

Content Management Systems

CMSs

Content Management Systems

- A computer application that allows:
 - Publishing to the web
 - Editing the content
 - Modifying the website
 - Organizing the content
 - Deleting the content
- A central interface (backend), separate from...
- A user (website visitor) interface (front-end)
- Provides content management in a collaborative environment
- ...without necessarily knowing
 - HTML
 - CSS
 - JavaScript
 - server-side scripting (like PHP)
 - and databases (like MySQL)

CMS Comparisons

- Content Management System (CMS)
 - Proprietary: Ektron, Kentico, Websphere, ...
 - Open Source: **WordPress**, Drupal, Joomla, ...
 - See: https://en.wikipedia.org/wiki/List_of_content_management_frameworks
- WordPress has the largest base of users and plugin developers¹
 - ...compared to any other open source or proprietary CMS
 - Written in PHP and MySQL (common in most web server stacks: LAMP, etc.)
 - Plugins extend functionality and adds value to the platform
 - Relatively short learning curve for front-end developers
 - Relatively easy management interface for end-customers
 - Open source means it's free! (also editable)
 - Also: large number of designers creating themes

¹ <http://trends.builtwith.com/cms>

WordPress

- First and foremost: a blogging platform
 - Often, *not* used for blogging
 - Used for websites where end-customer needs to manage content in their own website
 - Used for the extensive collection of plugins
 - Forms (to capture user input)
 - Shopping carts and credit card transactions
 - Interactive calendars
 - Slideshows, photo galleries
 - Used for the extensive collection of themes
 - Easy to re-skin a website by simply applying a new theme
 - Themes may be customized relatively easily
 - Free and for-pay

Pages vs. Posts

Pages

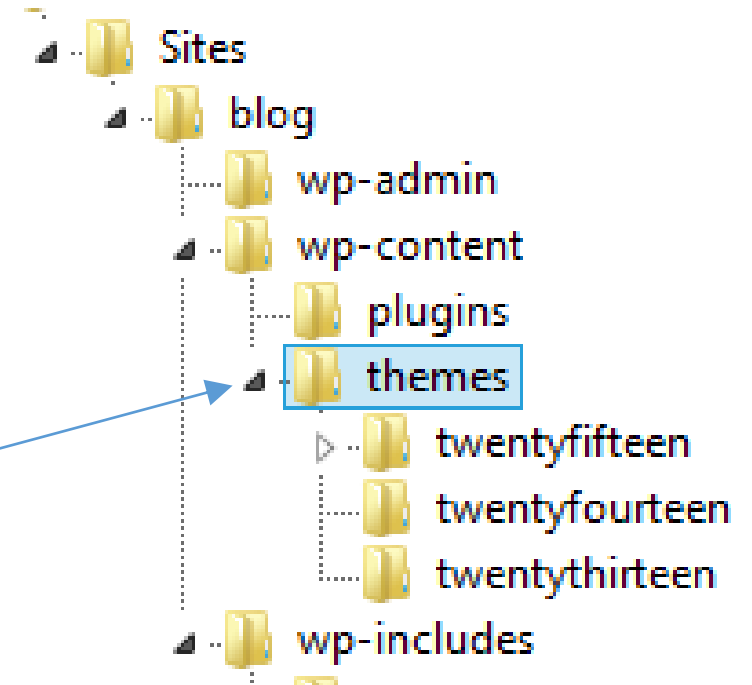
- Static – like a “normal” brochure website
- Usually, static formatted text and images
- Able to present installed plugins like calendars, photo galleries, whatever
- End-users may comment on pages

Posts

- Embedded in a “special” Page
 - The page is really just a normal Page that has the code (like a plugin) to pull posts from the MySQL database.
- Usually, reverse chronological posted content, written by the end-customer
- End-users may comment on posts

Themes

- Tightly developed set of HTML/PHP templates with CSS
- Large community of developers writing themes
- Easy to apply a theme
 - End-customer can change themes via the back-end CMS with a few clicks
- Themes may be customized/modified (not trivial)
- Themes are installed in the **./wp-content/themes** directory as it's own subdirectory

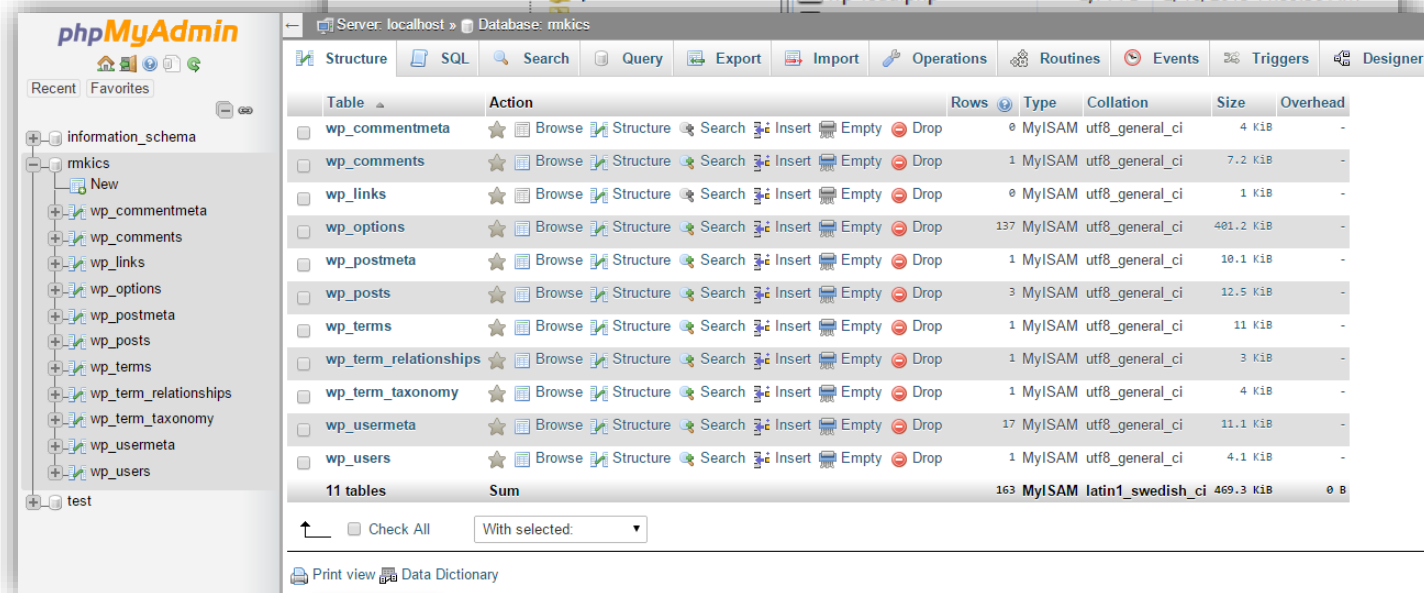
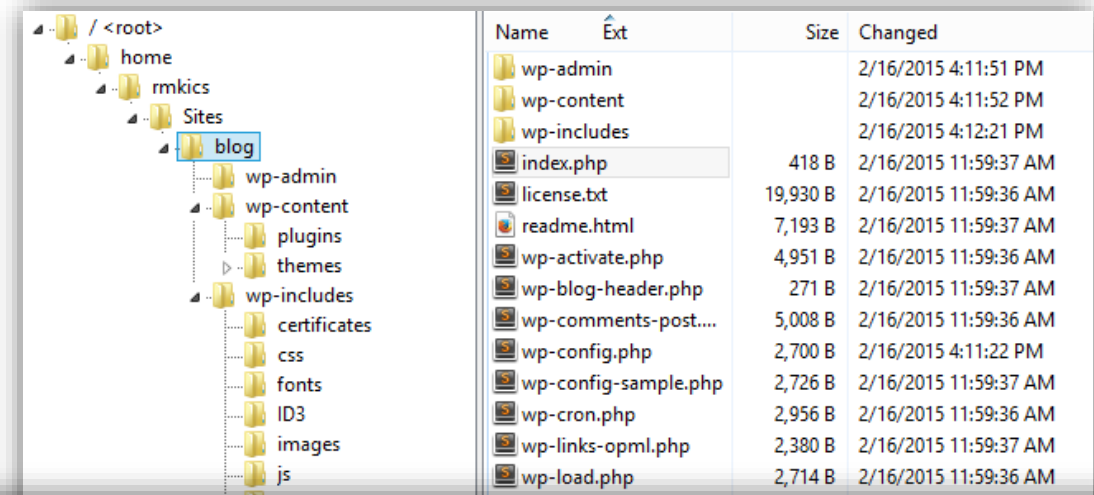


Sidebars and Menus

- WordPress templates allow the end-user website to display “sidebars” in various places,
 - Theme dependent
 - Turned-on or off by the end-customer via the back-end CMS interface
- Sidebars may present static content, automatically generated lists and “widgets”
 - Navigation elements (menus)
 - Lists (latest posts, categories of posts, recent comments, et cetera)
 - Widgets (installed plugins that display content, e.g. calendars, and other controls)

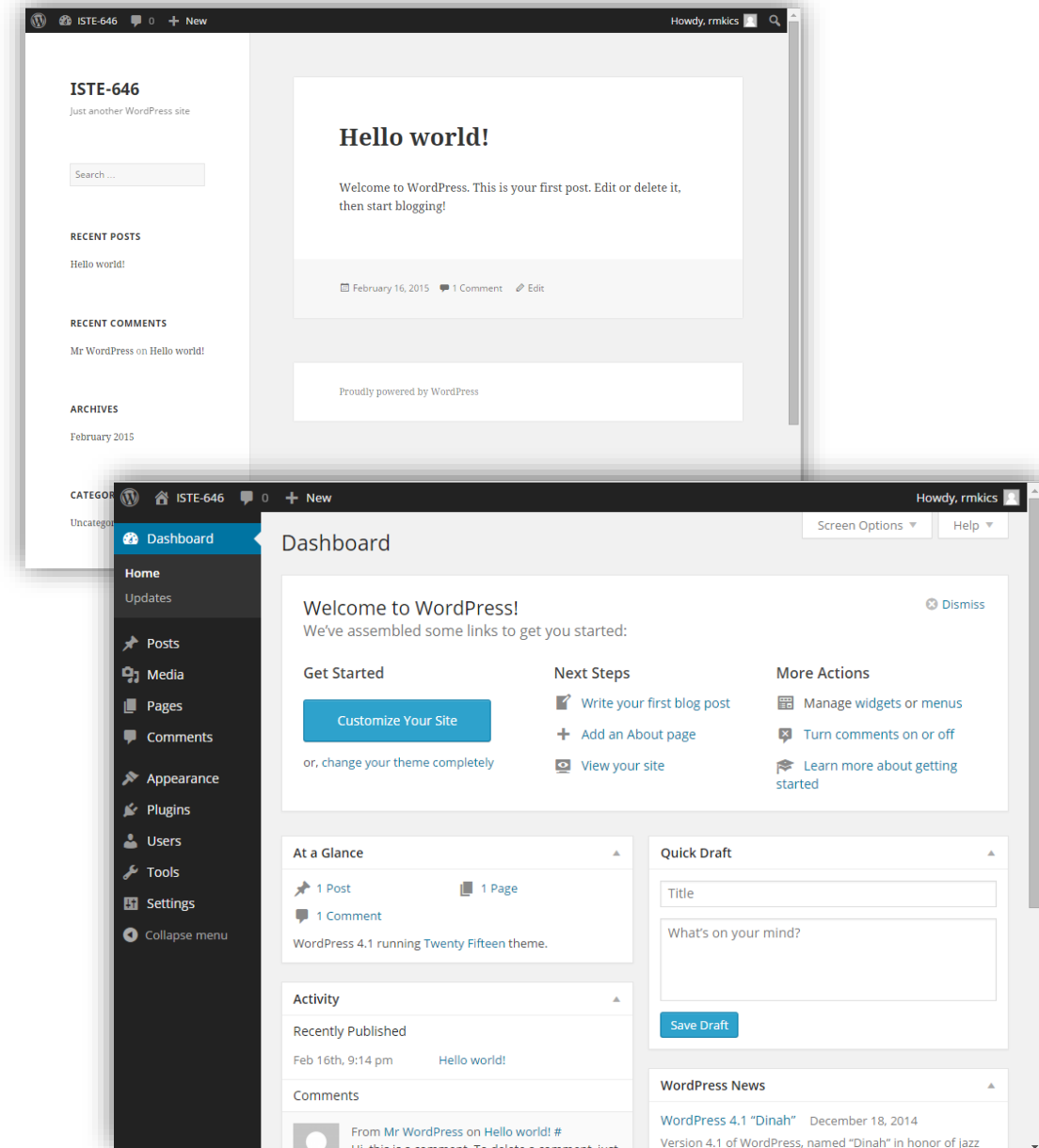
Technologies Used by WordPress

- HTML in PHP pages (e.g. *index.php*) and lots of CSS
- PHP pages structured in a MVC framework (debatable)
- HTML pages use embedded PHP as templates to get and put data from a MySQL database and generate the presentation to the end-user
- PHP/MySQL also used to present the back-end interface to the end-customer



Content Managment

- Two interfaces
 - The website (front-end) – viewable by the public
 - The CMS (back-end) –used by the end-customer to manage their own content
- The CMS
 - Hidden from the public
 - Password protected user accounts
 - Balance of non-technical tools (for end-customers) and somewhat technical tools (for administrators, not necessarily developers)



Content Management in Wordpress

Via the back-end interface...

End-Customer Tools

- Dashboard
- Posts
- Media
- Pages
- Comments

Administrator Tools

- Appearance
- Plugins
- Users
- Tools
- Settings

End-Customer Tools in the CMS

- Dashboard
 - Customizable overview of the other end-customers tools
- Posts
 - Create and manage blog posts (a list of content in reverse chronological order)
- Media
 - Upload and manage image and video files
- Pages
 - Create and manage static pages in the website (pages that do not have blog posts)
- Comments
 - All Pages and Posts may have end-user comments that may be managed

Administrator Tools in the CMS

- Appearance
 - Mostly technical tools to customize the end-user (front-end) website
 - Ability to re-skin the website using Themes
- Plugins
 - Install and manage plugins to extend the functionality of the Website and the WordPress platform
- Users
 - Create and manage users including assign privileges
- Tools
 - Utilities provided by the WordPress platform (may be extended by plugin developers)
- Settings
 - Common customizable attributes of the current WordPress installation