Project Plan

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**Introduction**

The objective of this project is to provide a searchable, navigate-able web application to view the Common Weaknesses Enumeration (CWE) database. The current CWE website has very poor search tools. This project will place the CWE data in a more usable database, and provide an easy-to-search web application to navigate the database. The project will also include a way to view ones navigation path so one can track and understand the “link-chain” that lead them to that point. A secondary objective is to provide a visual representation of CWE nodes, but this will be deferred until the core system is built.

**Project Organization**

*Doug Richardson*: Project manager. He is in charge of overarching strategy, planning, and tertiary paperwork (such as this document). Because of time and schedule constraints, he will also participate in development (although not to the extent of the other team members), providing assistance where it is needed.

*Jon Von Kampen*: Developer. In charge of security related tasks and maintaining contact with key stakeholders (the NUCIA faculty). Also does general development.

*Chris Fibich*: In charge of visualization and non-text documents (such as architecture diagrams). Also in charge of general development (prefers visual tasks)

*Nick Watkins*: Does general development. He has not indicated any task preference.

This is a tentative deployment and will be changed as the project becomes more understood.

**Risk Analysis**

See Excel attachment

**Known Hardware Requirements**

The hardware requirements are still unclear. Currently a dedicated SQL database and a consistent internet connection are required. Languages used will be PHP or Python. Compilers and development tools for these languages will be needed.

**Work Breakdown Structure**

Architecture  
-Conceptualization of physical architecture  
-Conceptualization of logical architecture

Initial Research  
-Researching and deciding a programming language  
--Python  
--PHP  
-Understanding the XML schema for the CWE data

Database  
-Conceiving the database schema to conform to the CWE schema  
-Create the physical database  
-Map out the foreign keys of the database  
-Populate the database  
--If no library exists to populate the database, create an app to do so.

Web application  
-Conceive website strategy and design  
-Create general page structure template  
-Connect the page to the database  
-Populate the pages with database data as appropriate  
  
Search Engine  
-Conceive basic search method to use  
-Create new or use existing rudimentary search algorithm  
-Add full-text feature to search algorithm  
-Create ranking system for search algorithm  
-Implement search algorithm on website  
-Create user-interface for search engine features on website

Path-tracing feature  
-Create path tracing feature on website  
-Create user interface to interact with path-tracing feature on website (example: Path-reset feature)

Work Breakdown Structure for C or W priority tasks are TBA

**Project Schedule**

Tentative rough schedule for major deliverables

09/15/2013: Submission of project proposal and project plan (this document) deadline (documents may still change).

09/30/2013: Deadline for system conceptualization and requirements engineering.

10/31/2013: Initial prototype delivered

11/28/2013: Final project delivered

12/05/2013: Report and all other deliverables submitted.

Schedule will become more defined as year progresses.

**Monitoring and Controlling Mechanisms**

We plan to use Github for version control and project tracking.