402 - Introduction to Digital Humanities Design and Programming

Spring Semester 2016

Week 14

Final Presentation - Wednesday 27th April 2016

- create DH project resource

  - text, images, audio, video, maps...

- individual or group

  - if group, each member must clearly identify work and role to gain credit

- ~ 15 minutes in length plus questions

  - peer-reviewed (your answers and assessment will only be shared with myself)

- offer a practical demonstration of their online resource

- answer questions on its development and publication

  - taxonomy, metadata, content structure, design choices, code additions…

- teach the class about a chosen resource and subject material

  - tests weekly reading, understanding of taxonomy, metadata, content structure…

  - content can be age specific or open - any subject, genre…

    - eg: history, literature, culture, music, video etc

    - you may use 3rd party APIs to populate content (good idea for a plugin,,,)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

Recent updates to v0.7 include:

- Update DB for adding site menus
    - new DB tables for menu and menu_lookup
- Adding a main menu to the framework site
    - new MenuController class
    - updated View class
- Handling requests for generic controller and params URI
    - Load all content for requested params id in URI
    - updated Loader class and load_controller() method
    - updated taxonomy query, output…
    - updated content controller, viewer…
    - plugins available for generic controller and params URI

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

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

GitHub SQL

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

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

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

<u>adding a main menu - new MenuController class</u>

- 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](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

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 <ul> and <li> 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…

GitHub Code

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

<u>handling requests for generic controller and params URI</u>

- 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

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

<u>handling requests for generic controller and params URI - taxonomy.php</u>

- 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

[GitHub Code 1](#) | [GitHub Code 2](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

<u>handling requests for generic controller and params URI - content.php</u>

- 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

eg: content&id=15

GitHub Code 1 | GitHub Code 2

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

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

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

More framework examples

- taxonomy page

- content page

Object Oriented Programming

402framework - v0.8

- update framework to v0.8 - available on GitHub
  - [GitHub v0.8](#)

- update database SQL to v0.8 - available on GitHub
  - [GitHub SQL v0.8](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

More framework examples - v0.8

- [taxonomy page](#)

- [content page](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

Recent updates to v0.8 include:

- Update DB with sets of data for site content
- Update taxonomy controller
    - new checks for child content relative to query, eg: parent and content query
    - new taxonomy_content_check() and taxonomy_child_query() methods
    - get related links for selected taxa id, format, and content id
- Update View class in view.php to handle related links for selected taxa id
- Update ContentController in content.php
    - content check and output for multiple formats in DB, eg: image, text...
- New option for site wide Search
    - new controller and view for initial search option
    - highlighter plugin for search...
- New maps controllers and view
- Maps in a group with the addition of 'atlas' group…
- jQuery tabs option added for content view

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

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

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

updated frame/controller/taxonomy.php - part 1

- taxonomy&id=1 type query now checks DB for children if no content available
    - used as a check for all content for overall parent taxa
    - eg: Devon (id=1) which also contains Brixham (id=3) and Torquay (id=4)

- new taxonomy_content_check() and taxonomy_child_query() methods

- getter method queries taxonomy_content_check() method
    - if content is available for the taxa itself, then db_results is returned as expected
    - if no content, then child taxa are found and content checked and returned

GitHub Code

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

updated frame/controller/taxonomy.php - part 2

related links for selected taxa id - get_taxonomy_related()

- uses taxa_id in URI to query DB for parent and child related links from taxonomy and taxonomy_lookup
    - eg: taxonomy&id=1 or taxonomy&id=3

- checks if parent is available for taxa id
    - if parent then it outputs parent and child links (no repetition of current taxa id in URI)
    - if no parent simply outputs child links
    - eg: Brixham outputs Devon and Torquay
        Devon outputs Brixham and Torquay

- 'groups' works in the same manner and outputs parent and child or just child links for taxa_id in URI

[GitHub Code](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

updated frame/controller/taxonomy.php - part 3

related links for selected format and content id - get_content_related()

- similar implementation and functionality as taxonomy&id=3

- new getter method and content_related_check() method in frame/controller/taxonomy.php
    - requires params['id'] and new params['format'] parameters from params array
    - gets taxa_id for given format and content_id using new method contentformat_taxa_query()
    - then passes taxa_id to taxonomy_related_check() method

- examples
    - text&id=15
    - image&id=15

GitHub Code

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

updated system/library/view.php

related links for selected taxa id - updated view

- related_links array passed to draw_middle() method in View class
    - then passed to draw_sidebar()
    - option to draw_related_content() or draw_related_links()
        - render links for related content or related taxa

- new draw_related_links() method in View class
    - checks for array in passed parameter
    - sets HTML for required rendering of related links in vertical menu layout
    - iterates over related_links array and outputs each link as list item in unordered list

GitHub Code

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

updated frame/controller/content.php

content check and output for multiple material - check formats

- checks content table for contentid and returns available formats
    - eg: image, text…

- new getter and method content_format_query() to check for available content formats
    - accepts format and content id as parameters
    - queries DB to get all formats for the content id
    - checks returned results against format parameter and refines results
    - returns results to Loader
    - check for current controller and format, then unset/remove from related content array

- related content array is then passed to draw_theme() method
    - allows us to decide where to output and render our related content links
    - passed as parameter to draw_middle() method

GitHub Code

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

updated system/library/view.php

content check and output for multiple material - view related content links

- returned related content such as contentimage, contenttext etc is now passed to View class

- related content is then passed from draw_middle() to draw_sidebar()

- related content links are then drawn using draw_related_content() method
    - rendered as now standard unordered list using vertical menu class

GitHub Code

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

search form - basic site wide option

- new controller and view for basic search option

- search form added as draw method within View class, which is rendered in header section of site

- frame/controller/search.php accepts user search query and controller as parameters
    - search_row_query() method performs full-text query of content table in DB
    - results returned to Loader class

GitHub Code

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

<u>search form - basic site wide option</u>

- new frame/view/search.php handles the rendering of the returned results

- outputs search results as a table using the same template as taxonomy etc

- modified title and description in sidebar to reflect search results and search query

- appends query result as highlight parameter to URI for view text page
    - highlighter plugin highlights search query within matched search result texts

[GitHub Code](#) (highlighter plugin)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

search controller and viewer

- same design pattern as other controllers and viewers
    - frame/controller/search.php and frame/view/search.php

- plugins_lookup updated to enable pager etc for search viewer

- frame/view/search.php outputs search results in a table layout
    - follows same design pattern as frame/view/taxonomy.php
    - link for text modified to include extra parameter for user search query
        - eg: query=brixham

- queries currently match lower and upper case word, query strings are not case sensitive

[GitHub Code 1](#) | [GitHub Code 2](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

search controller and viewer

- [search example returned results](#) (search query = brixham)

- [search example returned results](#) (search query = town)

- [highlighted search results in content page](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

<u>maps controller and view</u>

- new column in content table and new content type 'map' in content_type table

- new column 'contentmap' accepts latitude and longitude as comma separated value
    - eg: 50.39747,-3.51490
    - this value is used to render map at correct latitude and longitude coordinates

- map controller gets required DB results for specified content id requested by user in URI
    eg: map&id=31 (NB: no matching map viewer at the moment…)

- map viewer renders the required map_canvas div for Google Maps API
    eg: content/map&id=31

- map plugin gets coordinates from map_canvas attribute 'coordinates
    - renders coordinates to sidebar and adds them to maps output
    - map is drawn to map_canvas div

GitHub Code 1 | GitHub Code 2 | GitHub Code 3

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

maps

- plugins, taxa, related content all applicable in sidebar...

- example can be found at the following URL

[Brixham Harbour map](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

maps in a group - addition of 'atlas'

- maps are now grouped into an 'atlas'

- viewer added for group 'atlas'
    - follows the same pattern as book etc
    - eg: Brixham maps

- plugins etc can also be developed and easily added for this new group, same as books etc…

GitHub Code 1

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

[version 0.8 of 402framework](#)

Object Oriented Programming

402framework - v0.8-tabs

- update framework to v0.8-tabs - available on GitHub
  - [GitHub v0.8-tabs](#)

- update database SQL to v0.8-tabs - available on GitHub
  - [GitHub SQL v0.8-tabs](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

jQuery UI - Adding tabs to a view

- [frame/view/content](#)

- [tabs plugin](#)

  - show tabs div for content rendering
  - hide tabs span output for plugin name...

- [plugins and plugins_lookup tables](#)

Object Oriented Programming

Object Oriented Programming - Abstract overview of current framework structure

[Final version of 402framework - with tabs](#)