

Core updates and major upgrades must be done manually

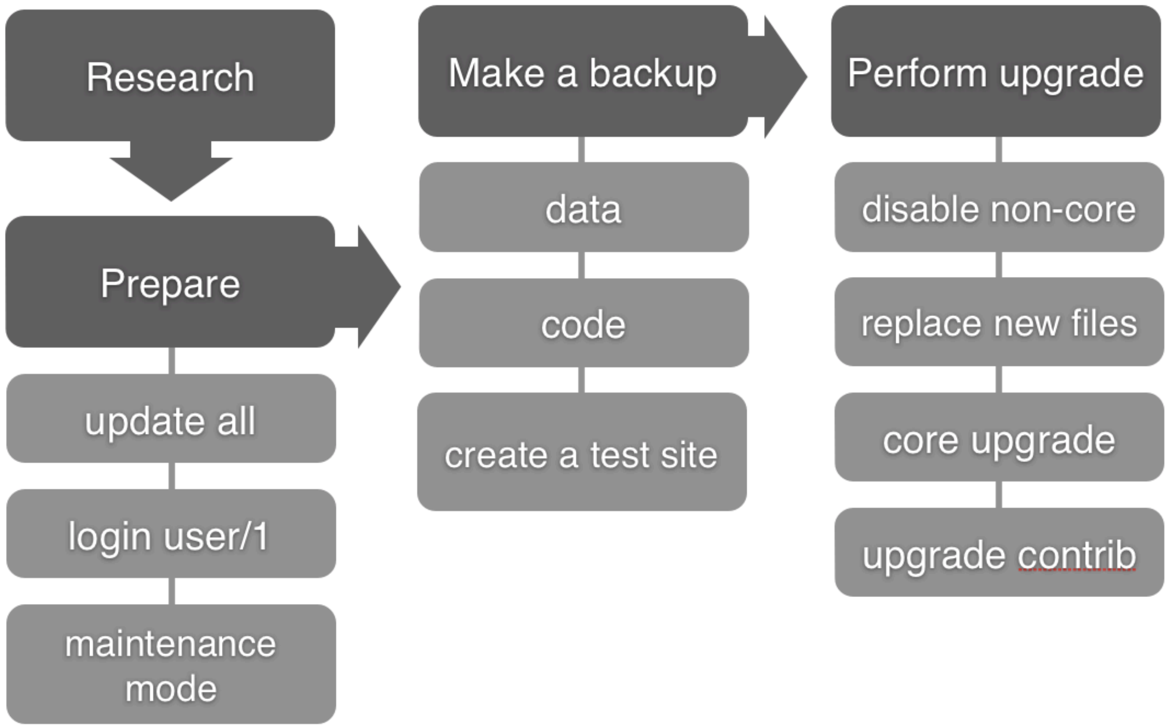
In order to upgrade Drupal core, you have to do this manually.


Manual updates required

Updates of Drupal core are not supported at this time.

NAME	INSTALLED VERSION	RECOMMENDED VERSION
Drupal core (Security update)	7.4	7.12 (Release notes)

Overview of the upgrade process



This is an overview of the process for a major core version upgrade from Drupal 6 to 7.

1. Research and prepare.
    - Are the modules you need available?
    - Is an upgrade path available?
    - What is your environment? Is everything compatible with new version?
2. Back up your site.
    - Standard backup procedures.
    - Perform test of your backup with a test site. Ensure backup is working.
3. Perform an upgrade.
    - Disable modules.
    - Replace files.
    - Perform database upgrades in sequence.

A technical overview of the upgrade process can be found at http://drupal.org/node/570162

Exercise – Apply a module update

To apply an update, first download the new version of the module from the module's page on drupal.org. You can get directly to this page by clicking the name of the module on the updates page Go to Configuration > Reports > Available updates at /admin/reports/updates/update.

If you have the update manager enabled: Go to the Update tab where you can apply a module update directly. Select the module you wish to update and click **Download these updates.** Follow the steps onscreen.

If you don't have update manger enabled: Once you have the new module, extract it from its compressed form. Then delete the old version of the module from the *sites/all/modules* directory on the site and then upload the new version in its place. Essentially you are just replacing the old module folder with that of the new one.

When you have finished updating the module you should check the status page again. You may see a message explaining that database updates for the new module(s) need to be applied. If this is the case, you should navigate to http://example.com/update.php. This page will walk you through the steps to apply database updates to ensure your new modules are working correctly.

Appendix: Site audit and security review

Drupal Security facts

- The Drupal Security Team operates on the principle of limited advance disclosure, holding for full, public disclosure until the threat can be eliminated with a fixed version.
- Drupal is built upon a rich set of APIs which, when used correctly, mitigate common security risks.
- Drupal core is heavily reviewed; each piece of code committed must meet strict coding and security standards, among other factors.
- Custom code for an individual site is a main source of many exploits. A review by WhiteHat Security of the Drupal site Greenopolis.com found that 90% of the 120 vulnerabilities discovered existed in their custom Drupal theme. (DrupalCon Szeged, http://szeged2008.drupalcon.org/fles/Hack-proof%20Your%20Drupal%20App.pdf)
- Keeping Drupal Secure https://www.acquia.com/blog/keeping-drupal-secure

Security resources

Drupal security Advisories	drupal.org/security	All security announcements are posted to an email list as well. Once logged in, go to your and subscribe to the security newsletter on the Edit » My newsletters tab.
Hacked! module	drupal.org/project/hacked	This module scans your core and contributed modules and determines if the code has been changed.
Drupal Scout	drupalscout.com/	Drupal Scout's Knowledgebase has a number of useful articles and checklists about security.
Acquia Insight	j.mp/insightdemo	This service analyzes your Drupal site against a series of standards and best practices, including Security. Insight provides some clear indicators around site health and best practices
Security modules	j.mp/securitymodules	There are a number of security modules to improve security and assist in analysis and monitoring of your site.

Exercise – Subscribe to staying secure

Now that you are developing with Drupal, you'll want to subscribe to the Security Announcements on Drupal.org. After you login go to your user profile page and subscribe to the security newsletter on the Edit > My newsletters tab.

Exercise – Acquia Insight

Acquia insight is a tool to provide real-time analysis of your site's code and configuration settings to help you maximize performance and security. There is also an SEO grader which provides similar instant feedback about your SEO configuration.

Option 1: Try "Instant insight"

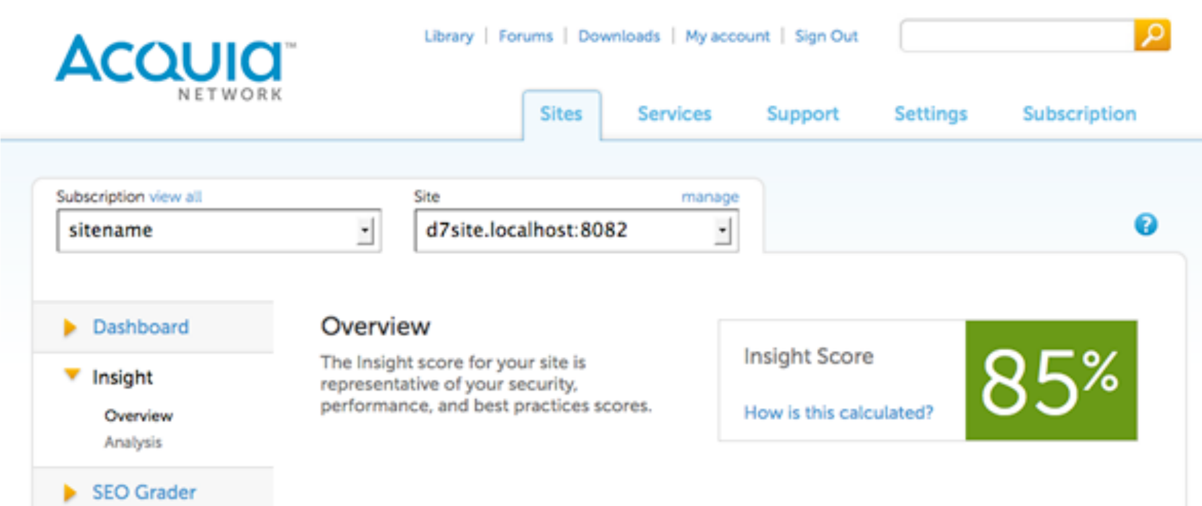
This is a free version of Acquia's network service tool. Instant Insight scans the site and displays an overall grade for the site, with separate summary grades for your site's performance, security, search engine optimization (SEO), and best practices.

https://insight.acquia.com/instant-insight

Option 2: Insight for Acquia Network subscribers

With your site connected to the Acquia network, you can start a scan with Insight. Full documentation on getting started here: https://docs.acquia.com/network/enhance/insight

An overall report is given, then direct advice on action to take.

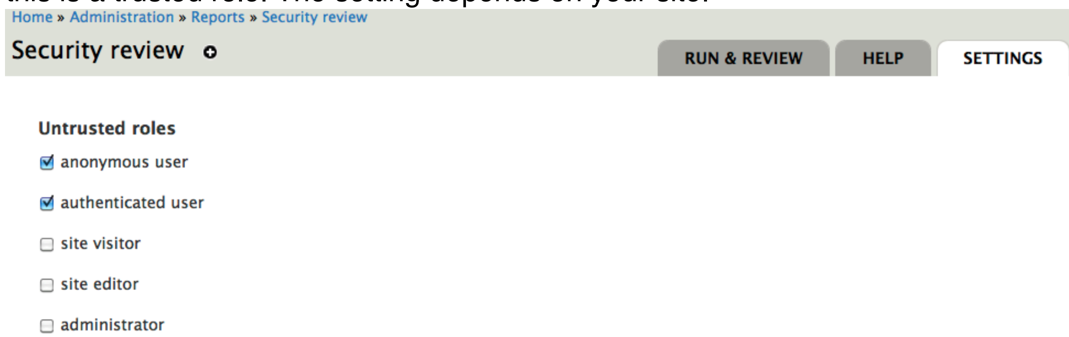


Optional Exercise – Security review

This is an alternative you can install directly on your site, this provides only a security audit.

1. Download and enable the Security Review module http://drupal.org/project/security_review

2. Go to Reports > Security Review > Settings.
    - At this stage you can set what roles are "untrusted". For example, if on your site *anyone* can create a user account without Administrator intervention, this would be an untrusted role. If however, user accounts much be approved before creation, this is a trusted role. The setting depends on your site.



3. Go to Reports > Security Review > Run & Review. Click **Run checklist**
4. Review the report and make any corrections recommended by the Security review module. You can "Skip" reports which you deem to be unnecessary.

Inherited a site? Try Hacked!

When you get a site someone else has developed, you may not know what changes they have made. One scary prospect is that someone edited or "hacked" the core files. This means, next time you upgrade… you're in trouble.

Hacked module http://drupal.org/project/hacked will report to you and core or contributed modules which have been altered from the original source files.

If you use Acquia Insight you'll get a more thorough check of your site's code, and any core hacks will be converted to patches you can apply.

Optional exercise: Bandwidth optimization and Caching checklist

1. Go to Configuration > Development > Performance.
    - Caching . Select **Cache pages and Cache blocks.** When using Drupal 7 the cache setting should be set to on. This will allow Drupal to cache content in its own cache as well as allowing an external cache such as Varnish to cache content as well.
    - Maximum age Recommended setting: >= 5 mins This setting controls how long an external cache such as Varnish can cache content for anonymous users. Setting this value to at least 5 minutes will help to drastically reduce the load on the backend web servers and database.
    - Cache lifetime Recommended setting: >= 5 mins. This variable tells Drupal how long it is allowed to cache objects in its own cache. Setting this value to at least 5 minutes will help to reduce the number of times Drupal has to rebuild objects from

scratch. *NOTE: Setting this value too high may cause confusion for content editors.*

- Recommended setting: CSS and JS aggregation on. Drupal core functionality allows for aggregation of both CSS and JS files. Enabling this feature will greatly reduce the number of requests made to the server as well as providing a faster end user experience.

2. Views. All views have the ability to have a time based cache that is built into the views module. All views should have a cache of at least 5 minutes to help alleviate load on the database.
3. Go to Module list.
    - Production sites should have both the **Views UI** and **Devel** modules disabled**.**
    - Logging modules recommended: **Syslog module** enabled, **Database logging module** disabled.
    - The dblog module writes all watchdog entries to the database while the syslog module writes all watchdog entries to the syslog (disk). The syslog module is much more performant than the dblog module with the one drawback that log entries can not be viewed in drupal but instead must be viewed in the logs section of the filesystem.

Glossary of terms

A complete list of Drupal terminology is listed on Drupal.org: http://drupal.org/glossary

Block	Blocks are a method for positioning data within a page.
Book	A Drupal module to connect pages in a hierarchical sequence, perhaps with chapters, sections or subsections.
Contrib	The set of contributed modules shared on Drupal.org or any you select to use.
Core	Drupal default files and modules included with the project download.
d.o	Short for Drupal.org
Field	Fields are elements of data that can be attached to a node or other Drupal entity. Fields commonly contain text, image, or terms.
g.d.o	Short for Drupal.org
Input format	These are settings that define the filtering of user-entered text before it is displayed This can be used to control formatting or malicious input.
Menu	Refers to the navigation elements on a page, and to Drupal's internal system for handling requests. When a request is sent to Drupal, the menu system uses the provided URL to determine what functions to call.
Module	A module is software (code) that extends Drupal features and functionality. Contributed modules can be downloaded from Drupal.org. They are not backward compatible. Modules for Drupal 6 will not work on Drupal 5. But often upgrade paths are available that don't break data.
Node	A piece of content in Drupal, typically corresponding to a single page on the site, that has a Title an optional Body, and perhaps additional fields. Every node also belongs to a particular content type for example polls, stories, and book pages.
Path	In Drupal terms, path is the unique, last part of the URL for a specific function or piece of content. For instance, for a page whose full URL is http://example.com/?q=node/7, the path is node/7.
Path alias	This changes default paths such as node/7 into user-friendly paths such as about/contact. With certain modules these can be automated.
Permissions	Controls user access to content creation, modification and site administration at the application level in Drupal through roles. This also refers to security settings for files at the operating system level.
Taxonomy	Enables authorized users to categorize content using both tags and administrator-defined terms.
Template	A file that is mostly HTML with some special PHP code to substitute in values provided by an engine.
Users and Roles	Everyone using your site is a user with a user ID. The first user ID (uid) of a Drupal site (uid=1) automatically receives all permissions, no matter what role that user belongs to. Any anonymous user has uid=0. Users are assigned roles that control what they can do. For example 'editor' or 'member', and permissions can be set for those roles.
Views	Popular contributed module allowing site developers a simple graphical interface for modifying the presentation of content. Views permits selection of specific fields to display, filtration against various node attributes, choice of basic layout options (ie. list, full nodes, teasers, etc.), and other advanced details.
WYSIWYG	WYSIWYG is an acronym for What You See Is What You Get, used in computing to describe a method in which content is edited and formatted by interacting with an interface that closely resembles the final product.