

CHOOSE MY COLLEGE (CMC)

CMC is an online system built on top of a database backend with the objective of helping college seekers and their parents find the right school[‡]. **CMC** has two types of users: administrators (or *admins*) and regular *users*. A user must have a valid account (created by an admin) in order to access **CMC** via a username and a corresponding password as shown in **Fig 1**.

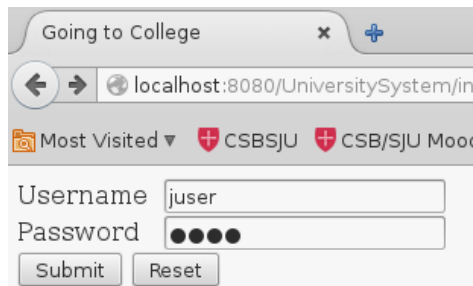


Fig 1: Login page

Upon successful user login, the menu depicted in **Fig 2** appears. User menu options include viewing/editing the user profile (**Fig 3**), managing saved schools (**Fig 4**), and searching for schools (**Fig 6**). Admins are forwarded to a different page (the admin menu page) shown in **Fig 9** (discussed later on in this requirements document).

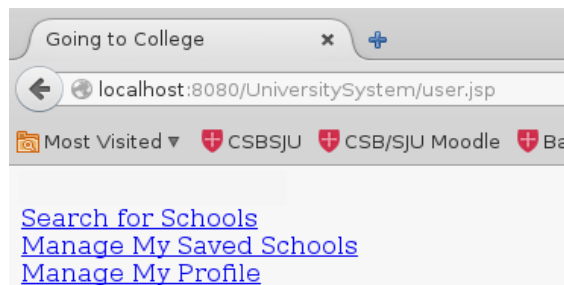


Fig 2: User menu page

All information used within **CMC** is stored in a remote MySQL database which is already up and running; you will be provided with a Java library to enable your system to add, remove, update, as well retrieve data from this database.

CMC allows users to manage their accounts by viewing their saved information, which includes their first name (*a String*), last name (*a String*), unique username (*a String*), password (*a String*), and user type (a single character with the value '*a*' for admins and '*u*' for users). As shown in **Fig 3**, users are only allowed to edit their first name, last name, and password (by pressing the *Edit User* button). Any changes made to the user information form can be undone by pressing the *Reset* button.

Users can save schools 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. As shown in **Fig 4**, the saved schools page displays all

[‡] In this project, the terms “school”, “college” and “university” are used interchangeably

schools that have been saved by the user so far and allows the user to view complete school information about any school (by pressing the *View* button to the left of the school name) or remove a school from the user's list of saved schools (by pressing the *Remove* button to the right of the school name).

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

Fig 3: View/Edit user profile page

School		
<input type="button" value="Remove"/>	ADELPHI	<input type="button" value="View"/>
<input type="button" value="Remove"/>	BARD	<input type="button" value="View"/>
<input type="button" value="Remove"/>	BROWN	<input type="button" value="View"/>

Fig 4: Manage saved schools page

SCHOOL	BARNARD
STATE	NEW YORK
LOCATION	URBAN
CONTROL	PRIVATE
NUMBER OF STUDENTS	10000
% FEMALE	100
SAT VERBAL	630
SAT MATH	610
EXPENSES	31009
% FINANCIAL AID	60
NUMBER OF APPLICANTS	4000
% ADMITTED	60
% ENROLLED	20
ACADEMICS SCALE (1-5)	4
SOCIAL SCALE (1-5)	3
QUALITY OF LIFE SCALE (1-5)	4
EMPHASES	<input type="button" value="ART-HISTORY"/> <input type="button" value="BIOLOGY"/> <input type="button" value="ECONOMICS"/> <input type="button" value="LIBERAL-ARTS"/>

Fig 5: View school page

Selecting to view a school will display a page similar to **Fig 5** containing complete school information including 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) in which the school excels.

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

Search Menu

by SCHOOL NAME	contains	<input type="text"/>
by STATE	contains	<input type="text"/>
by LOCATION		<input type="text"/> (SUBURBAN, URBAN, SMALL-CITY or -1 for UNKNOWN)
by CONTROL		PRIVATE <input type="text"/> (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	<div><input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></div>

Search For Schools

Reset Form

Fig 6: School search menu

Fig 7 shows a list of schools that match the user’s search criteria rank-ordered starting from the best match (process described in a separate document). 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 page similar to **Fig 4** should appear with the saved school included. The *View* button will display a page similar to **Fig 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.

School		
Save	ABILENE CHRISTIAN UNIVERSITY	View
Save	ADELPHI	View
Save	AMERICAN UNIVERSITY OF BEIRUT	View
Save	AUGSBURG	View
Save	BARD	View
Save	BARNARD	View
Save	BAYLOR UNIVERSITY	View
Save	RENNINGTON	View

Fig 7: Search results

Save

SCHOOL	BARD
STATE	NEW YORK
LOCATION	SMALL-CITY
CONTROL	PRIVATE
NUMBER OF STUDENTS	10000
% FEMALE	55
SAT VERBAL	9
SAT MATH	560
EXPENSES	520
% FINANCIAL AID	32239
NUMBER OF APPLICANTS	80
% ADMITTED	4000
% ENROLLED	70
ACADEMICS SCALE (1-5)	30
SOCIAL SCALE (1-5)	3
QUALITY OF LIFE SCALE (1-5)	4
EMPHASES	LIBERAL-ARTS

MAY WE ALSO RECOMMEND

Save

SCHOOL	BARNARD
STATE	NEW YORK
LOCATION	URBAN
CONTROL	PRIVATE
NUMBER OF STUDENTS	10000

....

Save

SCHOOL	CASE WESTERN
STATE	OHIO
LOCATION	URBAN
CONTROL	PRIVATE
NUMBER OF STUDENTS	10000

....

Fig 8: View a matching school along with recommended schools (only partially displayed)

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

Admins can access **CMC** just like regular users. When provided with a valid 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 **Fig 2** while the admin menu page is shown in **Fig 9**.

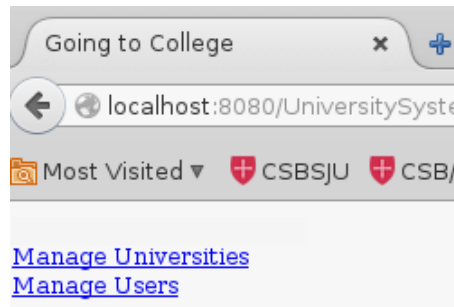


Fig 9: Admin menu page

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

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	21	-1	-1	12088	70	4000	90	80	2	3	Edit
ADELPHI	NEW YORK	-1	PRIVATE	15000	70	15	500	475	37437	60	5500	70	40	2	2	Edit
AMERICAN UNIVERSITY OF BEIRUT	FOREIGN	URBAN	PRIVATE	10000	40	4	-1	-1	16403	20	5500	50	80	3	3	Edit
ARIZONA STATE	ARIZONA	-1	STATE	40000	50	20	450	500	16181	50	17000	80	60	3	4	Edit
AUBURN	ALABAMA	SMALL-CITY	STATE	35000	21	18	480	545	12468	50	5500	90	60	2	4	Edit
AUGSBURG	MINNESOTA	SMALL-CITY	PRIVATE	10000	43	10	420	490	29991	80	4000	85	50	1	3	Edit
BARD	NEW YORK	SMALL-CITY	PRIVATE	10000	55	9	560	520	32239	80	4000	70	30	3	4	Edit
BARNARD	NEW YORK	URBAN	PRIVATE	10000	100	8	630	610	31009	60	4000	60	20	4	3	Edit
BARUCH	NEW YORK	URBAN	STATE	25000	50	15	450	400	11833	80	5500	60	50	3	2	Edit
BAYLOR UNIVERSITY	TEXAS	URBAN	PRIVATE	15000	55	21	485	521	21658	65	11500	65	75	4	4	Edit
BENNINGTON	VERMONT	SUBURBAN	PRIVATE	10000	70	9	-1	-1	27317	40	4000	70	30	4	5	Edit
BOSTON COLLEGE	MASSACHUSETTS	SUBURBAN	PRIVATE	15000	60	20	500	550	34042	60	11500	50	40	4	5	Edit

Fig 10: "Manage universities" option

Clicking on the *Add a new University* hyperlink will show the page depicted in **Fig 11** which allows an admin to add a new school by completing 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.

The *Edit* button next to the school name in **Fig 11**, forwards the admin to a page similar to **Fig 12** which shows complete school information (similar to **Fig 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.

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	

Fig 11: Add a new University

SCHOOL	BARNARD
STATE	NEW YORK
LOCATION	URBAN
CONTROL	PRIVATE
NUMBER OF STUDENTS	10000
% FEMALE	100
SAT VERBAL	8
SAT MATH	630
EXPENSES	610
% FINANCIAL AID	31009
NUMBER OF APPLICANTS	60
% ADMITTED	4000
% ENROLLED	60
ACADEMICS SCALE (1-5)	20
SOCIAL SCALE (1-5)	4
QUALITY OF LIFE SCALE (1-5)	3
EMPHASES	ART-HISTORY BIOLOGY ECONOMICS LIBERAL-ARTS

Fig 12: View/Edit a University

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

Add new user								
		First	Last	Username	Password	Type	Status	
<input type="button" value="deactivate"/>		Noreen	Admin	nadmin	admin	a	Y	<input type="button" value="edit"/>
<input type="button" value="deactivate"/>		John	User	juser	user	u	Y	<input type="button" value="edit"/>
<input type="button" value="deactivate"/>		Lynn	User	luser	user	u	N	<input type="button" value="edit"/>

Fig 13: “Manage users” option

First Name	<input type="text"/>
Last Name	<input type="text"/>
Username	<input type="text"/>
Password	<input type="text"/>
Type	<input type="text"/>
<input type="button" value="Add User"/> <input type="button" value="Reset"/>	

Fig 14: Add a new user

Editing a user can be accomplished by changing the user information depicted in the form shown in **Fig 15** (note that username must be unique and type should be either '**a**' for admins or '**u**' for regular users). 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.

First Name	<input type="text" value="Noreen"/>
Last Name	<input type="text" value="Admin"/>
Username	<input type="text" value="nadmin"/>
Password	<input type="text" value="admin"/>
Type	<input type="text" value="a"/>
Status	<input type="text" value="Y"/>
<input type="button" value="Edit User"/> <input type="button" value="Reset"/>	

Fig 15: View/Edit a user

Admins can also deactivate user accounts by pressing the deactivate button next to the user in **Fig 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).