

Preliminary Design
Let's Make a Match

Falcon Enterprises

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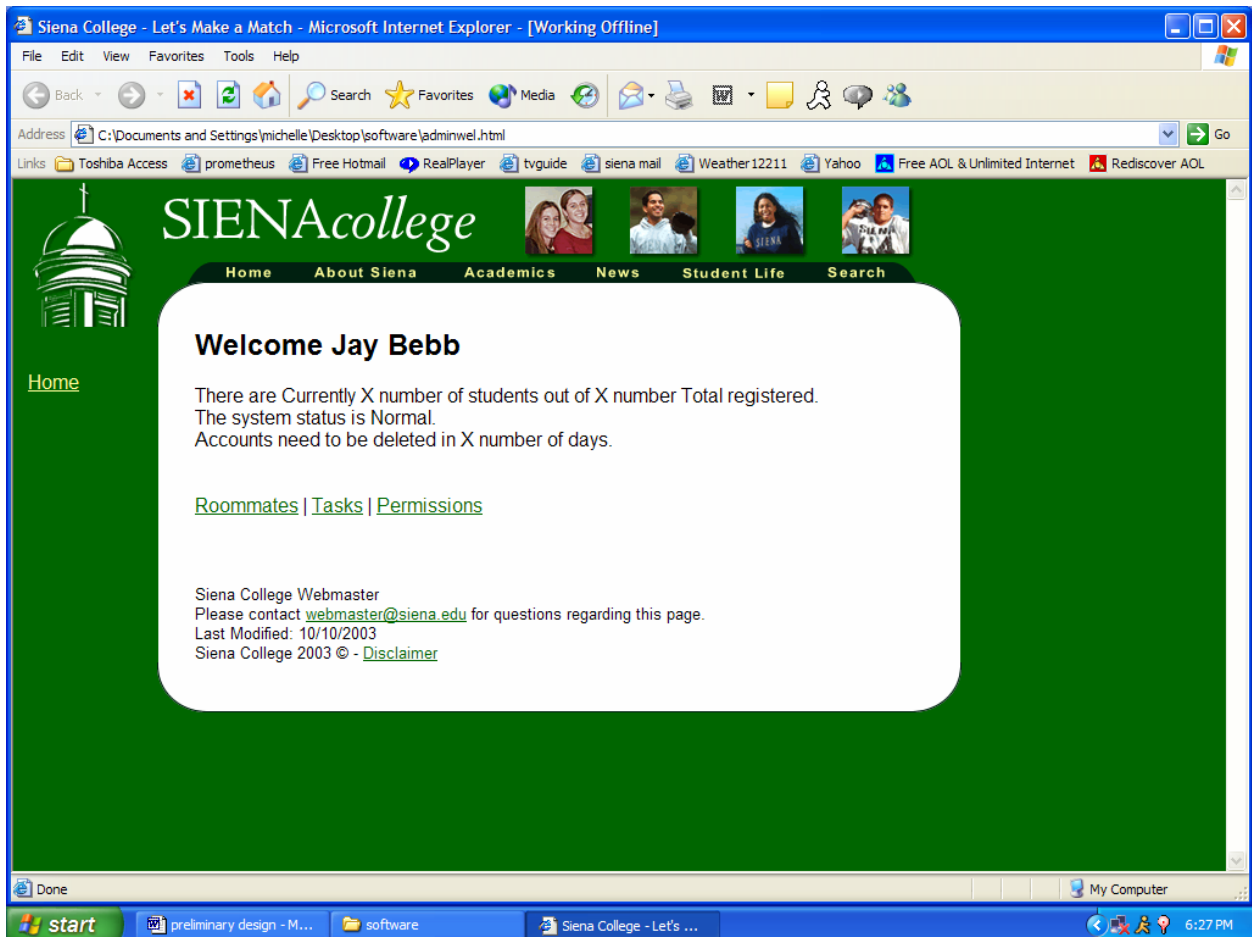
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User Displays and Report Formats



The screenshot shows a standard Windows-style dialog box with a title bar that reads "Connect to match.siena.edu". The dialog has a blue header area with a key icon. Below the header, the text "match.siena.edu" is displayed. There are two input fields: "User name:" with a dropdown arrow and a "Password:" field. A checkbox labeled "Remember my password" is located below the password field. At the bottom of the dialog are "OK" and "Cancel" buttons.

Administrator Screens



The screenshot shows a Microsoft Internet Explorer browser window displaying the Siena College administrator interface. The browser title is "Siena College - Let's Make a Match - Microsoft Internet Explorer - [Working Offline]". The address bar shows the path "C:\Documents and Settings\nichelle\Desktop\software\adminwel.html". The page features a green background with the "SIENAcollege" logo and a navigation menu with links for Home, About Siena, Academics, News, Student Life, and Search. A central white box contains the following text:

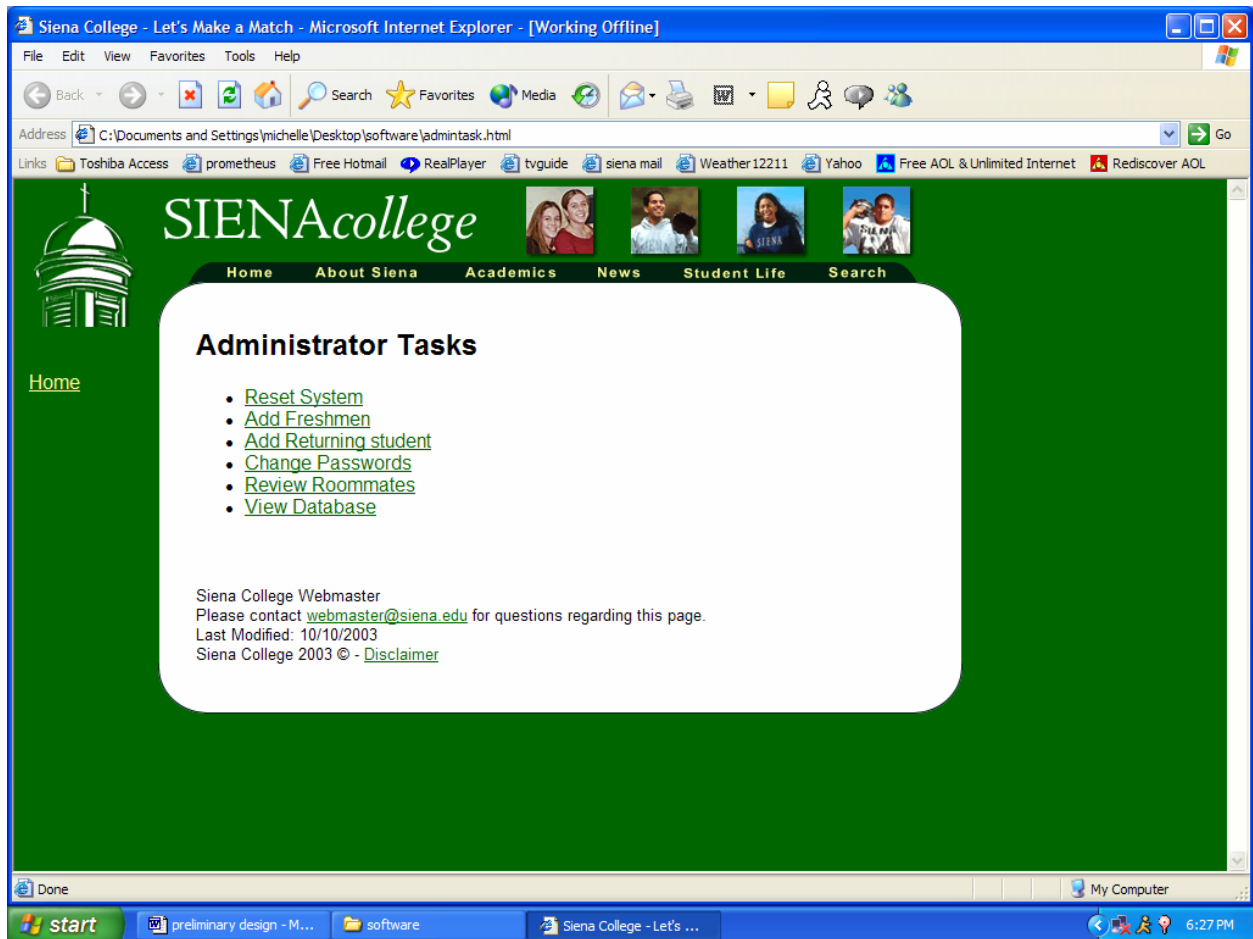
Welcome Jay Bebb

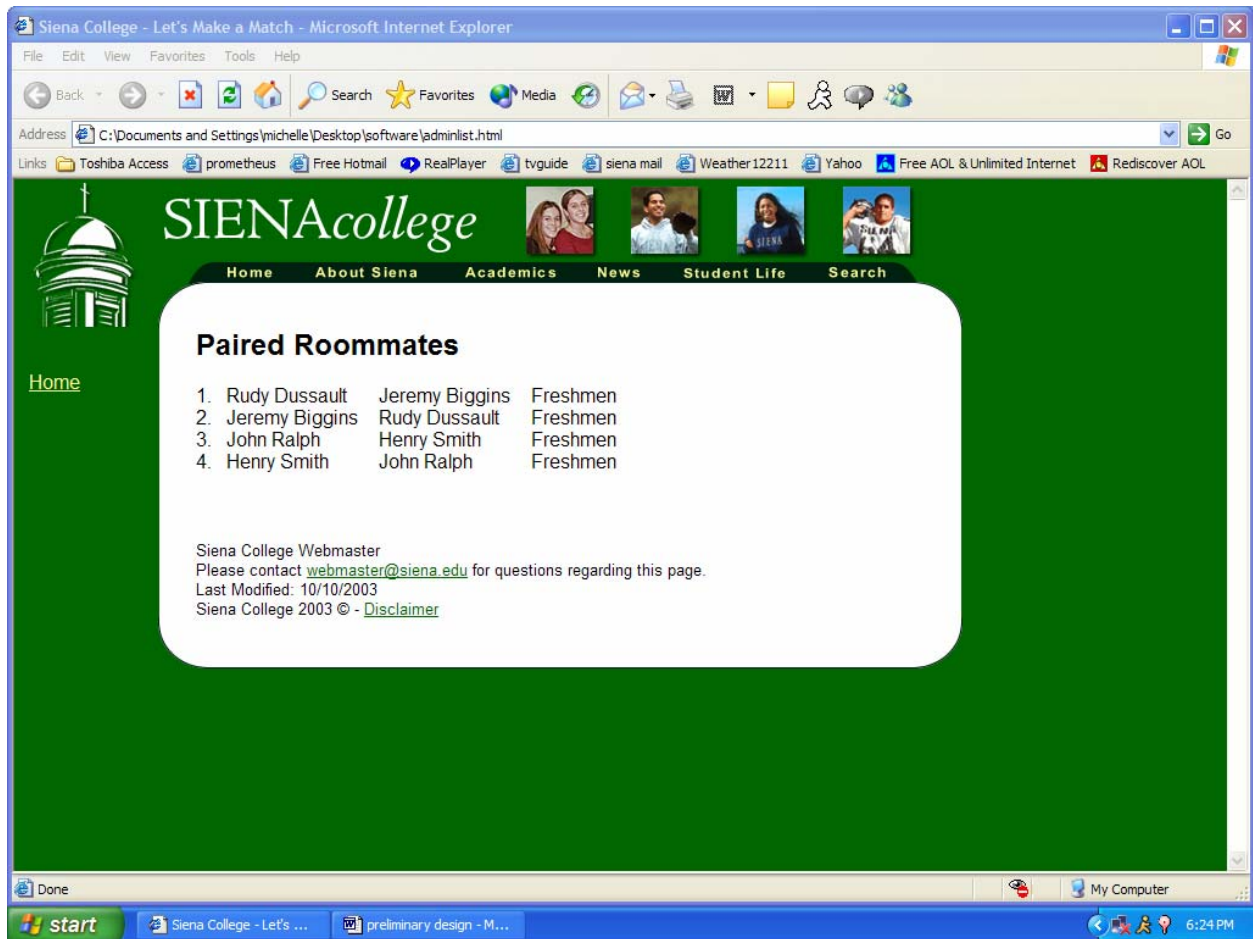
There are Currently X number of students out of X number Total registered.
The system status is Normal.
Accounts need to be deleted in X number of days.

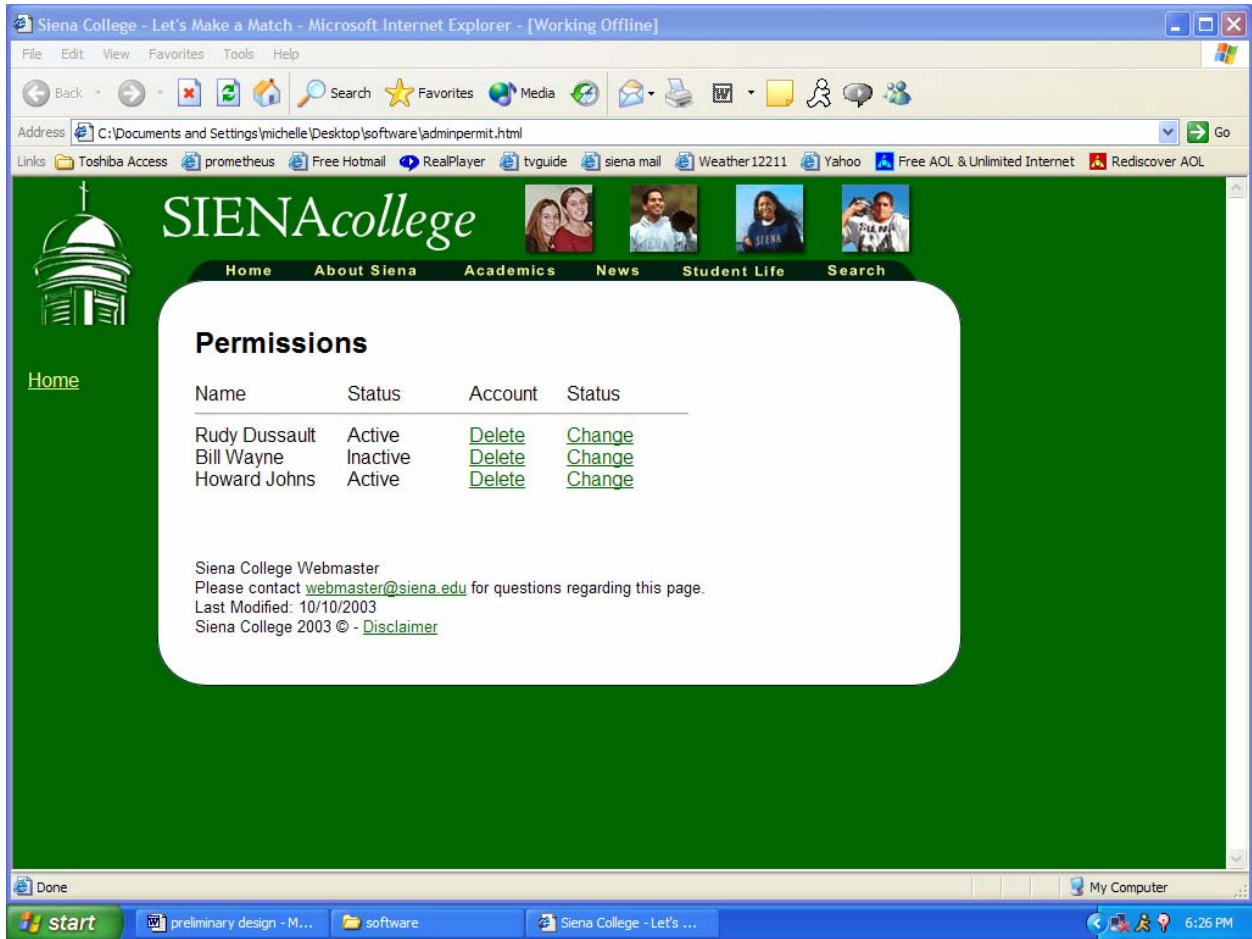
[Roommates](#) | [Tasks](#) | [Permissions](#)

Siena College Webmaster
Please contact webmaster@siena.edu for questions regarding this page.
Last Modified: 10/10/2003
Siena College 2003 © - [Disclaimer](#)

The browser's taskbar at the bottom shows the Start button, several open applications, and the system clock displaying 6:27 PM.







Siena College - Let's Make a Match - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail

Address http://cpmail.siena.edu/file/Attachment/siena.html?sid=41CBCB5143BE15A6F4E1DAB43479720AA553CF69&userid=kimberly.milton%40students.siena.edu&srcfolder=INBx Go Links



SIENAcollege

Home About Siena Academics News Student Life Search

Let's make a match



Freshman login here



Returning students login here

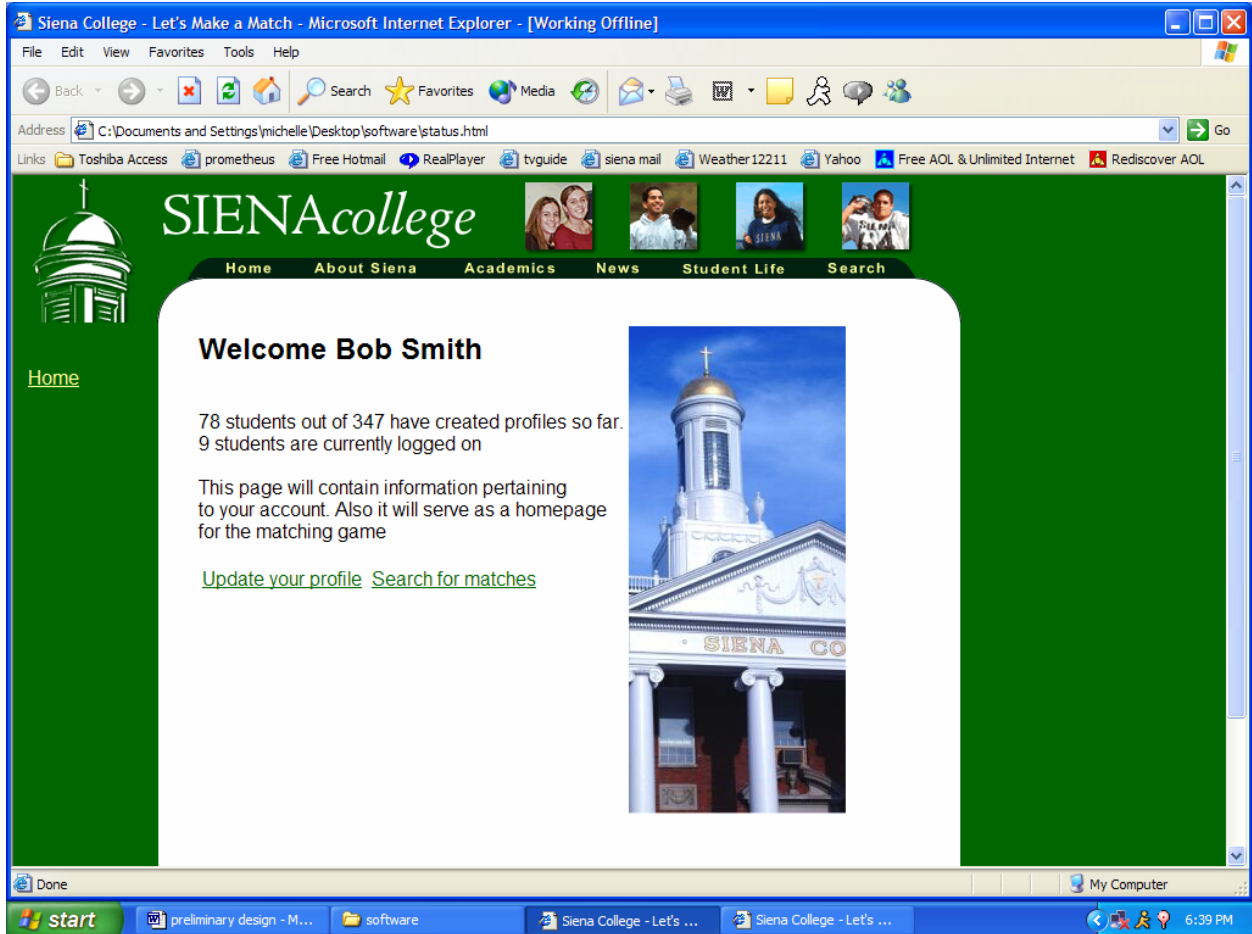
lets make a match is an online roommate pairing game. It is a service provided for you, the student by your friends at [Residence life](#). Click your class above to log in, and be prepared to make new friends!

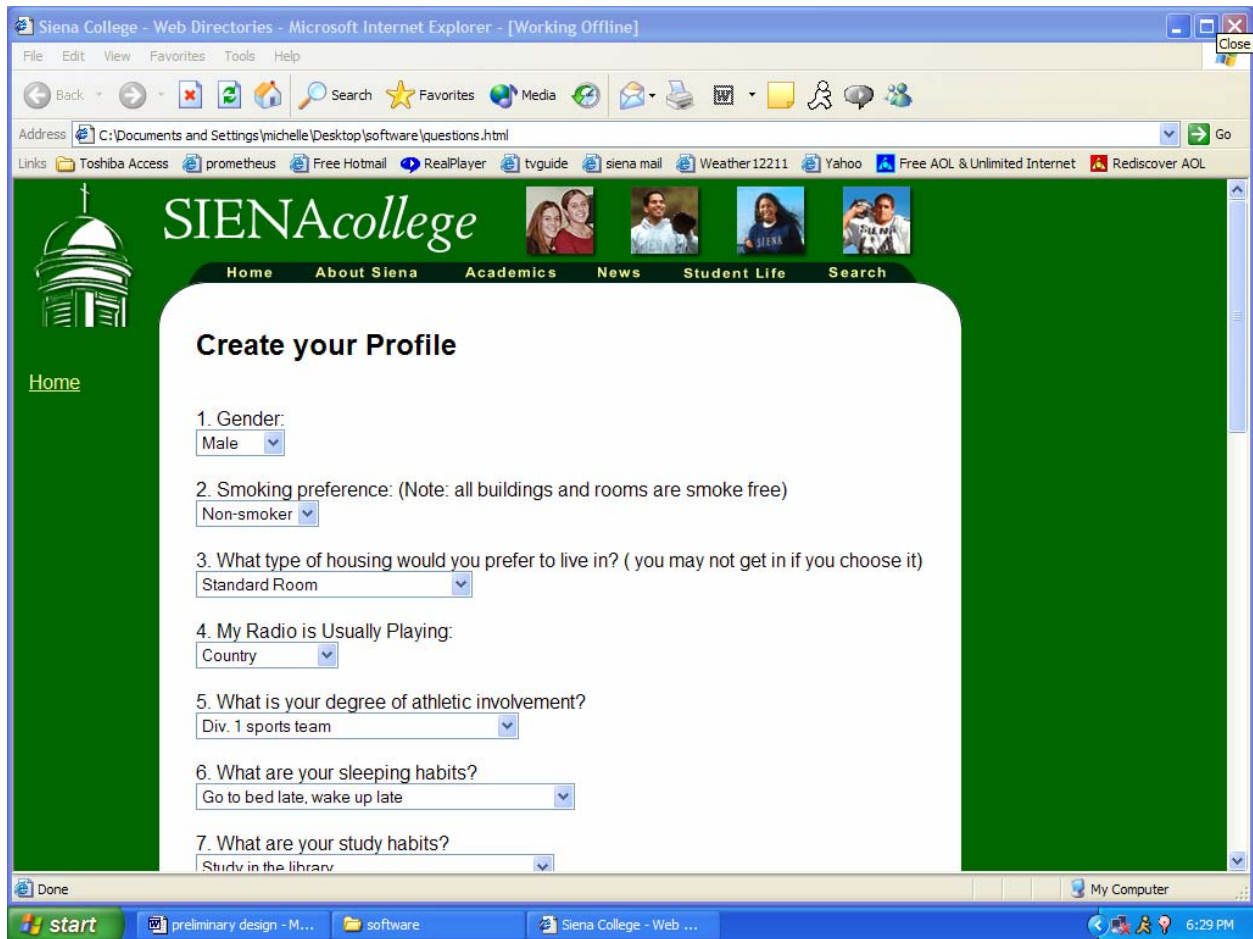
Siena College Webmaster
 Please contact webmaster@siena.edu for questions regarding this page.
 Last Modified: 10/10/2003
 Siena College 2003 © - [Disclaimer](#)

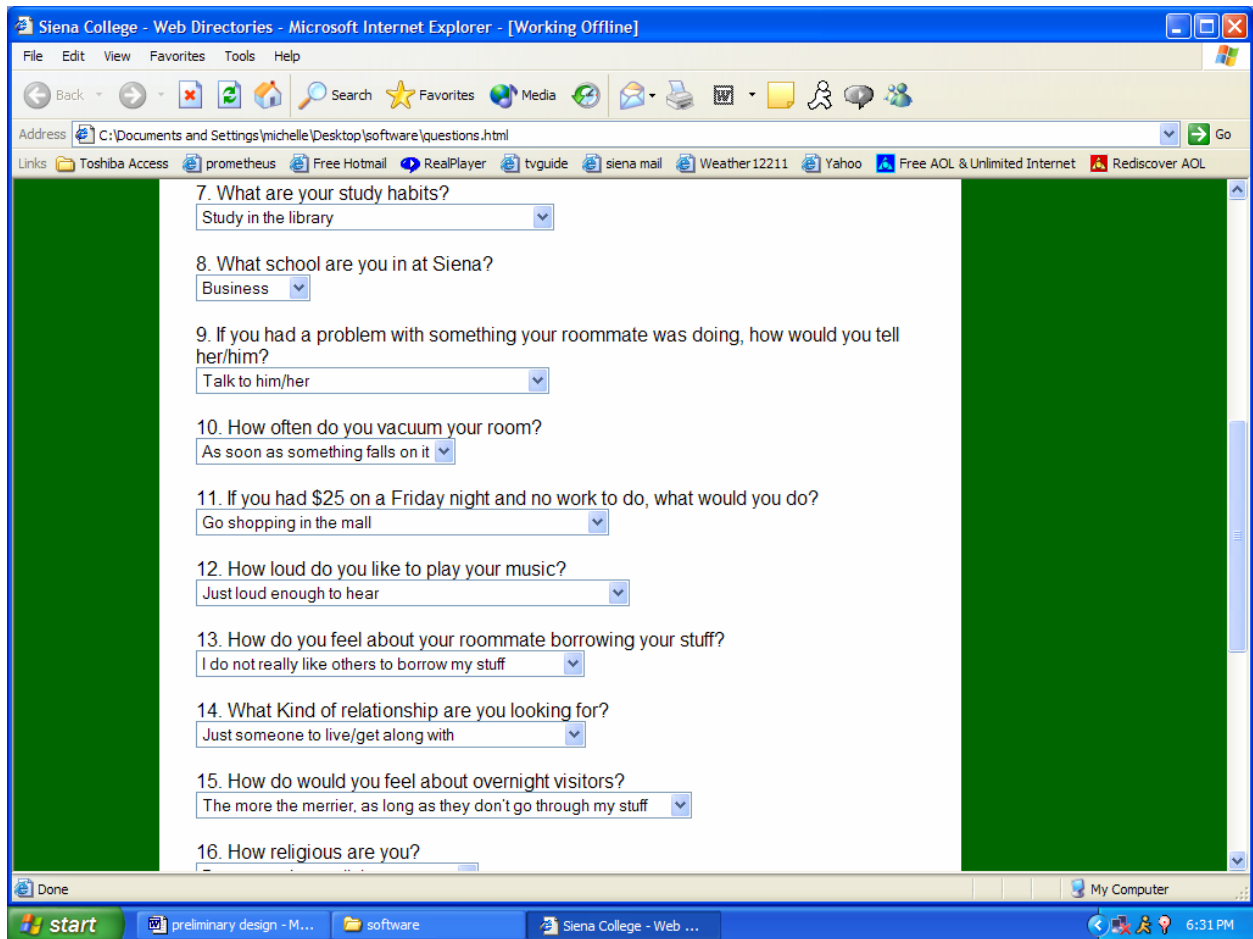
Done Internet

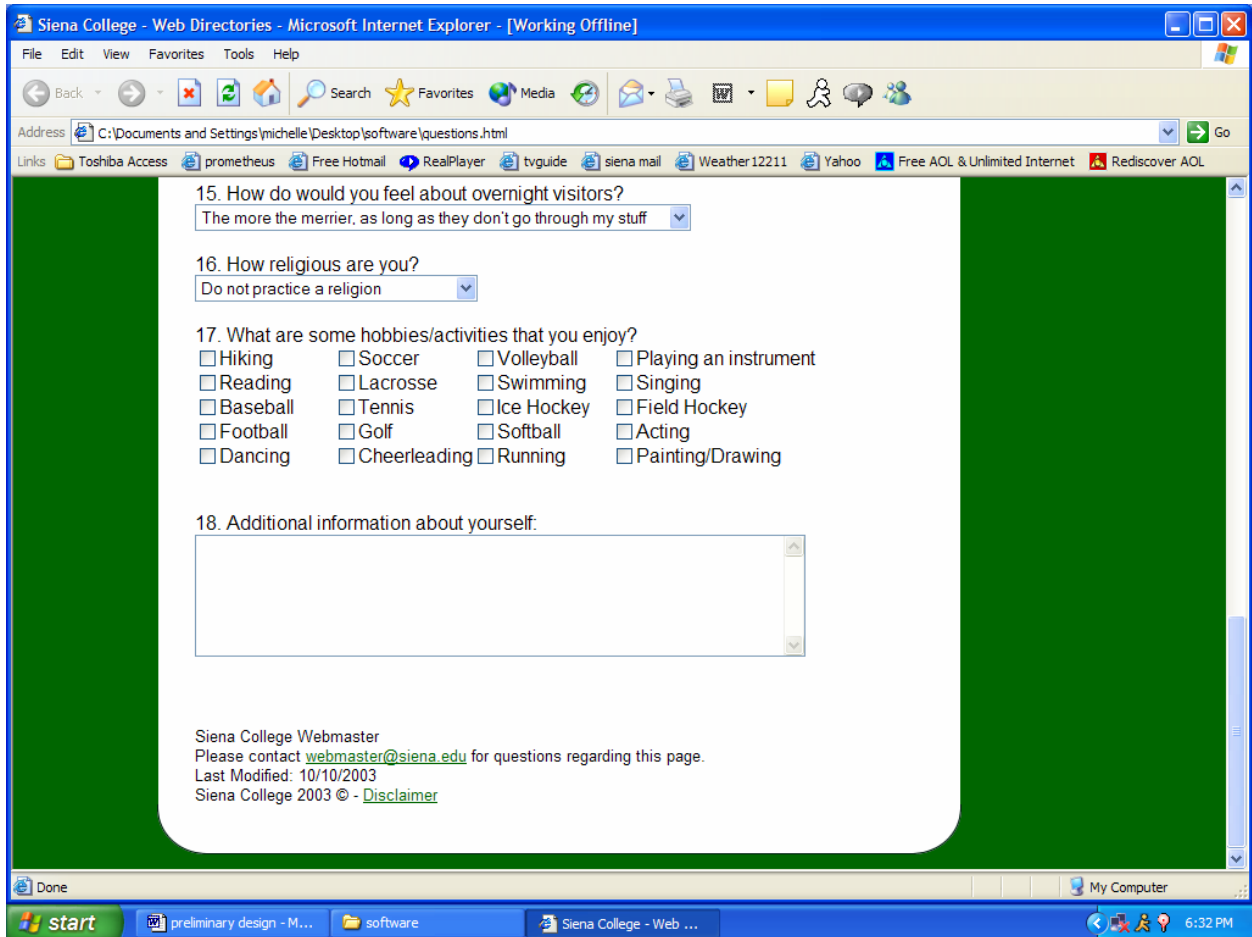
start Internet Mail Server ... preliminary design - M... I - Microsoft Internet ... Siena College - Let's ... 8:08 PM

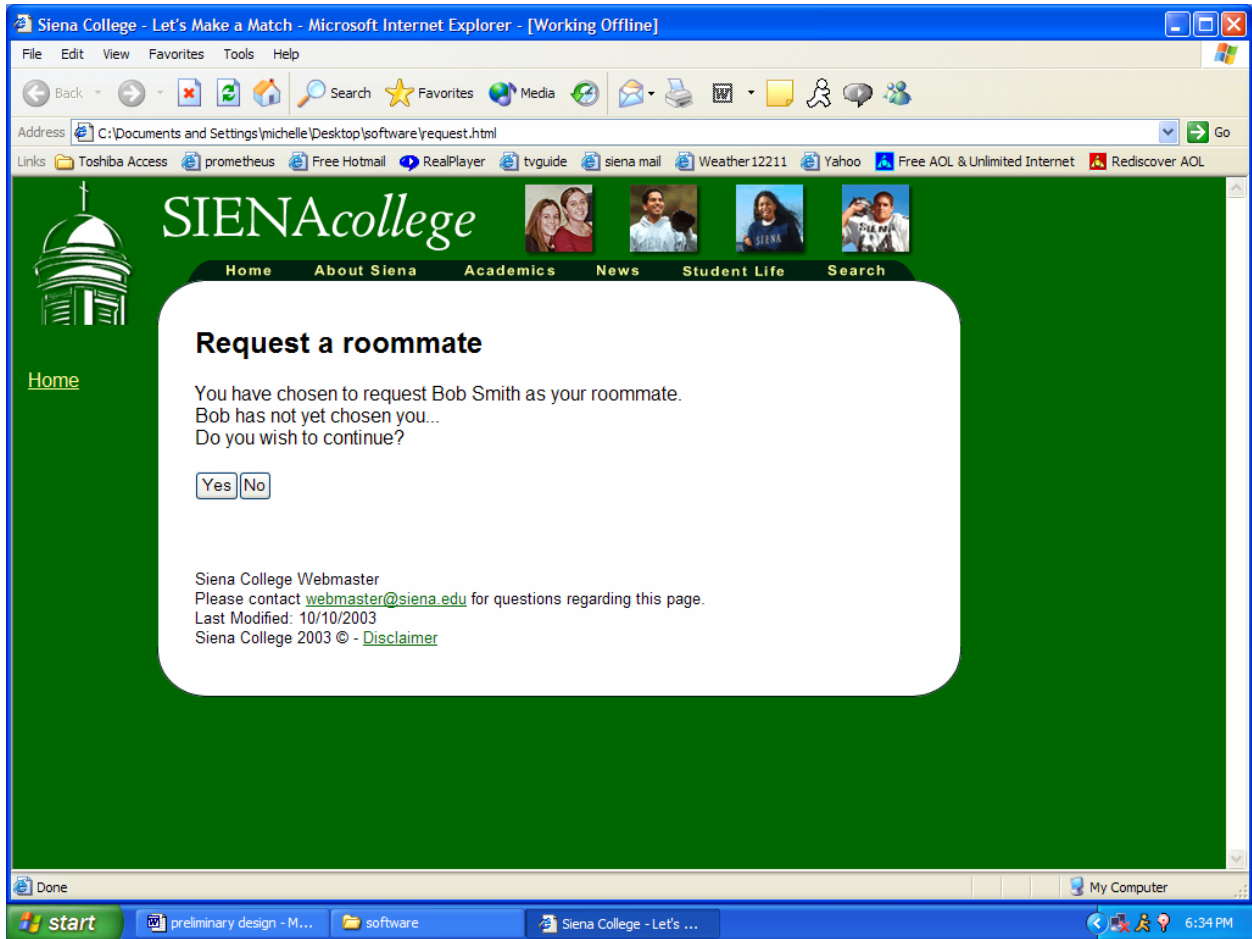
Students Screens

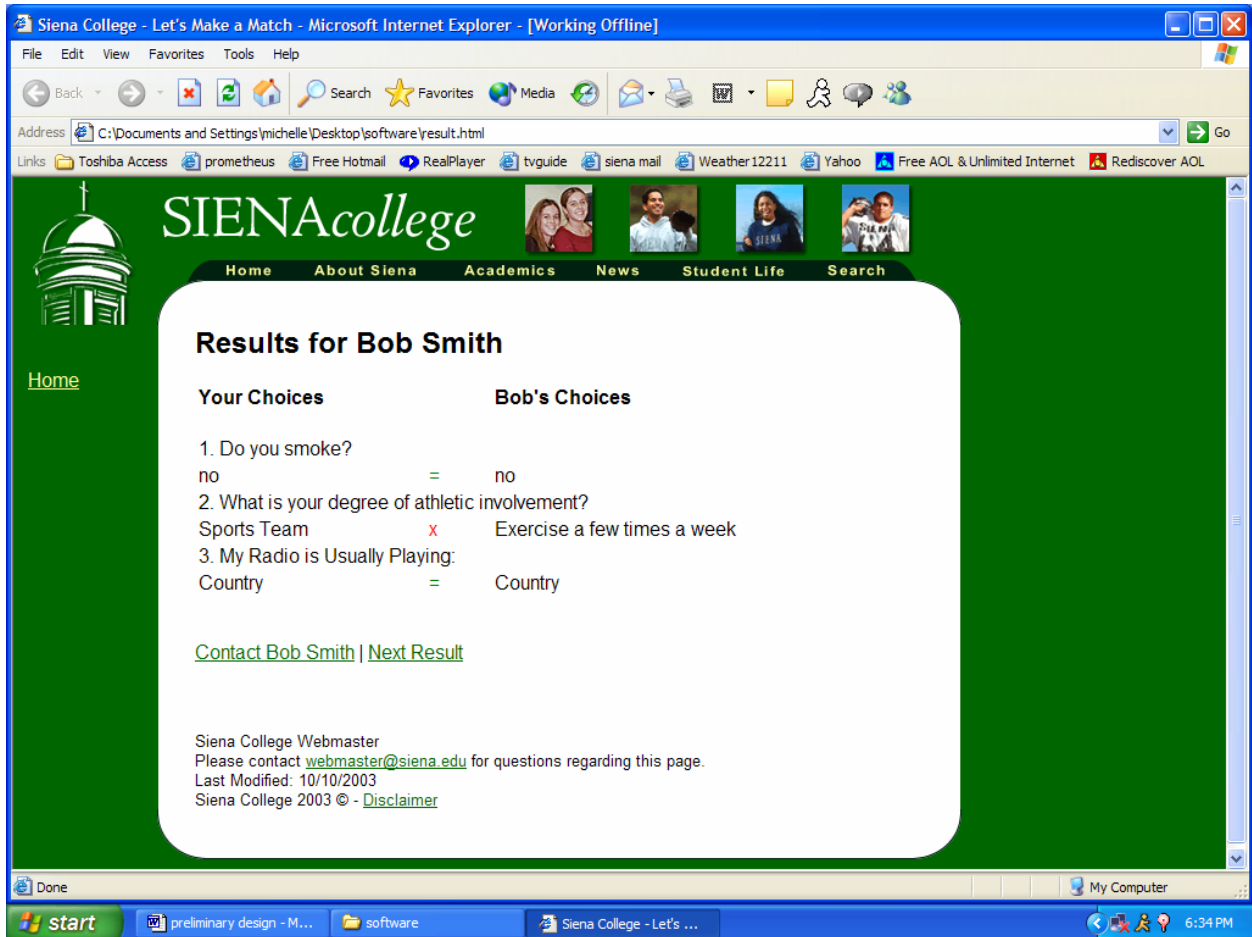














User command summary

Freshman Screens:

Let's Make a Match! Program Screen

This is the First screen any user sees when accessing the system. It provides the user with a brief overview of what the system is used for. It also displays some limited help to get the user started and logged in. At this screen, the user selects whether he/she is a freshmen, a returning student, or an administrator.

Log In

The housing department will supply users with a user name and password to use. Once the user is logged on the password can be changed. The user enters his/her user name and password. If a correct user name and password is supplied then the user will be brought to the General welcome screen. If the system does not recognize the user name or password then an authorization-failed page will be displayed.

Authorization-failed

This screen is used to alert the user that his/her user name or password has not been accepted. From here the user can attempt to log in again or contact the system administrator.

General Welcome Screen

This screen serves as a personalized homepage for the user. It lists statistics pertaining to how many users are in the system. Also information about your account will be listed. From this screen the user can chose to Create/Update their profile, query the other users or change their password. A space will be provided for news items, and important dates that need to be known.

Password Screen

The user is asked to enter his/her old password, and the new password twice. If the old password is correct, then the user will be alerted that his/her new password has been changed and the user will be brought to the General welcome screen. If the old password is incorrect, then the user will be alerted that they have entered invalid information and be returned to the General welcome screen

Create/Update Profile Screen

The user enters his/her first and last name as well as personal e-mail address. Optionally the user can enter other means of contact, such as home phone or mailing address. Spaces will be provided for AIM and ICQ names to be entered as well. The user can enter a question and answer that can be used to send them a new password as well. The user must answer 10-15 questions that outline their personal preferences and habits and will be used in the algorithm to select a roommate. Additionally, the user can select any number of items in a list of hobbies and sports that they are interested in. A text area will also be available for the user to put personalized information about themselves that they want known, but was not covered in the other areas. Once all required information has been entered the user can select the submit button to save his/her changes.

Query Results Screen

This screen displays the matches found by the query algorithm in a numbered list that is sorted by relevance. Each match contains some basic information about the match, such as user name, class status, and availability. The user can either select a match in the list or return to the General welcome screen.

Student Information Screen

The student information screen provides a more detailed description of a match than the Query results screen. The match's answers will be compared to users answers in a question-by-question evaluation. Similar answers will be flagged with a green marker and conflicting answers will be flagged with a red marker. The hobbies and interests selected by the match will be shown after the questions. Also any additional comments the match may have entered will be displayed at the bottom of the page. The user can contact the current match, request the match, or view the next match in the Query results screen.

Request Screen

Once the user has found a suitable roommate her/she can send a request to housing using this screen. The match's name is shown at the top, as well as whether or not the match has chosen you as a roommate. The User clicks Submit, and the request is processed by the system.

Administrative Screens:

Log In

Same as above

Administrator Welcome Screen

This screen serves as a homepage for the administrator. It will list statistics that are vital to the maintenance of the system. There are several links that take the user to the Roommate printout screen, User permissions screen and the Tasks screen.

Roommate Printout Screen

Displays a list of all roommate pairs that is sorted by date. The details of the list include roommate names, dorm preferences, and class status. This screen will have the option to be formatted for a printer as well.

User Permissions Screen

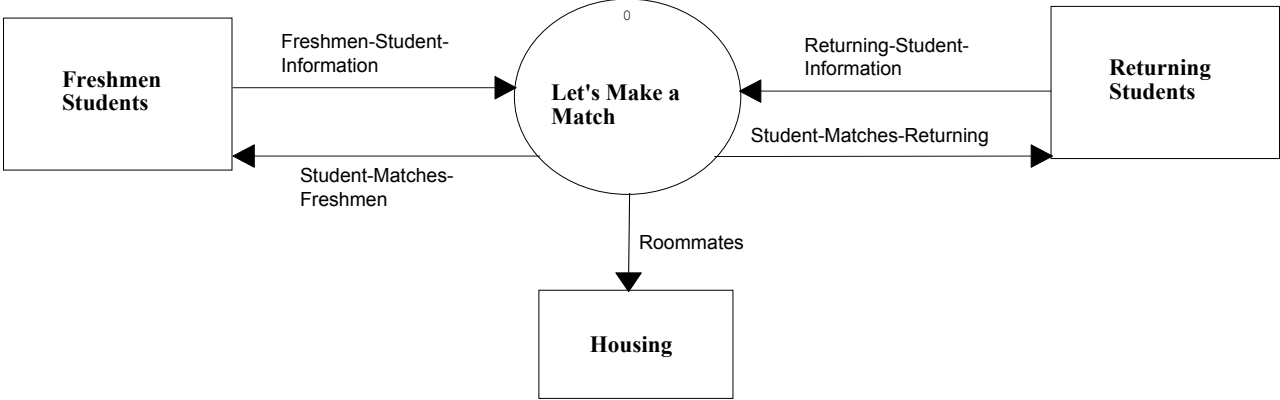
This screen will handle student accounts. The administrator can select any student and either: remove him/her, toggle availability status, or change password. A general help paragraph will explain when and why the administrator would need to change a students permissions.

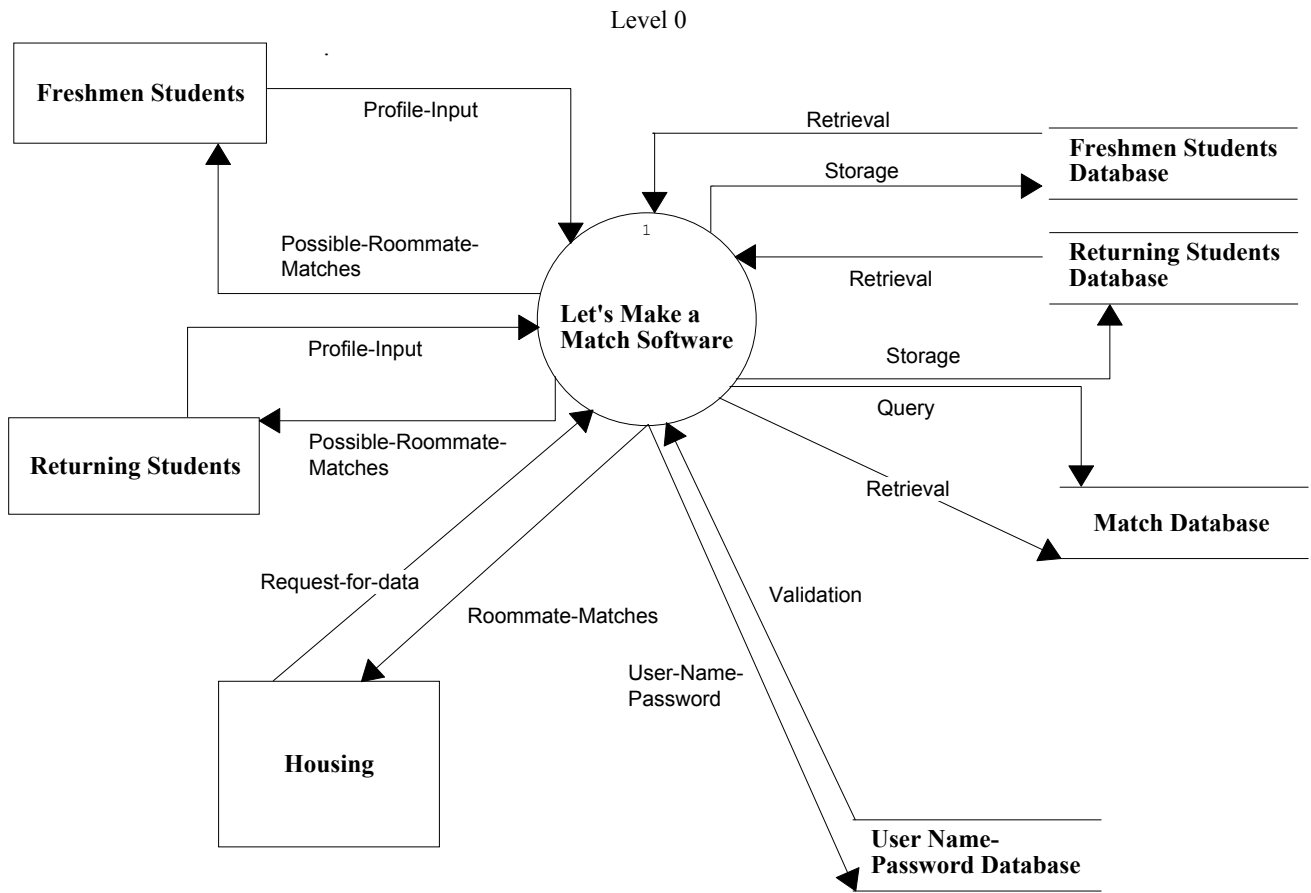
Tasks Screen

General tasks required for normal system maintenance will be handled at this screen. The administrator can reset the system or change options for the database from here. An explanation as to what each task does will also be provided to the side of any task. Once the administrator is done he/she can click the submit button and be brought back to the Administrator welcome screen.

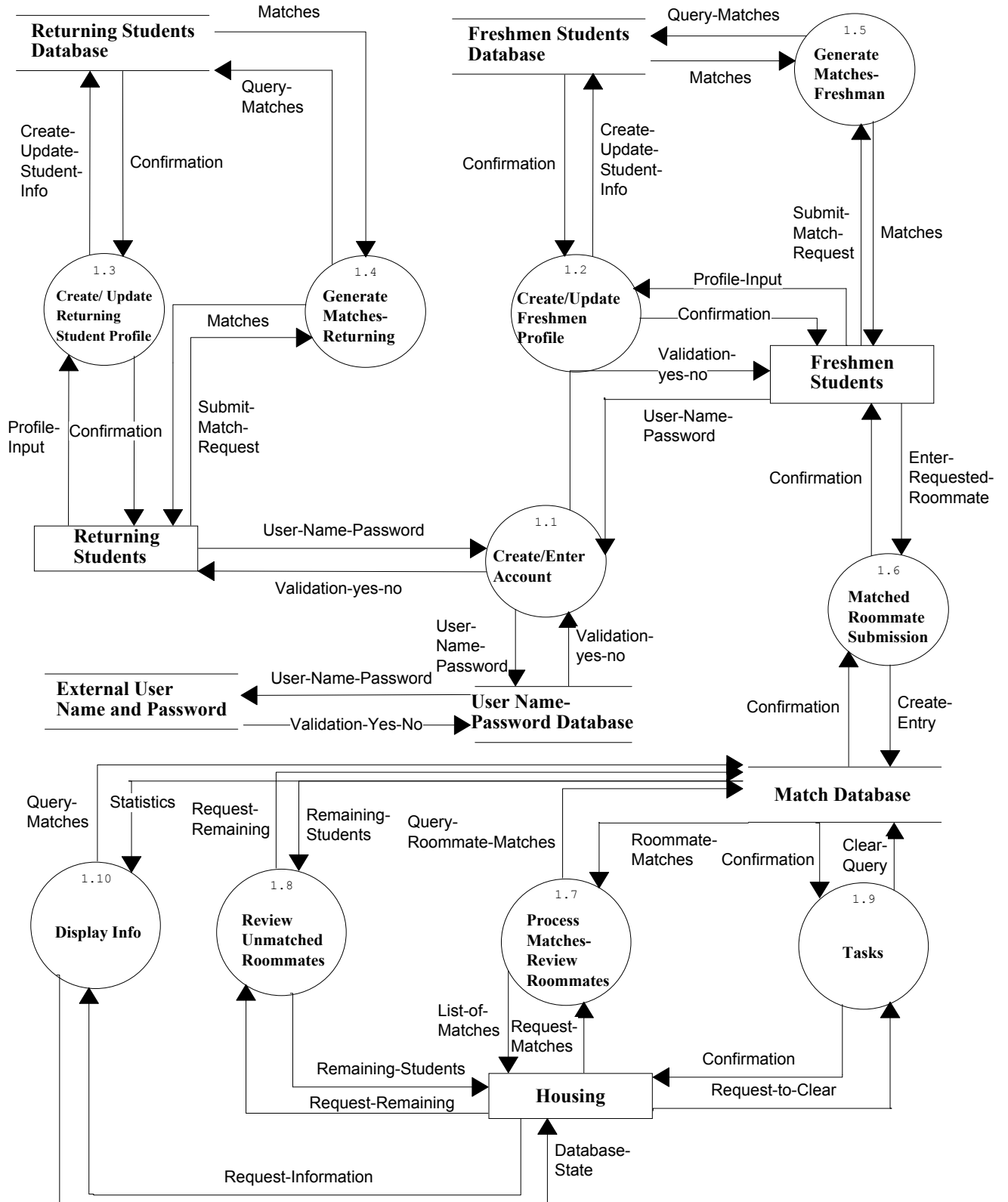
Detailed Dataflow Diagrams

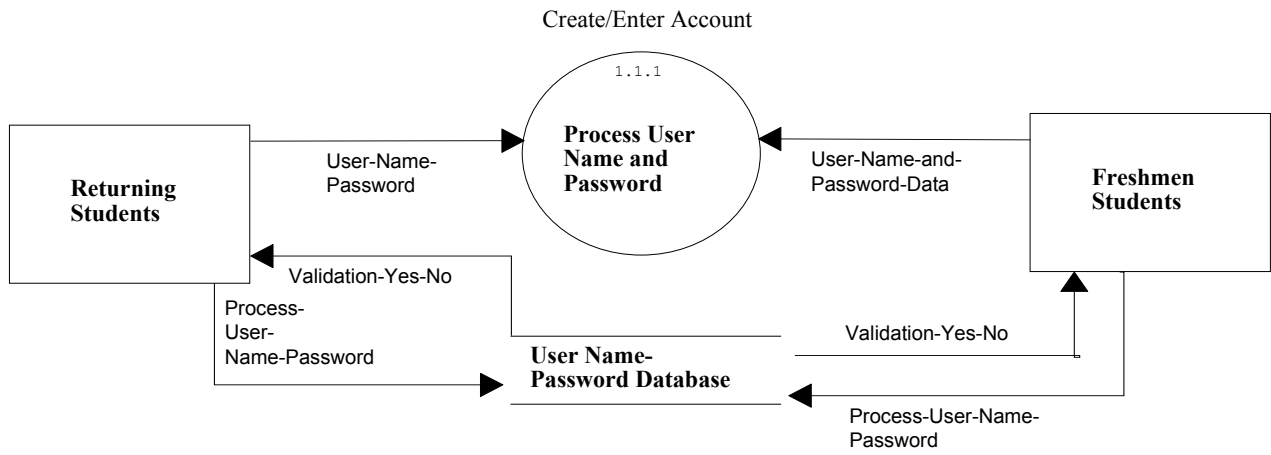
Let's Make a Match Context Diagram



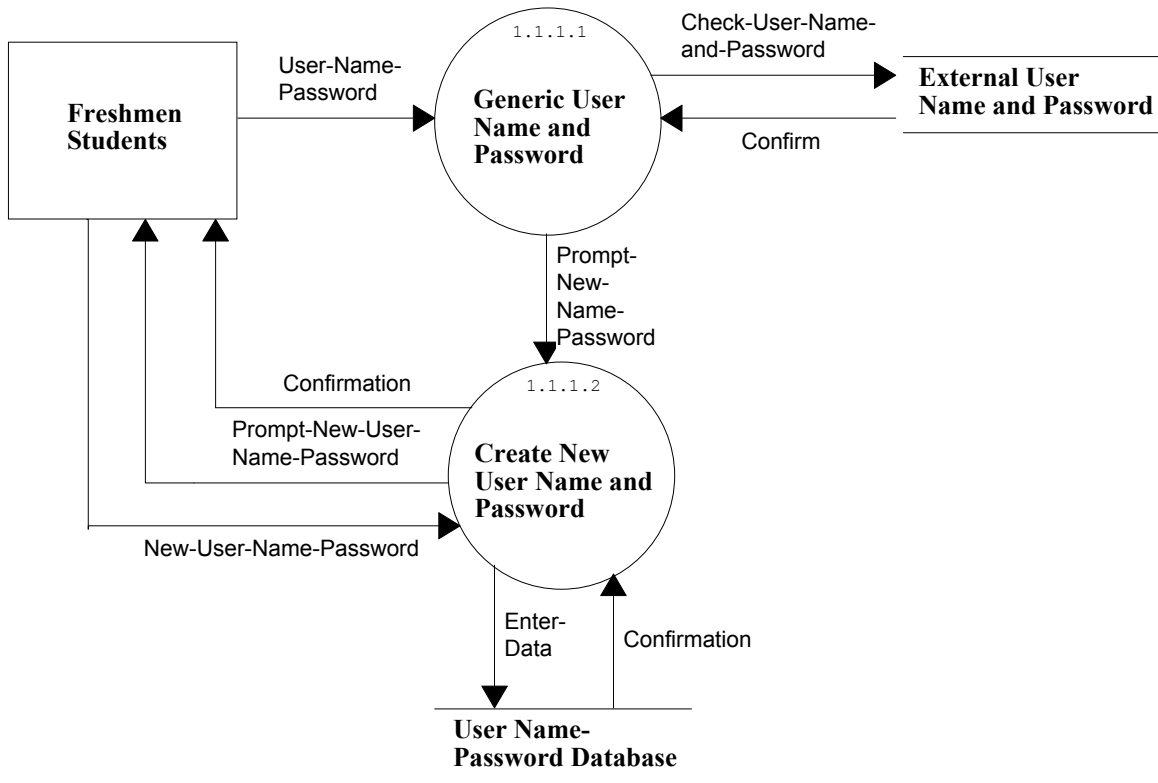


Level 1

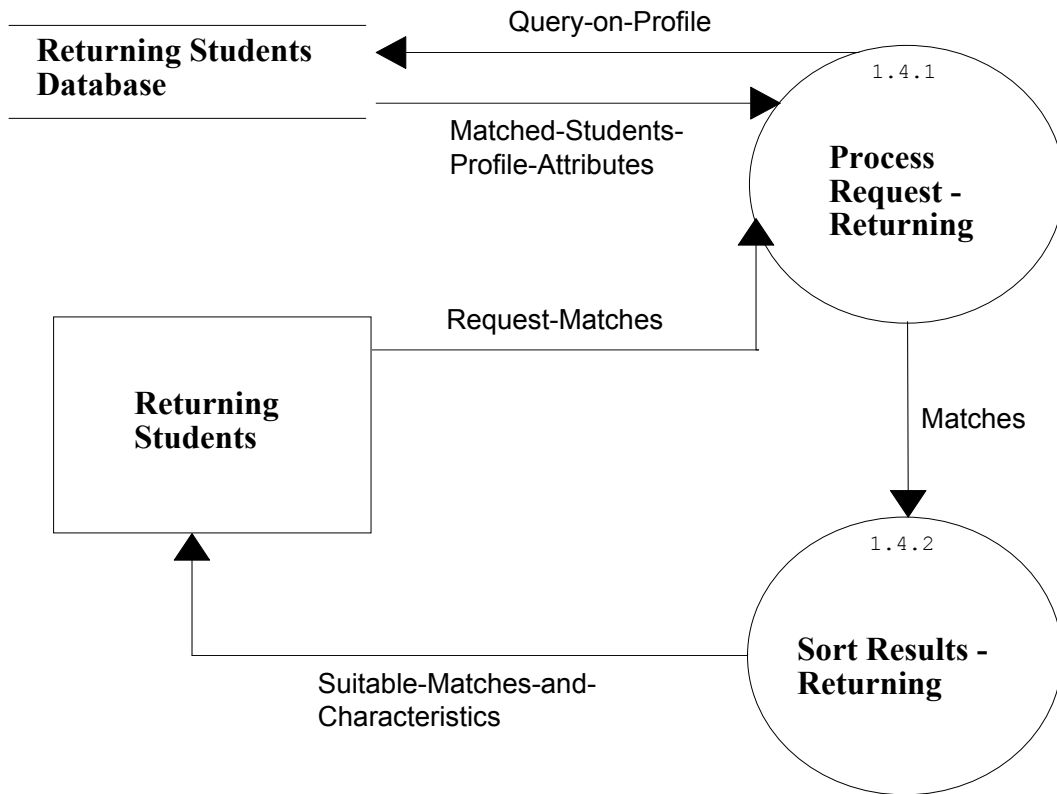




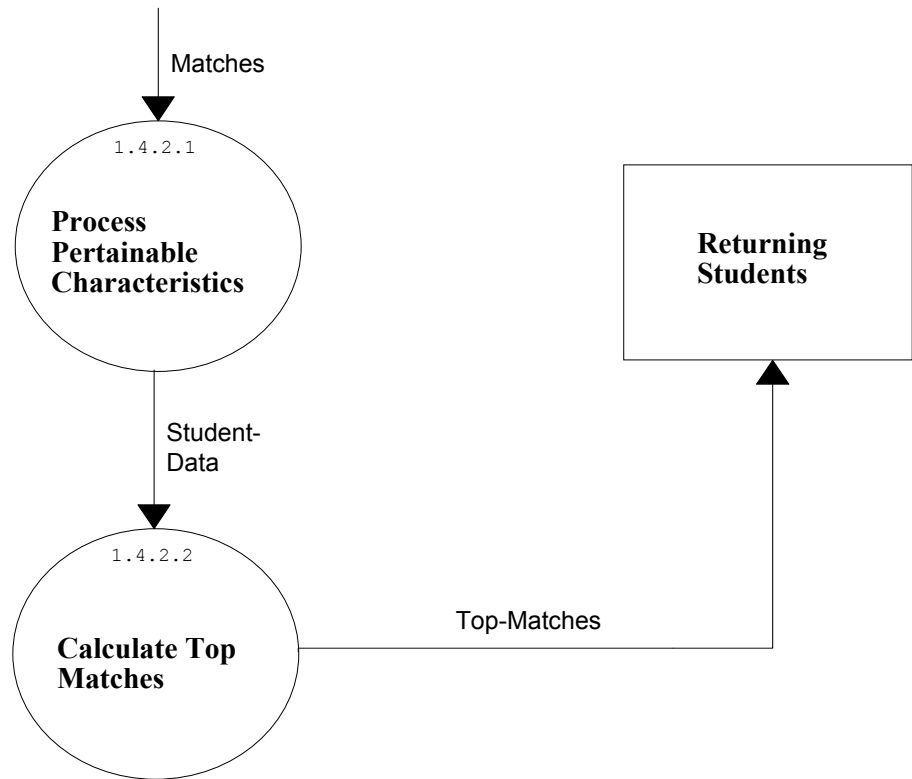
Process User Name and Password



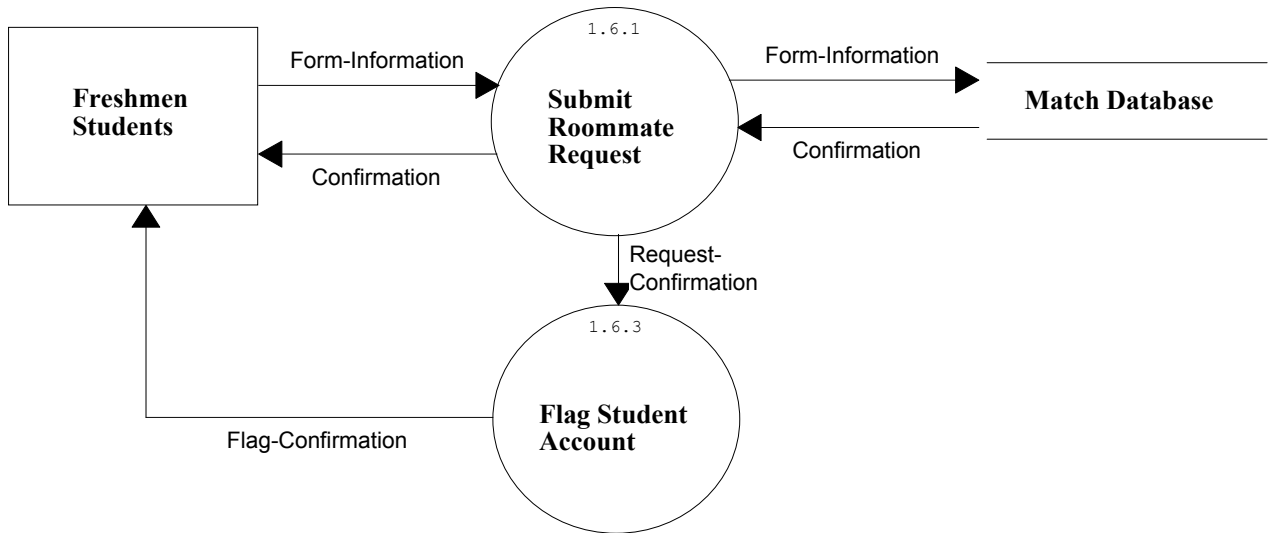
Generate New Matches Returning



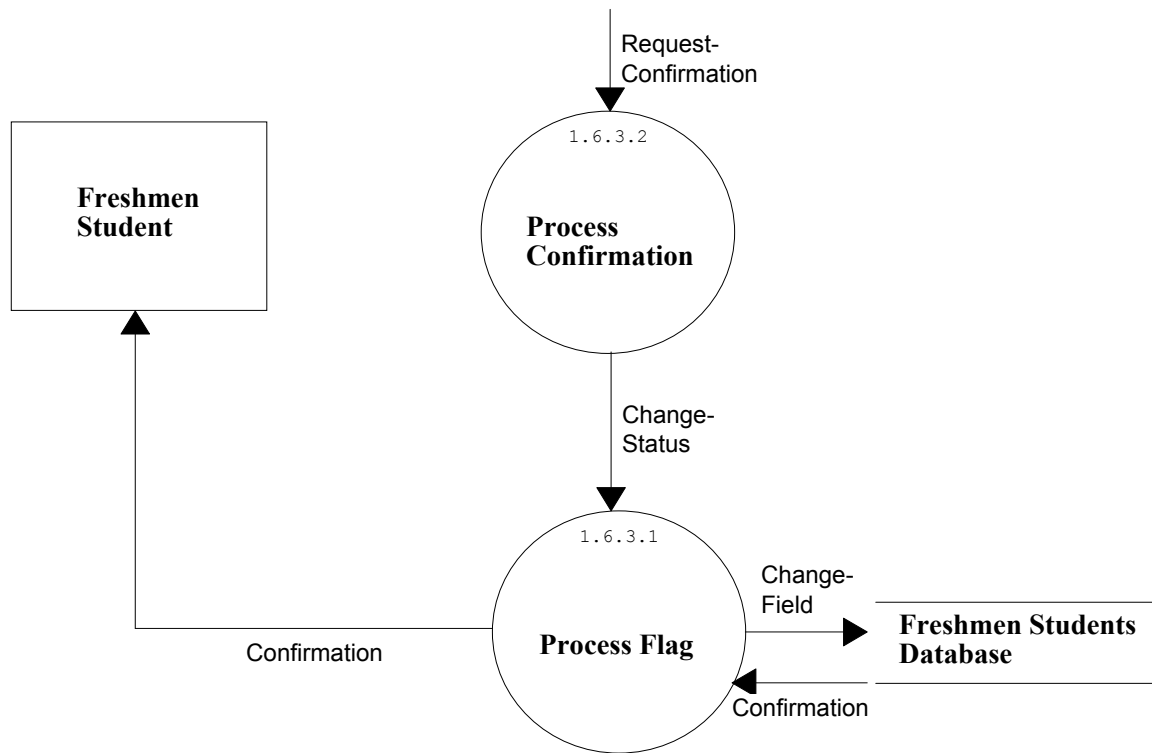
Sort Results Returning Students



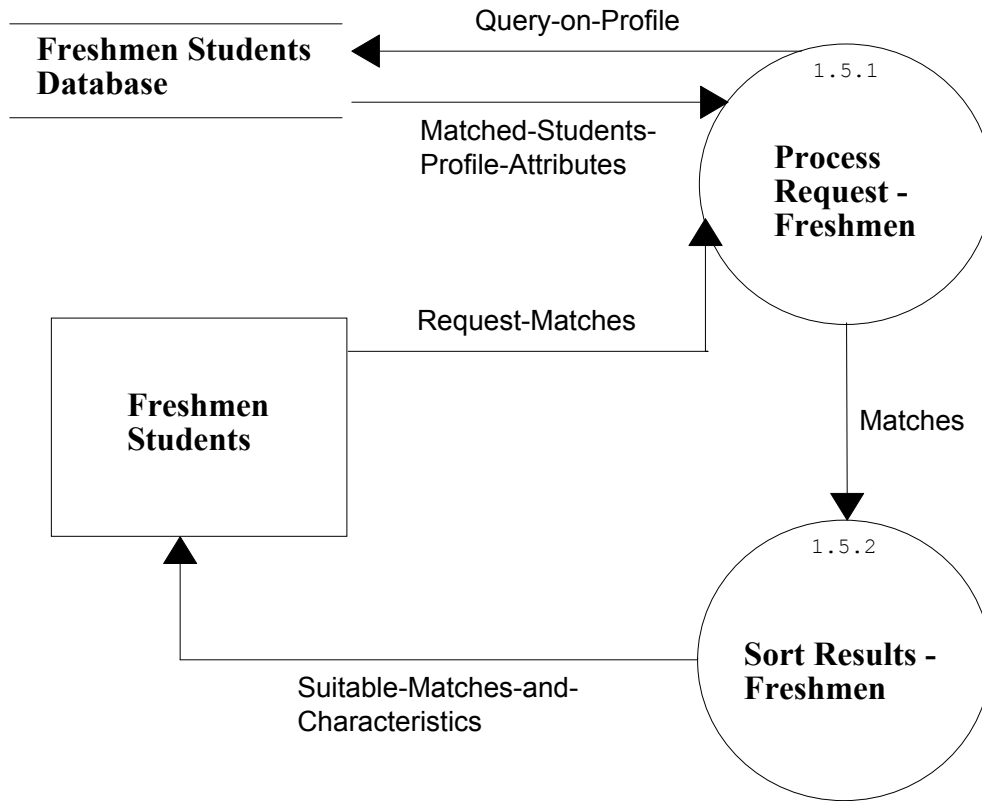
Matched Roommate Submission



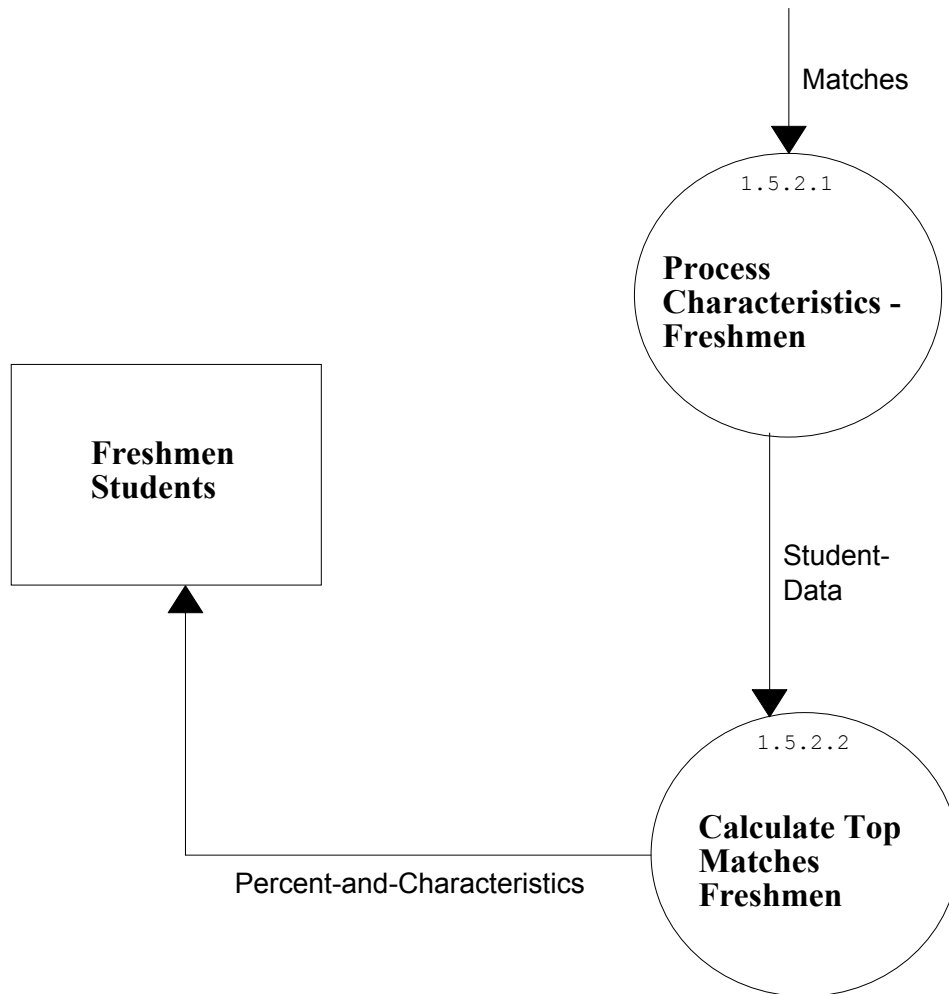
Flag Students Account



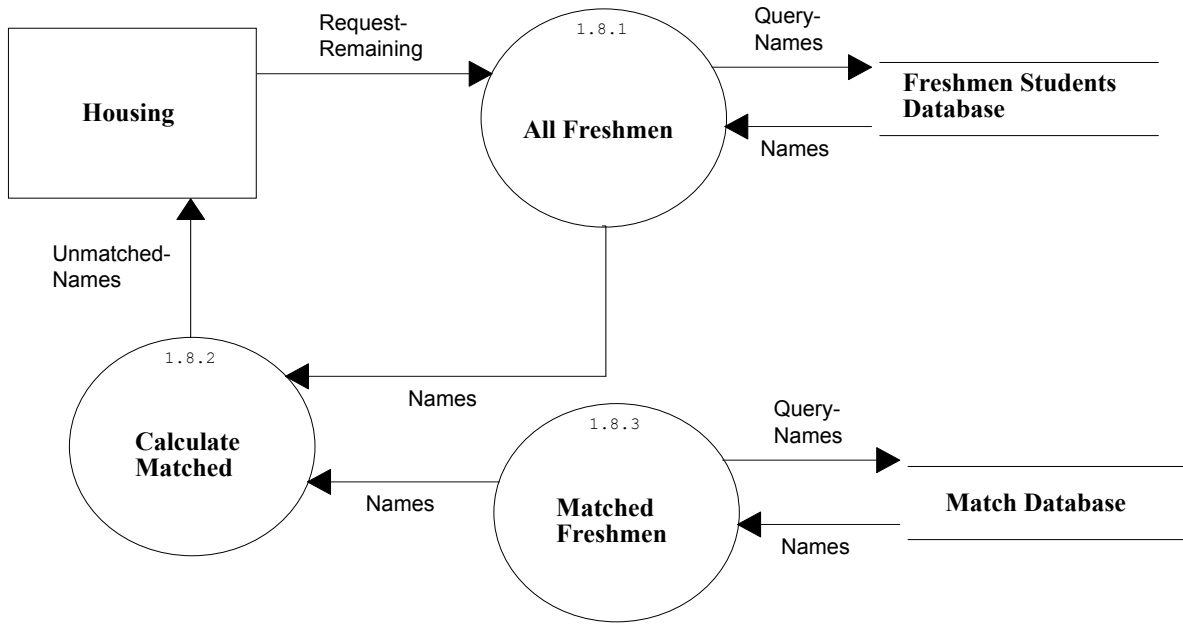
Generate Matches - Freshmen



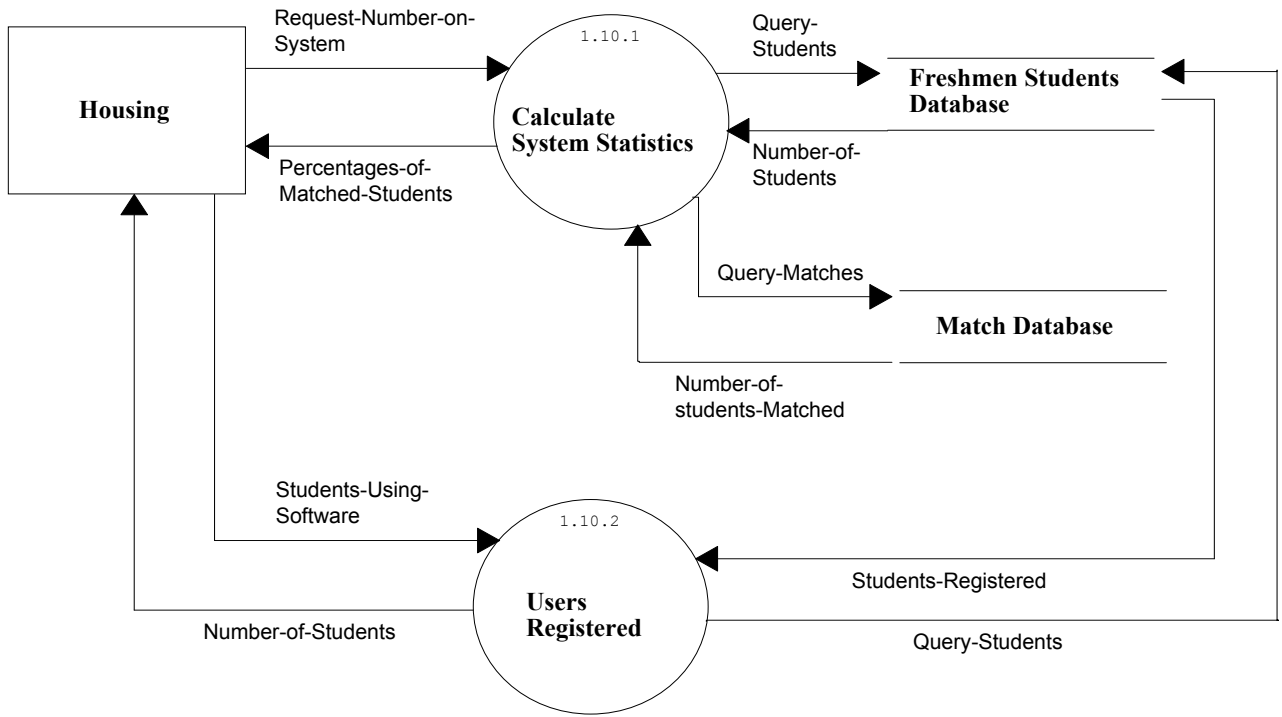
Sort Results Freshmen



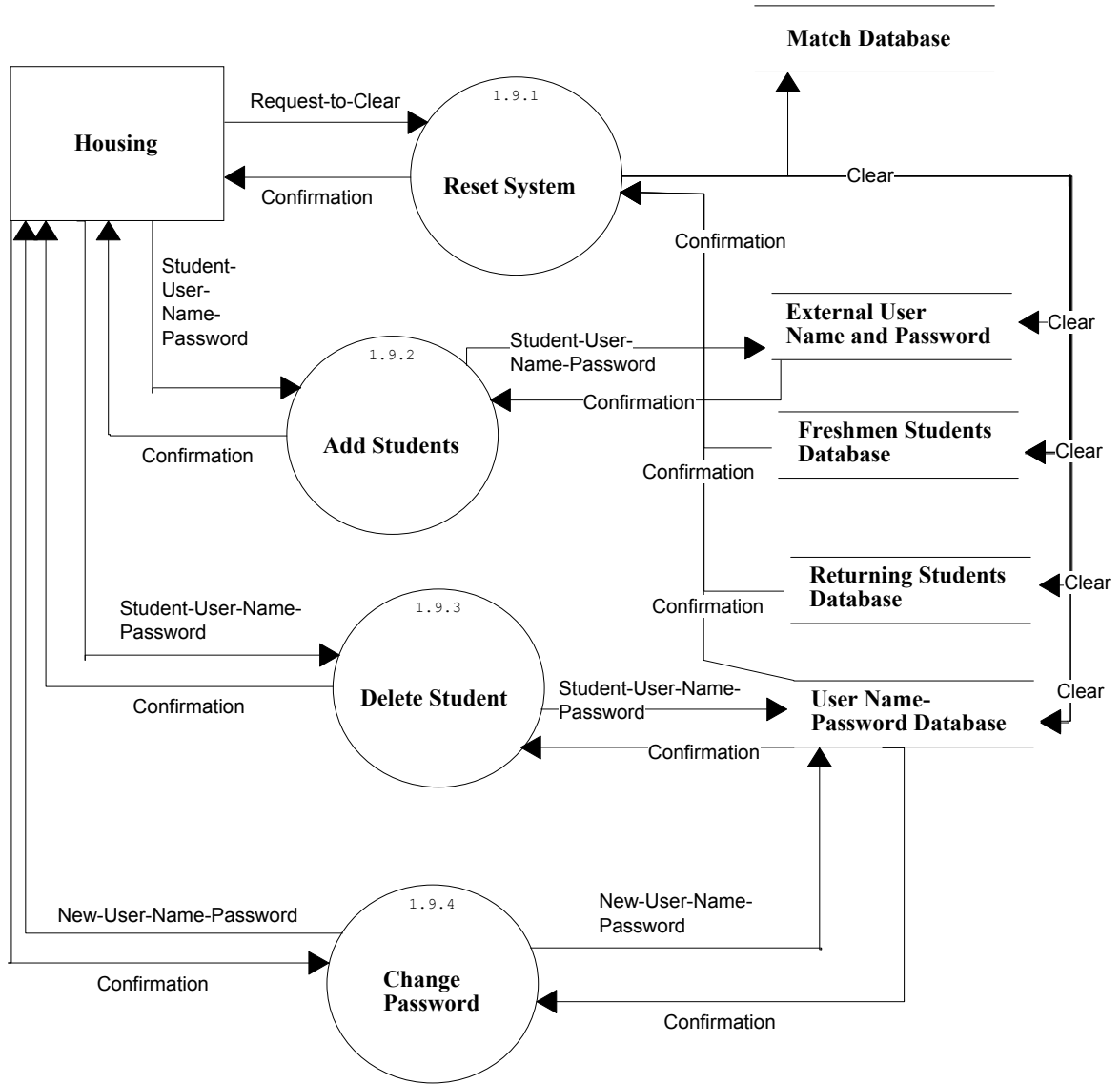
Review Unmatched Roommates



Display Info



Tasks



Logical Data Stores

External

User Name and Password

File

Description: This is the database that contain the user name and password that Siena makes for all the Freshmen.

Location:

[Process Login](#) (1.1.1)

Input Flows:

Check-User-Name-and-Password

Output Flows:

Confirm

[Tasks](#) (1.9)

Input Flows:

Clear

Student-User-Name-Password

Output Flows:

Confirmation

[Level 1](#) (1)

Input Flows:

User-Name-Password

Output Flows:

Validation-yes-no

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Freshmen Students Database

File

Description:

This stores the profiles and data of the freshmen students.

Location:

[Level 1](#) (1)

Input Flows:

Create-Update-Student-Info

Query-Matches

Output Flows:

Confirmation

Matches

[Generate Matches-Freshman](#) (1.5)

Input Flows:

Query-on-Profile

Output Flows:

Matched-Students-Profile-Attributes

[Flag Student Account](#) (1.6.3)

Input Flows:

Change-Field

Output Flows:

Confirmation

[Let's Make a Match level 0](#) (0)

Input Flows:

Storage

Output Flows:

Retrieval

[Review Unmatched Roomates](#) (1.8)

Input Flows:

Query-Names

Output Flows:

Names

[Display Info](#) (1.10)

Input Flows:

Query-Students

Query-Students

Output Flows:

Number-of-Students

Students-Registered

[Tasks](#) (1.9)

Input Flows:

Clear

Clear

Output Flows:

Confirmation

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Match Database

File

Description:

The database stores the students names who requested each other.

Notes:

There should be two names store together, the name of the student requesting and the name of the student requested.

Location:

[Let's Make a Match level 0](#) (0)

Input Flows:

Query

Retrieval

[Level 1](#) (1)

Input Flows:

Create-Entry

Query-Roommate-Matches

Clear-Query

Request-Remaining

Query-Matches

Output Flows:

Confirmation

Roommate-Matches

Confirmation

Remaining-Students
Statistics

[Matched Roomate Submission](#) (1.6)

Input Flows:
Form-Information
Output Flows:
Confirmation

[Review Unmatched Roomates](#) (1.8)

Input Flows:
Query-Names
Output Flows:
Names

[Display Info](#) (1.10)

Input Flows:
Query-Matches
Output Flows:
Number-of-students-Matched

[Tasks](#) (1.9)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Returning Students Database

File

Description:

This stores the profiles and data of the returning students.

Location:

[Generate Matches-Returning](#) (1.4)

Input Flows:
Query-on-Profile
Output Flows:
Matched-Students-Profile-Attributes

[Let's Make a Match level 0](#) (0)

Input Flows:
Storage
Output Flows:
Retrieval

[Tasks](#) (1.9)

Input Flows:
Clear
Output Flows:
Confirmation

[Level 1](#) (1)

Input Flows:
Create-Update-Student-Info
Query-Matches
Output Flows:
Confirmation
Matches

User Name-Password Database

File

Description:

This database stores all of the passwords and logins to all the users of the software.

Location:

[Let's Make a Match level 0](#) (0)

Input Flows:

User-Name-Password

Output Flows:

Validation

[Level 1](#) (1)

Input Flows:

User-Name-Password

Validation-yes-no

Output Flows:

Validation-yes-no

User-Name-Password

[Create/Enter Account](#) (1.1)

Input Flows:

Process-User-Name-Password

Process-User-Name-Password

Output Flows:

Validation-yes-no

Validation-yes-no

[Process Login](#) (1.1.1)

Input Flows:

Enter-Data

Output Flows:

Confirmation

[Tasks](#) (1.9)

Input Flows:

Student-User-Name-Password

New-User-Name-Password

Clear

Output Flows:

Confirmation

Confirmation

Confirmation

Logical Data Dictionary

Add Students Process

Description:
Allows the Administrator to add a student to the password database so that they can use the system.

Process #: 1.9.2

Location:
[Tasks](#) (1.9)

Input Flows:
[Student-User-Name-Password Confirmation](#)

Output Flows:
[Confirmation](#)
[Student-User-Name-Password](#)

Date Last Altered: 11/24/2003 *Date Created:* 11/24/2003

All Freshmen Process

Description:
This query's the freshmen database and obtains the names of all of the students registered in the database.

Process #: 1.8.1

Location:
[Review Unmatched Roommates](#) (1.8)

Input Flows:
[Request-Remaining Names](#)

Output Flows:
[Query-Names](#)
[Names](#)

Date Last Altered: 11/24/2003 *Date Created:* 11/24/2003

Calculate Matched Process

Description:
This determines the names of the students that have created a profile, but have not been successfully matched.

Process #: 1.8.2

Location:
[Review Unmatched Roommates](#) (1.8)

Input Flows:
[Names](#)
[Names](#)

Output Flows:
[Unmatched-Names](#)

Date Last Altered: 11/24/2003 *Date Created:* 11/24/2003

Calculate System Statistics

Process

Description:

This calculates statistics of the system.

Process #: 1.10.1

Process Description:

Takes the number of students that are registered and the number of students that have been matched, and returns the percentage of students that have been matched.

Location:

[Display Info](#) (1.10)

Input Flows:

[Request-Number-on-System](#)

[Number-of-Students](#)

[Number-of-students-Matched](#)

Output Flows:

[Query-Students](#)

[Query-Matches](#)

[Percentages-of-Matched-Students](#)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Calculate Top Matches

Process

Description:

Figures out the number of matches that will be returned to the user.

Process #: 1.4.2.2

Process Description:

This takes all of the resulting students and returns to the users screen, the specified number of matches as defined by the client, like a top % or a specified number.

Location:

[Sort Results Returning Students](#) (1.4.2)

Input Flows:

[Student-Data](#)

Output Flows:

[Top-Matches](#)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Calculate Top Matches Freshmen

Process

Description:

Figures out the number of matches that will be returned to the user.

Process #: 1.5.2.2

Process Description:

This takes all of the resulting students and returns to the users screen, the specified number of matches as defined by the client, like a top % or a specified number.

Location:

[Sort Results -Freshmen](#) (1.5.2)

Input Flows:

[Student-Data](#)

Output Flows:

[Percent-and-Characteristics](#)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Change-Field

Data Flow

Description:

Changes the flag field so that this person cannot be matched with anyone else.

Location:

[Flag Student Account](#) (1.6.3)

Source: [Process Flag](#) (Process)

Dest: [Freshmen Students Database](#) (File)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Change-Status

Data Flow

Description:

This changes the status of the user so they cannot be searched.

Location:

[Flag Student Account](#) (1.6.3)

Source: [Process Confirmation](#) (Process)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Change Password

Process

Description:

Allows the Administrator to change a users password.

Process #: 1.9.4

Process Description:

If a student cannot remember his or her password, and cannot obtain it, the administrator can change it for them.

Location:

[Tasks](#) (1.9)

Input Flows:

[Confirmation](#)

[Confirmation](#)

Output Flows:

[New-User-Name-Password](#)

[New-User-Name-Password](#)

Date Last Altered: 12/1/2003

Date Created: 11/24/2003

Check-User-Name-and-Password

Data Flow

Description:

This looks up the user entered data to be sure that it is in the database

Location:

[Process Login](#) (1.1.1)

Source: [Generic login](#) (Process)

Dest: [External User Name and Password](#) (File)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Check Password

Process

Description:

Checks the Students Password.

Process #: 1.1.2

Process Description:

Checks the users password and login in the password database and sees if it is equal to a row stored in the database.

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Clear

Data Flow

Description:

Clears all of the information out of the databases

Location:

[Tasks](#) (1.9)

Source: [Reset System](#) (Process)

Dest: [External User Name and Password](#) (File)

Source: [Reset System](#) (Process)

Dest: [Freshmen Students Database](#) (File)

Source: [Reset System](#) (Process)

Dest: [Returning Students Database](#) (File)

Source: [Reset System](#) (Process)

Dest: [Freshmen Students Database](#) (File)

Source: [Reset System](#) (Process)

Dest: [User Name-Password Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Clear-Query

Data Flow

Description:

SQL Code

Location:

[Level 1](#) (1)

Source: [Tasks](#) (Process)

Dest: [Match Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 10/29/2003

Confirm

Data Flow

Description:

Yes or No

Notes:

This makes sure that the student is actual a freshmen at Siena.

Location:

[Process Login](#) (1.1.1)

Source: [External User Name and Password](#) (File)

Dest: [Generic login](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Confirmation

Data Flow

Description:

Success or Failure

Location:

[Level 1](#) (1)

Source: [Create/ Update Returning Student Profile](#) (Process)

Dest: [Returning Students](#) (Source/Sink)

Source: [Freshmen Students Database](#) (File)

Dest: [Create/Update Freshmen Profile](#) (Process)

Source: [Create/Update Freshmen Profile](#) (Process)

Dest: [Freshmen Students](#) (Source/Sink)

Source: [Match Database](#) (File)

Dest: [Matched Roommate Submission](#) (Process)

Source: [Matched Roommate Submission](#) (Process)

Dest: [Freshmen Students](#) (Source/Sink)

[Process Login](#) (1.1.1)

Source: [User Name-Password Database](#) (File)

Dest: [Create New User Name and Password](#) (Process)

Source: [Create New User Name and Password](#) (Process)

Dest: [Freshmen Students](#) (Source/Sink)

[Matched Roommate Submission](#) (1.6)

Source: [Match Database](#) (File)

Dest: [Submit Roommate Request](#) (Process)

Source: [Submit Roommate Request](#) (Process)

Dest: [Freshmen Students](#) (Source/Sink)

[Flag Student Account](#) (1.6.3)

Source: [Freshmen Students Database](#) (File)

Dest: [Process Flag](#) (Process)

Source: [Process Flag](#) (Process)

Dest: [Freshmen Student](#) (Source/Sink)

[Level 1](#) (1)

Source: [Returning Students Database](#) (File)

Dest: [Create/ Update Returning Student Profile](#) (Process)

Source: [Match Database](#) (File)

Dest: [Tasks](#) (Process)

Source: [Tasks](#) (Process)

Dest: [Housing](#) (Source/Sink)

[Tasks](#) (1.9)

Source: [Delete Student](#) (Process)

Dest: [Housing](#) (Source/Sink)
 Source: [Add Students](#) (Process)
 Dest: [Housing](#) (Source/Sink)
 Source: [Reset System](#) (Process)
 Dest: [Housing](#) (Source/Sink)
 Source: [User Name-Password Database](#) (File)
 Dest: [Delete Student](#) (Process)
 Source: [User Name-Password Database](#) (File)
 Dest: [Reset System](#) (Process)
 Source: [External User Name and Password](#) (File)
 Dest: [Add Students](#) (Process)
 Source: [Housing](#) (Source/Sink)
 Dest: [Change Password](#) (Process)
 Source: [User Name-Password Database](#) (File)
 Dest: [Change Password](#) (Process)
 Source: [Freshmen Students Database](#) (File)
 Dest: [Reset System](#) (Process)
 Source: [Returning Students Database](#) (File)
 Dest: [Reset System](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Create-Entry

Data Flow

Description:

SQL Code - creates a new entry in the database

Location:

[Level 1](#) (1)

Source: [Matched Roommate Submission](#) (Process)

Dest: [Match Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Create-Update-Student-Info

Data Flow

Description:

Preferences chosen from the pull down menu, on the user profile form

Location:

[Level 1](#) (1)

Source: [Create/Update Freshmen Profile](#) (Process)

Dest: [Freshmen Students Database](#) (File)

Source: [Create/ Update Returning Student Profile](#) (Process)

Dest: [Returning Students Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Create New User Name and Password

Process

Description:

Prompts the user to enter a new login and password.

Process #: 1.1.1.2

Process Description:

This process takes the password that the user enters and stores it in the password database so the next time the user logs in they can use their new name.

Location:

[Process Login](#) (1.1.1)

Input Flows:

[Prompt-New-Name-Password](#)

[Confirmation](#)

[New-User-Name-Password](#)

Output Flows:

[Prompt-New-User-Name-Password](#)

[Enter-Data](#)

[Confirmation](#)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Create/ Update Returning Student Profile

Process

Description:

Allows students to input their profile.

Process #: 1.3

Process Description:

This provides the student with a form to input their personal profile characteristics. It will be a list of questions for them to answer, and their answers will be stored in a database so that other students can search for them and they can be searched.

Location:

[Level 1](#) (1)

Input Flows:

[Profile-Input](#)

[Confirmation](#)

Output Flows:

[Confirmation](#)

Date Last Altered: 10/25/2003

Date Created: 10/24/2003

Create/Enter Account

Process

Description:

Process the password that allows a student to enter the system.

Process #: 1.1

Process Description:

This allows the student to enter their password to enter the software. The first time a freshmen student enters, they have to change their login and password.

Location:

[Level 1](#) (1)

Input Flows:

[User-Name-Password](#)

[Validation-yes-no](#)

[User-Name-Password](#)

Output Flows:

[User-Name-Password](#)

[Validation-yes-no](#)

[Validation-yes-no](#)

Date Last Altered: 10/25/2003

Date Created: 10/24/2003

Create/Update Freshmen Profile

Process

Description:

Allows freshmen Students to enter their profile.

Process #: 1.2

Process Description:

This provides the student with a form to input their personal profile characteristics. It will be a list of questions for them to answer, and their answers will be stored in a database so that other students can search for them and they can be searched.

Location:

[Level 1](#) (1)

Input Flows:

[Confirmation](#)

[Profile-Input](#)

Output Flows:

[Create-Update-Student-Info](#)

[Confirmation](#)

Date Last Altered: 10/25/2003

Date Created: 10/24/2003

Database-State

Data Flow

Description:

Returns the percentages of the students that have put their profiles up. It also shows the number of students that have been matched up.

Location:

[Level 1](#) (1)

Source: [Display Info](#) (Process)

Dest: [Housing](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Delete Student

Process

Description:

Allows the administrator to delete a student if they are creating a problem in the system or are not supposed to be in it.

Process #: 1.9.3

Location:

[Tasks](#) (1.9)

Input Flows:

[Student-User-Name-Password](#)

[Confirmation](#)

Output Flows:
[Confirmation](#)
[Student-User-Name-Password](#)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Display Info

Process

Description:

This allows housing to see statistics of the database and also do maintenance such as changing a lost password, and viewing the database.

Process #: 1.10

Location:

[Level 1](#) (1)

Input Flows:

[Request-Information](#)

[Statistics](#)

Output Flows:

[Database-State](#)

[Query-Matches](#)

Date Last Altered: 12/1/2003

Date Created: 11/24/2003

Enter-Data

Data Flow

Description:

This saves the new user name and password in the database

Location:

[Process Login](#) (1.1.1)

Source: [Create New User Name and Password](#) (Process)

Dest: [User Name-Password Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Enter-Requested-Roommate

Data Flow

Description:

User Input (name)

Location:

[Level 1](#) (1)

Source: [Freshmen Students](#) (Source/Sink)

Dest: [Matched Roommate Submission](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

External User Name and Password

File

Description:

This is the database that contain the user name and password that Siena makes for all the Freshmen.

Location:

[Process Login](#) (1.1.1)

Input Flows:

[Check-User-Name-and-Password](#)

Output Flows:

[Confirm](#)

[Tasks](#) (1.9)

Input Flows:

[Clear](#)

[Student-User-Name-Password](#)

Output Flows:

[Confirmation](#)

[Level 1](#) (1)

Input Flows:

[User-Name-Password](#)

Output Flows:

[Validation-yes-no](#)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Flag-Confirmation

Data Flow

Description:

Acceptance or Failure

Location:

[Matched Roommate Submission](#) (1.6)

Source: [Flag Student Account](#) (Process)

Dest: [Freshmen Students](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Flag Student Account

Process

Description:

Makes it known that this student has a roommate already.

Process #: 1.6.3

Process Description:

When a student has requested a roommate their account is flagged so that when other students are looking for roommates will not get them returned.

Location:

[Matched Roommate Submission](#) (1.6)

Input Flows:

[Request-Confirmation](#)

Output Flows:

[Flag-Confirmation](#)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Form-Information

Data Flow

Description:

Student name and requested roommates name

Location:

[Matched Roommate Submission](#) (1.6)

Source: [Freshmen Students](#) (Source/Sink)
Dest: [Submit Roommate Request](#) (Process)
Source: [Submit Roommate Request](#) (Process)
Dest: [Match Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Freshmen Students

Source/Sink

Description: These are the students that are looking for students to live with their freshmen year

Location:

[FE LMM Context Diagram](#) (CONTEXT)

Input Flows:

[Student-Matches-Freshmen](#)

Output Flows:

[Freshmen-Student-Information](#)

Date Last Altered: 10/24/2003

Date Created: 10/24/2003

Freshmen-Student-Information

Data Flow

Description:

Preferences chosen from pull down menu, on the user profile

Location:

[FE LMM Context Diagram](#) (CONTEXT)

Source: [Freshman Students](#) (Source/Sink)

Dest: [Let's Make a Match](#) (Process)

Date Last Altered: 11/21/2003

Date Created: 10/24/2003

Freshmen Student

Source/Sink

Location:

[Flag Student Account](#) (1.6.3)

Input Flows:

[Confirmation](#)

Date Last Altered: 10/24/2003

Date Created: 10/24/2003

Freshmen Students

Source/Sink

Description:

These are the students that are looking for students to live with their freshmen year

Location:

[Let's Make a Match level 0](#) (0)

Input Flows:

[Possible-Roommate-Matches](#)

Output Flows:

[Profile-Input](#)

[Level 1](#) (1)

Input Flows:

[Confirmation](#)

[Validation-yes-no](#)
[Matches](#)
[Confirmation](#)
Output Flows:
[Profile-Input](#)
[Submit-Match-Request](#)
[Enter-Requested-Roommate](#)
[User-Name-Password](#)
[Generate Matches-Freshman](#) (1.5)
Input Flows:
[Suitable-Matches-and-Characteristics](#)
Output Flows:
[Request-Matches](#)
[Sort Results -Freshmen](#) (1.5.2)
Input Flows:
[Percent-and-Characteristics](#)
[Create/Enter Account](#) (1.1)
Input Flows:
[Validation-yes-no](#)
Output Flows:
[Login-Data](#)
[Process-User-Name-Password](#)
[Process Login](#) (1.1.1)
Input Flows:
[Prompt-New-User-Name-Password](#)
[Confirmation](#)
Output Flows:
[User-Name-Password](#)
[New-User-Name-Password](#)
[Matched Roomate Submission](#) (1.6)
Input Flows:
[Confirmation](#)
[Flag-Confirmation](#)
Output Flows:
[Form-Information](#)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Freshmen Students Database

File

Description:

This stores the profiles and data of the freshmen students.

Location:

[Level 1](#) (1)

Input Flows:

[Create-Update-Student-Info](#)

[Query-Matches](#)

Output Flows:

[Confirmation](#)
[Matches](#)
[Generate Matches-Freshman](#) (1.5)
Input Flows:
[Query-on-Profile](#)
Output Flows:
[Matched-Students-Profile-Attributes](#)
[Flag Student Account](#) (1.6.3)
Input Flows:
[Change-Field](#)
Output Flows:
[Confirmation](#)
[Let's Make a Match level 0](#) (0)
Input Flows:
[Storage](#)
Output Flows:
[Retrieval](#)
[Review Unmatched Roommates](#) (1.8)
Input Flows:
[Query-Names](#)
Output Flows:
[Names](#)
[Display Info](#) (1.10)
Input Flows:
[Query-Students](#)
[Query-Students](#)
Output Flows:
[Number-of-Students](#)
[Students-Registered](#)
[Tasks](#) (1.9)
Input Flows:
[Clear](#)
[Clear](#)
Output Flows:
[Confirmation](#)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Generate Matches-Freshman

Process

Description:

Returns potential roommate matches.

Process #: 1.5

Process Description:

This returns to the Freshmen student a list of potential roommate matches and their characteristics.

Location:

[Level 1](#) (1)

Input Flows:
[Submit-Match-Request](#)
[Matches](#)
Output Flows:
[Matches](#)
[Query-Matches](#)

Date Last Altered: 10/25/2003

Date Created: 10/24/2003

Generate Matches-Returning

Process

Description:

Returns potential roommate matches.

Process #: 1.4

Process Description:

This returns to the returning student a list of potential roommate matches and their characteristics.

Location:

[Level 1](#) (1)

Input Flows:
[Submit-Match-Request](#)
[Matches](#)
Output Flows:
[Matches](#)
[Query-Matches](#)

Date Last Altered: 10/25/2003

Date Created: 10/24/2003

Generic Username and Password

Process

Description:

When students are given an account they are given a generic user name and passwords, they are then prompted when they first login, to change it.

Process #: 1.1.1.1

Process Description:

This Process detects the generic password and forces the user to create a new login and password.

Location:

[Process Login](#) (1.1.1)

Input Flows:
[User-Name-Password](#)
[Confirm](#)
Output Flows:
[Prompt-New-Name-Password](#)
[Check-User-Name-and-Password](#)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Get Roommate Matches

Process

Description:

Returns a listing of roommates.

Process #: 1.6.2

Process Description:

When housing queries the database, they receive a listing of all of the students that requested each other.

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Housing

Source/Sink

Description:

Administrator of the Let's Make A Match Software

Location:

[FE LMM Context Diagram](#) (CONTEXT)

Input Flows:

[Roommates](#)

[Let's Make a Match level 0](#) (0)

Input Flows:

[Roommate-Matches](#)

Output Flows:

[Request-for-data](#)

[Level 1](#) (1)

Input Flows:

[List-of-Matches](#)

[Confirmation](#)

[Remaining-Students](#)

[Database-State](#)

Output Flows:

[Request-Matches](#)

[Request-to-Clear](#)

[Request-Remaining](#)

[Request-Information](#)

[Review Unmatched Roommates](#) (1.8)

Input Flows:

[Unmatched-Names](#)

Output Flows:

[Request-Remaining](#)

[Display Info](#) (1.10)

Input Flows:

[Percentages-of-Matched-Students](#)

[Number-of-Students](#)

Output Flows:

[Request-Number-on-System](#)

[Students-Using-Software](#)

[Tasks](#) (1.9)

Input Flows:

[Confirmation](#)

[Confirmation](#)

[Confirmation](#)
[New-User-Name-Password](#)
Output Flows:
[Student-User-Name-Password](#)
[Student-User-Name-Password](#)
[Request-to-Clear](#)
[Confirmation](#)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Let's Make a Match

Process

Description:

Let's make A Match software controls all of the data entry and reporting.

Process #: 0

Process Description:

Controls all of the functions performed and results in the matching of potential roommates.

Location:

[FE LMM Context Diagram](#) (CONTEXT)

Input Flows:

[Freshmen-Student-Information](#)

[Returning-Student-Information](#)

Output Flows:

[Student-Matches-Freshmen](#)

[Student-Matches-Returning](#)

[Roommates](#)

Date Last Altered: 10/25/2003

Date Created: 10/24/2003

Let's Make a Match Software

Process

Description:

Let's make A Match software controls all of the data entry and reporting.

Process #: 1

Process Description:

Controls all of the functions performed and results in the matching of potential roommates.

Location:

[Let's Make a Match level 0](#) (0)

Input Flows:

[Profile-Input](#)

[Retrieval](#)

[Request-for-data](#)

[Profile-Input](#)

[Retrieval](#)

[Validation](#)

Output Flows:

[Possible-Roommate-Matches](#)
[Storage](#)
[Roommate-Matches](#)
[Query](#)
[Possible-Roommate-Matches](#)
[Storage](#)
[User-Name-Password](#)
[Retrieval](#)

Date Last Altered: 10/25/2003

Date Created: 10/24/2003

List-of-Matches

Data Flow

Description:

List of names of students that requested each other

Location:

[Level 1](#) (1)

Source: [Process Matches-Review Roommates](#) (Process)

Dest: [Housing](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

User-Name-And-Password-Data

Data Flow

Description:

User Name and Password

Location:

[Create/Enter Account](#) (1.1)

Source: [Freshmen Students](#) (Source/Sink)

Dest: [Process User Name and Password](#) (Process)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

User-Name-and -Password

Data Flow

Description:

User Name and Password

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Match-Remaining

Data Flow

Description:

Request to match and return the remaining students that have not been matched

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Match Database

File

Description:

The database stores the students names who requested each other.

Notes:

There should be two names store together, the name of the student requesting and the name of the student requested.

Location:

[Let's Make a Match level 0](#) (0)

- Input Flows:*
 - [Query](#)
 - [Retrieval](#)
- [Level 1](#) (1)
 - Input Flows:*
 - [Create-Entry](#)
 - [Query-Roommate-Matches](#)
 - [Clear-Query](#)
 - [Request-Remaining](#)
 - [Query-Matches](#)
 - Output Flows:*
 - [Confirmation](#)
 - [Roommate-Matches](#)
 - [Confirmation](#)
 - [Remaining-Students](#)
 - [Statistics](#)
- [Matched Roommate Submission](#) (1.6)
 - Input Flows:*
 - [Form-Information](#)
 - Output Flows:*
 - [Confirmation](#)
- [Review Unmatched Roommates](#) (1.8)
 - Input Flows:*
 - [Query-Names](#)
 - Output Flows:*
 - [Names](#)
- [Display Info](#) (1.10)
 - Input Flows:*
 - [Query-Matches](#)
 - Output Flows:*
 - [Number-of-students-Matched](#)
- [Tasks](#) (1.9)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Matched-Students-Profile-Attributes

Data Flow

Description:

Raw list of attributes on potential roommates

Location:

[Generate Matches-Returning](#) (1.4)

Source: [Returning Students Database](#) (File)

Dest: [Process Request -Returning](#) (Process)

[Generate Matches-Freshman](#) (1.5)

Source: [Freshmen Students Database](#) (File)

Dest: [Process Request -Freshmen](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Matched Freshmen

Process

Description:

Obtains the names of the students that have been successfully matched.

Process #: 1.8.3

Location:

[Review Unmatched Roommates](#) (1.8)

Input Flows:

[Names](#)

Output Flows:

[Query-Names](#)

[Names](#)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Matched Roommate Submission

Process

Description:

Students fill out a form requesting a certain roommate.

Process #: 1.6

Process Description:

Students fill out a form requesting who they want to live with and this is stored in another database that housing can access. It will sent out a confirmation when they request another roommate and when a roommate has requested them.

Location:

[Level 1](#) (1)

Input Flows:

[Enter-Requested-Roommate](#)

[Confirmation](#)

Output Flows:

[Create-Entry](#)

[Confirmation](#)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Matches

Data Flow

Description:

Raw list of attributes on potential roommates

Location:

[Level 1](#) (1)

Source: [Generate Matches-Returning](#) (Process)

Dest: [Returning Students](#) (Source/Sink)

Source: [Generate Matches-Freshman](#) (Process)

Dest: [Freshmen Students](#) (Source/Sink)

Source: [Freshmen Students Database](#) (File)

Dest: [Generate Matches-Freshman](#) (Process)

[Sort Results -Freshmen](#) (1.5.2)

Source: *** Not on Diagram ***

Dest: [Process Characteristics -Freshmen](#) (Process)

[Generate Matches-Freshman](#) (1.5)

Source: [Process Request -Freshmen](#) (Process)

Dest: [Sort Results -Freshmen](#) (Process)

[Generate Matches-Returning](#) (1.4)

Source: [Process Request -Returning](#) (Process)

Dest: [Sort Results -Returning](#) (Process)

[Sort Results Returning Students](#) (1.4.2)

Source: *** Not on Diagram ***

Dest: [Process Characteristics](#) (Process)

[Level 1](#) (1)

Source: [Returning Students Database](#) (File)

Dest: [Generate Matches-Returning](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Names

Data Flow

Description:

Names of students

Location:

[Review Unmatched Roommates](#) (1.8)

Source: [Freshmen Students Database](#) (File)

Dest: [All Freshmen](#) (Process)

Source: [Match Database](#) (File)

Dest: [Matched Freshmen](#) (Process)

Source: [All Freshmen](#) (Process)

Dest: [Calculate Matched](#) (Process)

Source: [Matched Freshmen](#) (Process)

Dest: [Calculate Matched](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

New-User-Name-Password

Data Flow

Description:

User name and Password

Location:

[Process Login](#) (1.1.1)

Source: [Freshmen Students](#) (Source/Sink)

Dest: [Create New User Name and Password](#) (Process)

[Tasks](#) (1.9)

Source: [Change Password](#) (Process)

Dest: [Housing](#) (Source/Sink)

Source: [Change Password](#) (Process)

Dest: [User Name-Password Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 10/29/2003

Number-of-Students

Data Flow

Description:

The number of students that have created their profile

Location:

[Display Info](#) (1.10)

Source: [Freshmen Students Database](#) (File)

Dest: [Calculate System Statistics](#) (Process)

Source: [Users Registered](#) (Process)

Dest: [Housing](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Number-of-students-Matched

Data Flow

Description:

Gives the number of successful matches there are stored in the database.

Location:

[Display Info](#) (1.10)

Source: [Match Database](#) (File)

Dest: [Calculate System Statistics](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Percent-and-Characteristics

Data Flow

Description:

Gives the best roommate matches and their characteristics.

Location:

[Sort Results -Freshmen](#) (1.5.2)

Source: [Calculate Top Matches Freshmen](#) (Process)

Dest: [Freshmen Students](#) (Source/Sink)

Date Last Altered: 12/1/2003

Date Created: 12/1/2003

Percentages-of-Matched-Students

Data Flow

Description:

In percent form, the number of students that have been matched up.

Location:

[Display Info](#) (1.10)

Source: [Calculate System Statistics](#) (Process)

Dest: [Housing](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Possible-Roommate-Matches

Data Flow

Description:

List of possible roommates and some information about them

Location:

[Let's Make a Match level 0](#) (0)

Source: [Let's Make a Match Software](#) (Process)

Dest: [Returning Students](#) (Source/Sink)

Source: [Let's Make a Match Software](#) (Process)

Dest: [Freshmen Students](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 10/29/2003

Process-User-Name-Password Data Flow
Description:
SQL Query
Location:
[Create/Enter Account](#) (1.1)
Source: [Returning Students](#) (Source/Sink)
Dest: [User Name-Password Database](#) (File)
Source: [Freshmen Students](#) (Source/Sink)
Dest: [User Name-Password Database](#) (File)
Date Last Altered: 11/24/2003 *Date Created:* 11/24/2003

Process Confirmation Process
Description:
Confirmation tells the system that the Students account has to be flagged.
Process #: 1.6.3.2
Process Description:
This realizes that the student has request a roommate and sends a message to allow the account to be flagged.
Location:
[Flag Student Account](#) (1.6.3)
Input Flows:
[Request-Confirmation](#)
Output Flows:
[Change-Status](#)
Date Last Altered: 10/25/2003 *Date Created:* 10/25/2003

Process Flag Process
Description:
Changes the status of the students account.
Process #: 1.6.3.1
Process Description:
This changes the status of the students account by changing a field that allows the student to still be searched, so they can communicate with other prospective student, but not room with them.
Location:
[Flag Student Account](#) (1.6.3)
Input Flows:
[Change-Status Confirmation](#)
Output Flows:
[Change-Field Confirmation](#)
Date Last Altered: 10/25/2003 *Date Created:* 10/25/2003

Process Matches-Review Roommates

Process

Description:

Returns a listing of roommates.

Process #: 1.7

Process Description:

When housing requests a listing of roommates, the database is queried and they get a listing of roommates that requested each other.

Location:

[Level 1](#) (1)

Input Flows:

[Request-Matches](#)

[Roommate-Matches](#)

Output Flows:

[List-of-Matches](#)

[Query-Roommate-Matches](#)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Process Characteristics

Process

Description:

Sorts out matched Returning students profile data.

Process #: 1.4.2.1

Process Description:

This takes the resulting query and will sort out only the fields necessary for the user to see about their potential matches. For example, it will not display personal information about the match.

Location:

[Sort Results Returning Students](#) (1.4.2)

Input Flows:

[Matches](#)

Output Flows:

[Student-Data](#)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Process Characteristics -Freshmen

Process

Description:

Sorts out matched Freshmen students profile data.

Process #: 1.5.2.1

Process Description:

This takes the resulting query and will sort out only the fields for the User to see about their potential matches. For example, it will not display personal information about the match.

Location:

[Sort Results -Freshmen](#) (1.5.2)

Input Flows:

[Matches](#)

Output Flows:

[Student-Data](#)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Process Request -Freshmen

Process

Description:

Queries the database.

Process #: 1.5.1

Process Description:

Queries the database on the variables that are equal and returns a list of all of the matches.

Location:

[Generate Matches-Freshman](#) (1.5)

Input Flows:

[Matched-Students-Profile-Attributes](#)

[Request-Matches](#)

Output Flows:

[Matches](#)

[Query-on-Profile](#)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Process Request -Returning

Process

Description:

Queries the database.

Process #: 1.4.1

Process Description:

Queries the database on the variables that are equal and returns a list of all of the matches.

Location:

[Generate Matches-Returning](#) (1.4)

Input Flows:

[Matched-Students-Profile-Attributes](#)

[Request-Matches](#)

Output Flows:

[Matches](#)

[Query-on-Profile](#)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Process User Name and Password

Process

Description:

Checks the Students user name and password.

Process #: 1.1.1

Process Description:

Check the users login and then if is not a generic login, then check the password.

Location:

[Create/Enter Account](#) (1.1)

Input Flows:
[User-Name-Password](#)
[Login-Data](#)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Profile-Input

Data Flow

Description:

Preferences chosen from the pull down menu on the user profile form

Location:

[Let's Make a Match level 0](#) (0)

Source: [Freshmen Students](#) (Source/Sink)

Dest: [Let's Make a Match Software](#) (Process)

Source: [Returning Students](#) (Source/Sink)

Dest: [Let's Make a Match Software](#) (Process)

[Level 1](#) (1)

Source: [Returning Students](#) (Source/Sink)

Dest: [Create/ Update Returning Student Profile](#) (Process)

Source: [Freshmen Students](#) (Source/Sink)

Dest: [Create/Update Freshmen Profile](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Prompt-New-Name-Password

Data Flow

Description:

This prompts the user to change their user name and password if they enter their Siena created password.

Location:

[Process Login](#) (1.1.1)

Source: [Generic login](#) (Process)

Dest: [Create New User Name and Password](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Prompt-New-User-Name-Password

Data Flow

Description:

A New Window appears to enter data (code)

Location:

[Process Login](#) (1.1.1)

Source: [Create New User Name and Password](#) (Process)

Dest: [Freshmen Students](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Query

Data Flow

Description:

SQL Code

Location:

[Let's Make a Match level 0](#) (0)

Source: [Let's Make a Match Software](#) (Process)

Dest: [Match Database](#) (File)
Date Last Altered: 11/24/2003 Date Created: 10/24/2003

Query-Matches

Data Flow

Description:

SQL Code

Location:

[Level 1](#) (1)

Source: [Generate Matches-Freshman](#) (Process)

Dest: [Freshmen Students Database](#) (File)

Source: [Generate Matches-Returning](#) (Process)

Dest: [Returning Students Database](#) (File)

[Display Info](#) (1.10)

Source: [Calculate System Statistics](#) (Process)

Dest: [Match Database](#) (File)

[Level 1](#) (1)

Source: [Display Info](#) (Process)

Dest: [Match Database](#) (File)

Date Last Altered: 11/24/2003 Date Created: 10/24/2003

Query-Names

Data Flow

Description:

Gets the names of the all freshmen that have created profiles

Location:

[Review Unmatched Roommates](#) (1.8)

Source: [All Freshmen](#) (Process)

Dest: [Freshmen Students Database](#) (File)

Source: [Matched Freshmen](#) (Process)

Dest: [Match Database](#) (File)

Date Last Altered: 11/24/2003 Date Created: 11/24/2003

Query-on-Profile

Data Flow

Description:

SQL Code

Location:

[Generate Matches-Returning](#) (1.4)

Source: [Process Request -Returning](#) (Process)

Dest: [Returning Students Database](#) (File)

[Generate Matches-Freshman](#) (1.5)

Source: [Process Request -Freshmen](#) (Process)

Dest: [Freshmen Students Database](#) (File)

Date Last Altered: 11/24/2003 Date Created: 10/25/2003

Query-Roommate-Matches

Data Flow

Description:

SQL Code

Location:

[Level 1](#) (1)

Source: [Process Matches-Review Roommates](#) (Process)

Dest: [Match Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Query-Students

Data Flow

Description:

SQL Code

Location:

[Display Info](#) (1.10)

Source: [Calculate System Statistics](#) (Process)

Dest: [Freshmen Students Database](#) (File)

Source: [Users Registered](#) (Process)

Dest: [Freshmen Students Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Remaining-Matches

Data Flow

Description:

List of students that did not want to participate in the online software.

Also it includes students that were not successfully matched.

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Remaining-Students

Data Flow

Description:

List of students that made a profile, but did not find roommates

Location:

[Level 1](#) (1)

Source: [Match Database](#) (File)

Dest: [Review Unmatched Roommates](#) (Process)

Source: [Review Unmatched Roommates](#) (Process)

Dest: [Housing](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Request-Confirmation

Data Flow

Description:

Acceptance

Location:

[Matched Roommate Submission](#) (1.6)

Source: [Submit Roommate Request](#) (Process)

Dest: [Flag Student Account](#) (Process)

[Flag Student Account](#) (1.6.3)

Source: *** Not on Diagram ***

Dest: [Process Confirmation](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Request-for-data

Data Flow

Description:

Button clicked on that signals a database query (code)

Location:

[Let's Make a Match level 0](#) (0)

Source: [Housing](#) (Source/Sink)

Dest: [Let's Make a Match Software](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Request-Information

Data Flow

Description:

SQL Query

Location:

[Level 1](#) (1)

Source: [Housing](#) (Source/Sink)

Dest: [Display Info](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Request-Matches

Data Flow

Description:

Button clicked that invokes a query

Location:

[Generate Matches-Returning](#) (1.4)

Source: [Returning Students](#) (Source/Sink)

Dest: [Process Request -Returning](#) (Process)

[Generate Matches-Freshman](#) (1.5)

Source: [Freshmen Students](#) (Source/Sink)

Dest: [Process Request -Freshmen](#) (Process)

[Level 1](#) (1)

Source: [Housing](#) (Source/Sink)

Dest: [Process Matches-Review Roommates](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Request-Number-on-System

Data Flow

Description:

SQL Query

Location:

[Display Info](#) (1.10)

Source: [Housing](#) (Source/Sink)

Dest: [Calculate System Statistics](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Request-Remaining

Data Flow

Description:

Button clicked that invokes a query

Location:

[Level 1](#) (1)

Source: [Review Unmatched Roommates](#) (Process)

Dest: [Match Database](#) (File)

Source: [Housing](#) (Source/Sink)

Dest: [Review Unmatched Roommates](#) (Process)

[Review Unmatched Roommates](#) (1.8)

Source: [Housing](#) (Source/Sink)

Dest: [All Freshmen](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Request-to-Clear

Data Flow

Description:

Button clicked that invokes a query

Location:

[Level 1](#) (1)

Source: [Housing](#) (Source/Sink)

Dest: [Tasks](#) (Process)

[Tasks](#) (1.9)

Source: [Housing](#) (Source/Sink)

Dest: [Reset System](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/29/2003

Reset System

Process

Description:

Allows the administrator to clear all of the information out of the database.

Process #: 1.9.1

Location:

[Tasks](#) (1.9)

Input Flows:

[Request-to-Clear](#)

[Confirmation](#)

[Confirmation](#)

[Confirmation](#)

Output Flows:

[Confirmation](#)

[Clear](#)

[Clear](#)

[Clear](#)

[Clear](#)

[Clear](#)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Retrieval

Data Flow

Description:

SQL Code that returns a list of possible roommates and some information about them

Notes:

Location:

[Let's Make a Match level 0](#) (0)

Source: [Returning Students Database](#) (File)

Dest: [Let's Make a Match Software](#) (Process)

Source: [Freshmen Students Database](#) (File)

Dest: [Let's Make a Match Software](#) (Process)

Source: [Let's Make a Match Software](#) (Process)

Dest: [Match Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Returning-Student-Information

Data Flow

Description:

Preferences chosen from pull down menu, on the user profile

Location:

[FE LMM Context Diagram](#) (CONTEXT)

Source: [Returning Students](#) (Source/Sink)

Dest: [Let's Make a Match](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Returning Students

Source/Sink

Description:

These are the students that already attend Siena and are looking for someone to live with for the next year.

Location:

[FE LMM Context Diagram](#) (CONTEXT)

Input Flows:

[Student-Matches-Returning](#)

Output Flows:

[Returning-Student-Information](#)

[Let's Make a Match level 0](#) (0)

Input Flows:

[Possible-Roommate-Matches](#)

Output Flows:

[Profile-Input](#)

[Level 1](#) (1)

Input Flows:

[Confirmation](#)

[Matches](#)

[Validation-yes-no](#)

Output Flows:

[Profile-Input](#)

[Submit-Match-Request](#)

[User-Name-Password](#)
[Create/Enter Account](#) (1.1)
Input Flows:
[Validation-yes-no](#)
Output Flows:
[User-Name-Password](#)
[Process-User-Name-Password](#)
[Generate Matches-Returning](#) (1.4)
Input Flows:
[Suitable-Matches-and-Characteristics](#)
Output Flows:
[Request-Matches](#)
[Sort Results Returning Students](#) (1.4.2)
Input Flows:
[Top-Matches](#)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Returning Students Database

File

Description:

This stores the profiles and data of the returning students.

Location:

[Generate Matches-Returning](#) (1.4)
Input Flows:
[Query-on-Profile](#)
Output Flows:
[Matched-Students-Profile-Attributes](#)
[Let's Make a Match level 0](#) (0)
Input Flows:
[Storage](#)
Output Flows:
[Retrieval](#)
[Tasks](#) (1.9)
Input Flows:
[Clear](#)
Output Flows:
[Confirmation](#)
[Level 1](#) (1)
Input Flows:
[Create-Update-Student-Info](#)
[Query-Matches](#)
Output Flows:
[Confirmation](#)
[Matches](#)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Review Unmatched Roommates

Process

Description:

Obtains the list of students that were not successfully matched.

Process #: 1.8

Process Description:

Students that did not find a roommate or did not want to look for one are returned as a list to housing so they can be matched by hand.

Location:

[Level 1](#) (1)

Input Flows:

[Request-Remaining](#)
[Remaining-Students](#)

Output Flows:

[Remaining-Students](#)
[Request-Remaining](#)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Roommate-Matches

Data Flow

Description:

List of names of students that requested each other

Location:

[Let's Make a Match level 0](#) (0)

Source: [Let's Make a Match Software](#) (Process)

Dest: [Housing](#) (Source/Sink)

[Level 1](#) (1)

Source: [Match Database](#) (File)

Dest: [Process Matches-Review Roommates](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/29/2003

Roommates

Data Flow

Description:

List of names of students that requested each other

Location:

[FE LMM Context Diagram](#) (CONTEXT)

Source: [Let's Make a Match](#) (Process)

Dest: [Housing](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Sort Results -Freshmen

Process

Description:

Sorts out the potential roommate matches.

Process #: 1.5.2

Process Description:

The takes the results and calculates what will be returned to the student.

Location:

[Generate Matches-Freshman](#) (1.5)

Input Flows:

[Matches](#)

Output Flows:

[Suitable-Matches-and-Characteristics](#)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Sort Results -Returning

Process

Description:

Sorts out the potential roommate matches.

Process #: 1.4.2

Process Description:

The takes the results and calculates what will be returned to the student.

Location:

[Generate Matches-Returning](#) (1.4)

Input Flows:

[Matches](#)

Output Flows:

[Suitable-Matches-and-Characteristics](#)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Statistics

Data Flow

Description:

Information about the system, like the percentages of matched students.

Location:

[Level 1](#) (1)

Source: [Match Database](#) (File)

Dest: [Display Info](#) (Process)

Date Last Altered: 12/1/2003

Date Created: 12/1/2003

Storage

Data Flow

Description:

Preferences chosen form the pull down menu on the user profile form

Location:

[Let's Make a Match level 0](#) (0)

Source: [Let's Make a Match Software](#) (Process)

Dest: [Returning Students Database](#) (File)

Source: [Let's Make a Match Software](#) (Process)

Dest: [Freshmen Students Database](#) (File)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Student-Data

Data Flow

Description:

Modified list of possible roommate matches with attributes taken out that students can not see about each other

Location:

[Sort Results Returning Students](#) (1.4.2)

Source: [Process Characteristics](#) (Process)

Dest: [Calculate Top Matches](#) (Process)

[Sort Results -Freshmen](#) (1.5.2)

Source: [Process Characteristics -Freshmen](#) (Process)

Dest: [Calculate Top Matches Freshmen](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Student-Matches-Freshmen

Data Flow

Description:

List of possible roommates and some information about them

Location:

[FE LMM Context Diagram](#) (CONTEXT)

Source: [Let's Make a Match](#) (Process)

Dest: [Freshman Students](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Student-Matches-Returning

Data Flow

Description:

List of possible roommates and some information about them

Location:

[FE LMM Context Diagram](#) (CONTEXT)

Source: [Let's Make a Match](#) (Process)

Dest: [Returning Students](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Student-User-Name-Password

Data Flow

Description:

This is the user name and password of the student that is requested

Location:

[Tasks](#) (1.9)

Source: [Housing](#) (Source/Sink)

Dest: [Add Students](#) (Process)

Source: [Housing](#) (Source/Sink)

Dest: [Delete Student](#) (Process)

Source: [Delete Student](#) (Process)

Dest: [User Name-Password Database](#) (File)

Source: [Add Students](#) (Process)

Dest: [External User Name and Password](#) (File)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Students-Registered

Data Flow

Description:

List of students that have created their profiles

Location:

[Display Info](#) (1.10)

Source: [Freshmen Students Database](#) (File)

Dest: [Users Registered](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Students-Using-Software

Data Flow

Description:

SQL Query

Location:

[Display Info](#) (1.10)

Source: [Housing](#) (Source/Sink)

Dest: [Users Registered](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Submit-Match-Request

Data Flow

Description:

Button clicked that invokes a query (code)

Location:

[Level 1](#) (1)

Source: [Returning Students](#) (Source/Sink)

Dest: [Generate Matches-Returning](#) (Process)

Source: [Freshmen Students](#) (Source/Sink)

Dest: [Generate Matches-Freshman](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Submit Roommate Request

Process

Description:

A form is filled out to store requested roommates.

Process #: 1.6.1

Process Description:

When Students decide who it is that they want to live with, they both have to fill out an online for requesting each other for roommates. This information is stored in the database.

Location:

[Matched Roommate Submission](#) (1.6)

Input Flows:

[Form-Information](#)

[Confirmation](#)

Output Flows:

[Form-Information](#)

[Confirmation](#)

[Request-Confirmation](#)

Date Last Altered: 10/25/2003

Date Created: 10/25/2003

Suitable-Matches-and-Characteristics

Data Flow

Description:

List of possible roommates and some information about them

Location:

[Generate Matches-Returning](#) (1.4)

Source: [Sort Results -Returning](#) (Process)

Dest: [Returning Students](#) (Source/Sink)

[Generate Matches-Freshman](#) (1.5)

Source: [Sort Results -Freshmen](#) (Process)

Dest: [Freshmen Students](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Tasks

Process

Description:

This allows housing to add new freshmen and to clear the database at the end of the housing selection.

Process #: 1.9

Process Description:

This can also delete students that are creating problems in the system.

Location:

[Level 1](#) (1)

Input Flows:

[Request-to-Clear](#)

[Confirmation](#)

Output Flows:

[Clear-Query](#)

[Confirmation](#)

Date Last Altered: 12/1/2003

Date Created: 10/29/2003

Top-Matches

Data Flow

Description:

List of possible roommates and some information about them

Location:

[Sort Results Returning Students](#) (1.4.2)

Source: [Calculate Top Matches](#) (Process)

Dest: [Returning Students](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 10/25/2003

Unmatched-Names

Data Flow

Description:

List of names of unmatched students

Location:

[Review Unmatched Roommates](#) (1.8)

Source: [Calculate Matched](#) (Process)

Dest: [Housing](#) (Source/Sink)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

User-Name-Password

Data Flow

Description:

User Name and Password

Location:

[Let's Make a Match level 0](#) (0)

Source: [Let's Make a Match Software](#) (Process)

Dest: [User Name-Password Database](#) (File)

[Level 1](#) (1)

Source: [Returning Students](#) (Source/Sink)

Dest: [Create/Enter Account](#) (Process)

Source: [Freshmen Students](#) (Source/Sink)

Dest: [Create/Enter Account](#) (Process)

Source: [Create/Enter Account](#) (Process)

Dest: [User Name-Password Database](#) (File)

Source: [User Name-Password Database](#) (File)

Dest: [External User Name and Password](#) (File)

[Create/Enter Account](#) (1.1)

Source: [Returning Students](#) (Source/Sink)

Dest: [Process User Name and Password](#) (Process)

[Process Login](#) (1.1.1)

Source: [Freshmen Students](#) (Source/Sink)

Dest: [Generic login](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

User Name-Password Database

File

Description:

This database stores all of the passwords and logins to all the users of the software.

Location:

[Let's Make a Match level 0](#) (0)

Input Flows:

[User-Name-Password](#)

Output Flows:

[Validation](#)

[Level 1](#) (1)

Input Flows:

[User-Name-Password](#)

[Validation-yes-no](#)

Output Flows:

[Validation-yes-no](#)

[User-Name-Password](#)

[Create/Enter Account](#) (1.1)

Input Flows:

[Process-User-Name-Password](#)

[Process-User-Name-Password](#)

Output Flows:

[Validation-yes-no](#)

[Validation-yes-no](#)

[Process Login](#) (1.1.1)

Input Flows:

[Enter-Data](#)

Output Flows:

[Confirmation](#)

[Tasks](#) (1.9)

Input Flows:

[Student-User-Name-Password](#)

[New-User-Name-Password](#)

[Clear](#)

Output Flows:

[Confirmation](#)

[Confirmation](#)

[Confirmation](#)

Date Last Altered: 11/24/2003

Date Created: 10/24/2003

Users Registered

Process

Description:

This calculated the number of students that have created their profile at this point in time.

Process #: 1.10.2

Location:

[Display Info](#) (1.10)

Input Flows:

[Students-Using-Software](#)

[Students-Registered](#)

Output Flows:

[Number-of-Students](#)

[Query-Students](#)

Date Last Altered: 11/24/2003

Date Created: 11/24/2003

Validation

Data Flow

Description:

Yes or No

Location:

[Let's Make a Match level 0](#) (0)

Source: [User Name-Password Database](#) (File)

Dest: [Let's Make a Match Software](#) (Process)

Date Last Altered: 11/24/2003

Date Created: 10/29/2003

Validation-yes-no

Data Flow

Description:

Yes or No

Location:

[Level 1](#) (1)

Source: [User Name-Password Database](#) (File)

Dest: [Create/Enter Account](#) (Process)
Source: [Create/Enter Account](#) (Process)
Dest: [Returning Students](#) (Source/Sink)
Source: [Create/Enter Account](#) (Process)
Dest: [Freshmen Students](#) (Source/Sink)
Source: [External User Name and Password](#) (File)
Dest: [User Name-Password Database](#) (File)

[Create/Enter Account](#) (1.1)

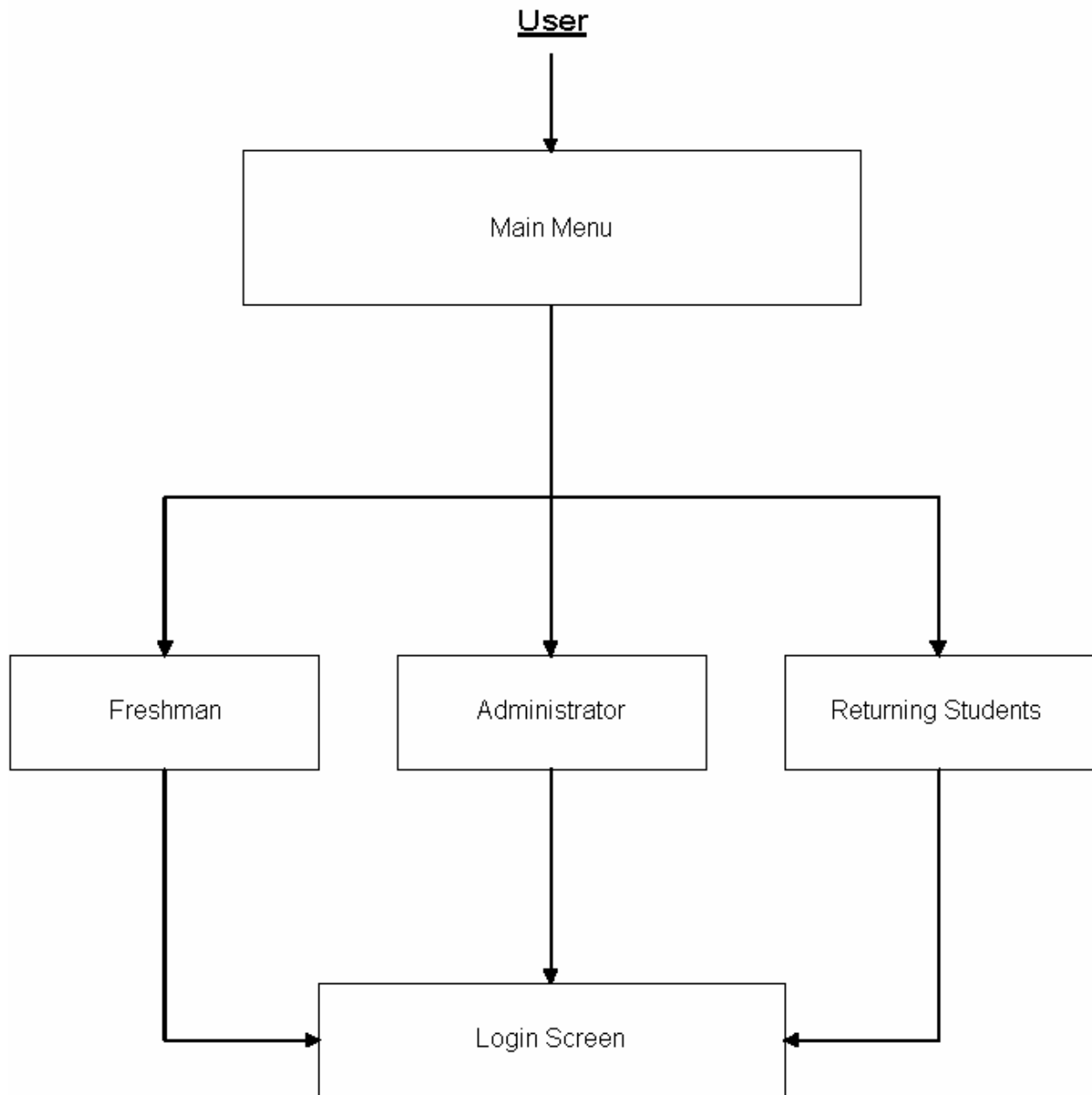
Source: [User Name-Password Database](#) (File)
Dest: [Returning Students](#) (Source/Sink)
Source: [User Name-Password Database](#) (File)
Dest: [Freshmen Students](#) (Source/Sink)

Date Last Altered: 11/24/2003

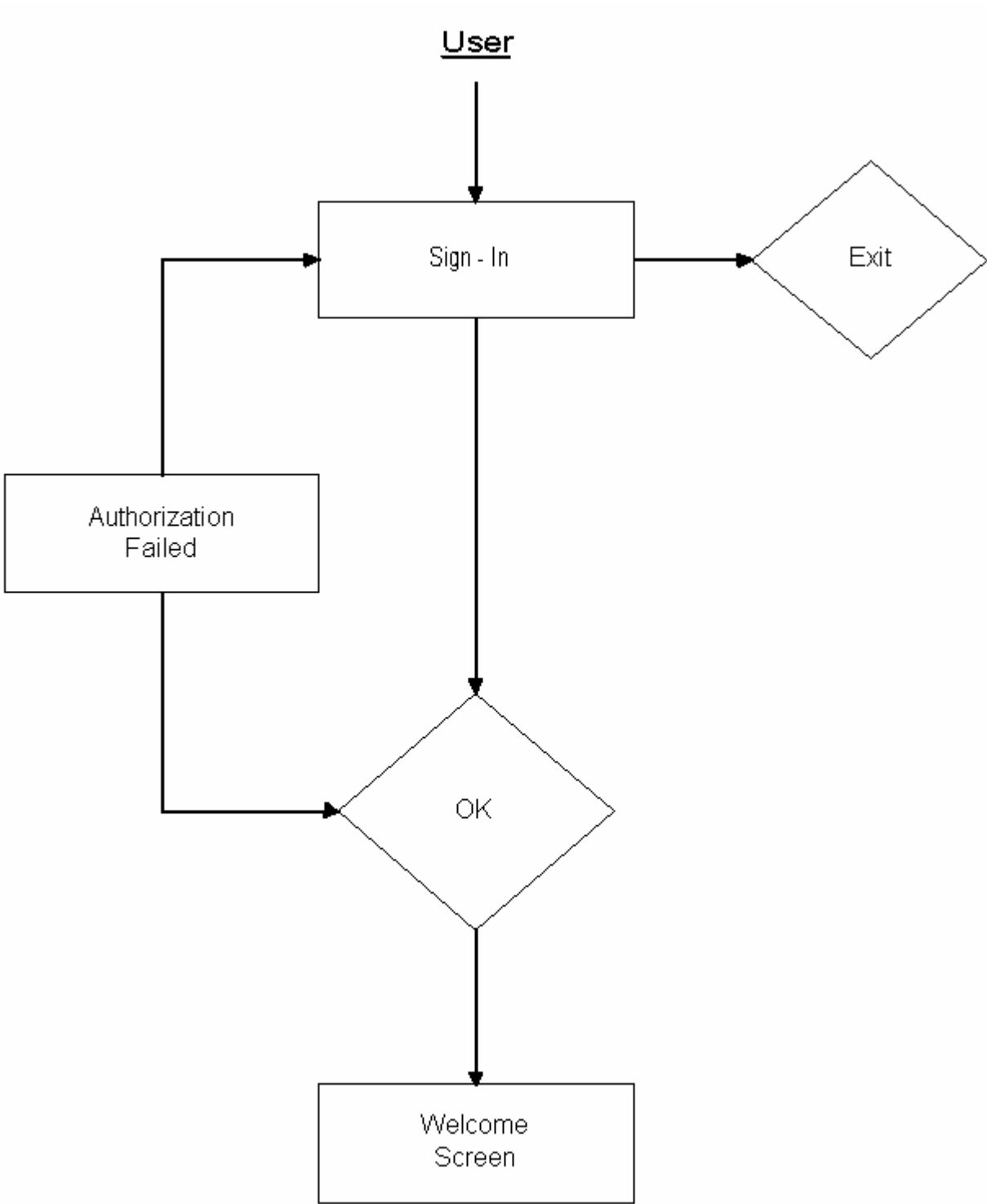
Date Created: 10/24/2003

Structure Diagrams

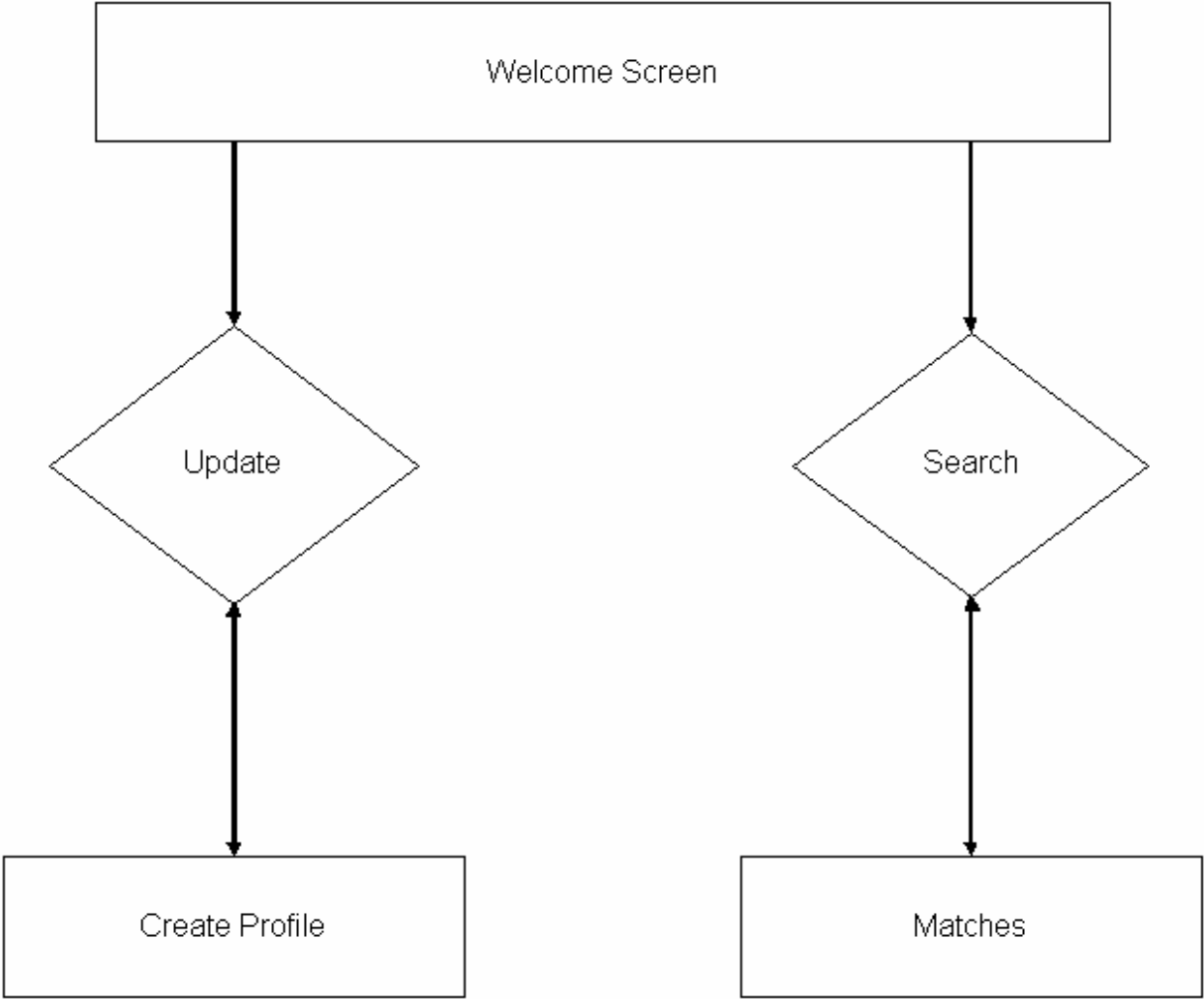
Main Menu Screen



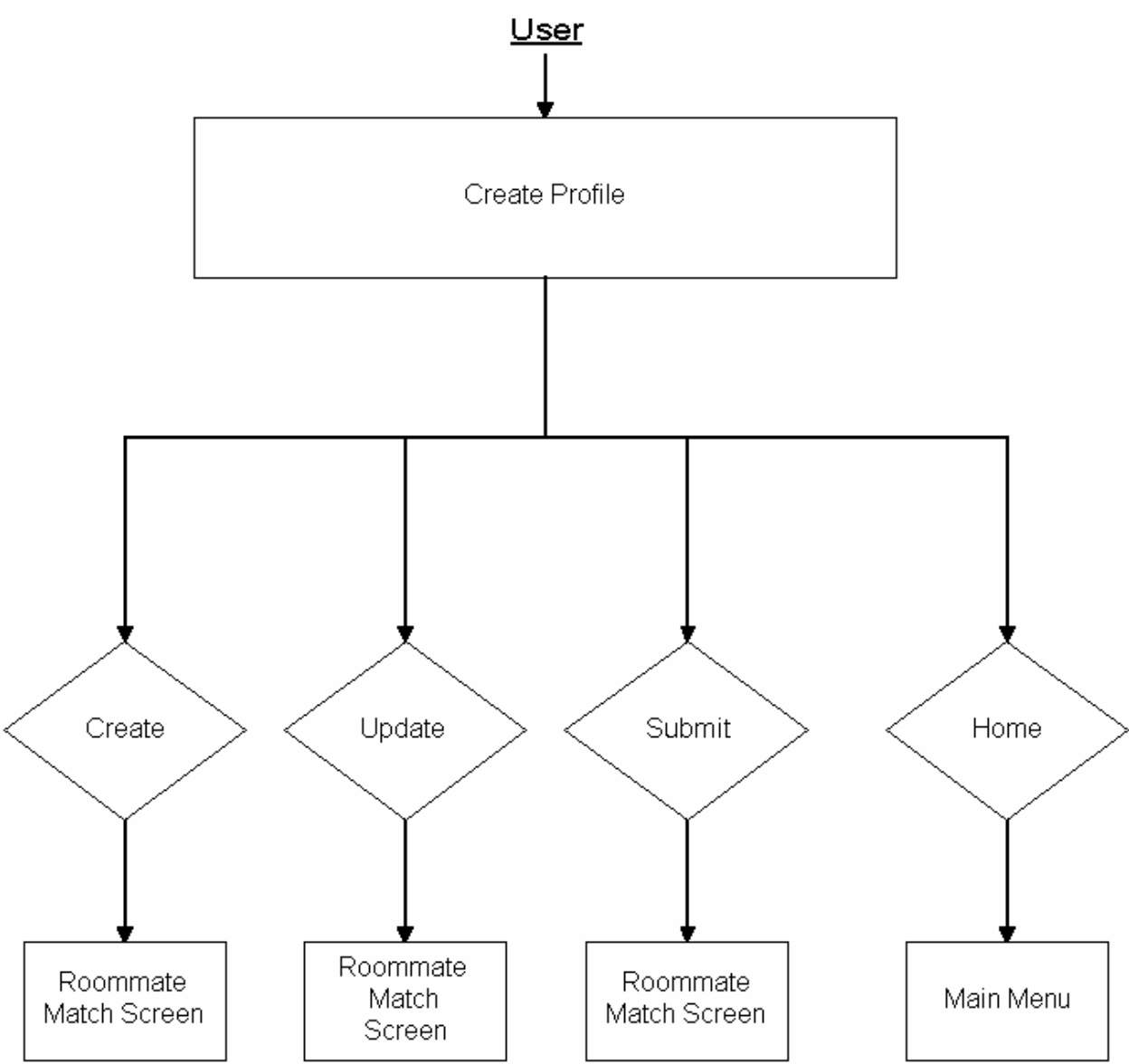
Login Screen



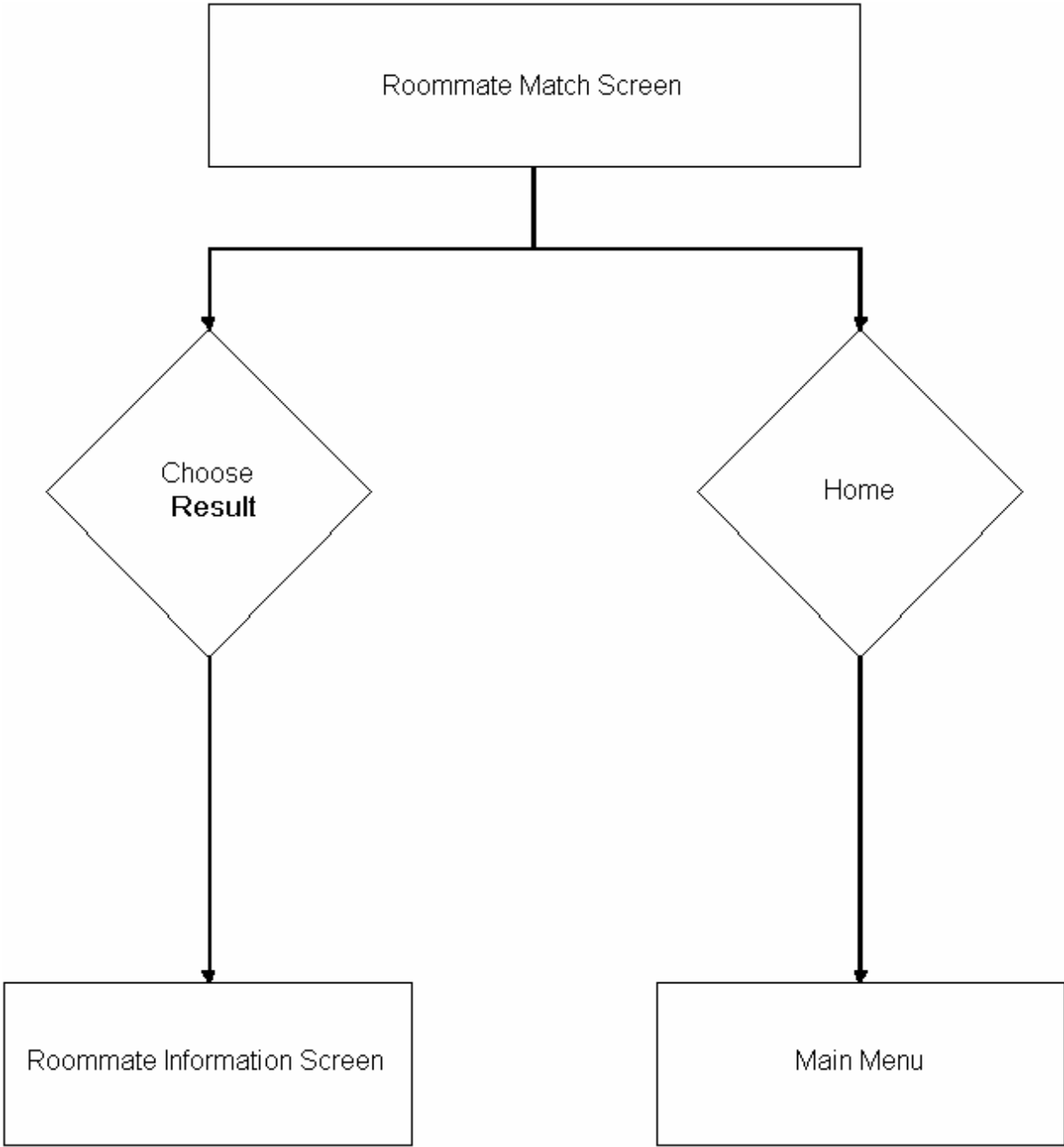
Welcome Screen



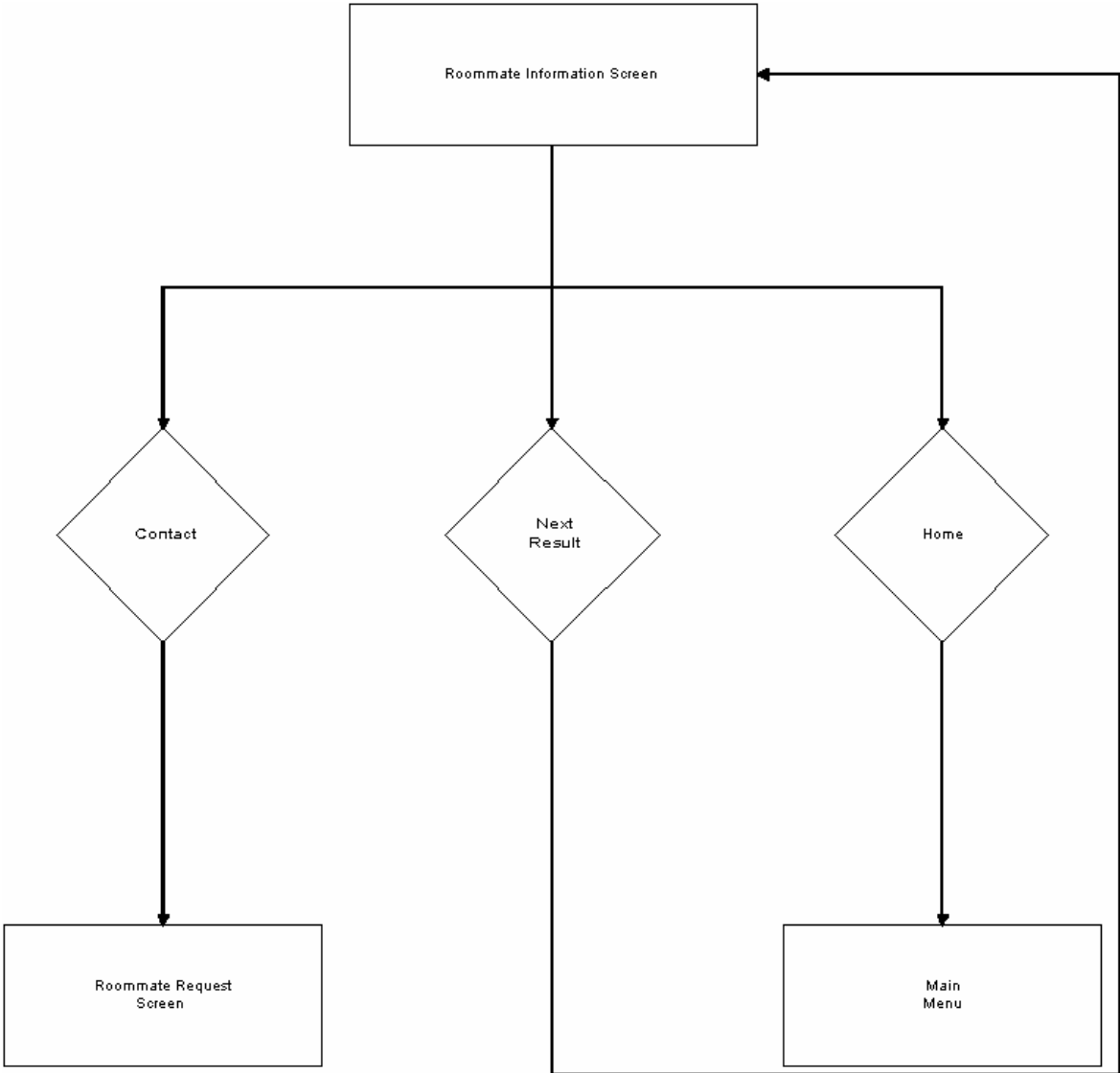
Create Profile Screen



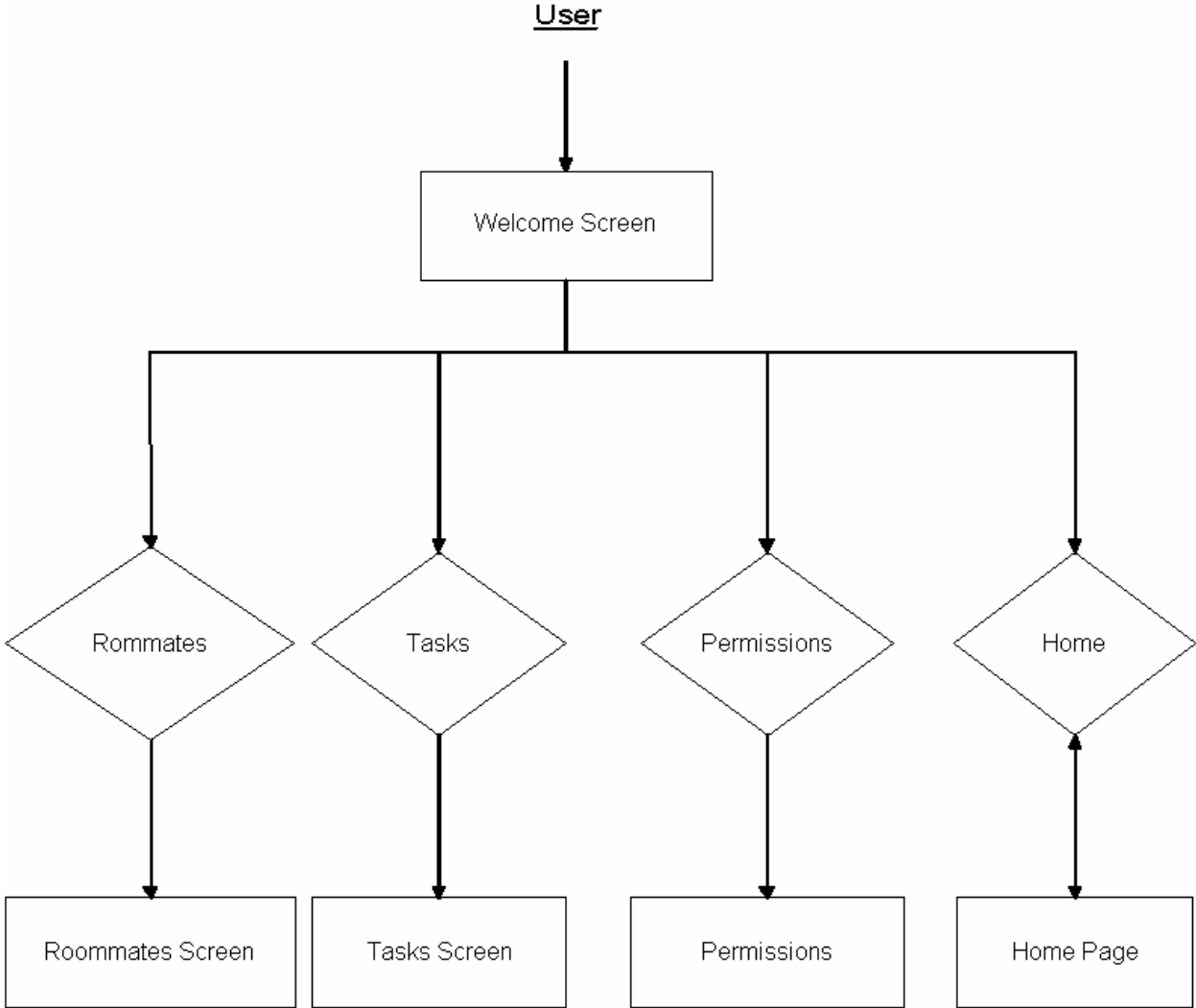
Roommate Match Screen



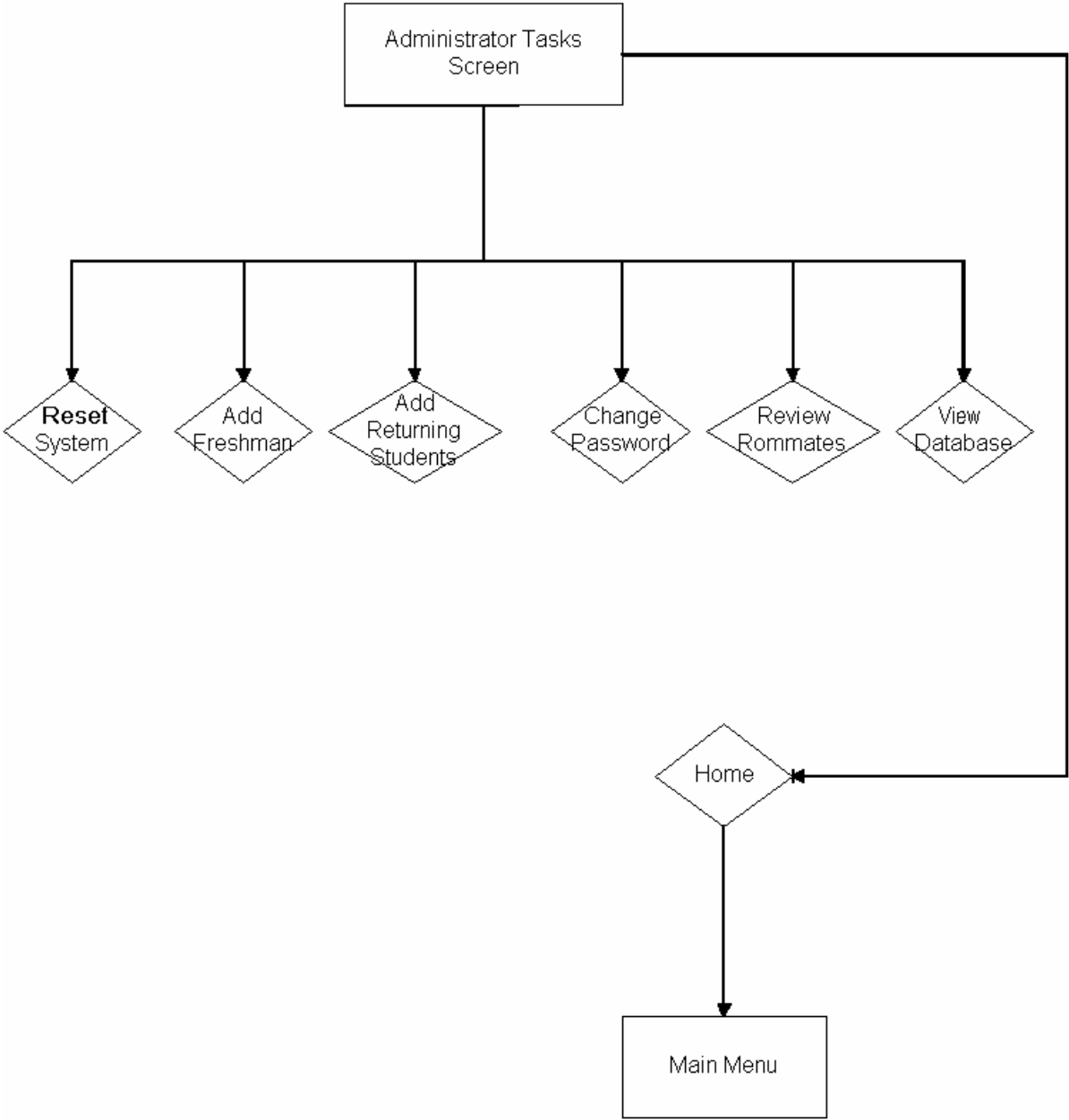
Roommate Information Screen



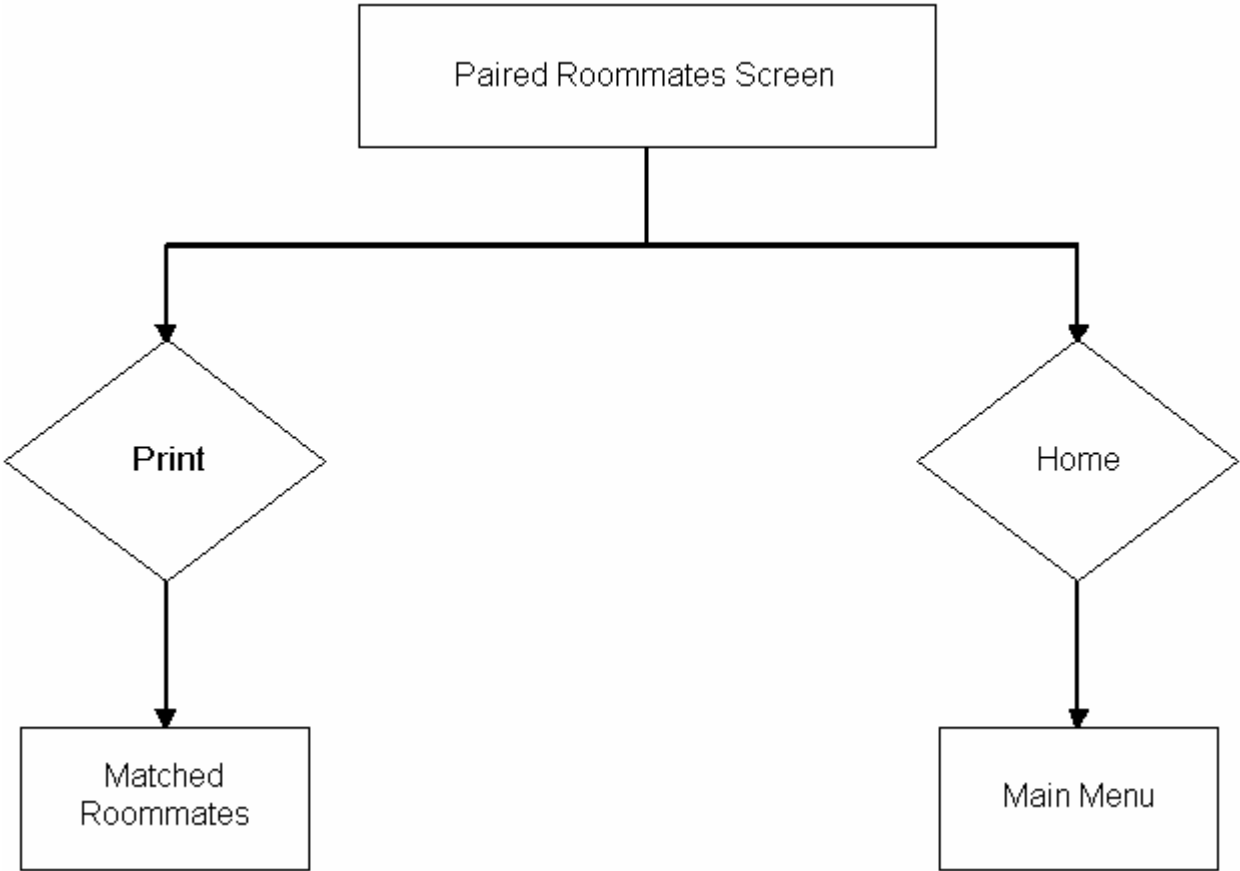
Administrator Welcome Screen



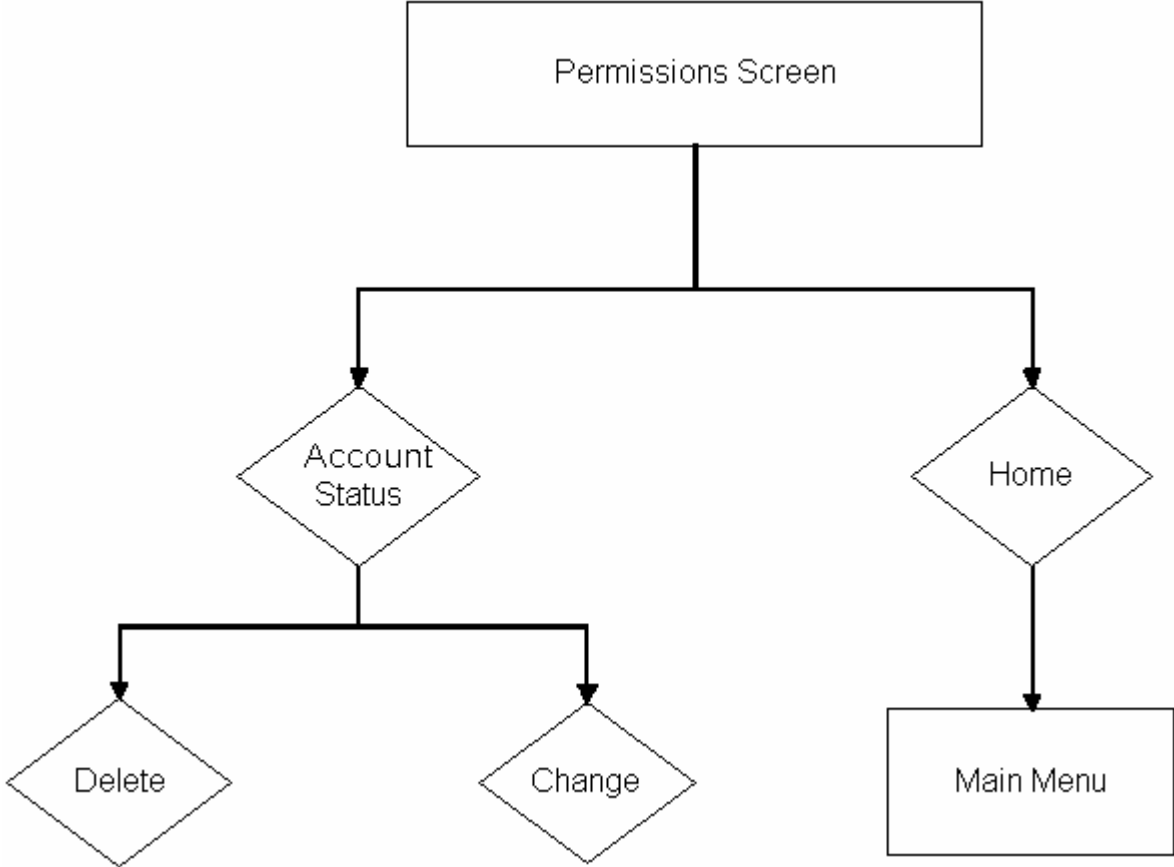
Administrator Tasks Screen



Administrator: Paired Roommates Screen



Administrator: Permissions Screen



Parameter Specifications

Student_Profiles_Table

This table will store all of the personal profile information for each student user of the system. Some of the items will be First_Name, Last_Name, Gender and email address.

Student_Password_Table

The table will store the students' passwords to the Let's Make A Match system.

Matched_Students_Table

This table will store all of the students who have been matched up together.

Logical Data Structures

Student_Profiles_Table

This table stores the matching criteria, which is the answers to the questions and the User ID.

User_ID

Password

Q01

Q02

Q03

Q04

Q05

Q06

Q07

Q08

Q09

Q10

Q11

Q12

Q13

Q14

Q15

Q16

H1

H2

H3

H4

H5

Comments

Student_Accounts_Table

This table stores the freshman students' information.

User_ID
Password
First_Name
Last_Name
Email
Password_Answer
Password_Question
Matched_Status
Last_Log_On

Matched_Student_Table

This table shows the matched student Pairs that were submitted to housing.

User_ID1
User_ID2
Date_Matched

Functional Descriptions

- The system will have a login screen for users and administrators
- The system will have an authentication process to restrict unauthorized people
- The ability to add, update, or removed a user's information is available
- The system will supply relevant matches for the user
- Users will be able to submit their living requests to the system
- Users will receive confirmation that their request was received
- Administrators will have the ability to:
 - access reports on users' matches
 - clear out the database
 - delete a user at anytime
 - flag a user with a confirmed match
- Administrators must monitor and maintain the database on a consistent basis to ensure the system is running and working properly

Appendix A: Glossary of Terms

Access: A relational database running under Microsoft Windows.

Browser - A browser is an application program that provides a way to look at and interact with all the information on the World Wide Web.

Code: A system of symbols and rules used to represent instructions to a computer.

Controlled Decentralized (CD): A software engineering team that has a defined leader who is in charge of the group, each of which has responsibility of other specific tasks. Overall we solve problems as a whole.

Database - A collection of data arranged for ease and speed of search and retrieval.

Data flow diagram - A representation of the functional decomposition of a system.

Gantt Chart - A chart that depicts progress in relation to time, often used in planning and tracking a project.

HTML (Hypertext Markup Language): A markup language used to structure text and multimedia documents and to set up hypertext links between documents, used extensively on the World Wide Web.

Internet - An interconnected system of networks that connects computers around the world via the TCP/IP protocol.

JavaScript: A trademark used for a programming language designed to develop applications, especially ones for the Internet that can operate on different platforms.

Linear Sequential Model / Classic Waterfall Model – A systematic, sequential approach to software development that begins at the system level and progresses through analysis, design, coding, testing, and support.

Logical Data Dictionary: The dictionary identifies data and its characteristics. It is a set of descriptions that can be shared by applications, this can be a database table.

Logical Data Stores: Files/ places where the data is stored

MYSQL - Open Source Database Software

Oracle: A relational database management system that runs on most mainframe, micro, and personal computers.

Process – An activity that changes or manipulates data.

Process Model – A software engineering strategy that is used to develop a software system.

Query – A data retrieval request.

Relational Database: A database system in which any database file can be a component of more than one of the database's tables.

Software - Written programs, procedures or rules and associated documentation pertaining to the operation of a computer system and that are stored in read/write memory.

SQL - An industry-standard language for creating, updating and, querying relational database management systems.

Use Case – Set of scenarios that show a usage of the system by a certain user.

User – An individual that has signed on to the Let's make a Match System and has been assigned a user name and password.

Visual Basic: A popular event-driven visual programming system from Microsoft Corporation for Microsoft Windows.

Appendix B
Falcon Enterprises
Let's Make a Match
Time Line of Events (Fall Semester)

ID	Task Name	September			October			November			December	
		8/29	9/14	9/28	10/12	10/26	11/9	11/23	12/7			
1	Software Engineering Class begins											
2	Team formulation											
3	Initial client meeting											
4	Weekly meeting with client											
14	Software Plan Development											
15	Software Plan Delivered to client											
16	Presentation Development and Preparation											
17	Software Plan Presentation											
18	Software Requirements and Specifications											
19	Software Requirements/Specifications Delivered											
20	Software Requirements Presentation Development											
21	Software Requirements Specification Presentation											
22	Preliminary Design											
23	Preliminary Design Delivered											
24	Preliminary Design Presentation Development											
25	Preliminary Design Presentation											
26	Individual Logs Due											
27												

Appendix B
 Falcon Enterprises
 Let's Make a Match
 Time Line of Events (Fall and Spring Semesters)

ID	Task Name	September			November			January			March		
		8/21	9/21	10/21	11/2	11/23	12/4	1/4	1/25	2/15	3/7	3/28	
1	Software Engineering Class begins												
2	Team Formulation												
3	Initial Client Meeting												
4	Weekly Client Meeting												
14	Software Plan Development												
15	Software Plan Delivered to Client												
16	Presentation Development and Preparation												
17	Software Plan Presentation												
18	Software Requirements and Specifications												
19	Software Requirements/Specifications Delivered												
20	Software Requirements Presentation Development												
21	Software Requirements Specification Presentation												
22	Preliminary Design												
23	Preliminary Design Delivered												
24	Preliminary Design Presentation Development												
25	Preliminary Design Presentation												
26	Individual Logs Due												
27	Detailed Design Documents Delivered												
28	Acceptance Test												

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