The World Wide Herbarium

Write-up Instructions

CS 386 Database Management

Prof. Daniel Miranker

Due: No later than *5:00 PM, May 10, 1996. Turn in in main office, Tay. 2.144.* Projects turned in late, but by 9:00 am Monday May 13, will lose half a letter grade; including *all* those slide under my door Later than that, one full letter grade.

Recall there will be a prize for the best project. A supplementary prize will be awarded for the best page turned in for IV.B below. Award winners will be announced on the class web page

1.0 Overview

At this juncture you should be near completion of the implementation component of your term project. Recall the goal of the implementation component of your project is not the development of a sexy, polished, highly functional system, but rather a throw-away prototype such that you should now have a good understanding of just how reaching a sexy, polished, highly functional system would be. With that in mind, there are three, largely disjoint, elements of your written report.

1. A design document defining, in fair detail, the architecture and implementation of a World Wide Herbarium program, yet to implemented, and able to satisfy fantastic requirements (as in just short of fantasy).

2.A description of what you implemented, a user's guide and a short tutorial.

3.A dictionary of net resources that may contribute to number 1.

There is, of course, a hypertext element of your report to be made available on-line.

2.0 Hardcopy part of the report

The following is a recommended outline. Each section *must* start on a new page. Presence *and* format of the starred, "*", sections is mandatory.

*__0. Cover page__ - title, your name, partner's names, (if any), a URL to a page containing links to hypertext portions of your project and write-up a 100 to 300 word abstract.

I. Introduction

Explain the problem. Relate it to the general problem of heterogeneous multidatabase integration.

***II. Summary of Success**

Functionality of your implementation. (one page for parts A,B,C, one page for each screen of D.

A) Name your data sources.

B) Describe elements executed which are beyond the core minimum. In particular beyond 4.1 of the original write-up what did you do from 4.3 or your own invention.

C) An annotated directory listing of your code. For each file 1 to 3 sentence describing it's purpose and the number of lines of code, (per Unix wc utility, minus, blanklines).

D) Annotated examples of your input screens and output screens.

i.e. for each input screen

i) input screen

ii) SQL version of the query

III Architecture of The World Wide Herbarium

Per the original assignment and element number 1 above, develop a functional specification and design document for The World Wide Herbarium of the future. You may detail the architecture I provided in section 3 of the assignment, or you may provide your own. Recall you must describe each component expressed in that architecture. If you provide your own architecture the deficiencies of my design should be made readily apparent. simply by reading this section of your report.

For each component you should define the interfaces, suggest a possible implementation detailing tools, languages, internal state and/or data structures. If you are proficient in some form of formalized object-based design methodology you may ignore my prescriptions and describe the architecture byexploiting that methodology.

***IV World Wide Herbarium Prototype**

A) User's guide to your prototype

B) Tutorial

This tutorial part of the write-up is your opportunity to step me through the abilities and features of your prototype. As a through-away prototype I am more interested in what works than what doesn't. Thus you should, in the most succinct fashion possible, define a canned demo. I will exercise each assignment until, I am satisfied, I have exhausted your tutorial/demo, or your program crashes, which ever comes first. There are no second chances.

C) Architecture of your prototype. Similar to part III above. However, you may be succinct by referring to elements of your part III.

***IV Net Resources**

A) Herbariums with an on-line presence

The results of this section, from each member of the class will be merged to form an authoritative web page providing links to seemingly all sites of interest to botanists. A minimal listing of the bookmarks/hotlist items you have collected over the semester is sufficient for full credit. Those students who have clearly made an effort to provide a thorough answer will receive a 1/4 letter grade extra credit applied to the term project grade.

i) Herbariums with on-line specimen catalogs - sorted by URL.

present answer as a table with the following columns.

<u>URL, name, affiliation, state, country,</u> number of specimens in collection, number of specimens in on-line catalog, yes/no for a list of features to include, has an obvious relationship to HISPUD, had an obvious relationship to DELTA, GIS (map based) specification of queries, GIS display of output, specimen images available, features you can think of. <u>String field</u> mentioning any special or unique features, e.g. data files are available for down loading, a particularly nice query front end, etc.

ii) Herbariums with an on-line presence but no on-line catalog

present answer as a table with the following columns.

<u>URL, name, affiliation, state, country</u>

iii) Botany related sites, e.g. location of DELTA definition

present answer as a table with the following columns.

<u>URL, sentence describing what's there.</u>

B) Including only the underlined fields, build a web page for part A.

C) Sites with potentially useful tools. (GIS packages, form drivers...)

<u>V Related Work</u>

<u>*IV Discusion and Conclusion</u>

This section is your best opportunity to express critical thought on the project. It is dubious whether anything less than a full page will fullfil this section. A section containing single paragraph repeating the abstract and saying "this was a great project" will be awarded no credit.

3.0 Hypertext Portion of the Assignment

Per above, provide a single URL on the cover page of your written report. That web-page should contain links to, each of your input forms, and your answer to part IV.B above.