Principles of Information and Database Management
198:336
Week 7 – Mar 21
Matthew Stone

Project Overview

Three phases
– Project Design
– Database implementation
– Web interface
**Project Overview**

Timeline – two week increments
- For the rest of the semester

Design – due April 4 – 2 weeks from today
Databases – due April 18
Interface – due May 2 (last day of class)

**Outline in More Detail**

Design
- Form teams of two
  (or maybe one or maybe three)
- Find an application topic
  (either a sports team management OR something personally important to you)
- Map out some application scenarios
  (illustrate what you want to do through specific examples)
Outline in More Detail

Database implementation
- Build ER diagram
- Write SQL code to create database
- Formulate, test and debug queries
  that will allow your application to carry out
  example scenarios

Outline in More Detail

Web interface
- Write code to access the database and show
  the results over the web
- Using
  Java serverlets and html or
  Java server pages or
  PHP…
Suppose you have this interface:

Search by author

That corresponds to a browser program
- It says you have a form to fill out
- It gives another page on the server
- When the form is filled out, that page gets called with the new data

A few lines of HTML
- We’ll see more of this next week.
Conceptual Roadmap

You now have a request
– Do a search by author, with author “rowling”
– This is implemented by
  connecting to a DBMS
  posing an SQL request
  visualizing the results

For example

Here you want to:
– Open a connection to the books database
– Construct a query
  select * from books where author=rowling

• This is partly prewritten
  select * from books where author = ?
• And partly assembled based on form data

– Explore the resulting table
Conceptual Roadmap

Finally, visualizing the table means
– Looping over the returned results
– Formatting a display in HTML
  Laying things out in a table
  Describing individual elements
  Adding links to additional scripts

So you get something like this

Search by author  Rowling

Harry Potter and the Sorcerer’s Stone
Buy it now
See similar titles

Harry Potter and the Goblet of Fire
Buy it now
See similar titles

More Results