

Choose My College (CMC)

WWW.CMC.NET

CMC is an online system, built around a database backend, intended to help college seekers find the right school[‡] for them. **CMC** has two types of users: administrators (aka *admins*) and regular *users* (aka users). Both types of users access **CMC** using accounts (created by administrators) via a unique username and password as shown in **Figure 1** below.

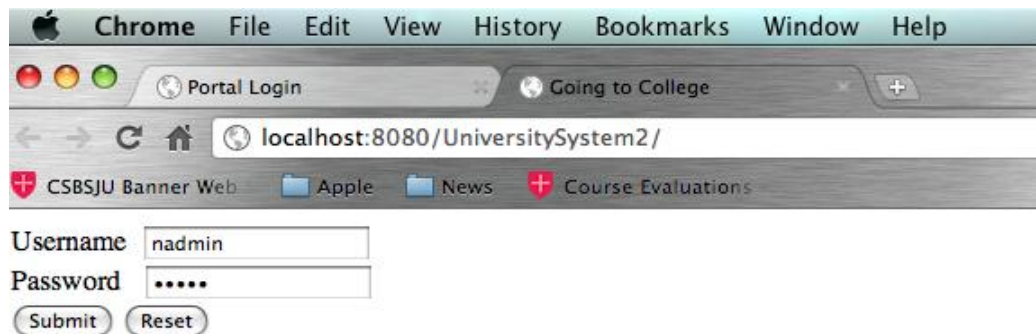


Figure 1: Login page

Upon successful login, users are forwarded to a menu page with three options as depicted in **Figure 2**. Admins will be forwarded to a different menu page as will be discussed in more details later in this requirements document.

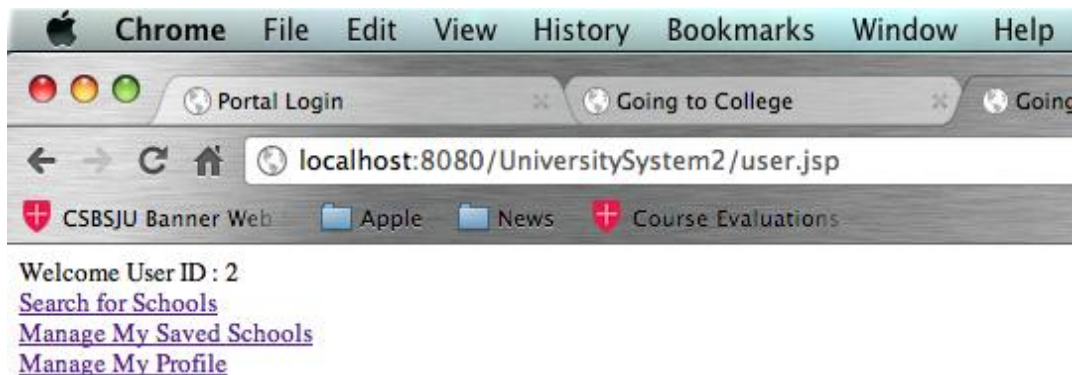


Figure 2: User menu page

User menu options include viewing/editing the user profile (Figure 3), managing saved schools (**Figure 4**), and searching for schools (**Figure 6**) in the database.

All information used within **CMC** is stored in a database already created for you. You will be provided with a library of methods to allow your system to add, remove, update, as well retrieve data from this database.

[‡] In this document, the terms “school”, “college” and “university” will be used interchangeably

CMC allows users to manage their accounts by viewing their saved information, which includes their user ID (*an integer*), first name (*a String*), last name (*a String*), username (*a String*), password (*a String*), and user type (a single character having the value 'a' for admins and 'u' for users). Users are only allowed to edit their first name, last name, and password (this happens when the user presses on the *Edit User* button). Any changes made to the user information form can be undone by pressing the *Reset* button.

back to menu

ID	2
First Name	John
Last Name	User
Username	juser
Password	user
Type	u

Edit User Reset

Figure 3: View/Edit user profile page

Users can save schools that they like in order to access them at a later time. All saved schools are accessible to users by selecting the *Manage My Saved Schools* menu option. This page displays all schools that have been saved by the user so far and allows the user to view complete school information about any school (by clicking the *View* button to the left of the school name) or remove a school from the user's list of saved schools (by clicking the *Remove* button to the right of the school name).

localhost:8080/UniversitySystem2/user/viewMySchools.jsp

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[back to menu](#)

School		
Remove	ABILENE CHRISTIAN UNIVERSITY	View
Remove	ADELPHI	View
Remove	BARD	View
Remove	DREW	View
Remove	REED	View
Remove	RICE	View
Remove	UNIVERSITY OF MINNESOTA	View
Remove	UNIVERSITY OF PITTSBURGH	View
Remove	YALE	View

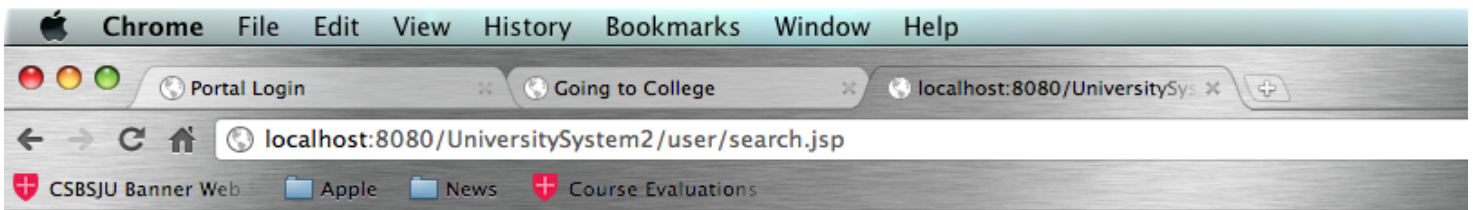
Figure 4: Manage saved schools page

Selecting to view a school will display a page similar to **Figure 5** containing complete school information which includes the following: school name (*a String*), state (*a String*), location (*a String which can be one of the following: SUBURBAN, URBAN, SMALL-CITY, or -1 if unknown*), control (*a String which can be one of the following: PRIVATE, STATE, CITY, or -1 if unknown*), number of students enrolled (*an integer*), percentage of enrolled students that are females (*a real number between 0 and 100*), average SAT verbal score (*a real number between 0 and 800*) for enrolled students, average SAT math score (*a real number between 0 and 800*) for enrolled students, annual expenses (*a real number*) or tuition to attend the school, percent of enrolled students receiving financial aid (*a real number between 0 and 100*), total number of applicants that apply to the school annually (*an integer*), percent of applicants that get admitted (*a real number between 0 and 100*), percent of applicants that decide to enroll (*a real number between 0 and 100*), an integer value between 1 and 5 indicating the academic scale of the school (5 being best), an integer value between 1 and 5 indicating the quality of social life at the school (5 being best), an integer value between 1 and 5 indicating the quality of life at the school (5 being best), and up to five areas of study (all strings) that the school really excels at.

SCHOOL	ABILENE CHRISTIAN U
STATE	TEXAS
LOCATION	SUBURBAN
CONTROL	PRIVATE
NUMBER OF STUDENTS	10000
% FEMALE	50
SAT VERBAL	-1
SAT MATH	-1
EXPENSES	12088
% FINANCIAL AID	70
NUMBER OF APPLICANTS	4000
% ADMITTED	90
% ENROLLED	80
ACADEMICS SCALE (1-5)	2
SOCIAL SCALE (1-5)	3
QUALITY OF LIFE SCALE (1-5)	3
EMPHASES	LIBERAL-ARTS

Figure 5: *View school page*

Users can search for schools using the search menu depicted in **Figure 6**. Users need only provide search values for search fields of interest. Empty search fields should be ignored by the search algorithm.



[back to menu](#)

Search Menu

by SCHOOL NAME	contains <input type="text"/>	
by STATE	contains <input type="text"/>	
by LOCATION	<input type="text" value="URBAN"/>	(SUBURBAN, URBAN, SMALL-CITY or -1 for UNKNOWN)
by CONTROL	<input type="text" value="PRIVATE"/>	(PRIVATE, STATE, CITY or -1 for UNKNOWN)
by NUMBER OF STUDENTS	between <input type="text"/>	and <input type="text"/>
by % FEMALE	between <input type="text"/>	and <input type="text"/>
by SAT VERBAL	between <input type="text"/>	and <input type="text"/>
by SAT MATH	between <input type="text"/>	and <input type="text"/>
by EXPENSES	between <input type="text"/>	and <input type="text"/>
by % FINANCIAL AID	between <input type="text"/>	and <input type="text"/>
by NUMBER OF APPLICANTS	between <input type="text"/>	and <input type="text"/>
by % ADMITTED	between <input type="text"/>	and <input type="text"/>
by % ENROLLED	between <input type="text"/>	and <input type="text"/>
by ACADEMICS SCALE (1-5)	between <input type="text"/>	and <input type="text"/>
by SOCIAL SCALE (1-5)	between <input type="text"/>	and <input type="text"/>
by QUALITY OF LIFE SCALE (1-5)	between <input type="text"/>	and <input type="text"/>
by EMPHASES	contains either	
	<input type="text"/>	
	<input type="text"/>	
	<input type="text"/>	
	<input type="text"/>	
	<input type="text"/>	

Figure 6: School search menu

Figure 7 shows a list of schools that match the user's search criteria rank-ordered starting from the best match. Next to each school name two buttons appear. The *Save* button, allows the user to add the school to their list of saved schools. A pop-up new page similar to Figure 4 should appear with the saved school included. The *View* button will pop-up a new page similar to **Figure 8** showing all school information. In addition to displaying information on the selected school, this page: (1) allows the user to save the school, and (2) recommends and displays information on five additional schools that are most similar to the school being viewed. Each of the recommended schools will also have its own *Save* button.

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Portal Login Going to College Going to College

localhost:8080/UniversitySystem2/user/searchResults.jsp

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[back to search](#)

School		
Save	ABILENE CHRISTIAN UNIVERSITY	View
Save	AMERICAN UNIVERSITY OF BEIRUT	View
Save	BARNARD	View
Save	BAYLOR UNIVERSITY	View
Save	BENNINGTON	View
Save	BOSTON COLLEGE	View
Save	BOSTON UNIVERSITY	View
Save	BRANDEIS	View
Save	BROWN	View
Save	BUTLER	View
Save	CAL TECH	View
Save	CARLETON COLLEGE	View

Figure 7: Search results

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Portal Login Going to College Going to College

localhost:8080/UniversitySystem2/user/viewSearchedUniversity.jsp

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[back to search](#)

Save

SCHOOL	ABILENE CHRISTIAN U
STATE	TEXAS
LOCATION	SUBURBAN
CONTROL	PRIVATE
NUMBER OF STUDENTS	10000
% FEMALE	50
SAT VERBAL	-1
SAT MATH	-1
EXPENSES	12088
% FINANCIAL AID	70
NUMBER OF APPLICANTS	4000
% ADMITTED	90
% ENROLLED	80
ACADEMICS SCALE (1-5)	2
SOCIAL SCALE (1-5)	3
QUALITY OF LIFE SCALE (1-5)	3
EMPHASES	LIBERAL-ARTS

MAY WE ALSO RECOMMEND

Save

SCHOOL	DALLAS BAPTIST COLL
STATE	TEXAS
LOCATION	SUBURBAN
CONTROL	PRIVATE
NUMBER OF STUDENTS	10000
% FEMALE	45
SAT VERBAL	-1
SAT MATH	-1
EXPENSES	14380
% FINANCIAL AID	65
NUMBER OF APPLICANTS	4000
% ADMITTED	100
% ENROLLED	40
ACADEMICS SCALE (1-5)	1
SOCIAL SCALE (1-5)	2
QUALITY OF LIFE SCALE (1-5)	2
EMPHASES	LIBERAL-ARTS

Save

SCHOOL	NICHOLLS STATE
STATE	LOUISIANA

Figure 8: View a matching school along with recommended schools

Finally, users as well as admins should be provided with a logout option.

Admins can access **CMC** like regular users. When provided with a username and password on the logon page, **CMC** will access the database and forward each type to their respective menu based on the provided username and password combination. User menu page is shown above in Figure 2 while the admin menu page is shown in Figure 9.



Figure 9: Admin menu page

The *Manage Universities* option forwards admins to a page similar to **Figure 10** allowing them to add new schools or view/edit information on a given school.

back to menu

[Add a new University](#)

School	State	Location	Control	# of Students	% Females	SAT Verbal	SAT Math	Expenses	% with Financial Aid	# of Applicants	% Admitted	% Enrolled	Academics Scale (1-5)	Social Scale (1-5)	Quality of Life Scale (1-5)	
ABILENE CHRISTIAN UNIVERSITY	TEXAS	SUBURBAN	PRIVATE	10000	50	-1	-1	12088	70	4000	90	80	2	3	3	Edit
ADELPHI	NEW YORK	-1	PRIVATE	15000	70	500	475	37437	60	5500	70	40	2	2	2	Edit
AMERICAN UNIVERSITY OF BEIRUT	FOREIGN	URBAN	PRIVATE	10000	40	-1	-1	16403	20	5500	50	80	3	3	3	Edit
ARIZONA STATE	ARIZONA	-1	STATE	40000	50	450	500	16181	50	17000	80	60	3	4	5	Edit
AUBURN	ALABAMA	SMALL-CITY	STATE	35000	21	480	545	12468	50	5500	90	60	2	4	4	Edit
AUGSBURG	MINNESOTA	SMALL-CITY	PRIVATE	10000	43	420	490	29991	80	4000	85	50	1	3	4	Edit
BARD	NEW YORK	SMALL-CITY	PRIVATE	10000	55	560	520	32239	80	4000	70	30	3	4	4	Edit
BARNARD	NEW YORK	URBAN	PRIVATE	10000	100	630	610	31009	60	4000	60	20	4	3	4	Edit
BARUCH	NEW YORK	URBAN	STATE	25000	50	450	400	11833	80	5500	60	50	3	2	3	Edit
BAYLOR UNIVERSITY	TEXAS	URBAN	PRIVATE	15000	55	485	521	21658	65	11500	65	75	4	4	3	Edit
BENNINGTON	VERMONT	SUBURBAN	PRIVATE	10000	70	-1	-1	27317	40	4000	70	30	4	5	4	Edit
BOSTON COLLEGE	MASSACHUSETTS	SUBURBAN	PRIVATE	15000	60	500	550	34042	60	11500	50	40	4	5	3	Edit
BOSTON UNIVERSITY	MASSACHUSETTS	URBAN	PRIVATE	25000	55	550	575	32296	60	15000	60	40	4	4	3	Edit
BRANDIS	MASSACHUSETTS	SUBURBAN	PRIVATE	10000	50	500	520	20186	40	4000	60	45	4	2	4	Edit

Figure 10: "Manage universities" option

Clicking on the *Add a new University* hyperlink will show the page depicted in **Figure 11** which allows an admin to create a new school after filling out the form with the school information and pressing the *Add School* button. The school name must be unique. The *Cancel Changes* button resets the form to empty.

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Portal Login localhost:8080/UniversitySy...

localhost:8080/UniversitySystem2/admin/addUniversity.

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Welcome Admin ID : 1

SCHOOL	
STATE	
LOCATION	
CONTROL	
NUMBER OF STUDENTS	
% FEMALE	
SAT VERBAL	
SAT MATH	
EXPENSES	
% FINANCIAL AID	
NUMBER OF APPLICANTS	
% ADMITTED	
% ENROLLED	
ACADEMICS SCALE (1-5)	
SOCIAL SCALE (1-5)	
QUALITY OF LIFE SCALE (1-5)	
EMPHASES	

ADD SCHOOL CANCEL CHANGES

Figure 11: Add a new University

The *Edit* button next to the school name in **Figure 11**, forwards the admin to a page similar to Figure 12 which shows complete school information (similar to **Figure 5**) and allows the admin to update school information (requires pressing the *Apply Changes* button afterwards). The school name cannot be changed by the admin. As before, the *Cancel Changes* button undoes any changes to the school information made by the admin.

ABILENE CHRISTIAN UNIVERSITY Welcome Admin ID : 1

SCHOOL	ABILENE CHRISTIAN U
STATE	TEXAS
LOCATION	SUBURBAN
CONTROL	PRIVATE
NUMBER OF STUDENTS	10000
% FEMALE	50
SAT VERBAL	-1
SAT MATH	-1
EXPENSES	12088
% FINANCIAL AID	70
NUMBER OF APPLICANTS	4000
% ADMITTED	90
% ENROLLED	80
ACADEMICS SCALE (1-5)	2
SOCIAL SCALE (1-5)	3
QUALITY OF LIFE SCALE (1-5)	3
EMPHASES	LIBERAL-ARTS

APPLY CHANGES CANCEL CHANGES

Figure 12: View/Edit a University

Admins are also allowed to manage **CMC** users (which include admins as well as regular users) as shown in Figure 13. Adding a new user is done by completing the form shown in Figure 14 (note that username must be unique and type can be 'a' for admin or 'u' for regular user).

[back to menu](#)

[Add new user](#)

	ID	First	Last	Username	Password	Type	Status	
deactivate	1	Noreen	Admin	nadmin	admin	a	Y	edit
deactivate	2	John	User	juser	user	u	Y	edit
deactivate	3	Lynn	User	luser	user	u	N	edit

Figure 13: "Manage users" option

First Name	
Last Name	
Username	
Password	
Type	

Figure 14: *Add a new user*

Editing a user is done by changing the user information depicted in the form shown in **Figure 15** (note that username must be unique and type can be 'a' for admin or 'u' for regular user). Admins can only modify the first name, last name, password, type and status ('Y' for an active account and 'N' for an inactive account) fields. New users will have a 'Y' status by default.

juser Welcome Admin ID : 1

ID	2
First Name	John
Last Name	User
Username	juser
Password	user
Type	u
Status	Y

Figure 15: *View/Edit a user*

Admins can also deactivate user accounts by pressing the deactivate button next to the user in Figure 13. This will set the user Status to 'N' instead of 'Y' and will ban users from accessing **CMC** (until their accounts are activated once again by an admin).

Please refer to **Figure 16** for a simplified Website map for **CMC**.

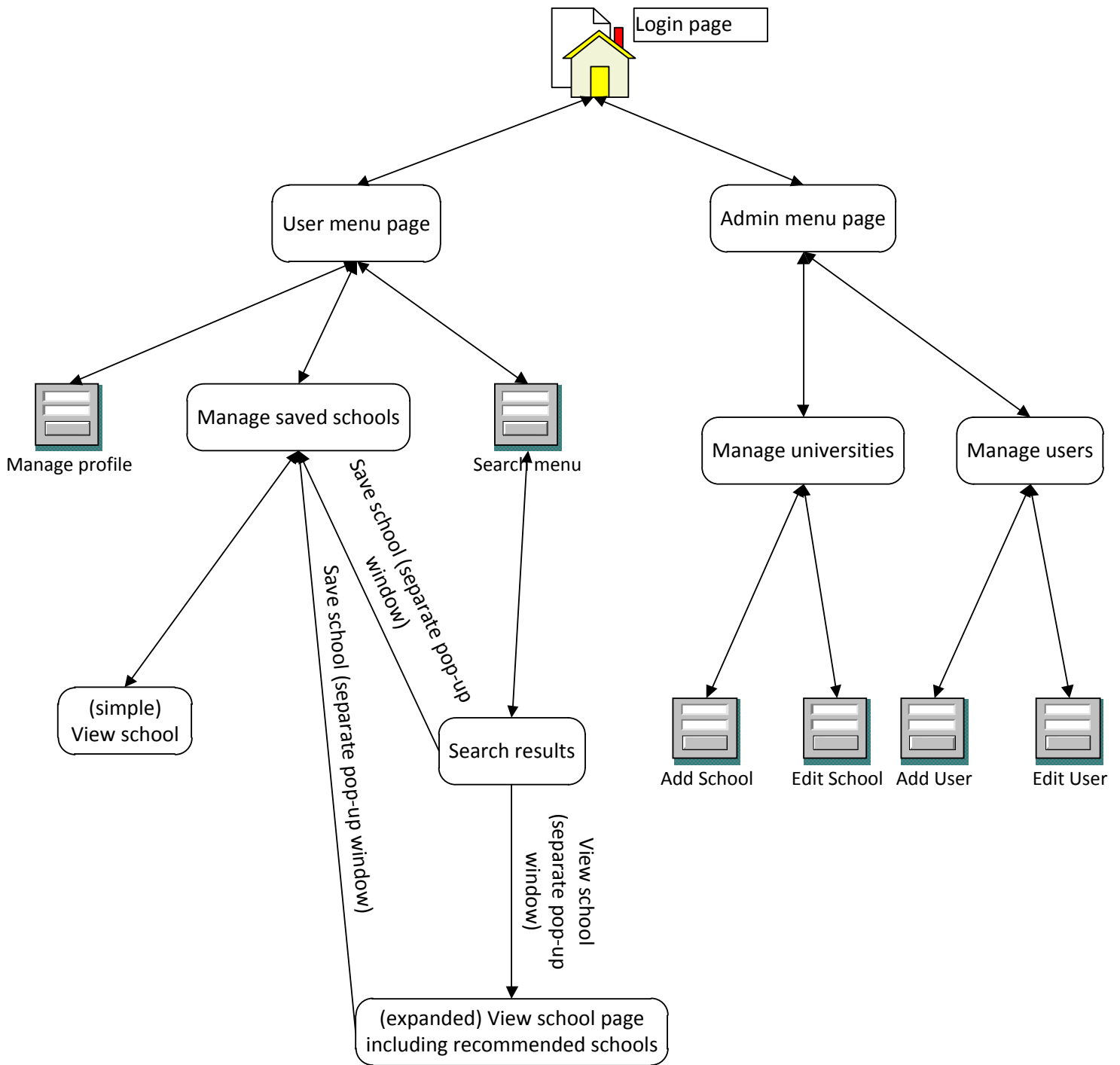


Figure 16: CMC Website map