Project Kintsugi Work Breakdown Structure version 1.30.

Because of a significant change in database strategy, the WBS needs to be revised. Here is the revised document. Tasks remove will be struck through ~~like this~~. New tasks will be in blue like this. This is a “bridge document” to show how the WBS has changed. Tasks that are completed will be in green like this.

Phase 1 (08/26 – 09/30)

Initial Conceptualization  
-Pick a language  
--Research language as appropriate  
--Learn language  
--Learn specific frameworks of sub-languages as appropriate  
--Learn other tools though to be useful as appropriate  
-Physical architecture conceptualization  
-Logical architecture conceptualization  
-Draft functional requirements  
-Draft nonfunctional requirements  
-Draft system assumptions  
  
  
Database Creation  
-Learn and understand XML schema for incoming data  
-Choose and learn database language  
-Resolve database storage issue (where are we going to put it)  
~~-Draft schema for database  
--Map out data relations between old and new schema  
--Map out foreign keys  
--Refine and normalize schema if necessary (recommend 3NF)  
-Code and construct database  
-~~Learn database language and tools of choice (XQuery and BaseX, respectively)  
Website creation  
~~-Make basic website framework with chosen language~~ (this is “merged” with “Create CWE display page”)  
~~-OPTIONAL: Make a display mockup of what the web site will look like with some basic test data~~

Phase 2 (10/01 – 10/31)

~~Data dumper  
-Research XML converters for our purposes  
--If none found, create one  
-Create data importing mechanism to populate database~~

Web application  
-Finalization of web-application architecture  
~~-Linking the database to the web application   
--Choosing an insulated means to do so within our chosen framework (if possible)  
--Developing and implementing the link between the database and the web application~~-Creation of CWE display page  
--Creation of HTML mockup (possible custom CGI)  
--Creation of CGI framework  
-Population of display page (with 'home made' test data if database is not populated yet)  
-Creation of CWE search page (may only be a mockup if prior to search the search engine).

Rudimentary search mechanism  
-Creation of rudimentary search mechanism superior to that of the current CWE site.  
-Implementation of rudimentary search mechanism.  
[KEEPING IN MIND that the search mechanism will be greatly revised in phase 3, this is just a stopgap "Minimum requirements" sort of thing].  
  
  
Phase 3 (11/01 – 11/30)  
-Full text search algorithm  
--Conception  
--Implementation  
-Ranking algorithm  
--Conception  
--Implementation  
-Filtering mechanism  
--Conception  
--Implementation  
--Updating UI to accommodate its use  
-Text mining sub-algorithm  
--Conception  
--Implementation  
-Holistically combining the search mechanisms into one amalgamated whole  
-Conception of back-trace (BT) log subsystem  
-Implementation of BT log  
--Coding of BT log mechanisms  
--Usage of BT log on UI  
-Input Validation (may already be implemented as part of security sub-project)  
--user input validation  
--defense against SQL injection  
--insulating users from internal system knowledge

As these tasks are approached, they will be discussed and broken down further. This is the rough WBS as per the system architecture and dependencies, as well as the priorities of the project requirements.