



CENTER FOR TEXTUAL STUDIES AND DIGITAL HUMANITIES

DIGH 402 - Introduction to Digital Humanities Design and Programming

Spring Semester 2014

Week 14

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

new gallery class - building our image gallery as an example of building a 'group'

- designed to handle passed 'content' from selected taxa id in URI router
 - eg: content/image/gallery&id=3
- group and taxonomy attributes passed as parameters for building gallery HTML
- new methods to format_gallery_view() and format_gallery_layout()
 - format overall structure of a gallery group page
 - format each image within our gallery page
 - create a container for each thumbnail using our grid_3 class
 - add image, title with link, and associated attributes
 - return all gallery images and links as \$gallery_content
- \$gallery_content is then output as standard content in View class

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

new gallery 'group' - additional functionality and design using plugins

- plugins for gallery group
 - checks DB plugins_lookup for content_group column
 - loads required plugin for group, eg: gallery
- checks for required folder in plugins directory and loads javascript
- first gallery plugin is for a modal window to preview gallery images

[GitHub Code](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

adding a pager for group results - v. simple pager plugin in js

- load pager plugin for selected groups via plugins_lookup
 - currently gallery
- load plugin js to add pager functionality to group results
 - calculate and output total number of results returned for gallery etc
 - append new pager html to content div
 - calculate number of pages required based on page size (default 12) and total number of results per query
 - divide total results by page size and round up
 - append page link options to pager and add event handler for clicks on page links
- modifying to create single page/image pager?

[GitHub Code](#)

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book viewer - BookViewer class

- another group view class similar to the GalleryViewer class
- outputs a formatted table view for pages per book selected by the user
 - uses the URI with content/text/book&id=3
 - uses parameter in URI to query DB for taxonomy matched content
- two main methods to full format_book_view and format_book_layout for page details
 - format_book_layout() method outputs a single row per page
 - “ “ outputs cells for page title, page description, page text snippet, and a link to the full page text
- there is also a help method for table headers
 - NB: could be moved to a generic table builder class...

[GitHub Code](#)

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Current framework examples

- [image page](#)
- [text page](#)
- [gallery](#)
- [book](#)

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adding a menu - database tables

- two new database tables for menu and menu_lookup
- menu allows us to specify different menus for the framework
 - for example a persistent site-wide menu in the header
 - content menus in the sidebar...
- menu_lookup table allows us to associate a menu with a node and define the menu's tree
 - uses a node set in the new table 'node'
 - eg: parent links and child links
 - no grandchild links at the moment
- node table allows us to specify menu and content nodes to link to static pages
 - links can be to any page with format
 - could be static page with html, image or text etc from DB table content

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adding a main menu

- new main menu rendered to header section of framework template
- load_menu() method added to Loader class
 - new constant is set for known menu ids in DB
 - accepts menu_id as parameter allowing us to build any required site menu
 - loads MenuController class
 - instantiates object for class
 - gets menu using menu_id parameter
 - sets menu output to static property in Loader class
- load_menu() called in draw_theme() method
- property set in load_menu() is now passed to draw_header() method

[GitHub Code](#)

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adding a main menu - new MenuController class

- getter method returns structured menu links for menu_id parameter
- menu_links_query() queries the DB for all parent links for the required menu_id
 - then menu_child_query() queries the DB for all child links for specified parent_id
- child links are pushed into an array with parent links
 - parent links and child links, then next parent and child links etc...
- each combined parent and child array is then pushed into the main menu_links array
- we can now use menu_links array to output our menu

[GitHub Code](#)

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adding a main menu - updated View class

- draw_menu() method added to View class allows us to abstract menu output
 - uses the menu_links array from MenuController class
 - checks for parent links and then each child link
 - structures the links as and in HTML
- main menu is drawn from the draw_header() method
 - site wide persistent menu for links such as home, about, contact, help etc...
- css is currently in the frame.css file
- links are based on node link in node table in DB
 - allows creation of holder pages for site content etc based on Router URI standard
 - eg: page for image galleries could list info on all site galleries etc...
 - create link to a specific content item in content table in DB
 - links can be to single items, such as image or text, or holder pages etc...

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handling requests for generic controller and params URI

- updated Loader class and load_controller() method to handle controller and params URI
 - eg: content&id=22
taxonomy&id=3
- new conditional check for controller and params
- loads class for frame/controller (eg: taxonomy, content...)
- then loads applicable frame/view
 - eg: frame/view/taxonomy.php
frame/view/content.php

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handling requests for generic controller and params URI - taxonomy.php

- this loads a tabular view of all content for the specific params id in URI
- eg: taxonomy&id=3 will load all content (images, texts etc) for taxa_id=3 from content table using content_lookup
- new taxonomy_content_query() method in TaxonomyController class
 - TaxonomyController class in frame/controller/taxonomy.php
- TaxonomyViewer class is used to render the tabular output for the DB result
 - TaxonomyController class in frame/view/taxonomy.php

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handling requests for generic controller and params URI - content.php

- follows same pattern as taxonomy.php for loading content&id=?
- ContentController class has now been updated with get_controller_content() method
 - accepts controller and params
- returns requested content for content and params['id']
- ContentViewer class formats content for output
 - currently outputs split content view to match image and text content options in DB
 - parallel display of image and text
 - can be updated to only handle contentformat (eg: contentimage) where content is available for requested id
 - simply checks DB returned result for values

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handling requests for generic controller and params URI - plugins

- plugins are also available for controller and params view
- checks plugin_type in plugins_lookup table for available plugins
- adds available plugins to the rendered view

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More framework examples

- [taxonomy page](#)
- [content page](#)

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Adding our first sets of data to the framework DB

- content, content_group, content_type and content_lookup
- content_meta
- menu and menu_lookup
- node
- plugins and plugins_lookup
- taxonomy and taxonomy_lookup
- users