One Click Textbooks

CSE 454

By Mark, Nick, and Ken
Slick, one-stop search website for buying textbooks for UW classes at cheapest prices
- Include shipping price and tax
- Eliminate or add books on the fly
- Include images of all books returned
- Link to UW to verify books returned
- Links to carts full of needed books
Working one-stop search website for buying textbooks for UW classes at cheapest prices

- New or Used search
- Includes shipping price
- Eliminates duplicate books
- Links to cart from supplier
Distribution of Work

- **Mark:**
  - Wrote crawler combining information from UW and the UW bookstore’s website
  - Used to populate SQL database

- **Nick:**
  - Used the web APIs to query Amazon, Ebay, Half.com
  - Web front page and results page and redirects frame

- **Ken:**
  - Sent result of database query to servlet
  - Converted java to Tomcat
Class Source
COLLEGE OF ENGINEERING
COMPUTER SCIENCE & ENGINEERING

Detailed course offerings (Time Schedule) are available for:
- Autumn Quarter 2010
- Winter Quarter 2011

To see the detailed Instructor Class Description, click on the underline instructor name following the course description.

CSE 100 Theory in Information Technology (5) QSR
Introduction to the key concepts of computer science, including algorithms, data structures, and software development. Co-requisite: INFO 100.
Instructor: David A. Cantor

CSE 142 Computer Programming I (4) NW, QSR
Introduction to computer programming using the C programming language. Co-requisite: CSE 144.
Instructor: Daniel Libes

CSE 144 Computer Programming II (5) NW, QSR
Continuation of CSE 142. Concepts of data abstraction and encapsulation including classes, objects, linked lists, binary trees, recursion, and techniques for complexity analysis of algorithms. Instructors: Daniel Libes, David A. Cantor

CSE 190 Current Topics in Computer Science and Engineering (1-5, max. 15)
Instructor: David A. Cantor

CSE 303 Concepts and Tools for Software Engineering (3)
Introduction to key concepts and tools in the development of software not introduced in the introductory programming courses. Includes programming with complex memory management and debugging (e.g., C or C++), techniques for group software development, design patterns, and testing patterns and strategies. Prerequisite: CSE 143 or permission of instructor.

CSE 311 Foundations of Computing I (4) QSR
Introduction to computer science for non-majors. Topics include logic, set theory, induction, and algebraic structures with applications to computing, finite state machines, and limits of computability. Prerequisite: CSE 143.

CSE 312 Foundations of Computing II (4) QSR
Introduction to computer science for non-majors. Topics include algorithms, discrete mathematics, and algebraic structures with applications to computing, polynomials, and NP-complete problems. Prerequisite: CSE 311.

CSE 321 Discrete Structures (4)
Fundamentals of set theory, graph theory, enumeration, and algebraic structures, with applications to computing. Prerequisite: CSE 143, either MATH 126 or MATH 129.

CSE 322 Introduction to Formal Models in Computer Science (3)
Study of formal languages and automata, including regular and context-free grammars, pushdown automata, nondeterminism, Turing machines, and the halting problem.

Click on the class schedule link for more details.
Regex Grabs Tags

<specific HTML code and tags>

Source: http://www.washington.edu/students/studentClickers.html - Mobile Firefox

RegEx Gems:

- Introduction to Machine Learning
- Introduction to Operating Systems
- Introduction to Computer Animation
- Introduction to computer graphics
- Computer Animation (5)
ISBN Source
# Intermediate Results

## UW Seattle Winter Quarter Coursebook Search

There are 9 hits. Displaying matches 1 through 9.

<table>
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<tr>
<th>Course</th>
<th>Section</th>
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- Information presented through this service is subject to change daily.
- Unless an instructor has specified the CDs sometimes packaged with textbooks for their course, we cannot guarantee that they will be bundled with a specific title.
- All online textbook orders are shipped UPS, FedEx, or USPS Priority mail. Shipping charges will apply. See our Textbooks Shipping Policy.

## TEXTBOOKS FAQ

**View Student Structure**

How do I find my textbooks online?
Can I order my books online and pick them up at the store?
Can I use my financial aid money to purchase textbooks?
Can I return my textbooks?
Does University Book Store buy used textbooks?

**Other Important Information**

## UW RESOURCES

- Student Guide
- UW Course Catalog
- Quarterly Time Schedules
- Colleges, Schools, Academic Departments, and Degree Programs
- AVUPA
# Results

## University Book Store

The information presented through this service is subject to change daily. Click here to view Textbooks and Yes: An Introduction.

### UW Winter Coursebook Search/By Course Number & Section

Please click on the "New Price" or "Used Price" button to add the title to your book list. If a book is not active, it is because copies of the particular new or used book are currently unavailable. When you have completed your selection, click the "Buy Books" button below.

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* Information presented through this service is subject to change daily.

* Unless an instructor has requested the CDs or media packaged with textbooks for their course, we cannot
  guarantee availability. Please check our online catalog for the most up-to-date information.
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Front End

- Connects Everything Together.

One Click Textbooks

Please select your classes for winter quarter.
Hit submit and the total price of all your books as well as links to checkout carts will be displayed.

School: Select Your School
New or Used: New
Buy Optional Texts: No

Class #1: Select a department
Select a course number
Select a section

Class #2: Select a department
Select a course number
Select a section

Class #3: Select a department
Select a course number
Select a section

Class #4: Select a department
Select a course number
Select a section

Class #5: Select a department
Select a course number
Select a section

Submit

/* This webpage was a class project. We do not guarantee the information on this website is correct or complete please double check MIT/W. */

*Occasionally the books have the same ISBN number, so double check your carts before purchasing.
Surprises

- UW Bookstore displays ISBN as image
- Bookstore doesn’t have complete class data
- Half.com doesn’t have shopping cart API
- Web APIs are not designed for intuitive use
- Shipping costs complicated
- Web taxes are complex
- Cookies
- Java doesn’t work on web servers
If you're seeing this page via a web browser, it means you've set up Tomcat successfully. Congratulations!

As you may have guessed by now, this is the default Tomcat home page. It can be found on the local filesystem at:

`$CATALINA_HOME/webapps/ROOT/index.html`

where "$CATALINA_HOME" is the root of the Tomcat installation directory. If you're seeing this page, and you don't think you should be, then you're either a user who has arrived at new installation of Tomcat, or you're an administrator who hasn't got his/her setup quite right. Providing the latter is the case, please refer to the Tomcat Documentation for more detailed setup and administration information than is found in the INSTALL file.

NOTE: For security reasons, using the manager webapp is restricted to users with role "manager". Users are defined in `CATALINA_HOME/conf/tomcat-users.xml`.

 Included with this release are a host of sample Servlets and JSPs (with associated source code), extensive documentation, and an introductory guide to developing web applications.

Tomcat mailing lists are available at the Tomcat project web site:

- users@tomcat.apache.org for general questions related to configuring and using Tomcat
- dev@tomcat.apache.org for developers working on Tomcat

Thanks for using Tomcat!
Lessons Learned

- Writing a crawler
- Emulating a browser with post requests
- How to use open APIs
- Javascript
- Php
- Having a well written plan is crucial
- New web technologies – Tomcat
- Whitespace
Experiments and Testing

- Subjects were given website address and told to find books for next quarter.
- Subjects found books faster than their traditional methods, and still much cheaper than the UW bookstore.
- Subjects found several points confusing, so we improved the UI and provided instructions.
- Further testing showed satisfaction with product for classes that UW bookstore listed.
Demo

- Check it out!
- Now showing in a classroom near you