Preliminary Design

Let's Make a Match

Falcon Enterprises

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Falcon Enterprises
Let's Make a Match Preliminary Design

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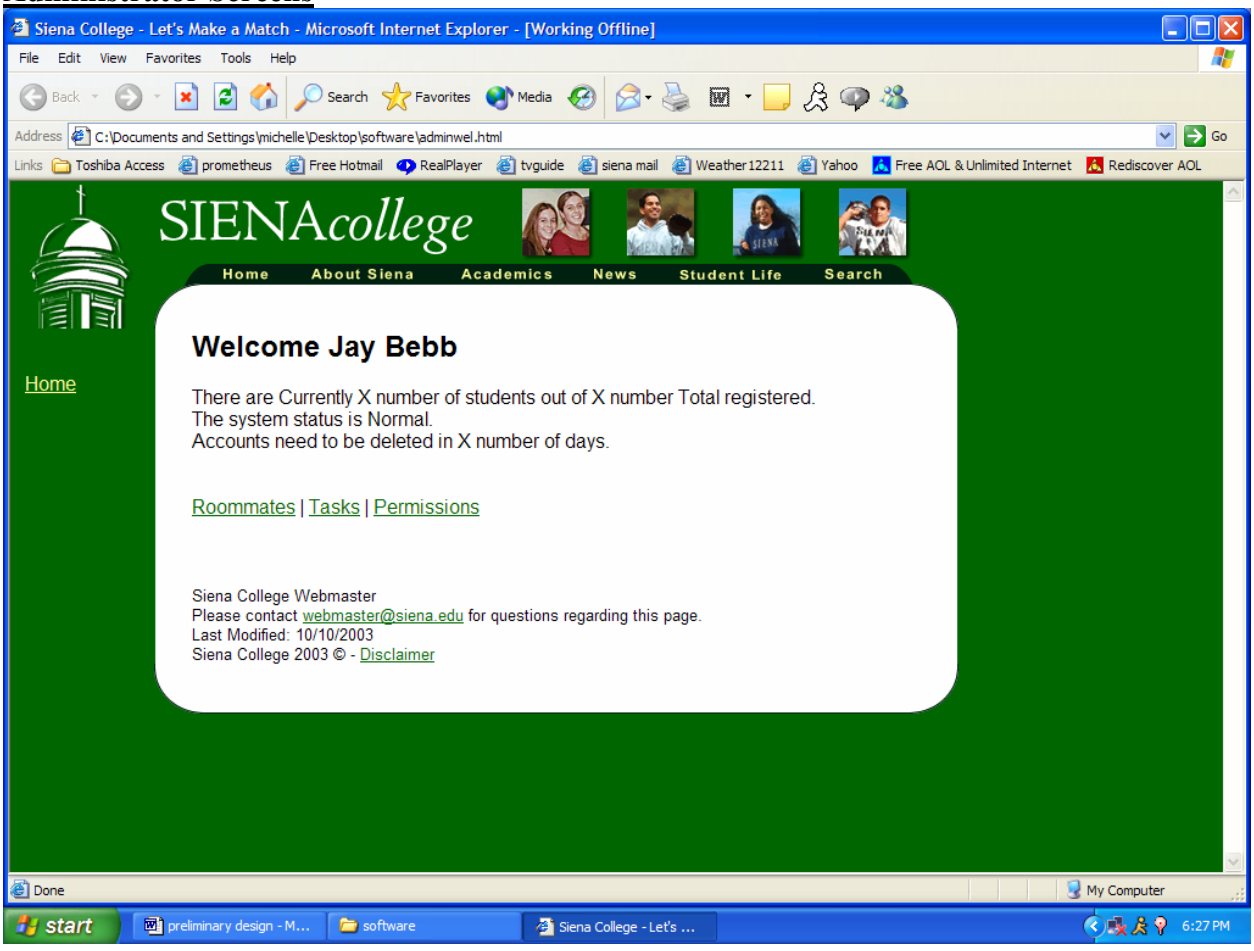
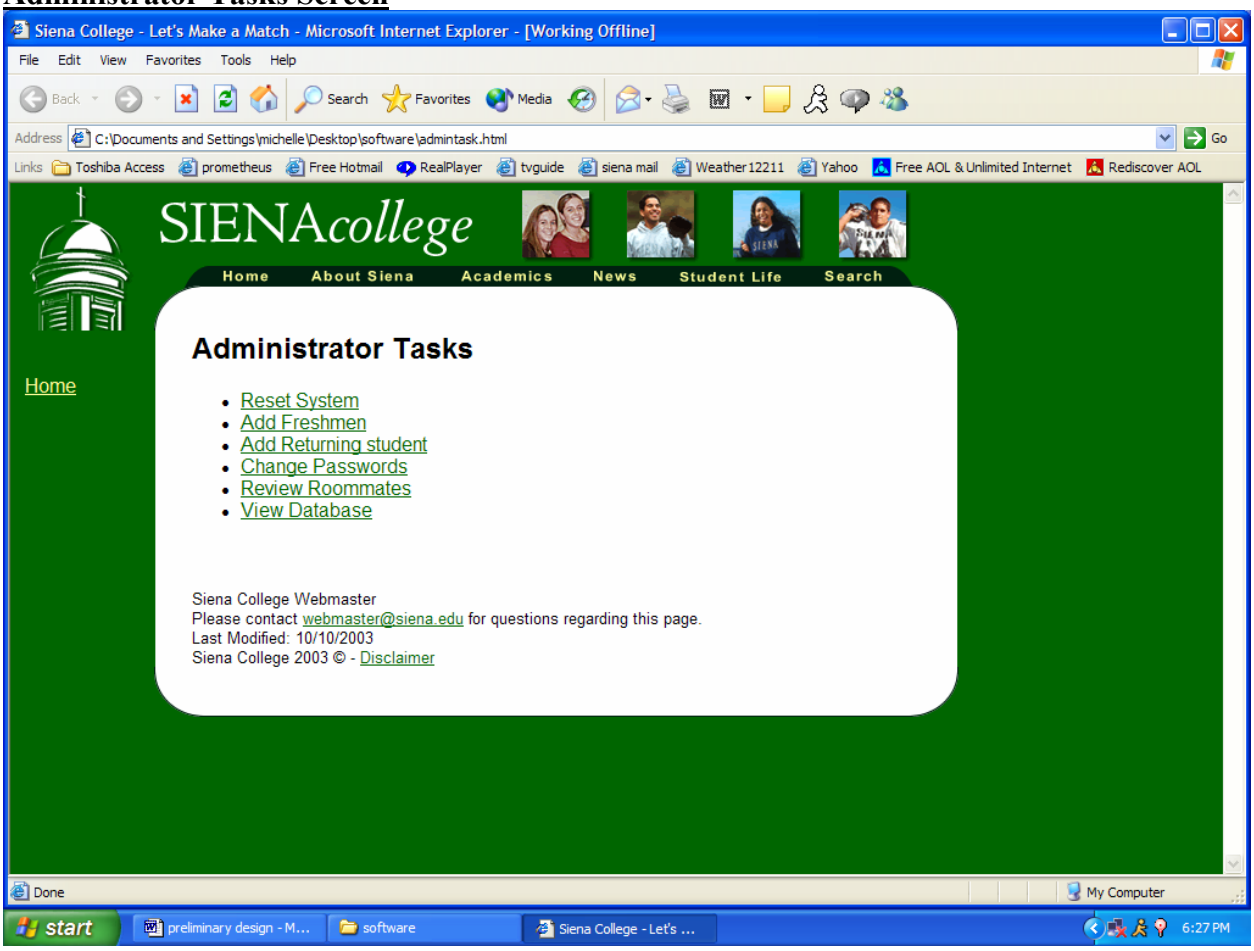
External Design Specifications
User Displays and Report Formats

Log-in Screen

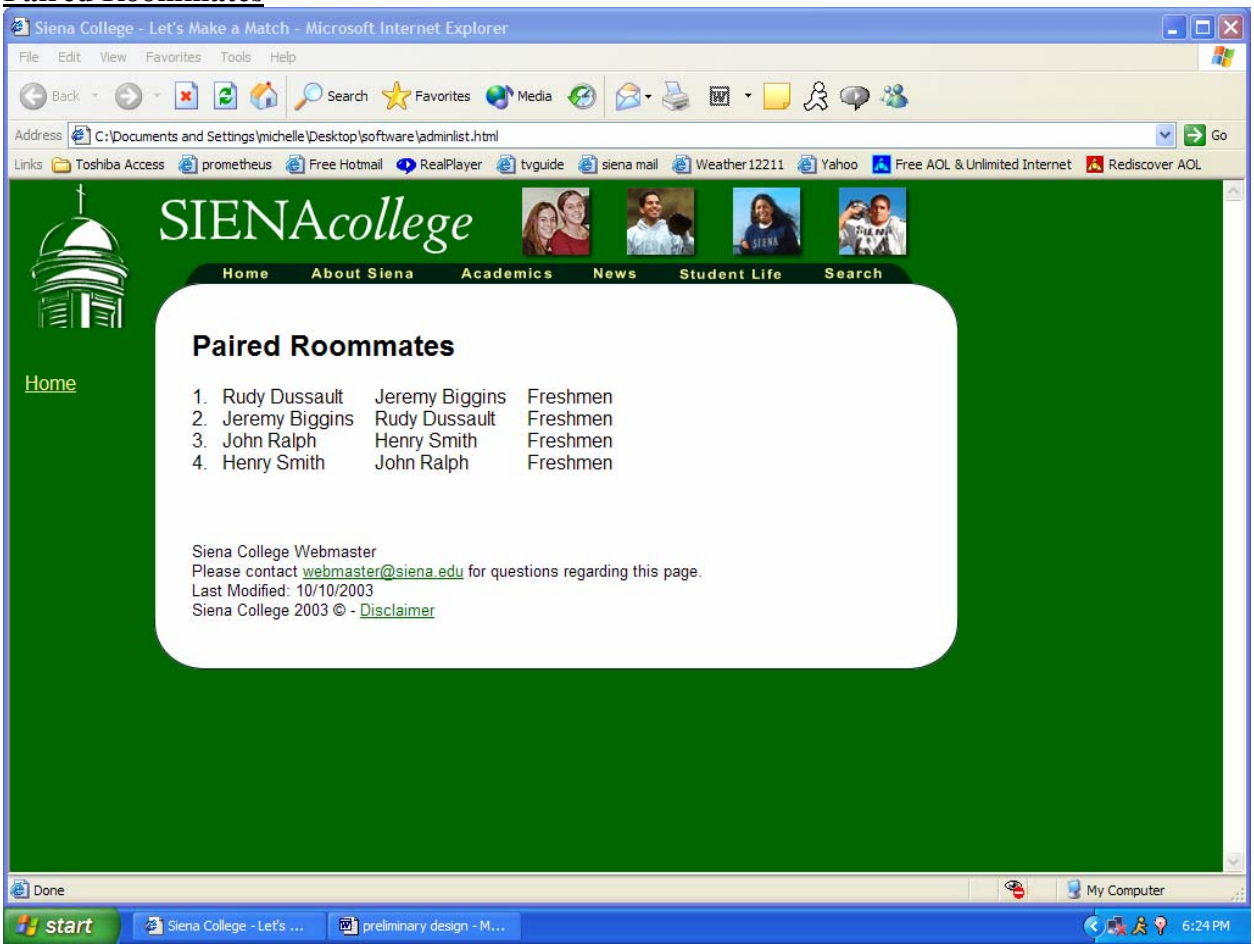
Administrator Screens



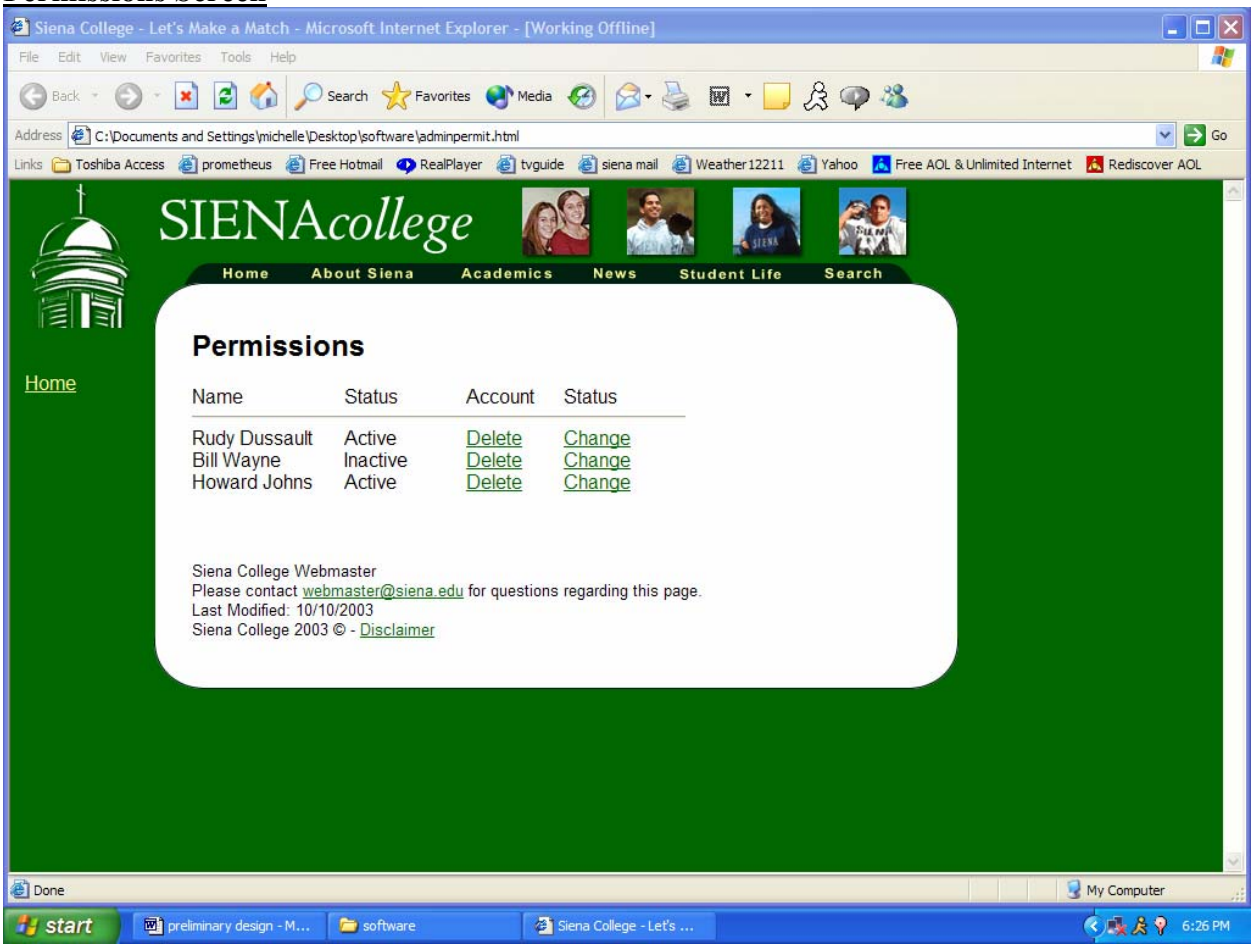
Administrator Tasks Screen



Paired Roommates



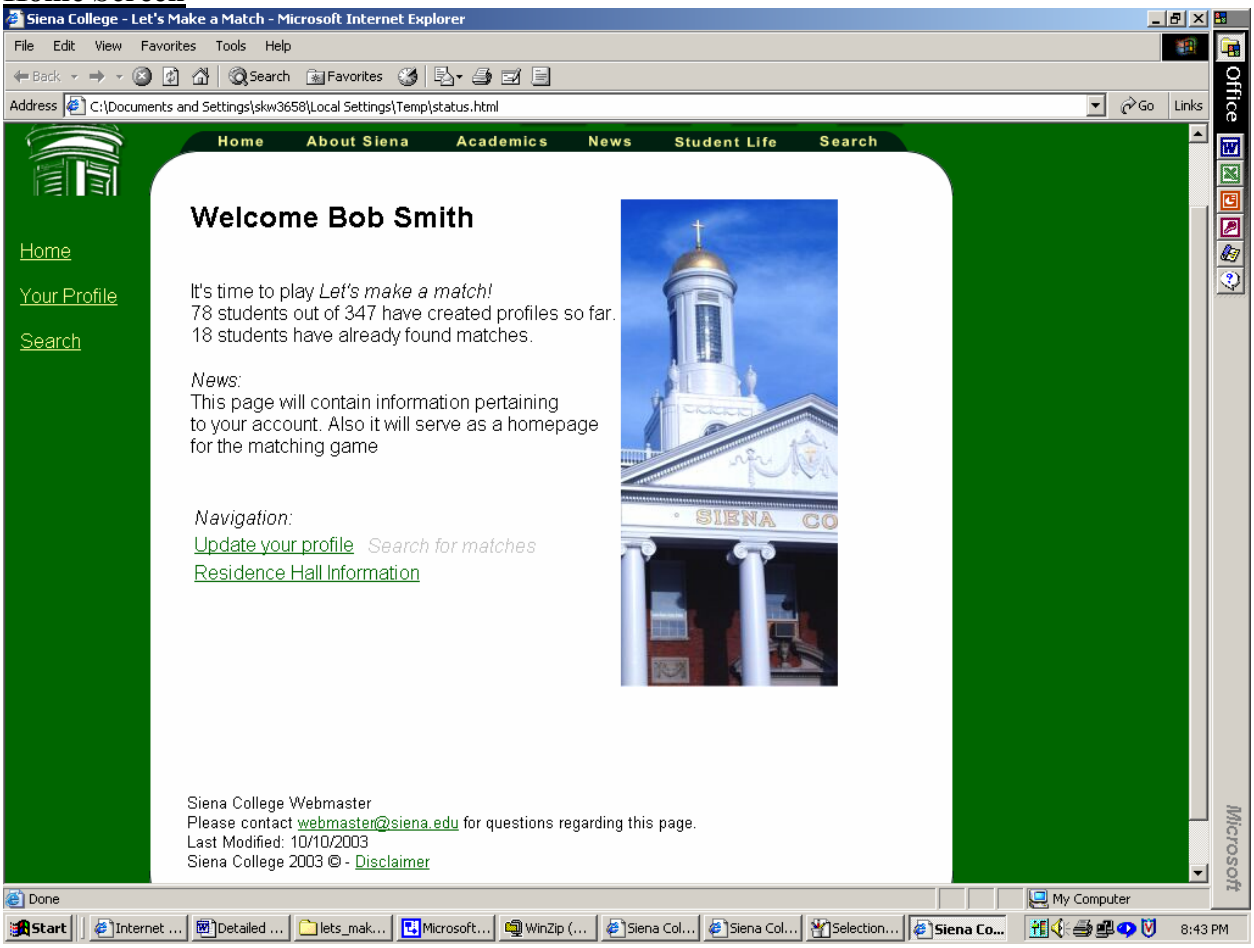
Permissions Screen



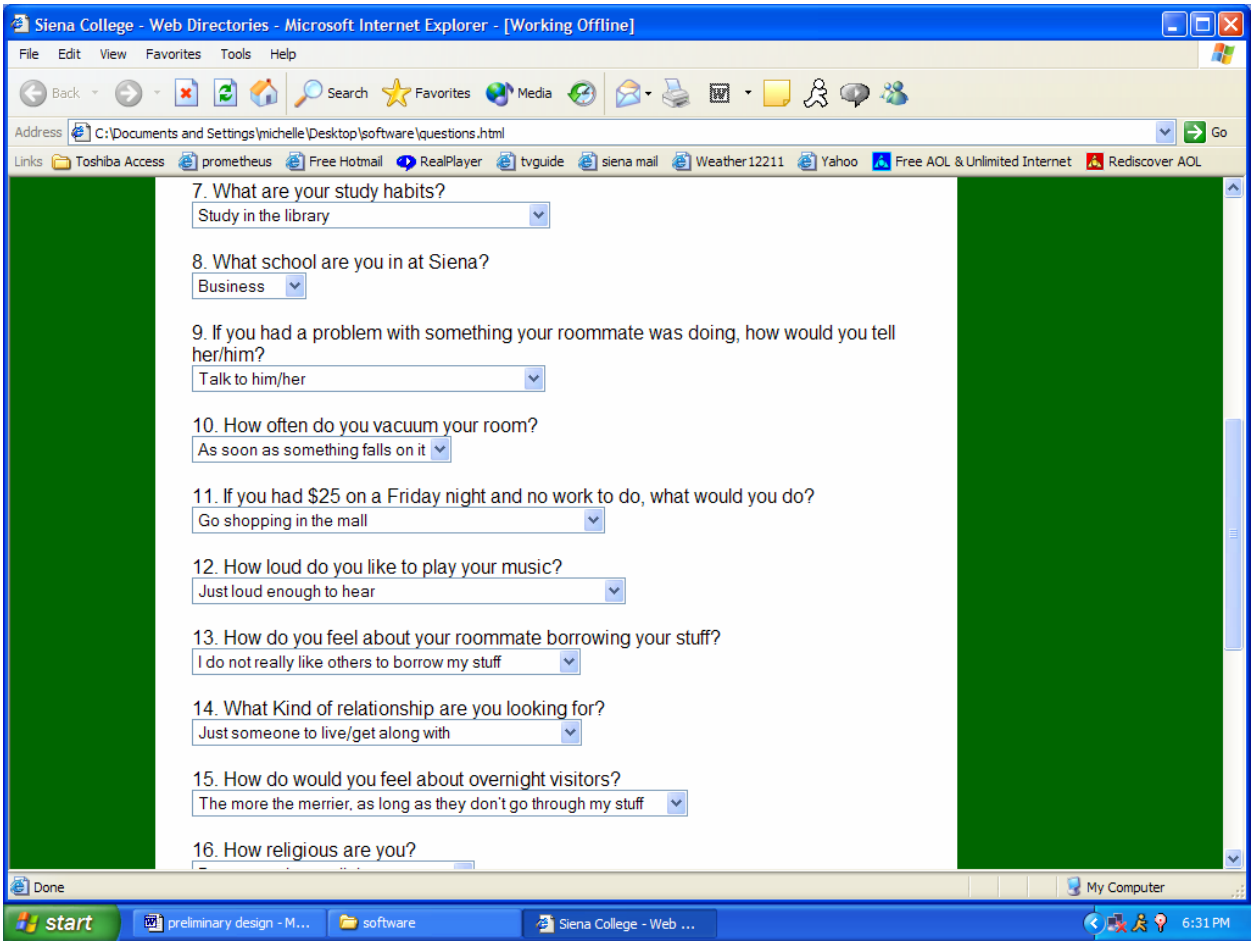
Freshmen Screens

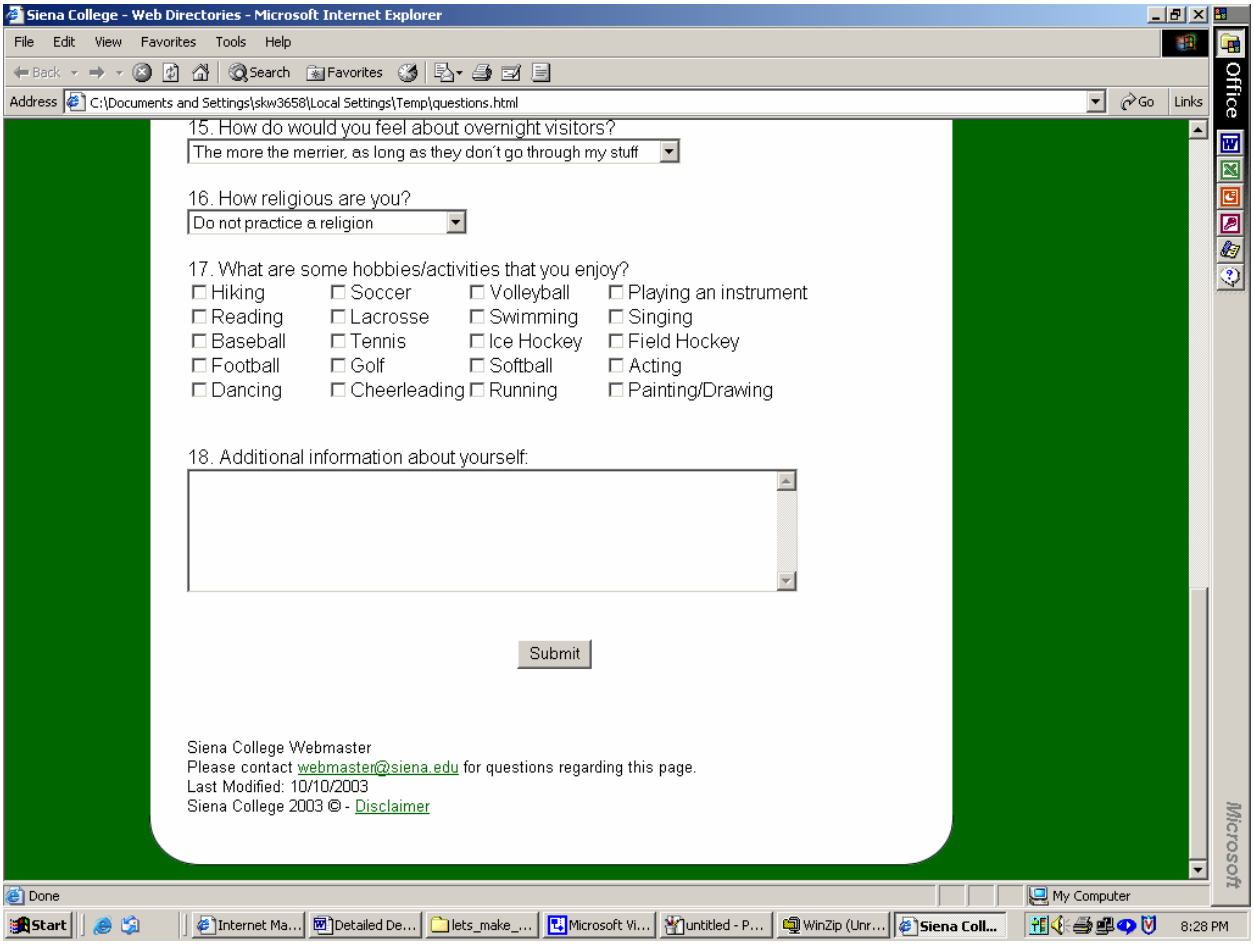
Main Screen

Home Screen


Siena College - Let's Make a Match - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address C:\Documents and Settings\skw3658\Local Settings\Temp\status.html
Home About Siena Academics News Student Life Search
Home
Your Profile
Search
Welcome Bob Smith
It's time to play Let's make a match!
78 students out of 347 have created profiles so far.
18 students have already found matches.
News:
This page will contain information pertaining to your account. Also it will serve as a homepage for the matching game
Navigation:
Update your profile Search for matches
Residence Hall Information
Siena College Webmaster
Please contact webmaster@siena.edu for questions regarding this page.
Last Modified: 10/10/2003
Siena College 2003 © - Disclaimer
Done
My Computer
Start
8:43 PM

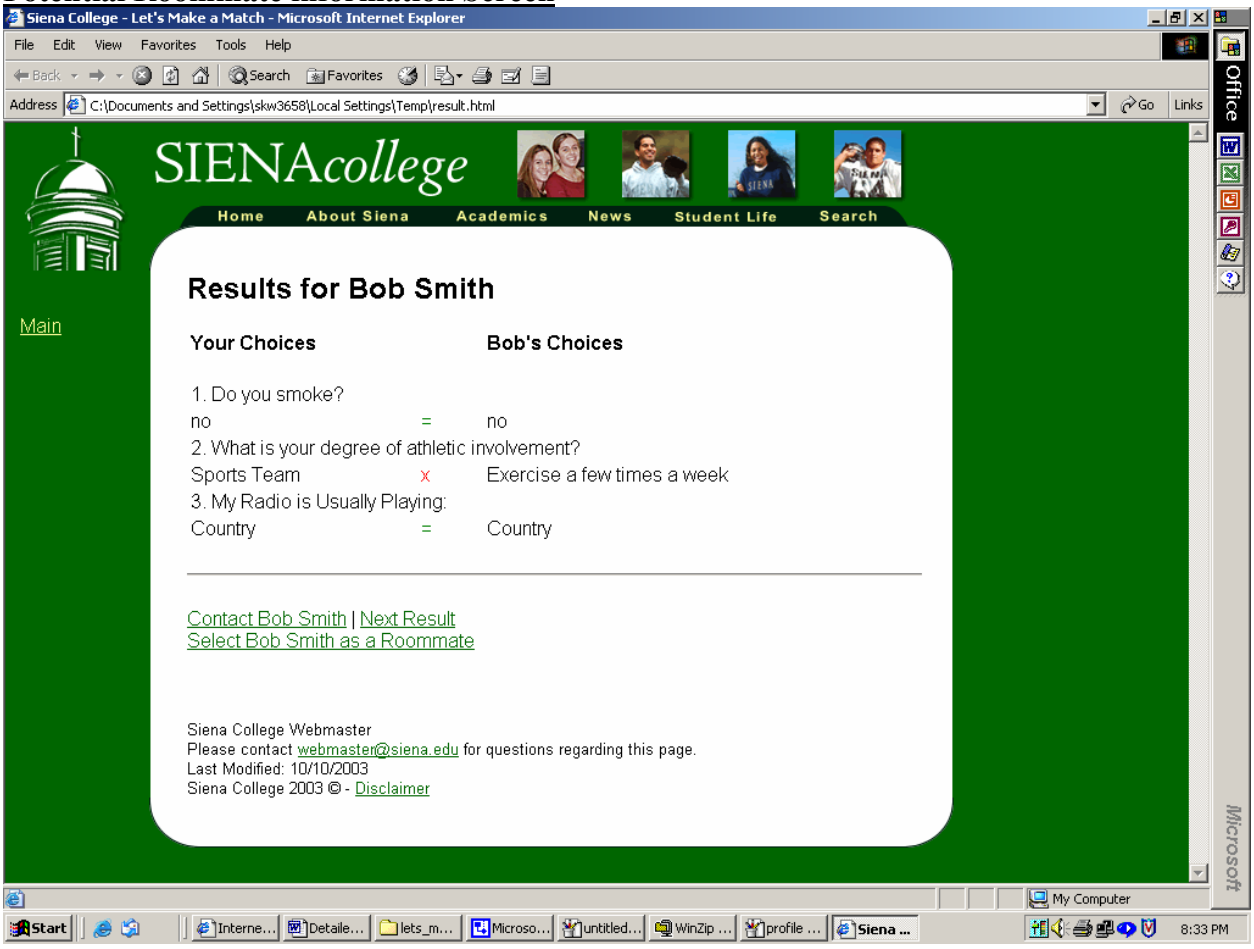
Profile Creation Screen


Siena College - Web Directories - Microsoft Internet Explorer - [Working Offline]
File Edit View Favorites Tools Help
Address C:\Documents and Settings\michelle\Desktop\software\questions.html
7. What are your study habits?
Study in the library
8. What school are you in at Siena?
Business
9. If you had a problem with something your roommate was doing, how would you tell her/him?
Talk to him/her
10. How often do you vacuum your room?
As soon as something falls on it
11. If you had $25 on a Friday night and no work to do, what would you do?
Go shopping in the mall
12. How loud do you like to play your music?
Just loud enough to hear
13. How do you feel about your roommate borrowing your stuff?
I do not really like others to borrow my stuff
14. What Kind of relationship are you looking for?
Just someone to live/get along with
15. How do would you feel about overnight visitors?
The more the merrier, as long as they don't go through my stuff
16. How religious are you?
Done
My Computer
start
preliminary design - M...
software
Siena College - Web ...
6:31 PM

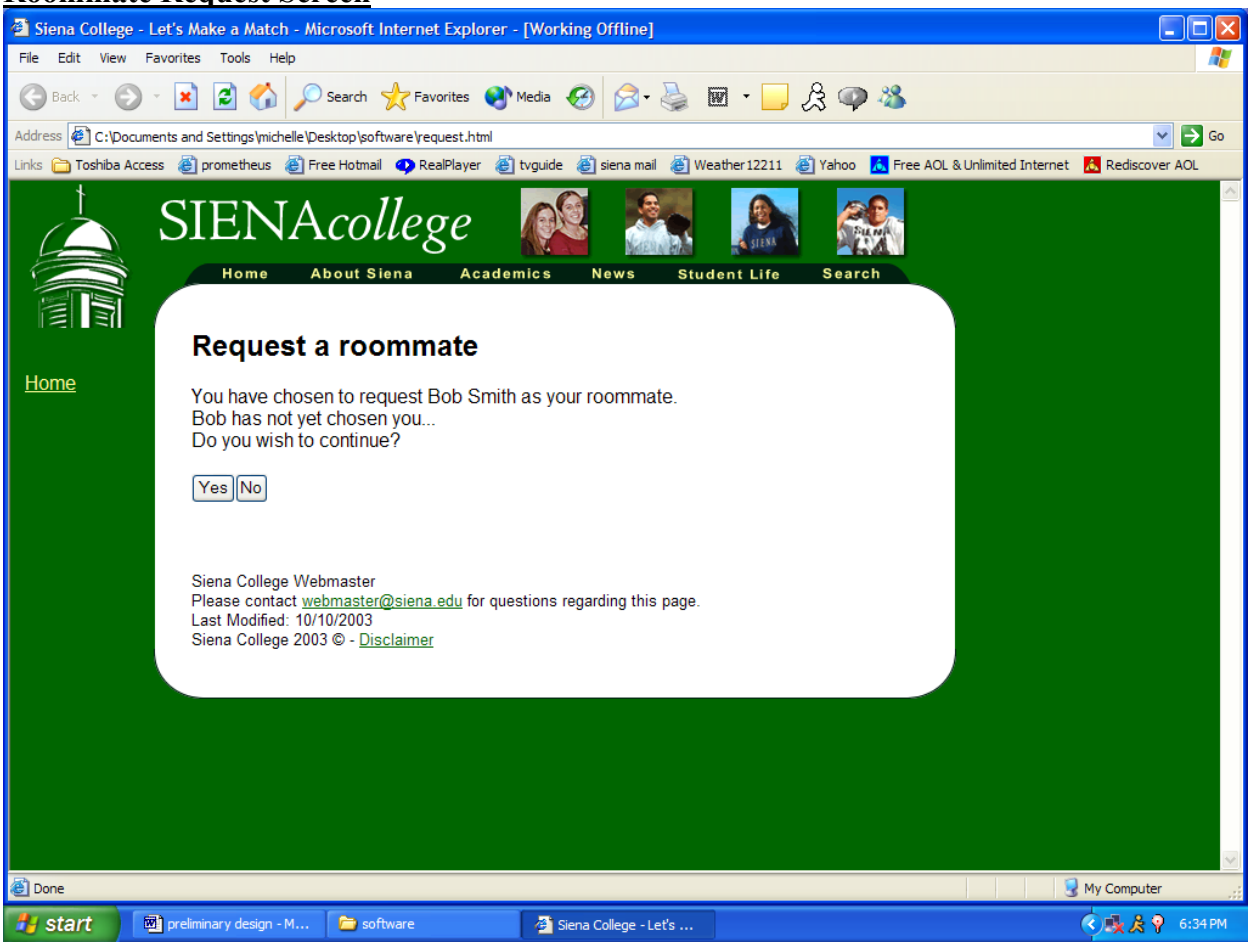

Siena College - Web Directories - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address C:\Documents and Settings\skw3658\Local Settings\Temp\questions.html
15. How do would you feel about overnight visitors?
The more the merrier, as long as they don't go through my stuff
16. How religious are you?
Do not practice a religion
17. What are some hobbies/activities that you enjoy?
Hiking Soccer Volleyball Playing an instrument
Reading Lacrosse Swimming Singing
Baseball Tennis Ice Hockey Field Hockey
Football Golf Softball Acting
Dancing Cheerleading Running Painting/Drawing
18. Additional information about yourself:
Submit
Siena College Webmaster
Please contact webmaster@siena.edu for questions regarding this page.
Last Modified: 10/10/2003
Siena College 2003 © - Disclaimer
Done
My Computer
Start
8:28 PM

Search Results Screen

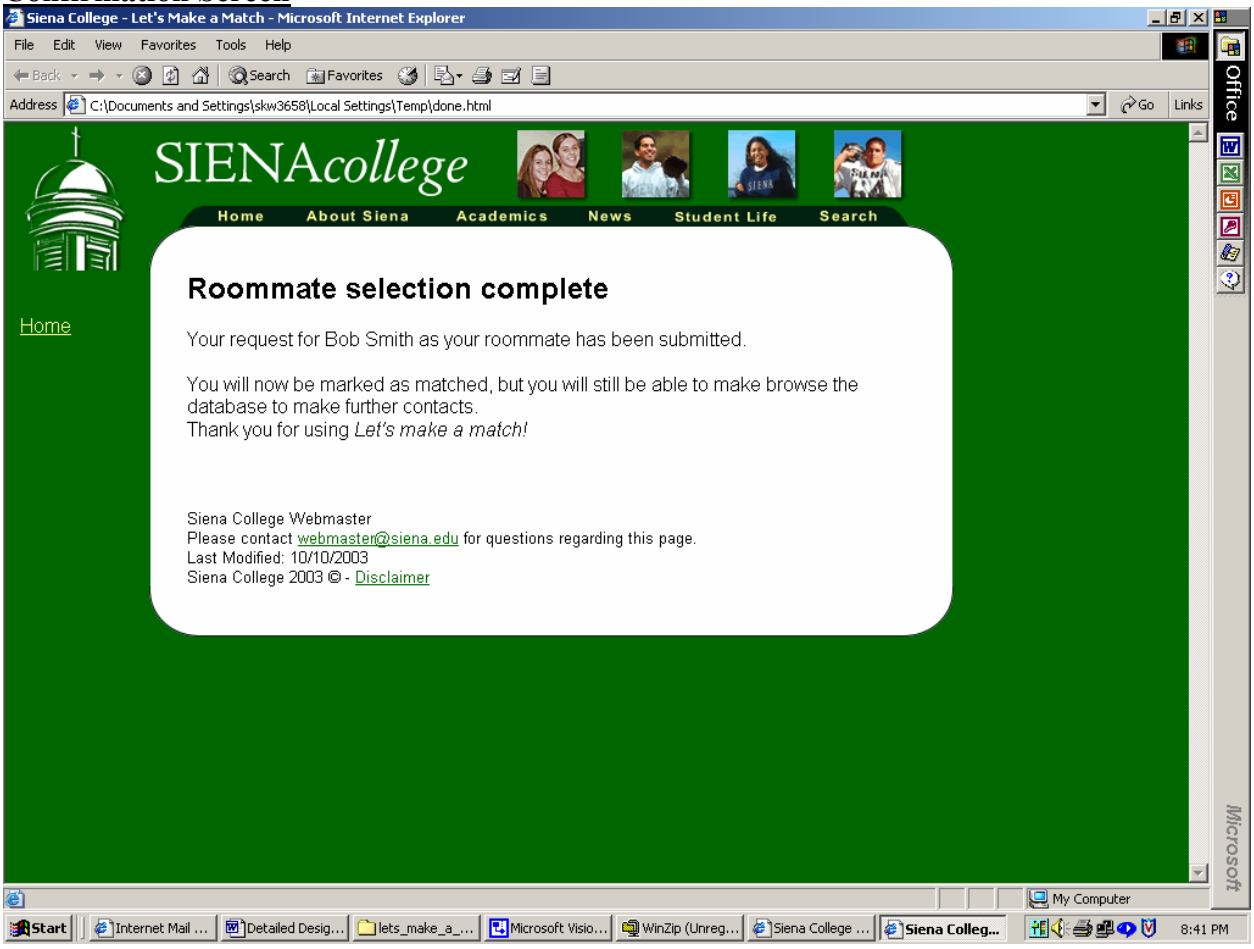
Potential Roommate information Screen



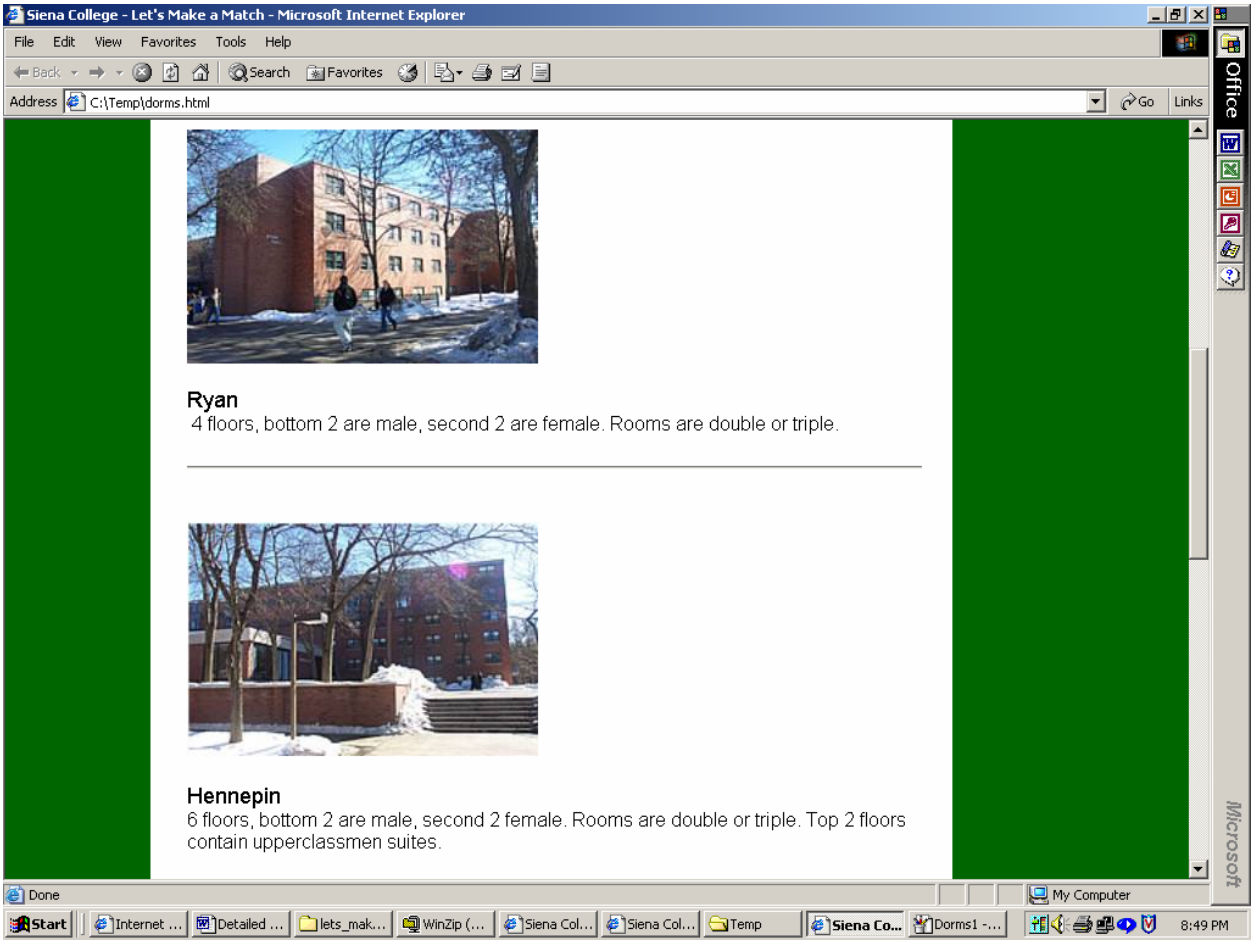
Roommate Request Screen

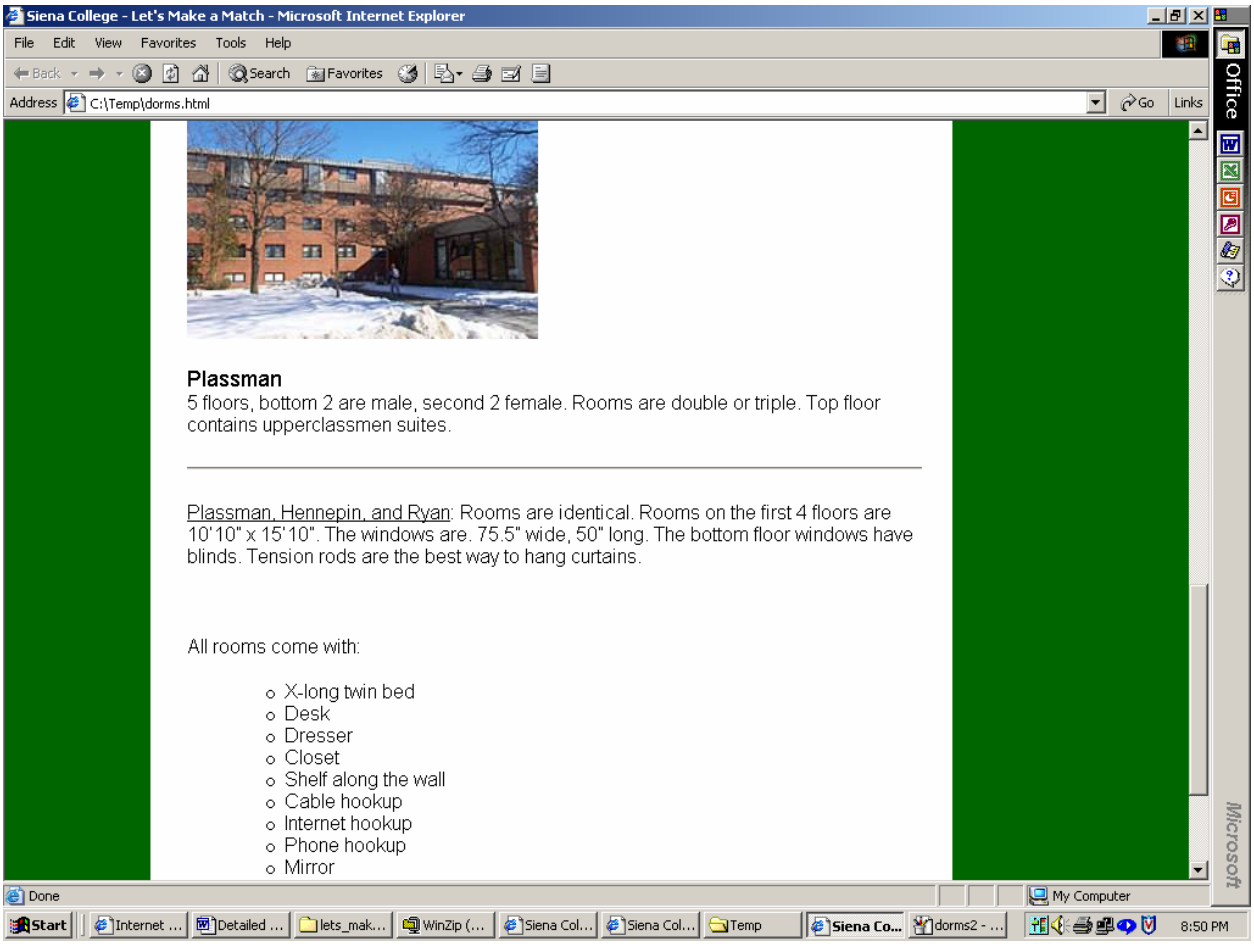


Confirmation Screen



Dorms Screens


Siena College - Let's Make a Match - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address C:\Temp\dorms.html
Go Links
Ryan
4 floors, bottom 2 are male, second 2 are female. Rooms are double or triple.
Hennepin
6 floors, bottom 2 are male, second 2 female. Rooms are double or triple. Top 2 floors contain upperclassmen suites.
Done
My Computer
Start
Internet ...
Detailed ...
lets_mak...
WinZip (...
Siena Col...
Siena Col...
Temp
Siena Co...
Dorms1 -...
8:49 PM
Office
Microsoft


Siena College - Let's Make a Match - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address C:\Temp\dorms.html
Go Links
Plassman
5 floors, bottom 2 are male, second 2 female. Rooms are double or triple. Top floor contains upperclassmen suites.
Plassman, Hennepin, and Ryan: Rooms are identical. Rooms on the first 4 floors are 10'10" x 15'10". The windows are. 75.5" wide, 50" long. The bottom floor windows have blinds. Tension rods are the best way to hang curtains.
All rooms come with:
X-long twin bed
Desk
Dresser
Closet
Shelf along the wall
Cable hookup
Internet hookup
Phone hookup
Mirror
Done
My Computer
Start
8:50 PM
Office
Microsoft

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

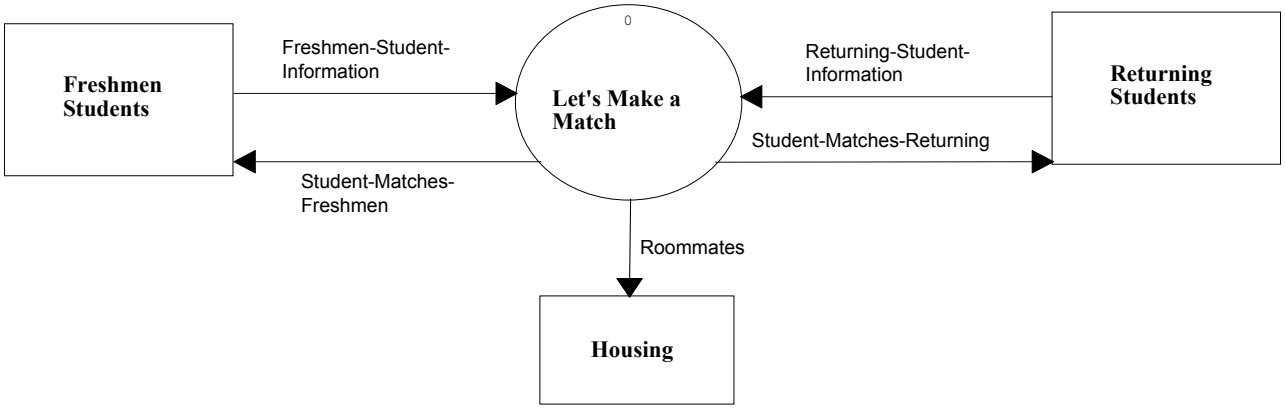
This screen will handle student accounts. The administrator can select any student and either: remove him/her, toggle availability status, or change password. A general help paragraph will explain when and why the administrator would need to change a students permissions.

Tasks Screen

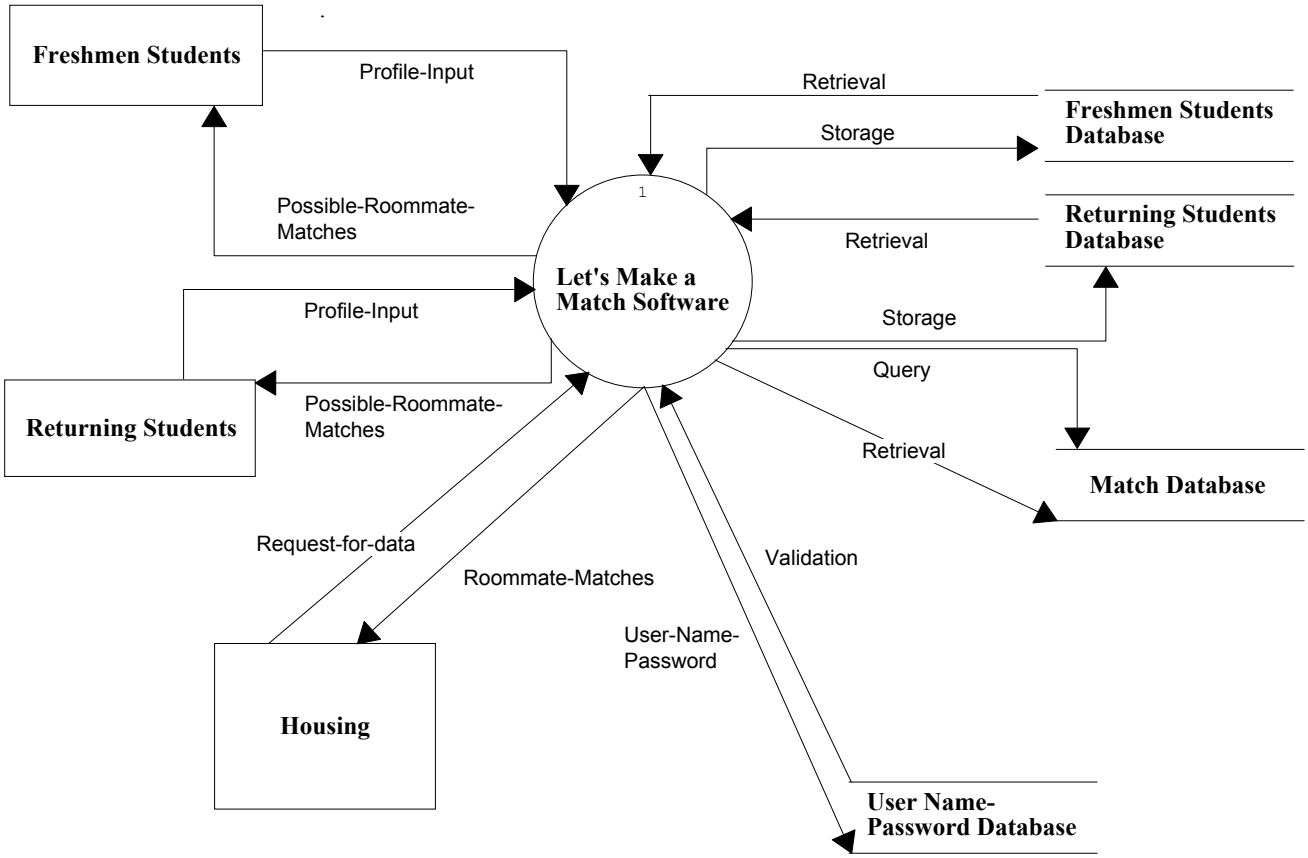
General tasks required for normal system maintenance will be handled at this screen. The administrator can reset the system or change options for the database from here. An explanation as to what each task does will also be provided to the side of any task. Once the administrator is done he/she can click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

Detailed Dataflow Diagrams

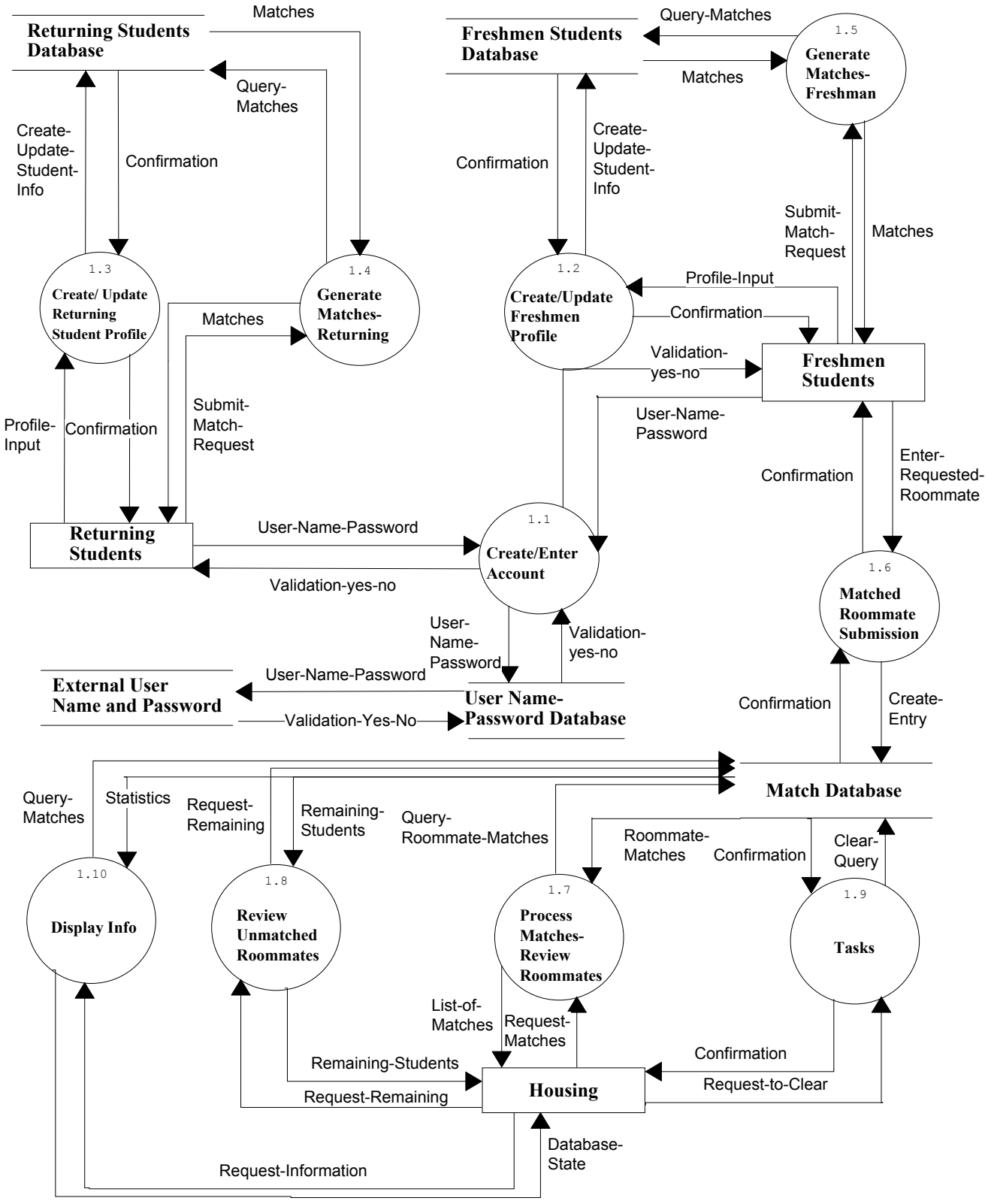
Let's Make a Match Context Diagram



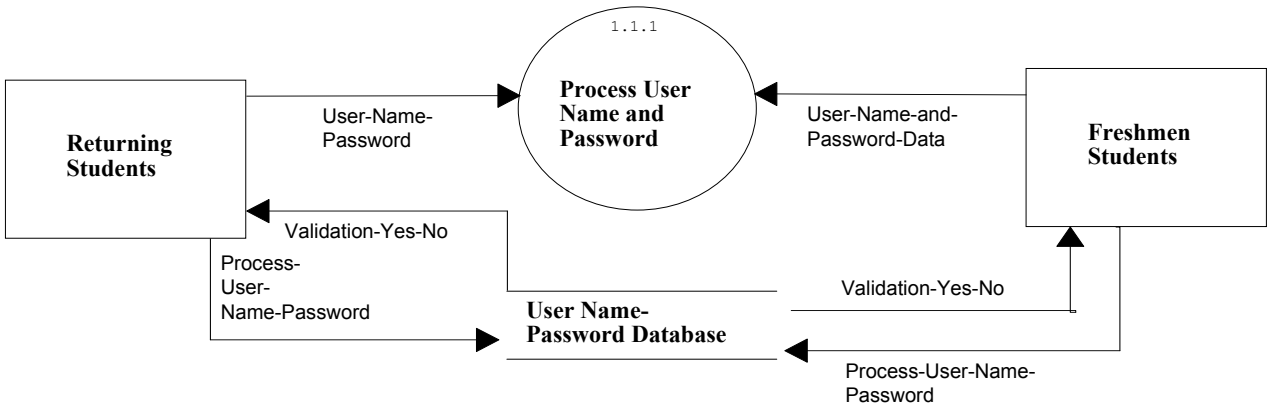
Level 0


Freshmen Students
Profile-Input
Retrieval
Freshmen Students Database
Storage
1
Possible-Roommate-Matches
Returning Students Database
Retrieval
Let's Make a Match Software
Profile-Input
Storage
Query
Returning Students
Possible-Roommate-Matches
Retrieval
Match Database
Request-for-data
Validation
Roommate-Matches
User-Name-Password
Housing
User Name-Password Database

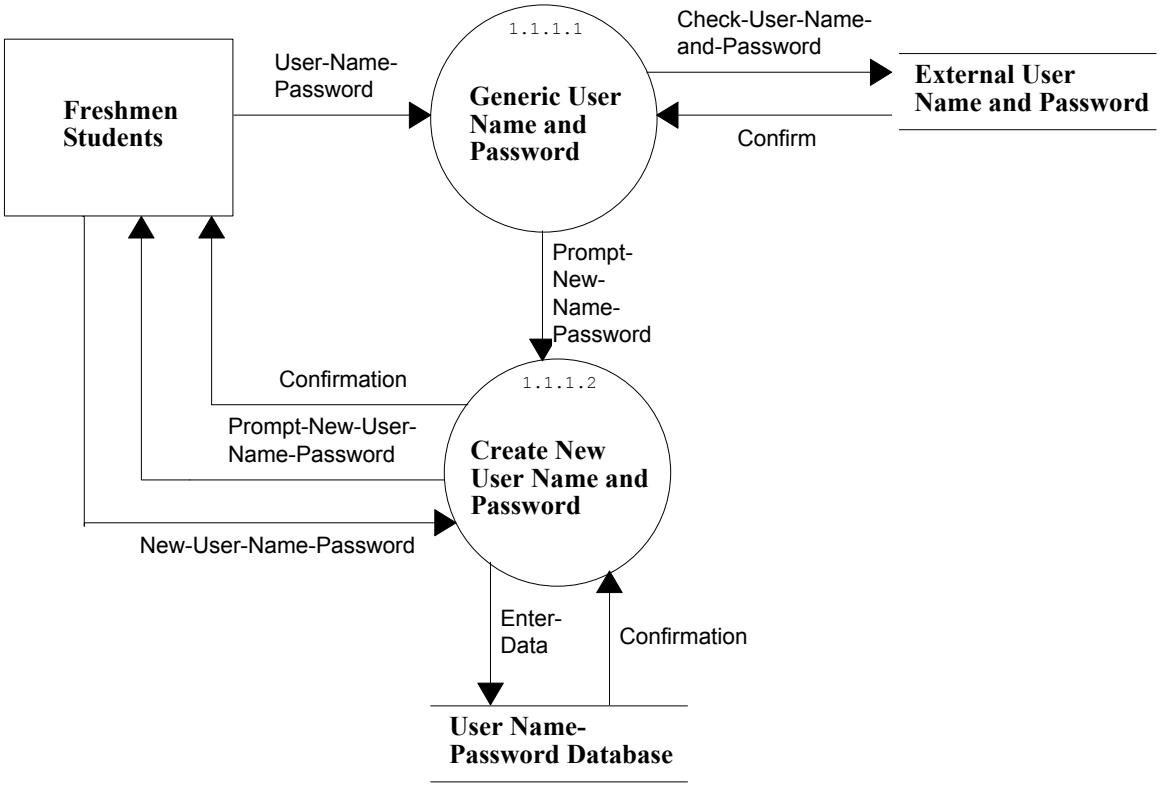
Level 1


Returning Students Database
Matches
Query-Matches
Create-Update-Student-Info
Confirmation
1.3
Create/ Update Returning Student Profile
1.4
Generate Matches-Returning
Matches
Submit-Match-Request
Profile-Input
Confirmation
Returning Students
User-Name-Password
Validation-yes-no
1.1
Create/Enter Account
External User Name and Password
Validation-Yes-No
User Name-Password Database
Freshmen Students Database
Query-Matches
Matches
1.5
Generate Matches-Freshman
Confirmation
Create-Update-Student-Info
1.2
Create/Update Freshmen Profile
Profile-Input
Confirmation
Validation-yes-no
Freshmen Students
User-Name-Password
Confirmation
Enter-Requested-Roommate
1.6
Matched Roommate Submission
Confirmation
Create-Entry
Match Database
Query-Matches
Statistics
Request-Remaining
Remaining-Students
Query-Roommate-Matches
Roommate-Matches
Confirmation
Clear-Query
1.10
Display Info
1.8
Review Unmatched Roommates
1.7
Process Matches-Review Roommates
1.9
Tasks
List-of-Matches
Request-Matches
Confirmation
Remaining-Students
Request-Remaining
Housing
Request-to-Clear
Database-State
Request-Information

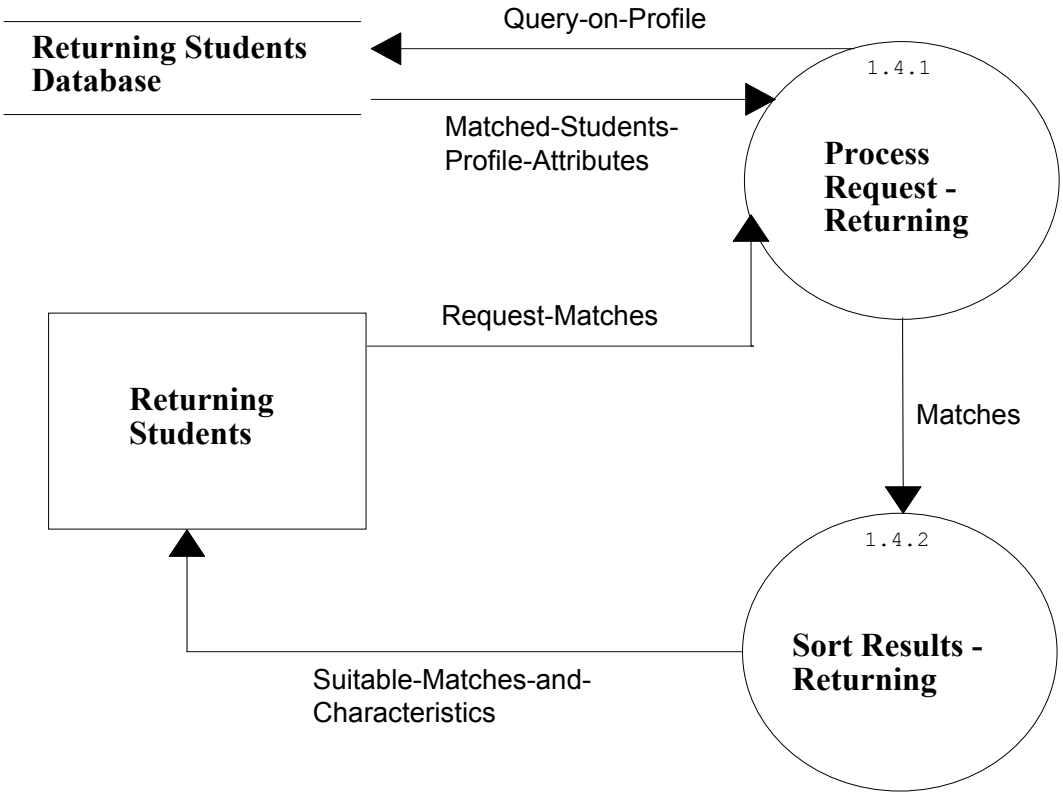
Create/Enter Account



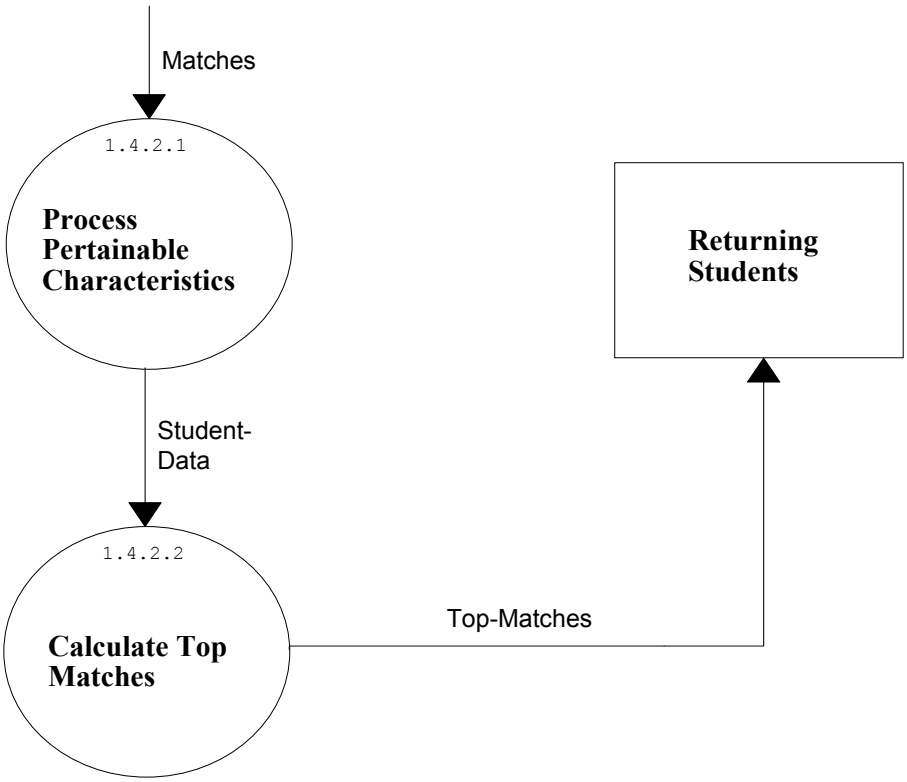
Process User Name and Password



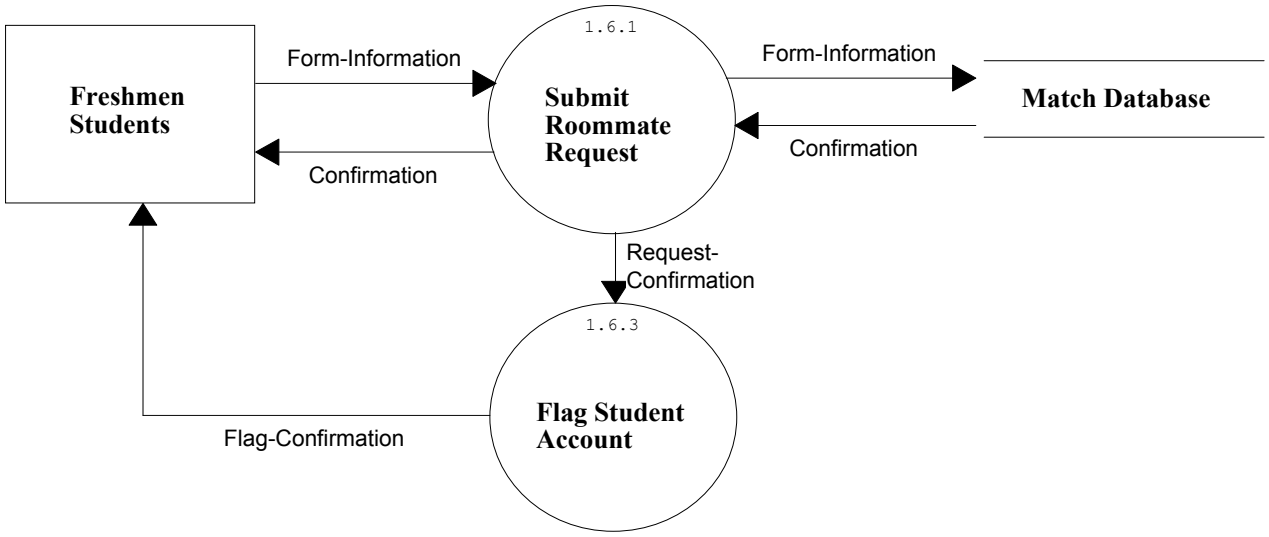
Generate New Matches Returning



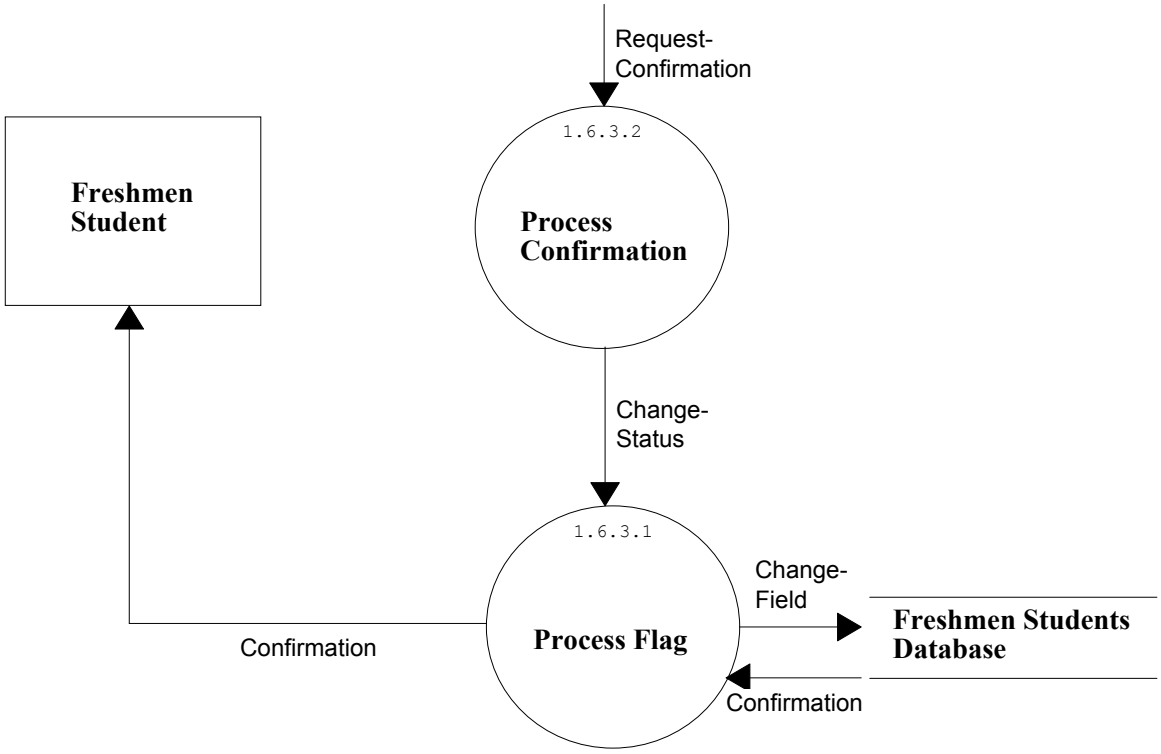
Sort Results Returning Students



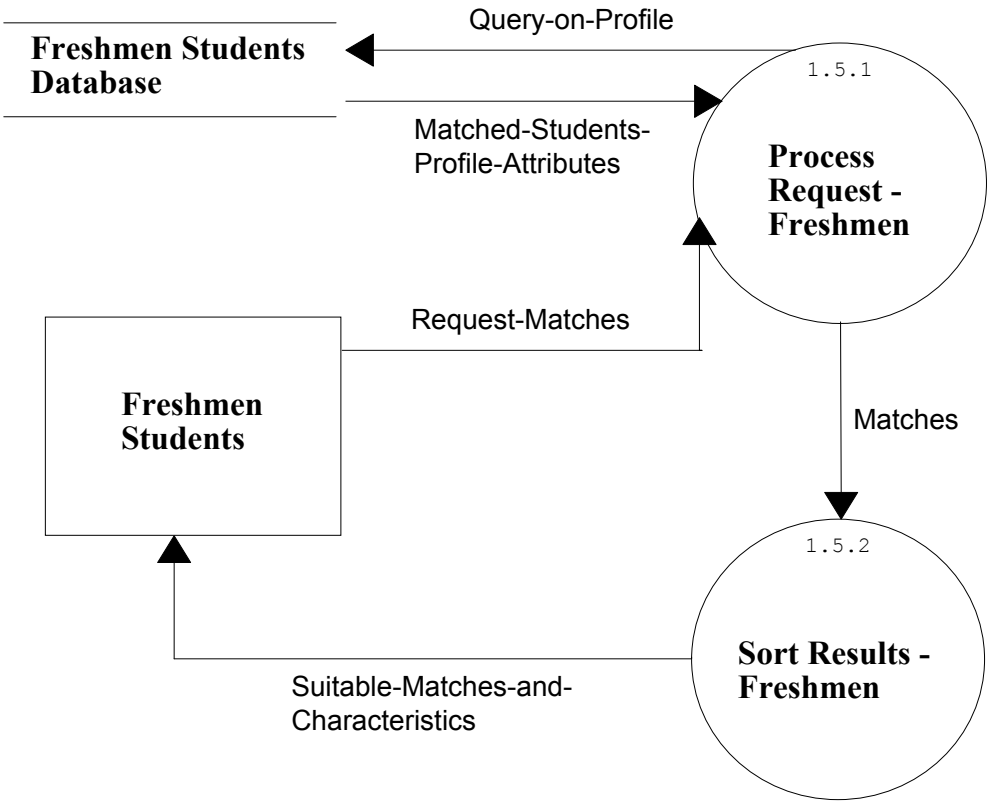
Matched Roommate Submission



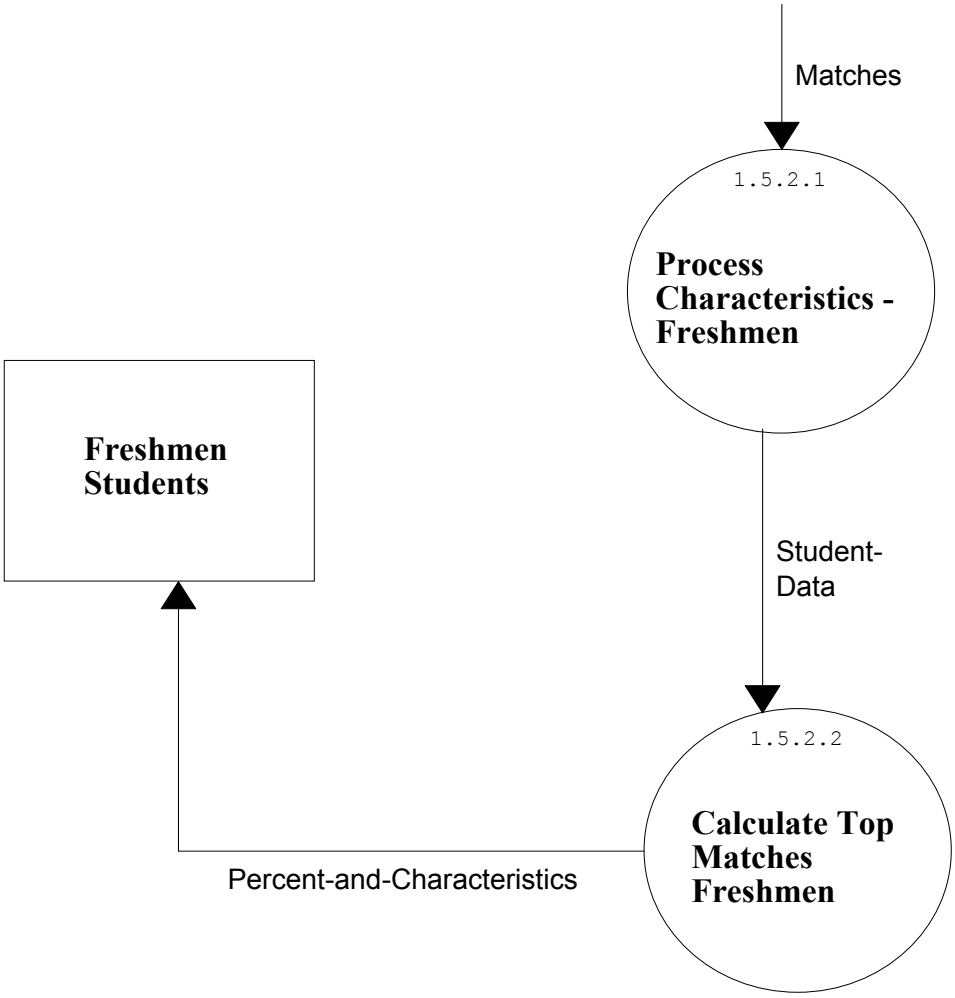
Flag Students Account



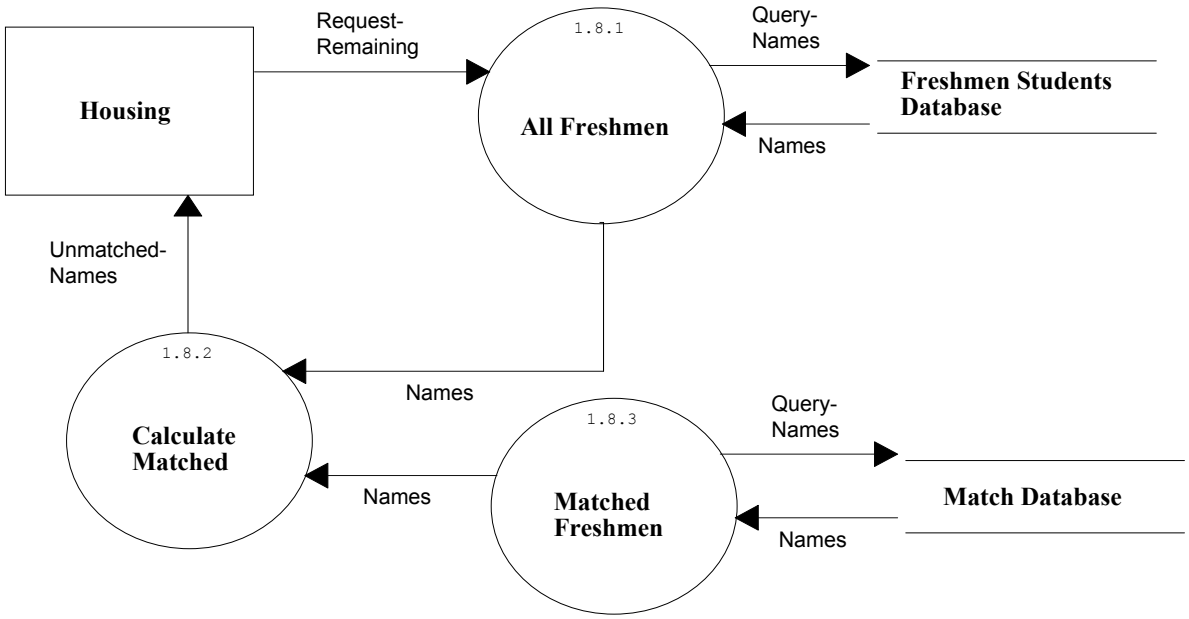
Generate Matches - Freshmen



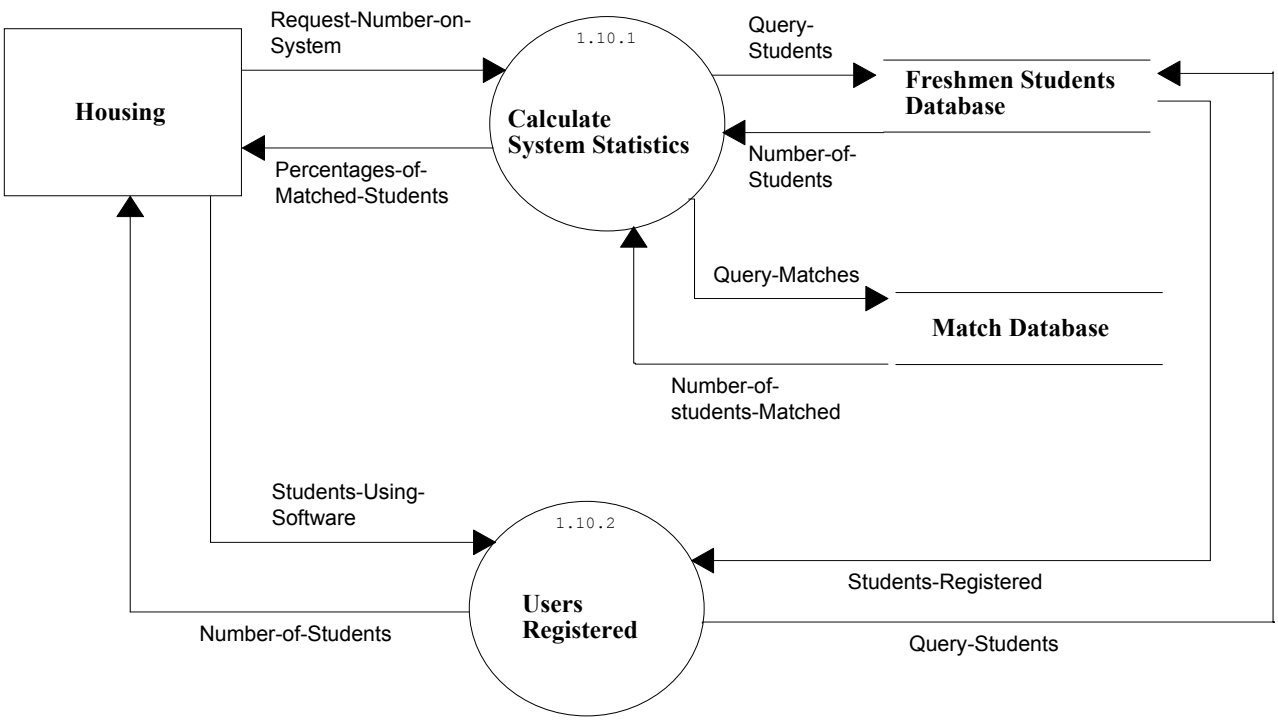
Sort Results Freshmen



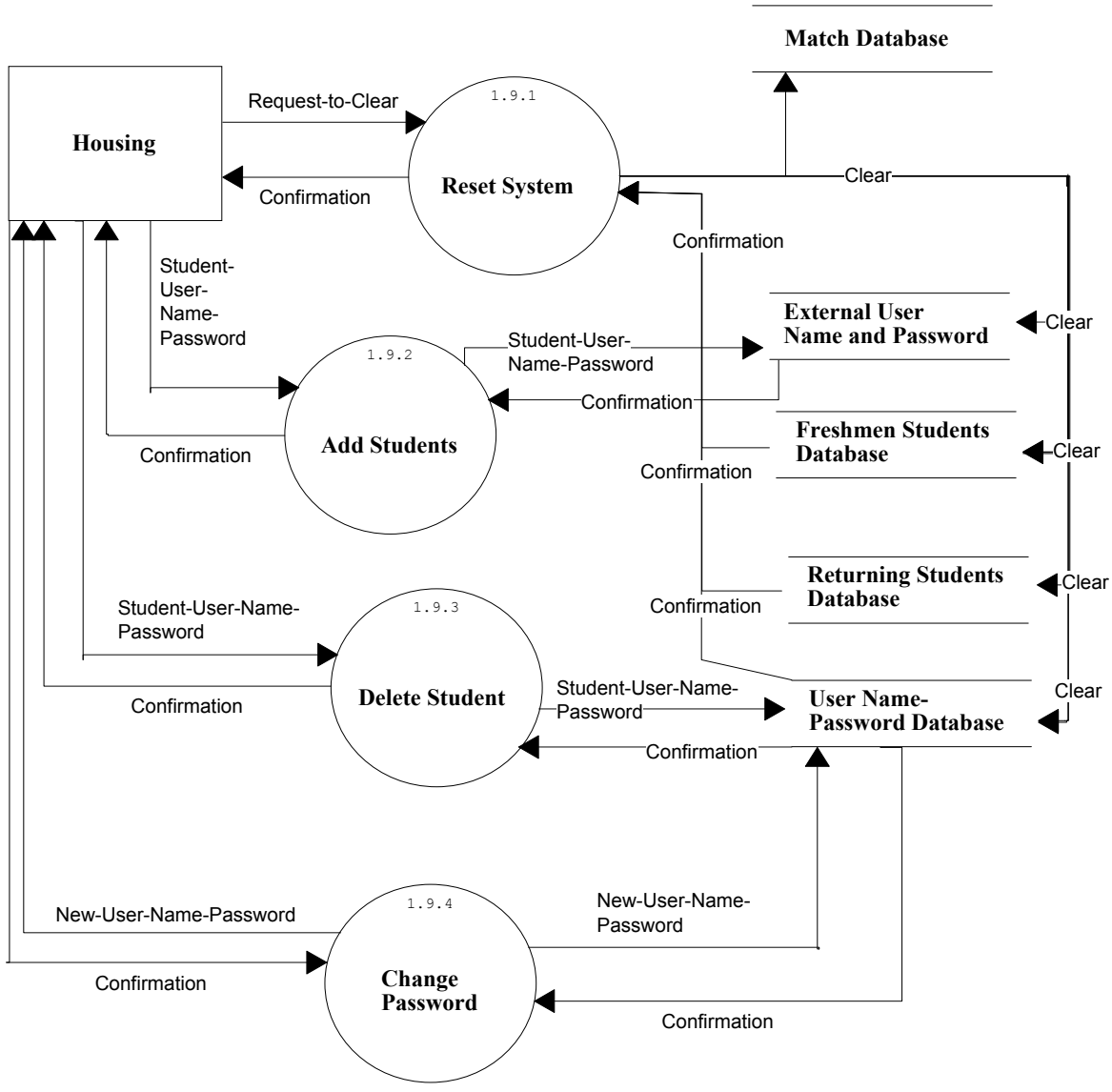
Review Unmatched Roommates



Display Info



. Tasks


Match Database
Housing
Request-to-Clear
1.9.1
Reset System
Confirmation
Clear
Confirmation
Student-
User-
Name-
Password
External User
Name and Password
Clear
1.9.2
Student-User-
Name-Password
Confirmation
Add Students
Freshmen Students
Database
Clear
Confirmation
Confirmation
Returning Students
Database
Clear
Student-User-Name-
Password
1.9.3
Confirmation
Delete Student
Student-User-Name-
Password
User Name-
Password Database
Clear
Confirmation
New-User-Name-Password
1.9.4
New-User-Name-
Password
Confirmation
Change
Password
Confirmation

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

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

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

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 Roomate 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 preformed 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 preformed 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, they 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 form 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 Roomates (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)

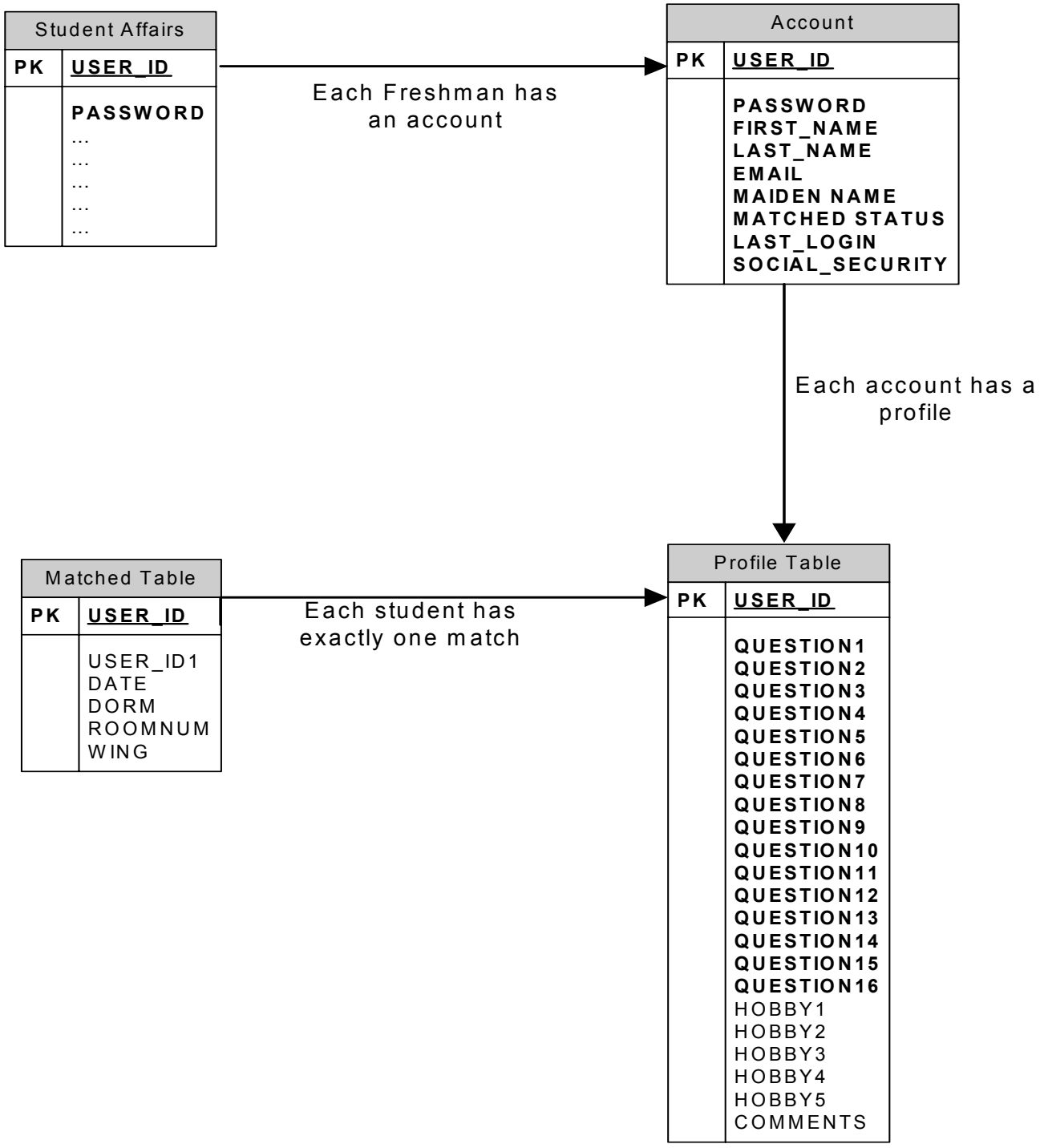
Create/Enter Account (1.1)

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

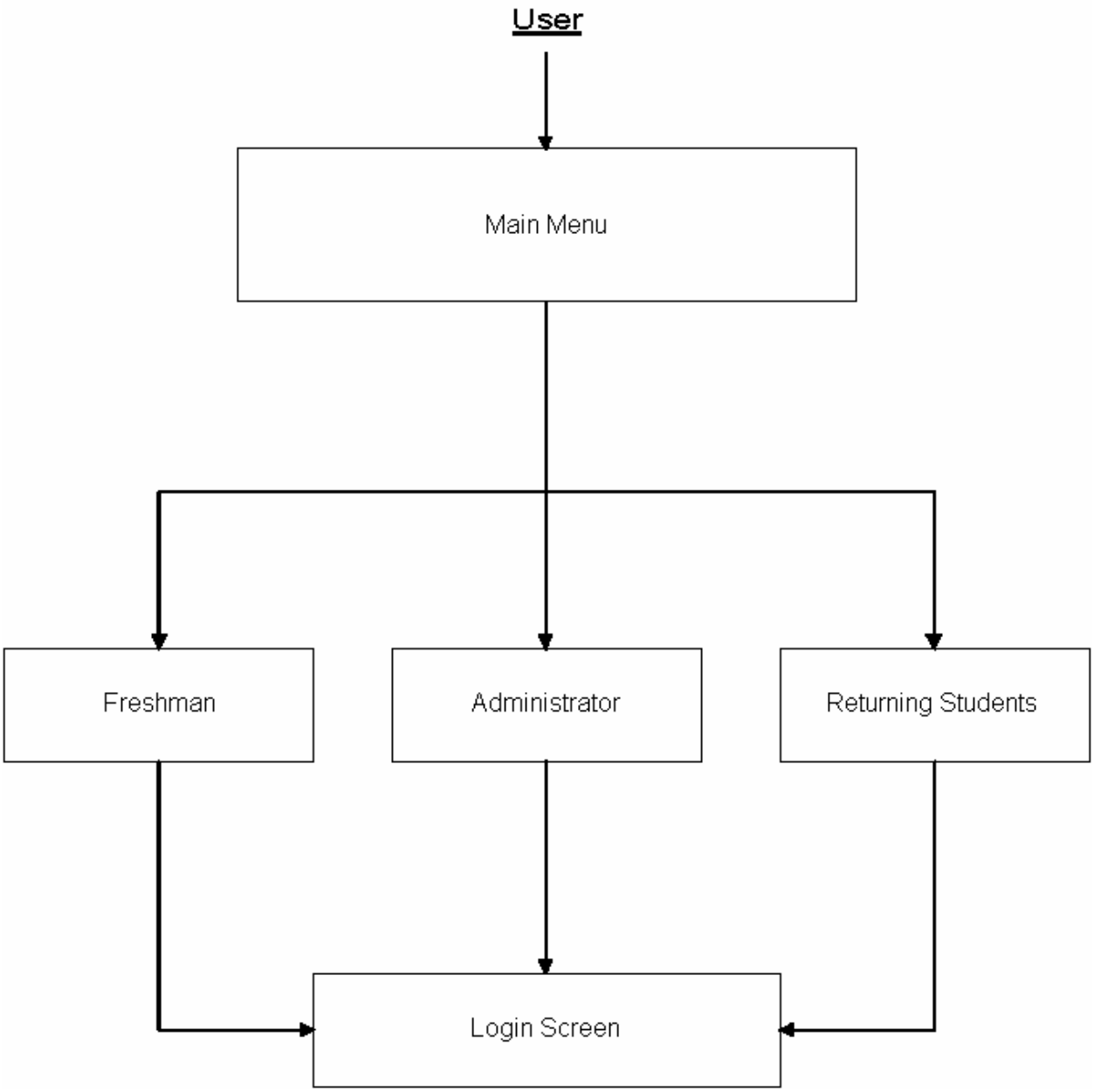
Architectural Design Specifications

Entity- Relationship Diagrams (ERD)

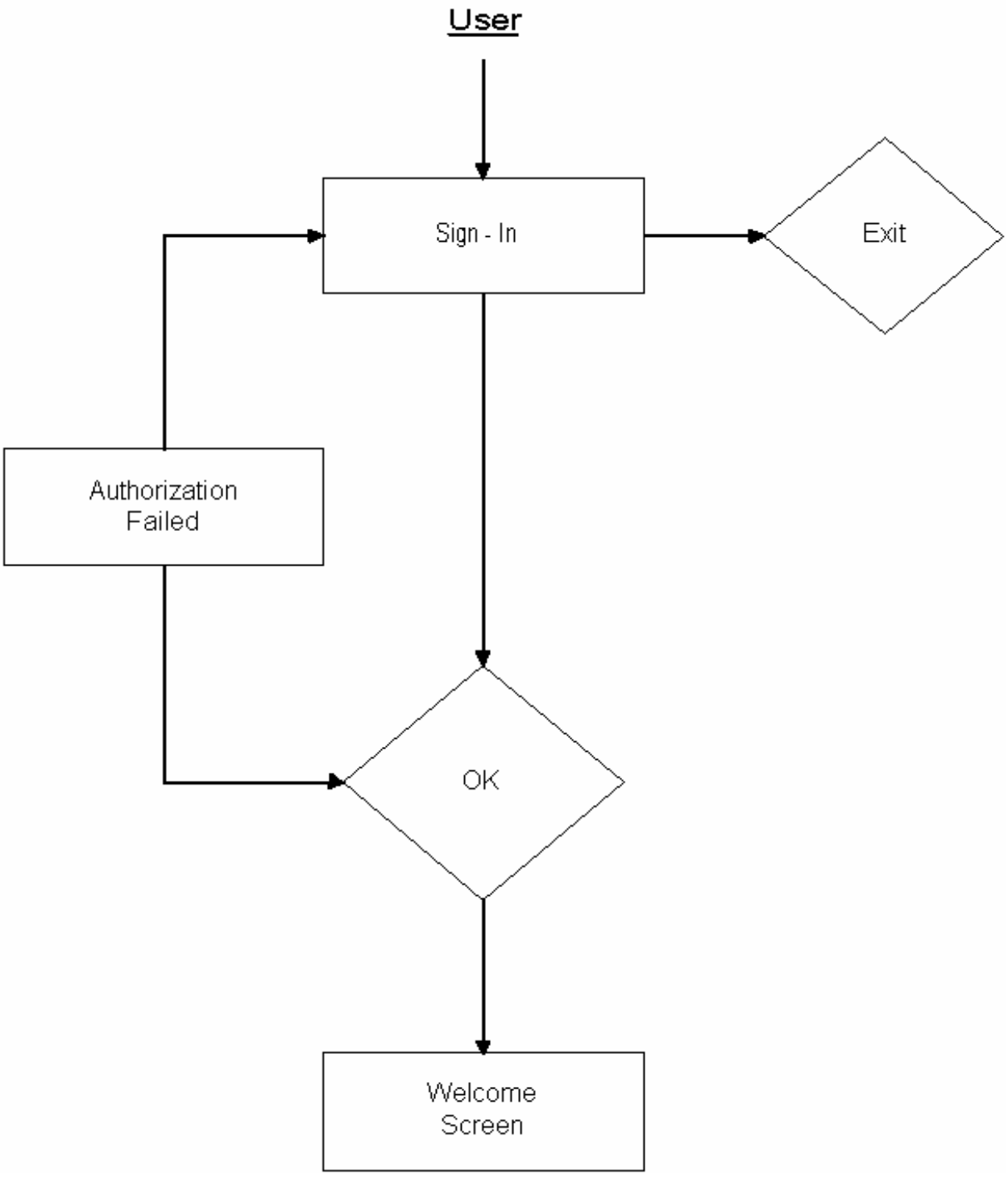


Structure Diagrams

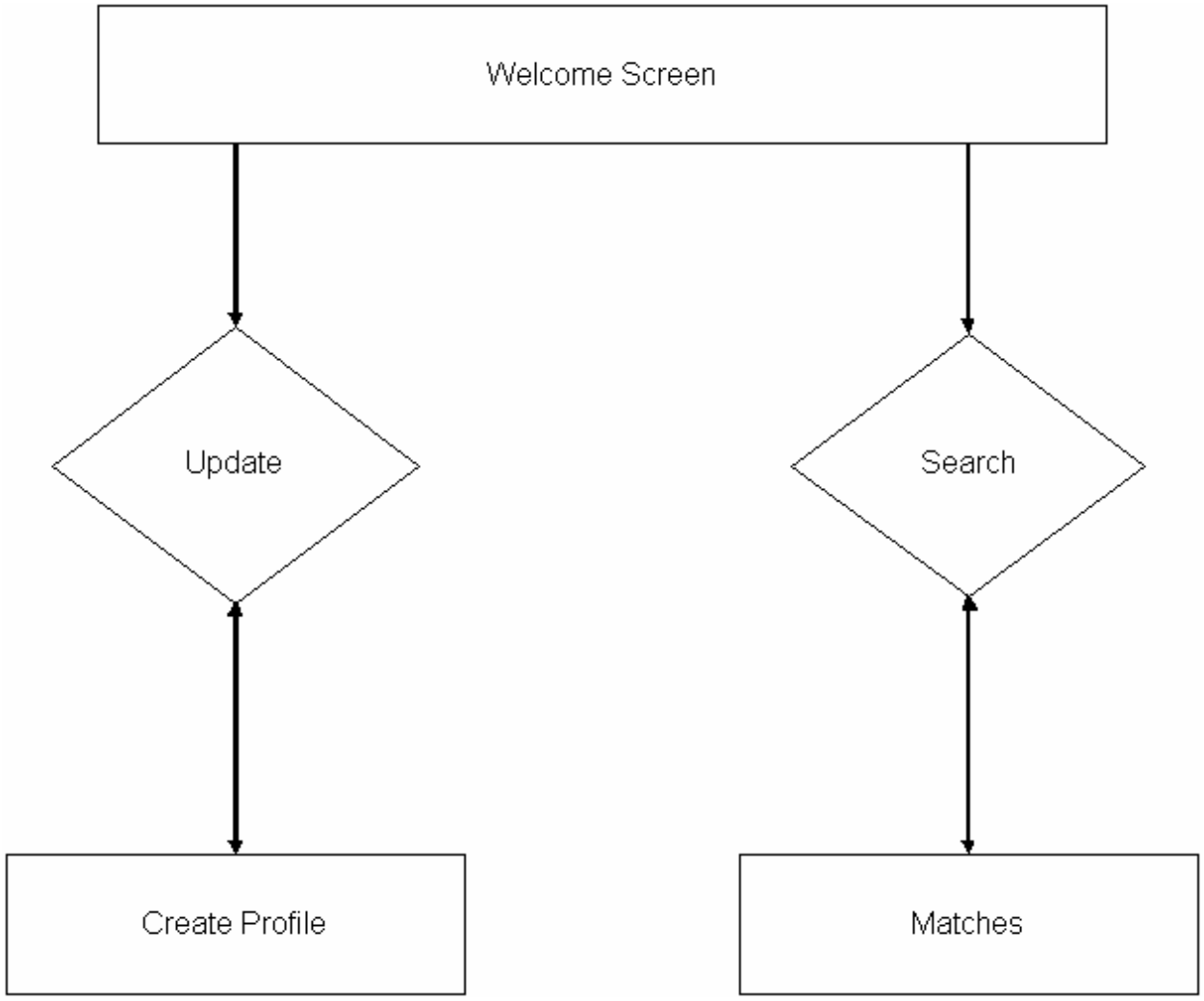
Main Menu Screen



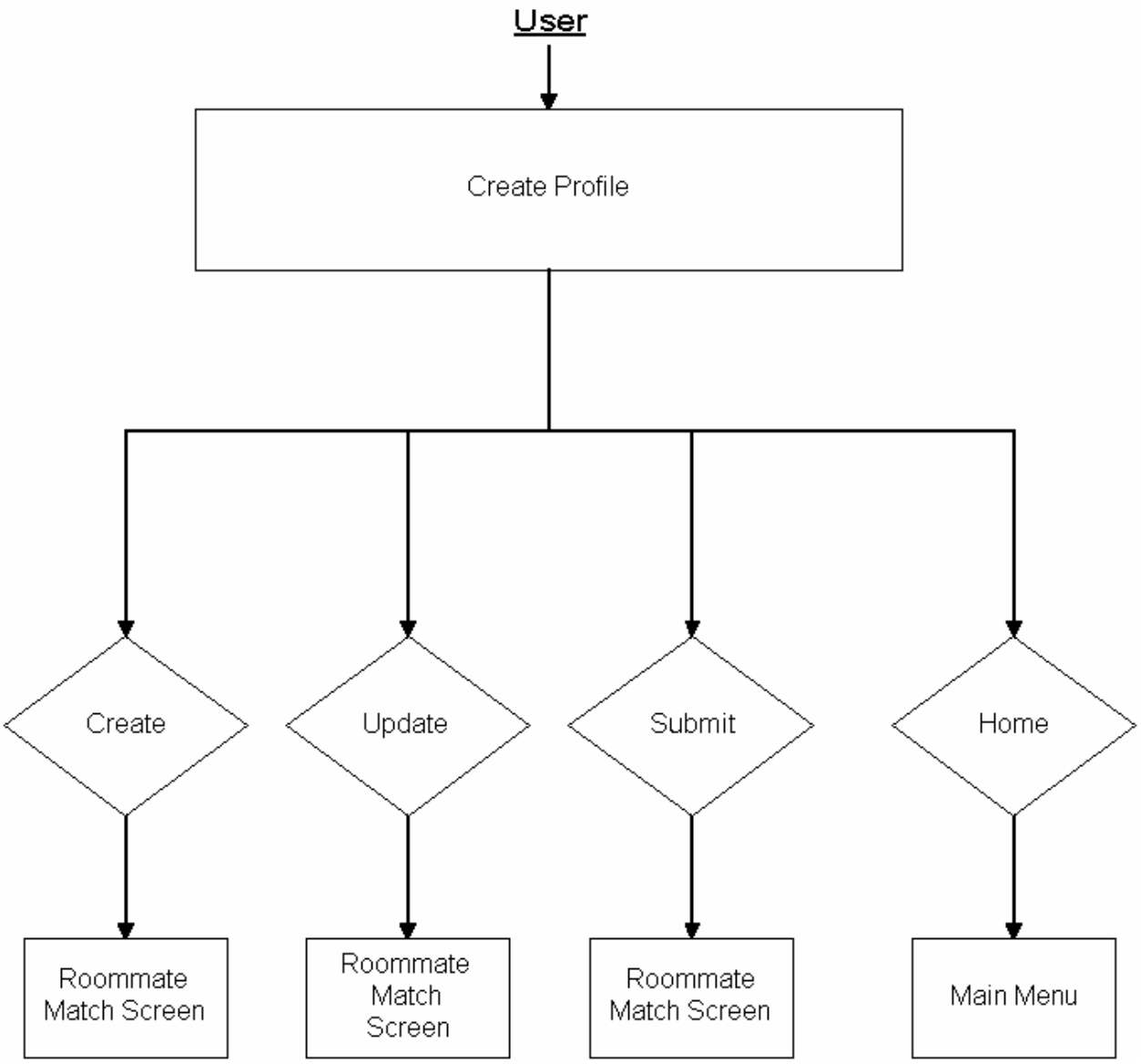
Login Screen



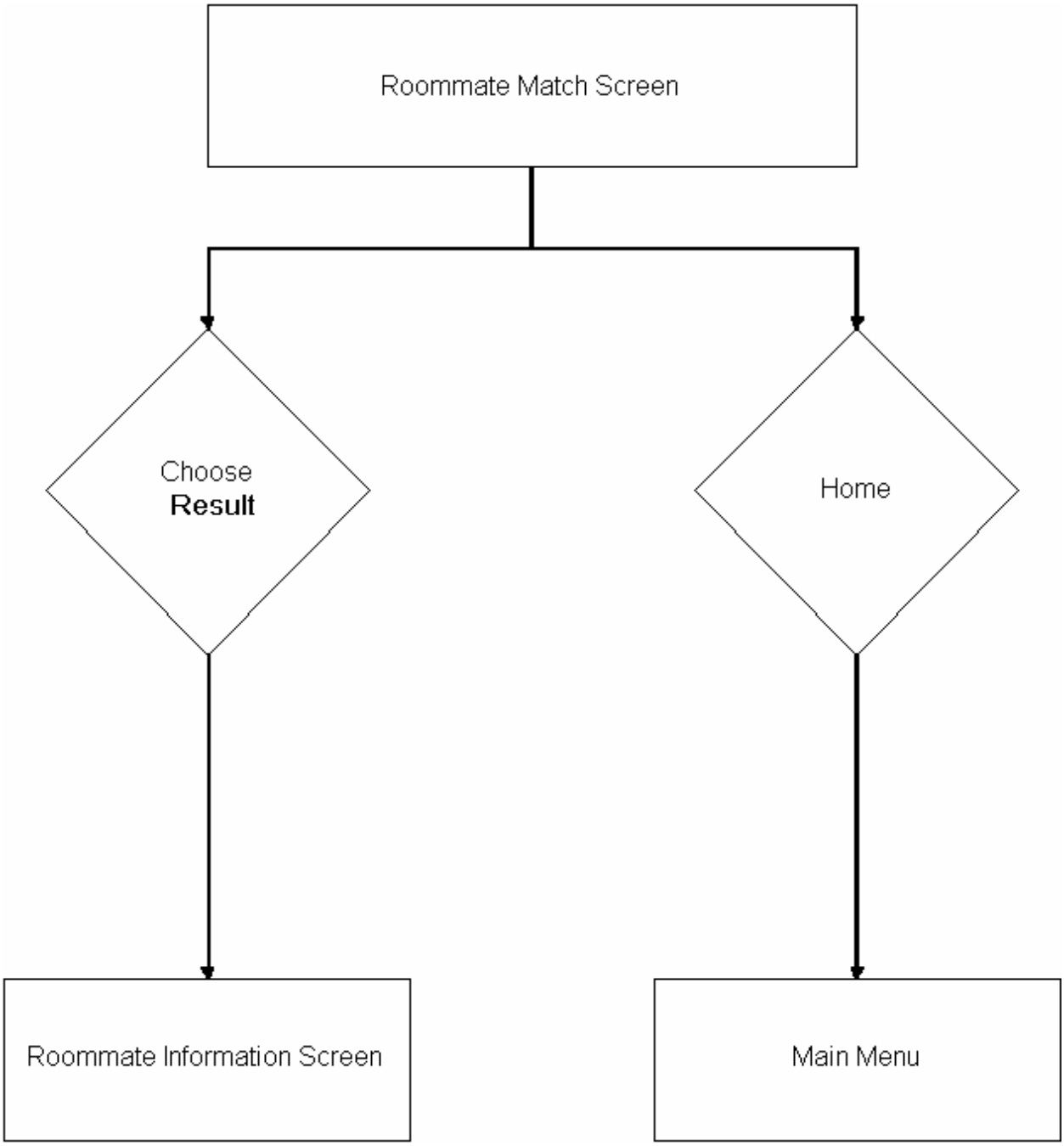
Welcome Screen



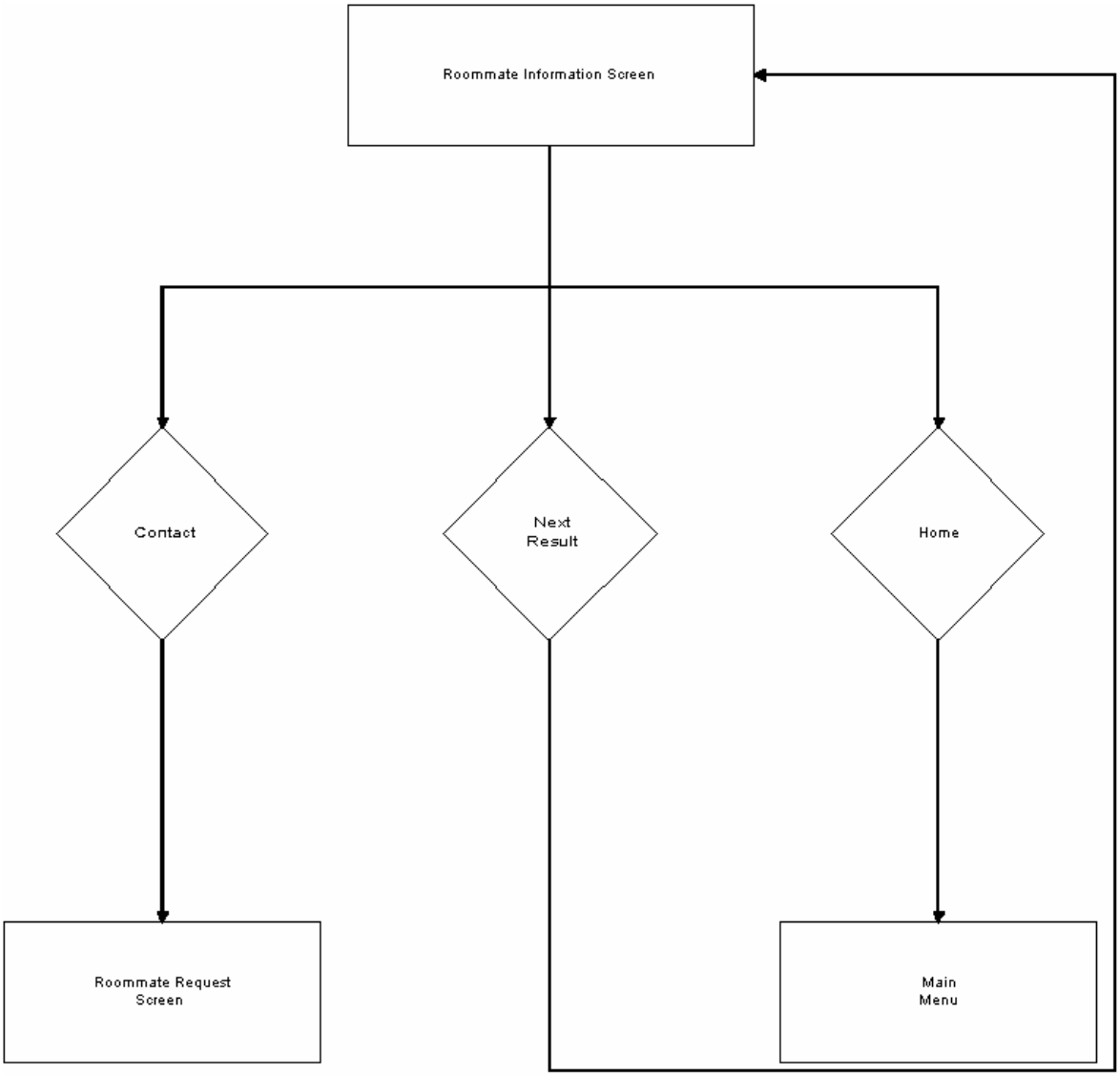
Create Profile Screen



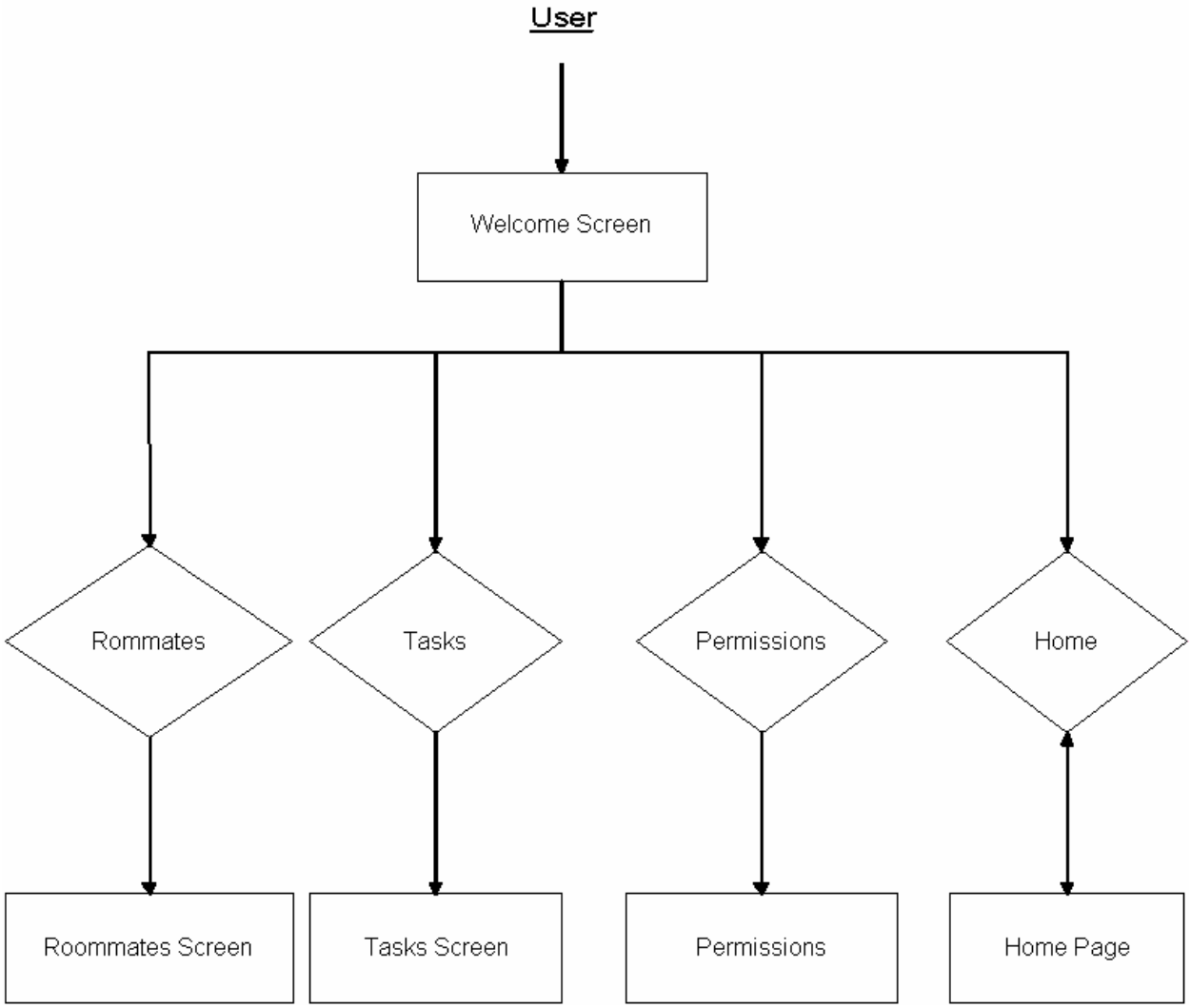
Roommate Match Screen



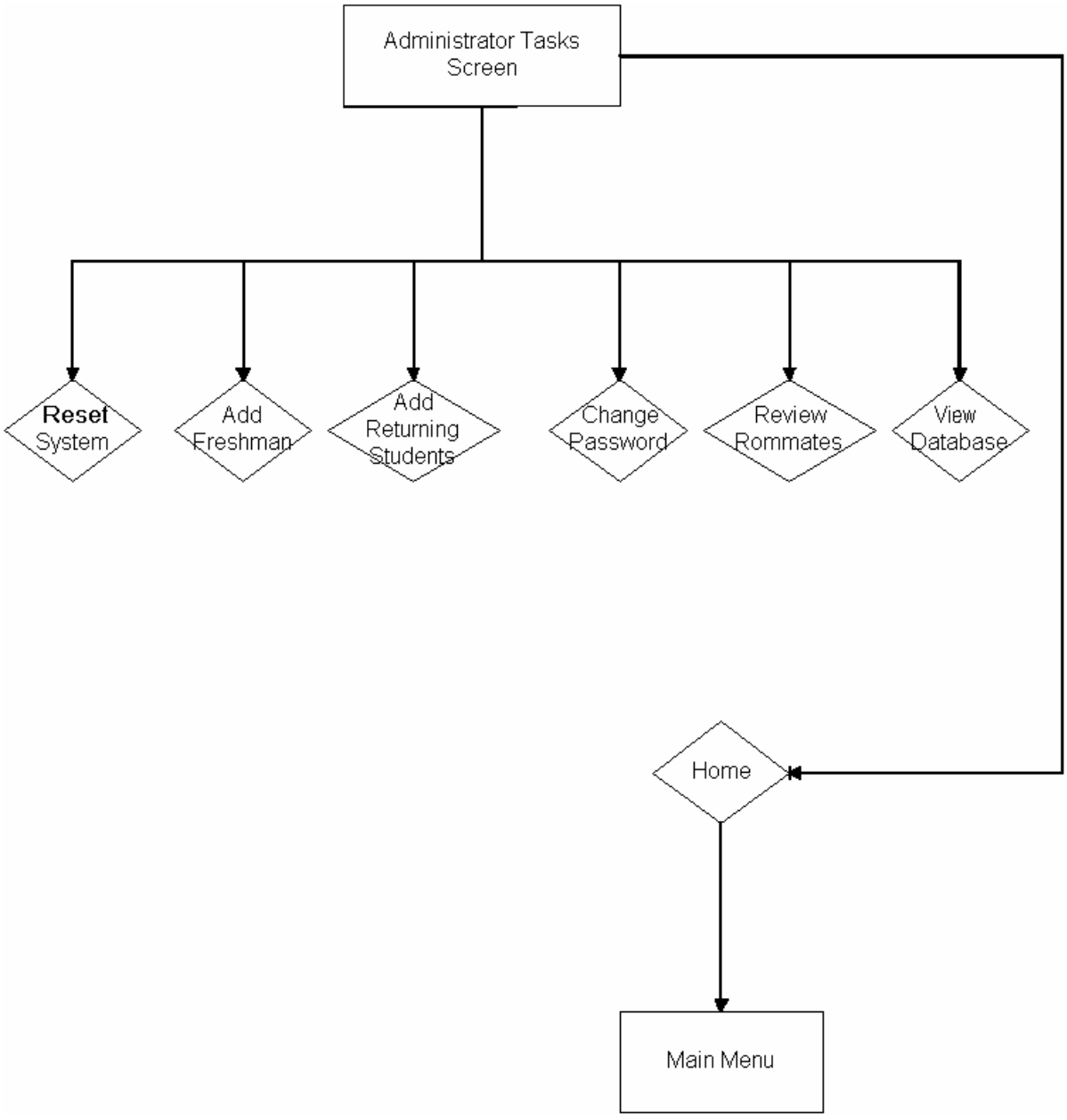
Roommate Information Screen



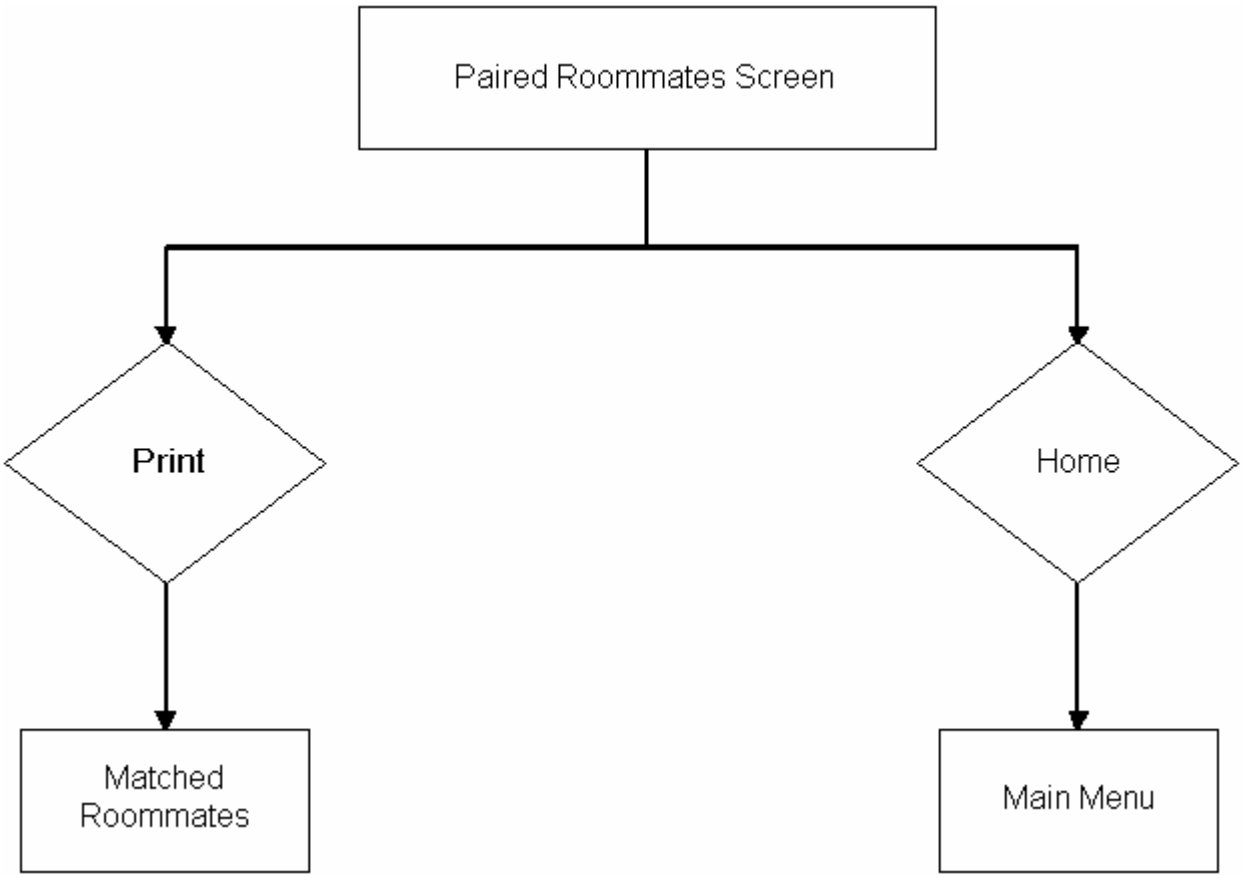
Administrator Welcome Screen



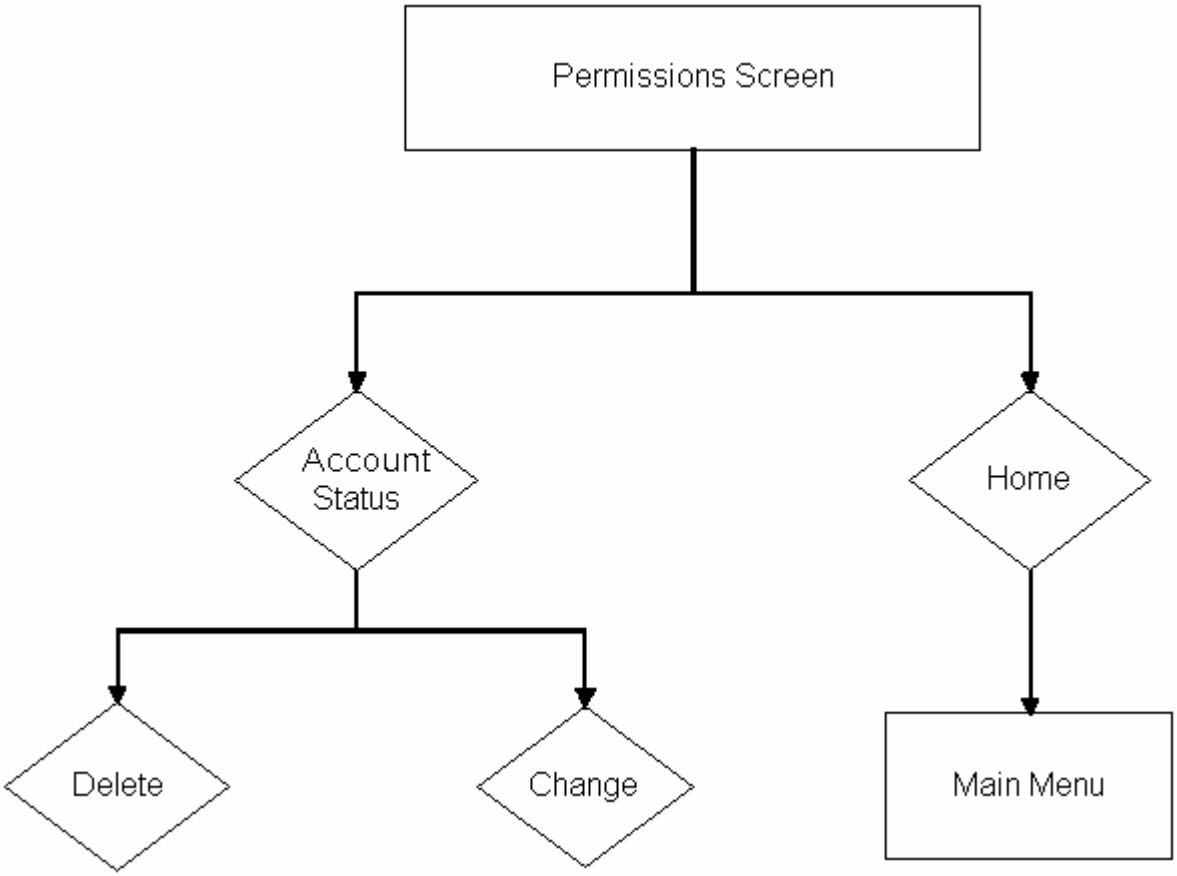
Administrator Tasks Screen



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.

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

Testing Requirements

Test Cases for Freshman

Freshman Test Case	Expected Result	Actual Result
Web Page	Welcome web page should be accessible using IE, Netscape or Opera browser	
Click on Freshman Login	Login screen should appear	
Login in with "username" and "password"	Should receive message that you succesfully logged in to the system	
Login with "invalid_usename" and "password"	Should receive error message that either the username or password is incorrect	
Login with "username" and "Invalid_password"	Should receive error message that either the username or password is incorrect	
Login with "invalid_usename" and "invalid_password"	Should receive error message that either the username or password is incorrect	
Click on the "Forgot your Password" Link	Should receive a screen that will ask the user to enter their mother's maiden name	
Enter Mother's Maiden Name	Should receive message that you succesfully logged in to the system	
Click on the "Create Profile" Link	A profile fields page should appear asking user to fill out.	
All profile fields should be tested with correct and incorrect data	Should except valid data and reject invalid data	
Submit Profile	Should receive a message that the profile has been successfully created	
Search for Matches	Should display Match Results "Name and Percentage"	
Click on Matched name	Should display profile comparison of you and the matched user	
Contact matched user	Should display matched users email address	
Request a Roomate	User should receive the confirmation screen	
Update your Profile	Should receive a screen with Profile fields allowing user to change or update them	

Test Cases for Administrator

Freshman Test Case	Expected Result	Actual Result
Type in URL for site home page	Hope page displays with all pictures	
Home Page	Email links works	
	Pictures Display	
	Disclaimer link works	
	All links work	
Click link on botom for administrator sign in	Administrator Logon window pops up	
Logging in		
No User Name, No password	Rejected	
No User Name, Incorrect password	Rejected	
No User Name, Correct password	Rejected	
Incorrect User Name, No password	Rejected	
Incorrect User Name, Incorrect Password	Rejected	
Incorrect User Name, Correct password	Rejected	
Correct User Name, No password	Rejected	
Correct User Name, Incorrect password	Rejected	
Correct User Name, Correct password	Accepted Administrator Home Welcome screen	
Administrator Welcome screen	Correct Name displayed	
	Number of students registered there/correct	
	Number of students total there/correct	
	Number of days untill accounts deleted there/c	
Click on Roomates Link	Directed to Roomates page	
Click on Tasks Link	Directed to Tasks page	
Click on Permissions Link	Directed to Permissions page	

Freshman Test Case	Expected Result	Actual Result
Roommates link Clicked	Directed to Roomates page	
	Paired Roomates displayed correctly	
	Paired roomated correct with database	
Tasks Link Clicked	Directed to Tasks page	
	Reset system link is there	
	Add Freshmen link is there	
	Change Passwords link is there	
	Review Roomates link is there	
	View Database link is there	
	Reset system link is there	
Clicked on Reset system	Database is cleared of all data	
Click on Add freshmen	Page to add freshmen is displayed	
	All fields are shown	
	Data typed in is stored/saved In the database	
Click on Change passwords	Page to change students password is displayed	
	username is entered and new password is typed	
	data is stored/saves in the database	
Click on Review Roomates	Paired Roomates page is displayed	
Click on View Database	Database program is shown and access is granted	
Permissions Link clicked	Permissions page displayed	
	all registered students names shown	
	Registered Students status is given/correct	
	Registered students Account delete link is shown	
Clicked on Delete after a students name	Student deleted from database for matching	
	Status button there	

Freshman Test Case	Expected Result	Actual Result
Status link clicked	page to change status is displyed	
On All Pages Check this:		
	Page displays	
	All pictures visible	
	Email links works	
	Pictures Display	
	Disclaimer link works	
	All links work	

Detailed Design Specification

Physical Data Structures and Data File Specification

Account Table

Field Name	Data Type	Description
USER ID	Text	Students username - character size 7
PASSWORD	Text	Students password - character size 12
FIRST NAME	Text	Students first name - character size 15
LAST NAME	Text	Students last name - character size 25
EMAIL	Text	Student e-mail address - character size 50
MAIDEN NAME	Text	Mother's maiden name - character size 25
MATCHED STATUS	Text	Matched - yes or no - character size 3
LAST LOGIN	Date/Time	Last time they logged in - date/time
SOCIAL SECURITY	Number	Students Social Security Number - number size 9

Matched Table

Field Name	Data Type	Description
USER ID	Text	Person requesting roommate - character size 7
USER ID1	Text	Requested roommate - character size 7
DATE	Date/Time	Date matched - date
DORM	Text	Name of Dorm - character size 50
ROOMNUM	Number	Room number - number length 10
WING	Text	Wing of Dorm - character size 50

Profile Table

Field Name	Data Type	Description
USER ID	Text	character - size 7
QUESTION1	Number	number - length 2
QUESTION2	Number	number - length 2
QUESTION3	Number	number - length 2
QUESTION4	Number	number - length 2
QUESTION5	Number	number - length 2
QUESTION6	Number	number - length 2
QUESTION7	Number	number - length 2
QUESTION8	Number	number - length 2
QUESTION9	Number	number - length 2
QUESTION10	Number	number - length 2
QUESTION11	Number	number - length 2
QUESTION12	Number	number - length 2
QUESTION13	Number	number - length 2
QUESTION14	Number	number - length 2
QUESTION15	Number	number - length 2
QUESTION16	Number	number - length 2
HOBBY1	Number	number - length 2
HOBBY2	Number	number - length 2
HOBBY3	Number	number - length 2
HOBBY4	Number	number - length 2
HOBBY5	Number	number - length 2
COMMENTS	Text	character - size 255

Student Affairs Table

Field Name	Data Type	Description
Username	Text	character - size 7
Password	Text	character - size 12

Packaging Specifications

Our software will include an instruction manual for the administrator that will include step by step instructions how to use, update, and maintain the database. There will also be instructions sent to the student on how to access and use the software when they receive confirmation of their deposit.

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.

Entity-Relationship Diagram – a data modeling technique that creates a graphical representation of the entities, and the relationships between entities, within an information 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.

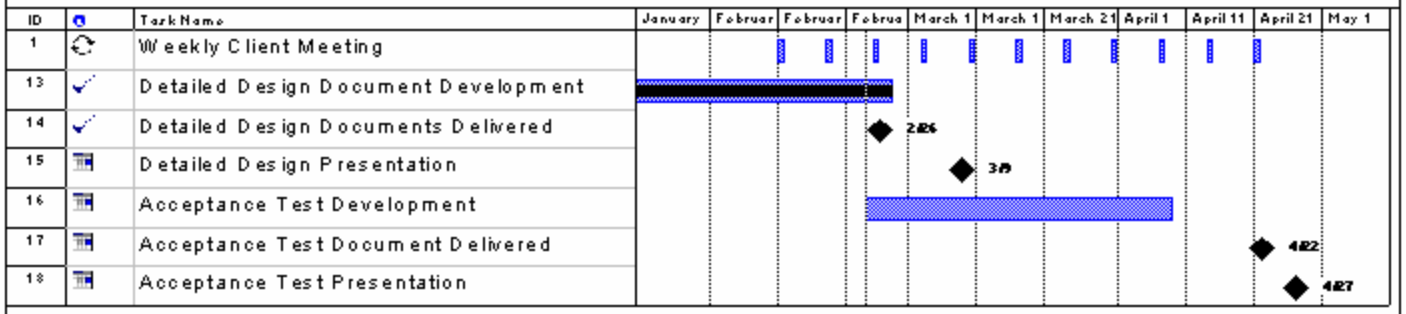
Use Case – Set of scenarios that show a usage of the system by a certain user.

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 (Spring Semester)



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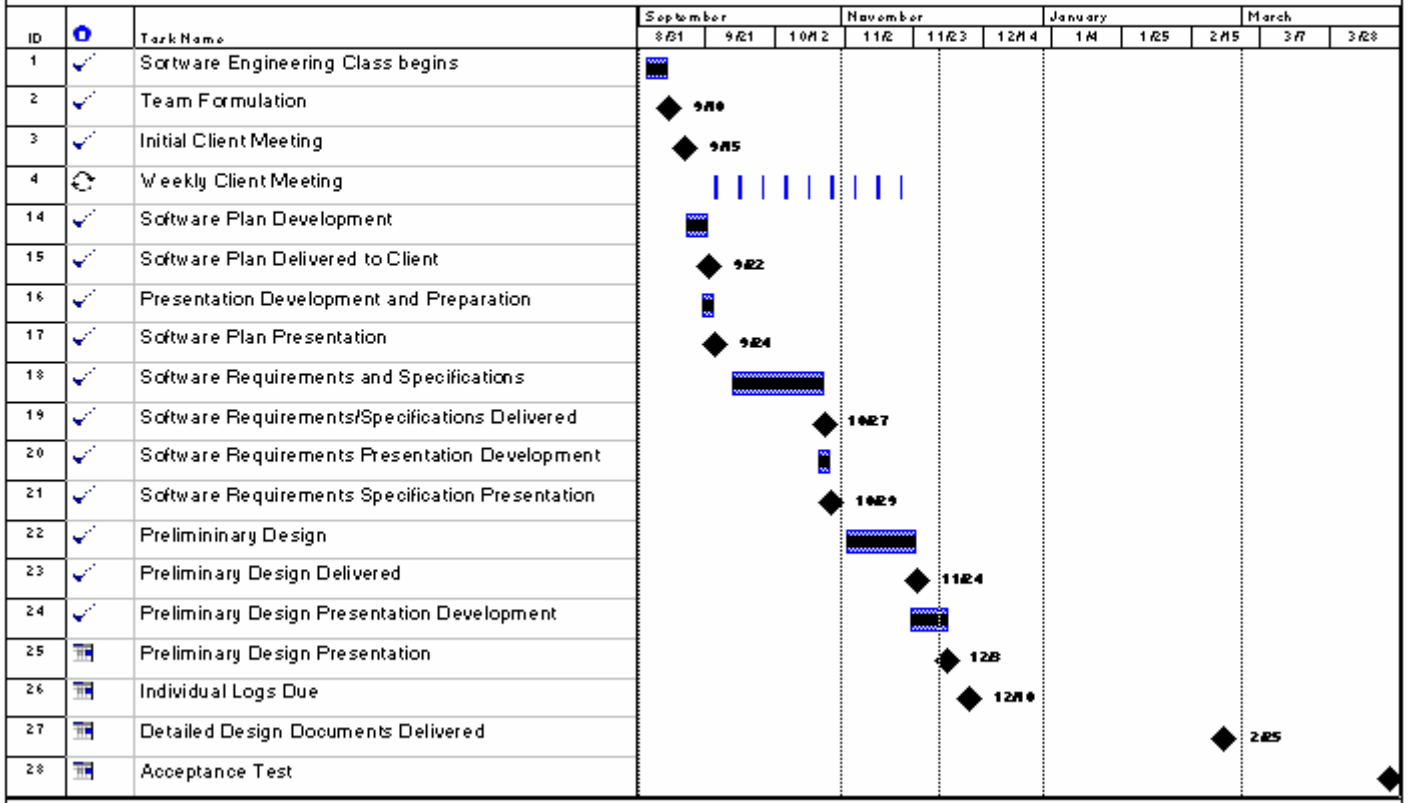
Falcon Enterprises
Let's Make a Match
Time Line of Events (Fall and Spring Semesters)