

User Interface Redesign

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User Needs for Website

- Users need to be able to select the term they want when searching to add classes to their course schedule.
- Users need to be able to find classes by using a filter with several different options.
- Users need to be able to add the classes they find to their schedule for that term or semester.
- Users need to be able to remove classes from their current course schedule.
- Users need their registered courses to be saved on the website for later viewing and editing.
- Users need to be able to view and find information about the different courses they might register for.

User Profiles for Website

The original MyBanner application used to schedule courses on the universities website has a very wide audience. It may be used by instructors and students alike with varying degrees of technical knowledge. Since many of these user profiles react and use the application differently, I have some common user profiles and scenarios below.

Novice Freshman User

Since there are always new students just entering the university for the first time this is an important user profile. These incoming freshmen often do not have the same amount of experience or knowledge of the online course scheduler as upper level students do. Furthermore, novice freshman users will be more likely to use different features such as getting detailed information about each course. Since they do not know a whole lot about the courses offered at the school yet, they will probably want a more broad description of the course than an upper level student. Additionally, freshman users will want to know whether a particular course has prerequisites or not, since they will not have completed as many courses as other students. When searching for courses a freshman will probably not filter out as many classes since they are open to taking a lot of general education classes which they must complete early on in their student career.

Here is a basic scenario in which a novice freshman user might use the online course scheduler:

1. Loads website
2. Selects "Search for classes"
3. Chooses the term they want to register classes for using the combo box.
4. Selects all subjects or at least several course subjects.
5. Hits "Search" button
6. Searches through the list of classes
7. Clicks the "CRN" link of one of the courses listed.
8. Reads the information about that particular course.

9. Hits the "Return" link.
10. Selects the checkbox for the course they just read about.
11. Clicks "Register"

Advanced Upper-class User

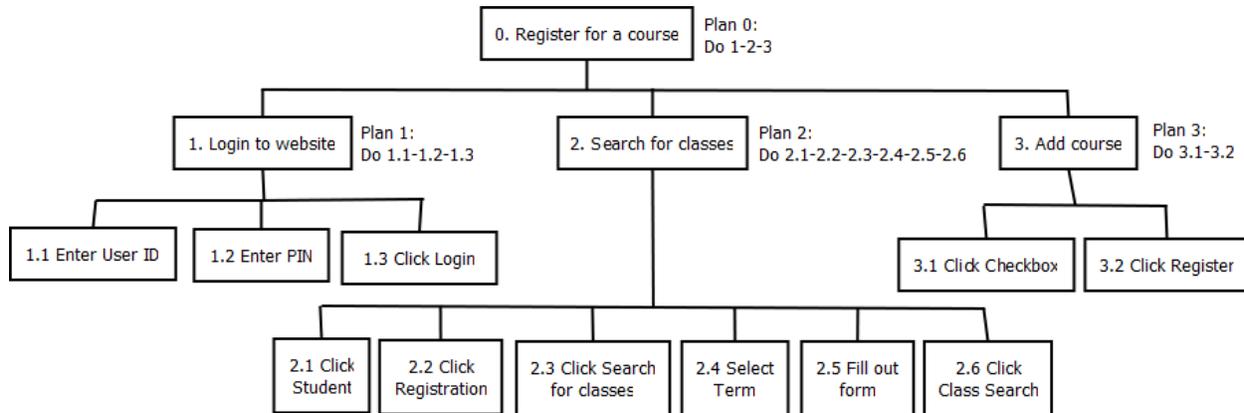
The advanced upper-classmen user will have much more technical knowledge of the online courses scheduler than the novice user. Also an upper-classmen generally has many of their general education classes already completed and will use the system differently. Again, since the upper-classmen has probably already used the system for several years they may use features that novice users are unaware of. Furthermore, upper-class users probably have already selected the major they want to study in and will be looking for specific classes to register for. For example, as a Computer Science major, I have already taken my general education classes and just need to take a couple more CS specific classes. I may then actually filter out all classes and only look for courses with the Computer Science subject or may even directly enter their course number to see what is available. Additionally, many seniors or junior students already have heard a lot about the courses they plan on taking and have no need to read the broad information provided about a particular course.

Here is a basic scenario in which an upper-classman user might use the online scheduler:

1. Loads website
2. Selects "Search for classes"
3. Chooses the term.
4. Selects "Computer Science" in subjects
5. Enters in a specific course ID
6. Selects a campus location.
7. Hits "Search"
8. Browses through the list of courses
9. Selects the checkbox for the course they want
10. Clicks "Register"

Website Graphical HTA

Below is a graphical HTA for registering a course using the website implementation:



Desktop Design Decisions

The goal of redesigning the online course scheduler was to increase user efficiency by reducing the amount of steps it took to perform basic activities. There were many ways in which I achieved this.

Firstly, the website scheduler had lots of unnecessary steps to perform certain activities. For example, when you want to search for a certain course, you must navigate through several different web pages. Rather than clicking “Search for classes”, then entering the term on an entirely separate page, I decided to include the term selection in the search criteria. This way with the desktop application you may just click the “Search for courses” tab and select the term along with all the other search filters. In the same way, rather than being able to only view the courses by the term on the website. I decided to list all of the courses in one table and have one of the columns specify which term it is from.

The primary action performed on the website is searching for classes. This is where I felt that the websites search page contained far too many options and filters. Many of these I have found myself as well as other users to not use at all. This is why I decided to remove the Schedule Type, Instructional Method, Part of Term, Attribute Type, Start Time, and End Time filters.

Another user interface problem I saw in the website was that the search results contained too many columns of data. The website contained 20 columns where as I was able to reduce this number to only nine. I included the columns that I felt were most important. Then to still offer the user additional information about each course I added a course details panel at the top of the search results. Whenever a user does find a course they might be interested in, additional details will show up whenever selecting it. In the website version, to get additional details you had to go to an entirely new webpage just to get information.

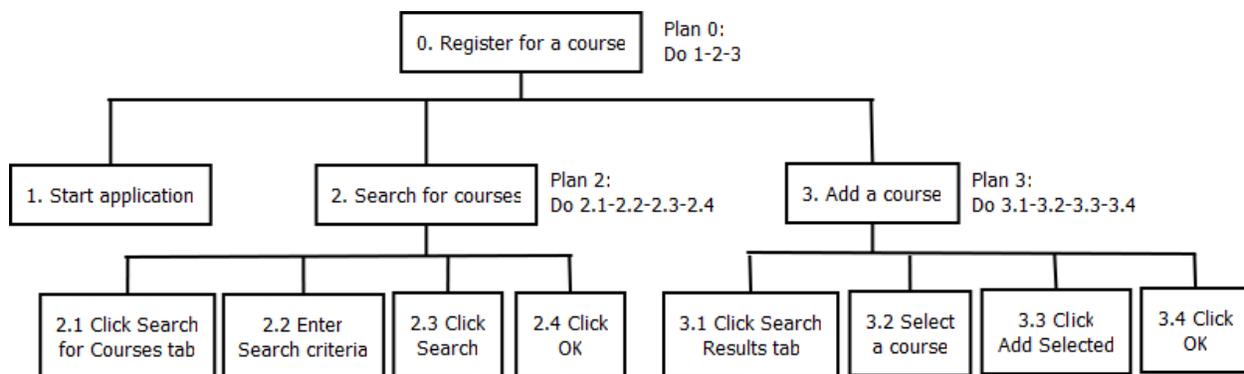
Furthermore, another advancement made with the desktop application was that when adding an actual course you again do not have to go to an entirely new screen. Rather a confirmation dialogue will appear telling the user their selected course has been added.

One positive aspect of the website implementation was that it does save your registered courses. To keep this feature in the desktop application I had it automatically store the courses in a file, which is checked every time the application starts. This way the user will never lose the courses they have registered for.

Overall, the desktop application is broken down into three main tabs. By going with a tabbed design, there are only a few different screens, which allow the user to manage different activities all at the same time without having to reload their screen. This all has therefore made the desktop application not only more user friendly but much faster and more efficient to use.

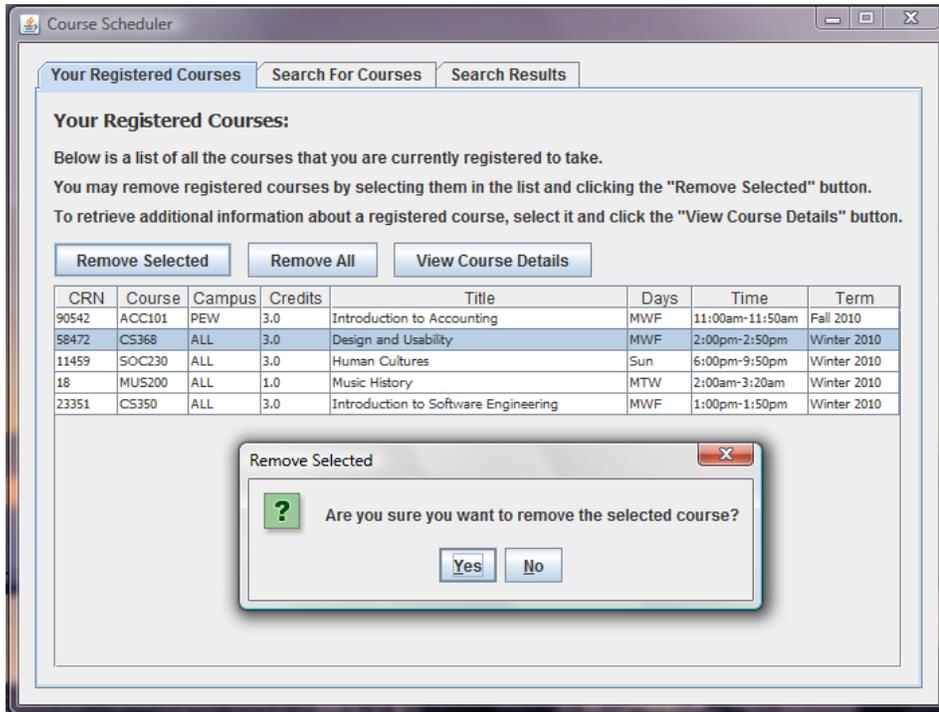
Desktop Graphical HTA

Below is a graphical HTA for registering a course using the desktop application:

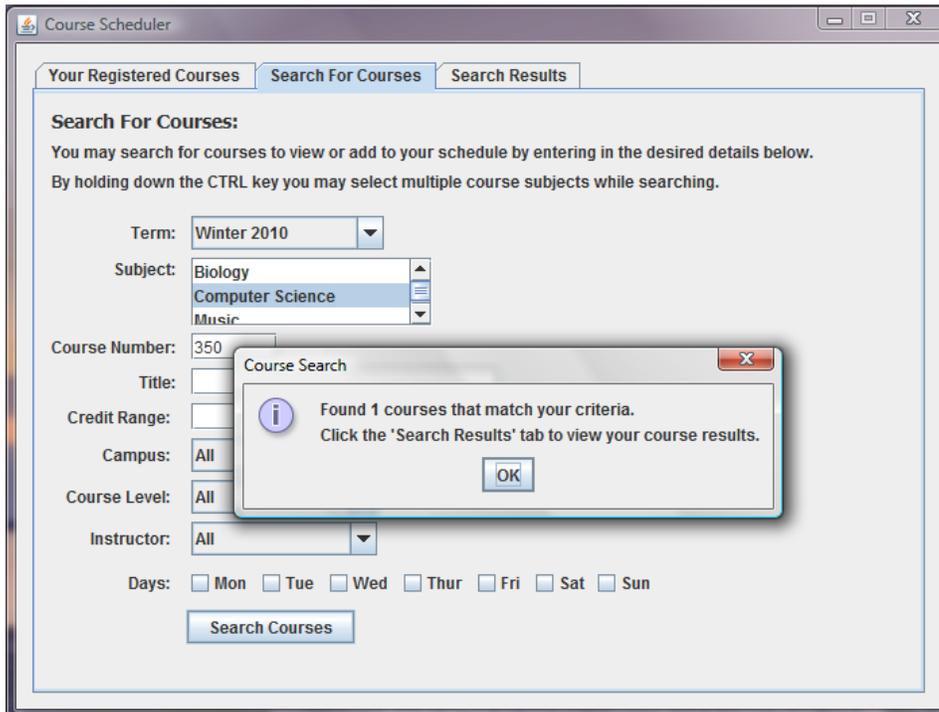


Screenshots of Desktop Application:

Removing a selected course from the registered courses list:



Searching for a course using a couple of filters:



Registering for a selected course in the search results:

The screenshot shows the 'Course Scheduler' application window with the 'Search Results' tab selected. The 'Search Results' section displays course details for '13799 - Intro to Writing - WRT100 - 1'. Below this, there is a table of search results. A dialog box is overlaid on the table, displaying a success message: 'You have been successfully registered for this course.' with an 'OK' button.

Course Details:
13799 - Intro to Writing - WRT100 - 1
Instructor: George Yoma
Instruction Method: Traditional
Credits: 2.0
Schedule Type: Lecture
Date Range: 09/23/2009 to 12/14/2009
Term: Winter 2010
Level: Undergraduate
Campus: Holland
Time: 1:00am - 11:50am
Days: MWF
Prereq. Exists: No
Capacity: 34
Accepted: 30
Remaining: 4
Attributes: N/A

CRN	Prereq.	Course	Time	Rem.
58472	Yes	CS368	m-2:50pm	12
23351	Yes	CS350	m-1:50pm	2
22233	No	MUS100	am-11:50am	27
33332	No	BIO120	m-9:50am	30
12332	No	BIO120	m-4:50pm	23
11459	No	SOC230	Sun 6:00pm-9:50pm	5
13799	No	WRT100	MWF 11:00am-11:50am	4
77799	No	WRT100	T 11:00am-11:50am	1
18	No	MUS200	MTW 2:00am-3:20am	62
20202	Yes	CS600	MWF 1:00am-2:50am	10

Getting additional course details while on the registered courses tab:

The screenshot shows the 'Course Scheduler' application window with the 'Your Registered Courses' tab selected. A 'Course Details' dialog box is open, displaying detailed information for course 13799. The background shows a table of registered courses.

Course Details:
13799 - Intro to Writing - WRT100 - 1
Instructor: George Yoma
Instruction Method: Traditional
Credits: 2.0
Schedule Type: Lecture
Date Range: 09/23/2009 to 12/14/2009
Term: Winter 2010
Level: Undergraduate
Campus: Holland
Time: 11:00am - 11:50am
Days: MWF
Prereq. Exists: No
Capacity: 34
Accepted: 30
Remaining: 4
Attributes: N/A

CRN	Course	Campus
13799	WRT100	HOL