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Team Awesome
Project GoSOLAR 2.0
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Introduction:

Rationale of the Problem:

GoSOLAR 2.0(GS2) is an upgraded version of the GoSOLAR software Georgia State University (GSU) uses. GS2 is a university portal designed to give students, faculty, and staff personalized access to wide-ranging campus resources in a single location. Current systems include no profile system for all its users; however, GoSOLAR 2.0 will be more user-friendly system that includes new features like student, faculty, and other user profiles. Current systems have interfaces that can only be accessed on a website, but GS2 will be a desktop application where any user can easily download and access without going to a website. Furthermore, a user in the current systems has no interface where they can pay any fee from any department at any time. GS2 will implement an interface that allows a user to pay any fees owed to any department in GS2 in just one payment interface.

The users on this system will include students, faculty of instructors and student teachers, administrator, and department of Financial Aid and Parking Services.

Rationale for Database and Database Chosen:

GS2 will use Java DB to rapidly store and load data. Java DB will be made up of tables in a relational database that consist of Students, Faculty, Departments, Profiles, and etc. The primary key to define each column of any user would be its unique user name that is only relevant to that single user. Also, numbering users from one to infinity in the database would also serve as a primary key to easily identify the user. Developers will use MySQL to interpret SQL code; java DB will be built base on SQL.

Software Architecture

GS2 will be an open layer architecture where each layer can access any of the layers or tiers below it. The desktop application GS2 will communicate directly to the java DB.

Rationale for Architecture

Need of a software architecture where a system of inheritance can be implemented. For example: users have common functionality, therefore other users will inherit these functions.

Also, because GS2 is designed to be a desktop application, it will communicate directly and easily with java DB. Lastly, a desktop application will further improve user usability, thus making it easily assessable by any user with a PC.

Rationale for Objects

Need of a system that supports multiple instances of the various users GS2 supports. Also, need of a system that supports multiple categories of users that include departments and faculty members; likewise, multiple instances or objects can be created from these categories.

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Requirements Elicitation

1.0 Introduction

GS2 shall be a desktop application. It shall be used exclusively for schools. GS2 shall be used to manage all the details that are involved in the registration process, and GS2 shall be an interface specially designed for each different type of user.

2.0 User Levels

GoSOLAR 2.0 supports seven types of users: The administrator, faculty, student, department of financial services, department of financial aid, department of parking services, and registrar.

2.1 Administrator

The administrator, like all other users, shall be able to log in. An administrator shall be able to add/remove students, faculty, courses, and departments. The administrator shall also be able to update faculty and student profiles, as well as course specific information and the calendar of events. Finally, the administrator shall be able to change their password.

2.2 Registrar

The registrar shall be able to log in to the department account. The registrar shall be able to update student profiles as well as the department profile.

2.3 Faculty

2.3.1 *Instructors*

Instructors shall be able to log in. Upon logging in, instructors shall be able to view their teaching schedules.

2.3.2 *Student Teachers*

Student Teachers shall be able to view teaching schedule. Also, Student Teachers shall have access to all functions of a normal student.

2.4 Students

Students shall be able to log in. Upon logging in, Students shall have a myriad of options, such as the ability to add/drop classes. They shall be able to pay fees via Payment and Fees. Students shall be able to view classes offered this semester. Students shall be able to view their current schedule for this semester.

Students shall have the ability to update their student profile, including emergency contacts, phone numbers, and their current mailing address. They shall be able to view their final exam schedule, and the courses completed so far. Lastly, Students shall be able to view forms, such as the "apply to graduate" form and a form to drop from the University.

2.5 Department of Financial Aid

The department of financial aid shall be able to log in to the department account. The department of financial aid shall be able to update student profiles. The department of financial aid shall also be able to update the department profile. Finally, the department of financial aid shall be able to view all available financial aid options.

2.6 Department of Parking Services

The Department of Parking Services shall be able to update any user profile. The Department of Parking Services shall also be able to generate tickets for users that have any violations tied to their account.

3.0 General Functionality

GS2 shall have options to back to previous location, back to main menu, log off, and program functions. GS2 shall have a main menu. The software shall also contain a help option.

3.1 Payment and Fees

The software shall keep track of a student's balance. The student shall be able to pay by credit card, cash, money order, or check. The student shall be able to receive a refund when balance is negative. The student shall be able to pay for all fees from all departments in one single interface called "Payment and Fees".

3.2 User Profiles

All users, except administrators, shall have a profile. All users, except administrators, shall be able to customize their own personal profiles. These profiles shall be able to be visible to anyone. The student profiles shall include name, age, major, preferred email, place of origin, gender, and phone number.

3.2.1 *Faculty Profile*

Instructor profile shall include name, age, area of research, preferred email, place of origin, schools attended, gender, and phone number. Student teacher profiles shall include name, age, area of research, preferred email, gender, phone number. Department profiles shall include

name of the department, department email, location on campus, website address, and phone number.

3.3 Calendar
GS2 shall contain a calendar of events on user login screen.

RTM - Requirements Traceability Matrix
GoSOLAR 2.0: RTM

Entry #	Paragraph #	Description	Type	Use Case ID	Use Case Name
1	1.0	Introduction	DR		
2	1.1	Desktop application	SW		
3	1.2	Used exclusively for schools.	DR		
4	1.3	Manage registration process for enrollment.	SW		
5	1.3	Have interface designed for each user.	SW		

6	2.0	GS2 shall have six users for the administrator, faculty, student, department of financial aid, department of parking services, and registrar.	NTH		
7	2.1	Administrator	DR		
8	2.1.1	The administrator shall be able to log in.	DR	1	administratorLogin
9	2.1.2	The administrator shall be able to add/remove students.	SW	2,3,4	addStudent addOrRemoveStudents
10	2.1.2	The administrator shall be able to add/remove faculty.	SW		
11	2.2	Registrar	DR		
12	2.2.1	The registrar shall be able to log in to the department account.	SW	5	registrarLogin
Entry #	Paragraph #	Description	Type	Use Case ID	Use Case Name
13	2.3	Faculty	DR		
14	2.3.1	Instructors	DR		
15	2.3.2	Student Teachers	DR		
16	2.4	Students	DR		
17	2.4.1.1	Students shall be able to log in	SW	6	studentLogin
18	2.4.1.2	Students shall be able to add/drop classes.	SW	7,8,9	addOrDropClasses
19	2.4.1.3	Students shall be able to pay fees via Payment and Fees.	SW	10	studentPayFees
20	2.4.1.4	Students shall be able to view classes offered this semester.	SW	11	studentViewClasses

21	2.4.1.5	Students shall be able to view current schedule for this semester.	SW	12	studentViewSchedule
22	2.4.2.1	Students shall be able to update student profile.	SW	13	studentUpdateProfile
23	2.4.2.1	Students shall be able to update emergency contacts.	SW	14	studentUpdateEmer
24	2.4.2.1	Students shall be able to update phone numbers.	SW	15	studentUpdatePhone
25	2.4.2.1	Students shall be able to update current mailing address.	SW	16	studentUpdateAddress
26	2.4.2.2	Students shall be able to view final exam schedule.	SW	17	studentViewFinal
27	2.5	Department of Financial Aid	DR		
Entry #	Paragraph #	Description	Type	Use Case ID	Use Case Name
28	2.5.1	The department of financial aid shall be able to log in to the department account.	SW	18	financialLogIn
29	2.5.2	The department of financial aid shall be able to update student profiles.	SW	19	financialStuPro
30	2.6	Department of parking services	SW		
31	3.0	General Functionality	SW		
32	2.1.2	The administrator shall be able to add/remove a department.	SW	20, 21,22	financialAorRDepart financialADepart financialRDepart
33	2.1.5	The administrator shall be able to update faculty profile.	SW	23	AdUpdateFacul

34	2.1.5	The administrator shall be able to update student profile.	SW	24	AdUpdateStu
35	2.1.2	The administrator shall be able to add/remove a course.	SW	25,26,27	AdAorRCourse AdACourse AdRCourse
36	2.1.5	The administrator shall be able to update course specific information.	SW	28	AdUCourse
37	2.1.6	The administrator shall be able to change administrative password.	SW	29	AdUPw
38	2.1.5	The administrator shall be able to update the calendar of events.	SW	30,31	AdUCalendar
39	2.2.2	The registrar shall be able to update student profiles.	SW	32	registrarUStu
Entry #	Paragraph #	Description	Type	Use Case ID	Use Case Name
40	2.2.2	The registrar shall be able to update department profile.	SW	33	registrarUpdate
41	2.3.1.2	Instructors shall be able to view teaching schedule.	SW	34,35	viewTSced
42	2.3.2.1	Student teachers shall be able to view teaching schedule.	SW		
43	2.3.2.2	Student teachers shall have access to all functions of a normal student.	SW		
44	2.3.1.1	Instructors shall be able to log in.	SW	36	instrutLogIn
45	2.4.2.2	Students shall be able to view course completed so far.	SW	37	viewCCourses
46	2.4.2.3	Students shall be able to view forms.	DR	38	viewForms

47	2.4.2.3	Students shall be able to view apply to graduate form.	SW	39	viewATGF
48	2.4.2.3	Students shall be able to view apply to drop from GSU form.	SW	40	viewDropForm
49	2.5.3	The department of financial aid shall be able to update department profile.	SW	41	financialUPro
50	2.5.4	The department of financial aid shall be able to view all available financial aid options.	SW	42	financialVOptions
51	2.6.1	The Department of Parking Services shall be able to update any user profile.	SW	43	parkingUProfile
52	2.6.2	The Department of Parking Services shall be able to generate tickets for users that have any violations died to their account.	SW	44	generateTicket
53	3.1	GS2 shall have options to back to previous location, back to main menu, log off, and quit program functions.	SW		
Entry #	Paragraph #	Description	Type	Use Case ID	Use Case Name
54	3.2	GS2 shall have a main menu.	DR	45	mainMenu
55	3.3	GS2 shall contain a help option.	DR	46	helpOption
56	3.4	Payment and Fees.	DR		
57	3.4.1	The software shall keep track of a student's balance.	SW	47	studentBalance
58	3.4.2	The student shall be able to pay by credit card, cash, money order, or check.	SW		
59	3.4.3	The student shall be able to receive a refund when balance (3.4.1) is negative.	SW		
60	3.4.4	The student shall be able to pay for all fees from all departments in one	SW		

		single interface called “Payment and Fees”.			
61	3.5.1	All users, except administrators, shall have a profile.	DR		
62	3.5.2	All users, except administrators, shall be able to customize their own personal profiles.	SW		
63	3.5.3	These profiles shall be able to be visible by anyone.	SW		
64	3.5.4	Student profiles shall include name, age, major, preferred email, place of origin, gender, and phone number.	SW		
65	3.5.5	Faculty Profile	SW		
66	3.5.5.1	Instructor profile shall include name, age, area of research, preferred email, place of origin, schools attended, gender, and phone number.	SW		
Entry #	Paragraph #	Description	Type	Use Case ID	Use Case Name
67	3.5.5.2	Student teacher profile shall include name, age, area of research, preferred email, gender, phone number.	SW		
68	3.5.6	Department profiles shall include name of the department, department email, location on campus, website address, and phone number.	SW		
69	3.6	GS2 shall contain a calendar of events on user login screen.	NTH		

Use Cases:

RTM Entry:	user login
Use Case ID: Use Case Name: Use Case Participants:	1 userLogin any and all users
Entry Condition:	users type in the account username and password on the login screen.
Flow of Events	1. Users access the GS2 desktop application 2. Users initiate login 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process
Exit Condition:	log off or close program.

Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes. 3. After 10 minutes the user should re log in to view the records.

Rationale: To recognize which user is logged in to correctly allocate the correct functions to a specific user.

RTM Entry:	user password change
Use Case ID: Use Case Name: Use Case Participants:	2 changePass any and all users
Entry Condition:	administrator activates Change Password option
Flow of Events	1. User accesses the GS2 desktop application 2. User initiates login 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process 6. The log in process , if successful, takes the user to Main Menu 7. User will initiate the Update Administrative Password option
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: A need for users to have regular changes/updates to their password in order to avoid hack and intelligence leeks.

RTM Entry:	payment and fees.
Use Case ID: Use Case Name: Use Case Participants:	3 paymentFees any and all users
Entry Condition:	user activates Payment and Fees option

Flow of Events	1. User accesses the GS2 desktop application. 2. User initiates login 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process 6. The Log in process , if successful, takes the student to Main Menu 7. User will initiate the Payment and Fees option
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes. 3. After 10 minutes the user should re log in to view the records.

Rationale: Current systems do not have an easy to use interface to pay all fees set by GSU as a whole. This interface brings a need of a system where any user can pay any fee from any department in one single interface. This interface allows students to pay by any of the common means including credit card, check, and etc.

RTM Entry:	a specific user updates their own specific profile
Use Case ID: Use Case Name: Use Case Participants:	4 updateProfile any and all users
Entry Condition:	user activates the Update Profile option
Flow of Events	1. Users access the GS2 desktop application 2. Users initiates login 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. User will initiate the Update Profile option
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds

	2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for a specific user to actively change and update their profiles.

RTM Entry:	users can update their specific phone number
Use Case ID: Use Case Name: Use Case Participants:	5 updatePhone any and all users
Entry Condition:	user activates the Update Phone Number option.
Flow of Events	1. Users access the GS2 desktop application. 2. Users initiate Student Login 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process 6. The log in process if successful takes the user to Main Menu 7. User will initiate the Update Profile option 8. If successful, it will take the user to their specific profile 9. User will initiate the Update Phone Number option
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes. 3. After 10 minutes the user should re log in to view the records.

Rationale: Need of an option where users can update phone number. These phone number will available to all departments and administrator to contact a student.

RTM Entry:	user can update current mailing address.
Use Case ID: Use Case Name: Use Case Participants:	6 updateAddress any and all users
Entry Condition:	users activate the Update Current Mailing Address option
Flow of Events	1. Users access the GS2 desktop application. 2. Users initiate log in 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process 6. The log in process if successful takes the user to Main Menu

	7. User will initiate the Update Profile option 8. If successful, it will take the user to their specific profile 9. User will initiate the Update Current Mailing Address option
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes. 3. After 10 minutes the user should re log in to view the records.

Rationale: Need of an option where users can update mailing address. All university related mail is sent to this address. In current systems, no function allows a student to do this easily; therefore, in some cases, objects like refund checks will get send to wrong addresses.

RTM Entry:	GS2 shall contain a help option
Use Case ID: Use Case Name: Use Case Participants:	7 helpOption all users
Entry Condition:	users activate Help option
Flow of Events	1. User the GS2 desktop application 2. User initiates login 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate the Help option
Exit Condition:	log off or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of a help option for general problems with fixes that users can view.

RTM Entry:	main menu
Use Case ID: Use Case Name: Use Case Participants:	8 mainMenu any and all users
Entry Condition:	user login
Flow of Events	1. User accesses the GS2 desktop application 2. User initiates login 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process
Exit Condition:	log off or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of a main menu to keep track of all the options a specific user can do in GS2.

RTM Entry:	back option
Use Case ID: Use Case Name: Use Case Participants:	9 back any and all users
Entry Condition:	initiation of any options from the main menu
Flow of Events	1. User accesses the GS2 desktop application 2. User initiates login 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process 6. The log in process, if successful, takes the user to the Main Menu. 7. User will initiate any option on the Main Menu.
Exit Condition:	log off, back, or close program

Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for any and all users to go back to the previous window.

RTM Entry:	logoff option
Use Case ID: Use Case Name: Use Case Participants:	10 logoff any and all users
Entry Condition:	user login
Flow of Events	1. User accesses the GS2 desktop application 2. User initiates login 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process 6. The log in process, if successful, takes the user to the Main Menu. 7. (Optional) User can initiate any other options
Exit Condition:	close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for any and all users to go back to the user log in screen once they are finished with their session.

RTM Entry:	submit ticket to administrator
Use Case ID: Use Case Name: Use Case Participants:	11 submitTicket all users except administrator
Entry Condition:	user login

Flow of Events	1. User accesses the GS2 desktop application 2. User initiates login 3. Log in menu pops up with User ID and User Password 4. User enters the User ID and Password 5. User will initiate the log in process 6. The log in process, if successful, takes the user to the Main Menu.
Exit Condition:	back, log off, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for all users except administrator to submit a ticket of bugs/glitches/problems with GS2.

RTM Entry:	the administrator can view a full list of any user group and courses
Use Case ID: Use Case Name: Use Case Participants:	12 listsOfStuff administrator and student
Entry Condition:	administrator activates Main Menu
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Administrator will initiate the Lists option
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes

	3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for Administrator to view lists of any user group or courses.

RTM Entry:	the administrator can view a full list of any user group
Use Case ID: Use Case Name: Use Case Participants:	13 listsOfFaculty administrator
Entry Condition:	administrator activates Lists option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Administrator will initiate the Lists option 8. Administrator will initiate the Lists of Faculty option
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for Administrator to view lists of any Faculty group in GS2.

RTM Entry:	the administrator can view a full list of any user group
Use Case ID: Use Case Name: Use Case Participants:	14 listOfStuTea administrator
Entry Condition:	administrator activates List of Student Teachers option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password

	4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Administrator will initiate the Lists option 8. Administrator will initiate the Lists of Faculty option 9. Administrator will initiate the Lists of Student Teachers option
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for Administrator to view a full list of Student Teachers

RTM Entry:	the administrator can view a full list of any user group
Use Case ID: Use Case Name: Use Case Participants:	15 listOfInstructors administrator
Entry Condition:	administrator activates List of Instructors option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Administrator will initiate the Lists option 8. Administrator will initiate the Lists of Faculty option 9. Administrator will initiate the Lists of Instructors option
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for Administrator to view a full list of Instructors

RTM Entry:	the administrator can view a full list of any user group
Use Case ID: Use Case Name: Use Case Participants:	16 listOfStudents administrator
Entry Condition:	administrator activates List of Students option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Administrator will initiate the Lists option 8. Administrator will initiate the Lists of Students option
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for Administrator to view a full list of Students

RTM Entry:	the administrator can view a full list of any user group
Use Case ID: Use Case Name: Use Case Participants:	17 listsOfDepartments administrator
Entry Condition:	administrator activates List of Departments option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password

	5. Administrator will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Administrator will initiate the Lists option 8. Administrator will initiate the List of Departments option
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for Administrator to view a list of all departments.

RTM Entry:	the administrator can add/remove a user
Use Case ID: Use Case Name: Use Case Participants:	18 addUser administrator (registrar will inherit this user case to add/remove students)
Entry Condition:	admin activates Add To List option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. Administrator initiates any List option 8. Administrator will initiate the Add To List option at the top
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for the administrator to add/remove users.

RTM Entry:	add user window

Use Case ID: Use Case Name: Use Case Participants:	19 addUserGUI administrator (registrar will inherit this user case to add/remove students)
Entry Condition:	admin activates Add To List option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. Administrator initiates any List option 8. Administrator will initiate the Add To List option at the top 9. If successful, a GUI window to add user will pop up
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an easily assessable window; where the admin can add a user and enter in information regarding the user.

RTM Entry:	the administrator can add/remove a user
Use Case ID: Use Case Name: Use Case Participants:	20 removeUser administrator (registrar will inherit this user case to add/remove students)
Entry Condition:	admin activates Remove option from the drop down menu
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. Administrator initiates any List option 8. Administrator will click on the specific user 9. If successful, a drop down menu would appear

	10. Admin initiates Remove option from the drop down menu
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for Administrator to remove a user in a drop down men

RTM Entry:	● the administrator can update any user profile ● departments can update any student profile
Use Case ID: Use Case Name: Use Case Participants:	21 updateP administrator and departments
Entry Condition:	administrator activates Update Profile option from the drop down menu
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User initiates any List option that is available to them 8. User will click on the specific user 9. If successful, a drop down menu will appear 10. User initiates Update Profile by clicking it from the drop down menu
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for Administrator and Departments to update different user profiles when something is changed i.e. password, username, fees, and etc.

RTM Entry:	● the administrator can view a full list of any user group and courses

	• students can view a list of courses available
Use Case ID: Use Case Name: Use Case Participants:	22 listOfCourses administrator and students
Entry Condition:	administrator or student activates List of Courses option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Administrator will initiate the Lists option 8. Administrator will initiate the List of Courses option
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for Administrator and Students to view a list of courses available.

RTM Entry:	the administrator can add/remove a course
Use Case ID: Use Case Name: Use Case Participants:	23 AdACourse administrator
Entry Condition:	administrator activates Add Course option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate the Lists 8. Administrator will initiate List of Courses option 9. Administrator will click on the Add Course option at the top

Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of options for the administrator to add courses. When new courses are available to be taken, this option will give the administrator the option to add it accordingly.

RTM Entry:	add course window
Use Case ID: Use Case Name: Use Case Participants:	24 addCourseGUI administrator
Entry Condition:	administrator activates Add Course option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate the Lists 8. Administrator will initiate List of Courses option 9. Administrator will click on the Add Course option at the top 10. If successful, a GUI window will pop up allowing the administrator to add a course with its specific information
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of a GUI window available for Admin to add a course. This course will have options for the Admin to enter in course specific information.

RTM Entry:	the administrator can add/remove a course
Use Case ID: Use Case Name: Use Case Participants:	25 AdRCourse administrator
Entry Condition:	administrator activates Remove option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. Administrator will initiate the Lists option 8. Administrator will initiate the List of Courses option 9. If administrator successfully clicks on the course, a drop down menu would appear. 10. Admin will initiate Remove option from drop down menu
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of options for the administrator to remove courses. When there are courses with minor population, this option will give the administrator the option to remove it to make room for other courses.

RTM Entry:	the administrator can update course specific information
Use Case ID: Use Case Name: Use Case Participants:	26 AdUCourse administrator
Entry Condition:	administrator activates Update Course Information option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate the Lists option 8. User will initiate List of Courses option 9 If Administrator successfully clicks on the course, a drop down menu would appear 10 Admin will initiate Update Course Information option from the drop down menu 11 If successful, a GUI window of the course and its information will appear
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for the administrator to adjust course description when subjects taught are changed.

RTM Entry:	the administrator can update the calendar of events
Use Case ID: Use Case Name: Use Case Participants:	27 AdUCalendar administrator
Entry Condition:	administrator activates Update Calendar option
Flow of Events	1. Administrator accesses the GS2 desktop application 2. Administrator initiates login 3. Log in menu pops up with User ID and User Password 4. Administrator enters the User ID and Password 5. Administrator will initiate the log in process

	6. The log in process, if successful, takes the user to Main Menu 7. User will initiate the Update Calendar option
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: A need for administrators to update semester schedule by changing current event dates and/or adding new event dates.

RTM Entry:	students can add/drop classes
Use Case ID: Use Case Name: Use Case Participants:	28 studentAddClass student
Entry Condition:	student activates the Look-Up Classes to Add option.
Flow of Events	1. Student accesses the GS2 desktop application. 2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Student will initiate the Look-Up Classes to Add option 8. Student will initiate the Add Class option to the right of each course
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes. 3. After 10 minutes the user should re log in to view the records.

Rationale: Need of an option for students to adjust their semester schedule by adding a class.

RTM Entry:	students can add/drop classes
Use Case ID: Use Case Name: Use Case Participants:	29 addOrDropClasses student
Entry Condition:	student logs in

Flow of Events	1. Student accesses the GS2 desktop application. 2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Student will initiate the Add/Drop Classes option 8. If successful, a new GUI window will appear
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes. 3. After 10 minutes the user should re log in to view the records.

Rationale: Need of an option to add/drop classes in one single interface. Courses can be dropped individually here, or classes can be added on a massive scale.

RTM Entry:	students can add/drop classes.
Use Case ID: Use Case Name: Use Case Participants:	30 studentDropClass student
Entry Condition:	student clicks a class under My Courses
Flow of Events	1. Student accesses the GS2 desktop application. 2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Student will initiate the Add/Drop Classes option 8. If student signed up for classes already, click on any class 9. If successful, a drop down menu will appear 10. Student will initiate the Drop Class option
Exit Condition:	log off, back, or close program.

Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes. 3. After 10 minutes the user should re log in to view the records.

Rationale: Need of an option for students to adjust their semester schedule by dropping a class.

RTM Entry:	students can add/drop classes
Use Case ID: Use Case Name: Use Case Participants:	31 addCourses student
Entry Condition:	student activates the Add/Drop Classes option.
Flow of Events	1. Student accesses the GS2 desktop application. 2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Student will initiate the Add/Drop Classes option 8. Student will initiate the Add Courses option after filling in CRN #s in corresponding entry locations
Exit Condition:	log off, back, or close program.
Quality Constraints	1. The results should be show within 5 seconds. 2. The results can only be available for 10 minutes. 3. After 10 minutes the user should re log in to view the records.

Rationale: Need of an option to add courses on a massive scale.

RTM Entry:	students can view current schedule for this semester
Use Case ID: Use Case Name: Use Case Participants:	32 studentViewSchedule student
Entry Condition:	student activates the View Student Schedule option
Flow of Events	1. Student accesses the GS2 desktop application 2. Student initiates login

	3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Student will initiate the View Student Schedule option
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for students to view all available courses in this semester.

RTM Entry:	students can view all available user profiles
Use Case ID: Use Case Name: Use Case Participants:	33 studentViewProfile student
Entry Condition:	student activates the Lists option
Flow of Events	1. Student accesses the GS2 desktop application 2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Student will initiate the Lists option 8. Student will initiate any List option 9. Once a specific user is reached, student will click on that user 10. If successful, a drop down menu would appear allowing the student to view profile
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for students to view any user profile.

RTM Entry:	students can view and accept the registration agreement
Use Case ID: Use Case Name: Use Case Participants:	34 studentViewAgree student
Entry Condition:	student logs in
Flow of Events	1. Student accesses the GS2 desktop application 2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Student will initiate the Registration Agreement option 8. If successful, a GUI Window with the registration agreement will pop up 9. Student will initiate the I Agree option after reading the agreement
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for students to read and accept the Registration Agreement. The registration agreement needs to be accepted before student can sign up for classes.

RTM Entry:	students can update emergency contacts
Use Case ID: Use Case Name: Use Case Participants:	35 studentUpdateEmer student
Entry Condition:	Student activates the Update Emergency Contacts option
Flow of Events	1. Student accesses the GS2 desktop application 2. Student initiates Student Login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process

	6. The log in process, if successful, takes the student to Main Menu 7. Student will initiate the Update Emergency Contacts option
Exit Condition:	Log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for students to actively update emergency contacts. Emergency contacts will be used to contact family or friends in case an emergency event, attack, or notification.

RTM Entry:	students can view final exam schedule
Use Case ID: Use Case Name: Use Case Participants:	36 studentViewFinal student
Entry Condition:	Student activates the View Final Exam Schedule option
Flow of Events	1. Student accesses the GS2 desktop application 2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the student to Main Menu 7. Student will initiate the View Final Exam Schedule option
Exit Condition:	Log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option where students can view final exam schedule. More often than not, students have no idea what their final exam schedule is (what time is the exam, etc.); this option will help students track their schedule during final week.

RTM Entry:	students can view course completed so far
Use Case ID: Use Case Name: Use Case Participants:	37 viewCCourses Student
Entry Condition:	Student activates view Course Completed option
Flow of Events	1. Student accesses the GS2 desktop application 2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate the view Courses Completed option
Exit Condition:	Log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of an option for students to see what courses they have taken so far; this prevents taking courses students have already passes again i.e. eliminates duplicity.

RTM Entry:	students can view forms
Use Case ID: Use Case Name: Use Case Participants:	38 viewForms Student
Entry Condition:	Student activates View Forms option
Flow of Events	1. Student accesses the GS2 desktop application 2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate the view Forms option
Exit Condition:	Log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds

	2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of options for the student to View (specific) Forms. To make things less complex, GS2 needed a use case to categorize other use cases i.e. more use cases will branch off from main use case.

RTM Entry:	students can view apply to graduate form
Use Case ID: Use Case Name: Use Case Participants:	39 viewATGF Student
Entry Condition:	Student activates View Apply to Graduate Form option
Flow of Events	1. Student accesses the GS2 desktop application 2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate the view Forms option 8. User will initiate view Apply to Graduate option
Exit Condition:	Log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need for an option for a student to view the apply to graduate form if they seek to graduate.

RTM Entry:	students can view apply to drop from GSU form
Use Case ID: Use Case Name: Use Case Participants:	40 viewDropForm Student
Entry Condition:	Student activates View Apply to Drop Form option
Flow of Events	1. Student accesses the GS2 desktop application

	2. Student initiates login 3. Log in menu pops up with User ID and User Password 4. Student enters the User ID and Password 5. Student will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate the view Forms option 8. User will initiate view Apply to Drop option
Exit Condition:	Log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need for an option for a student to view the apply to drop form if they seek to quit school.

RTM Entry:	view teaching schedule
Use Case ID: Use Case Name: Use Case Participants:	41 viewTSced Faculty
Entry Condition:	Faculty activates View Teaching Schedule option
Flow of Events	1. Faculty access the GS2 desktop application 2. Faculty initiates login 3. Log in menu pops up with User ID and User Password 4. Faculty enters the User ID and Password 5. Faculty will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate the View Teaching Schedule option
Exit Condition:	Log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need for an option where faculty can view teaching schedule for this semester.

RTM Entry:	the Department of Financial Aid can view all available financial aid options
Use Case ID: Use Case Name: Use Case Participants:	42 financialVOptions Department of Financial Aid
Entry Condition:	Department of Financial Aid activates view Financial Aid options
Flow of Events	1. Department of Financial Aid accesses the GS2 desktop application 2. Department of Financial Aid initiates login 3. Log in menu pops up with User ID and User Password 4. Department of Financial Aid enters the User ID and Password 5. Department of Financial Aid will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate view Available Financial Aid option
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need for an option for staff in this department to view all available financial aid options to students in one single place; this option eliminates the need of student and staff research for financial aid options.

RTM Entry:	the Registrar can generate a official transcript for a student
Use Case ID: Use Case Name: Use Case Participants:	43 generateTranscript Registrar
Entry Condition:	Registrar activates Generate Transcript option from the drop down menu
Flow of Events	1. Registrar accesses the GS2 desktop application 2. Registrar initiates login 3. Log in menu pops up with User ID and User Password 4. Registrar enters the User ID and Password 5. Registrar will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate List of Students option 8. Registrar will click on any specific student 9. If successful, a drop down menu would appear

	10. From the drop down menu, Registrar will click on Generate Transcript
Exit Condition:	log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need an option for Registrar to create a transcript upon a student request by mail and other means. Once a transcript is created, it will be mailed to the student at a later time.

RTM Entry:	the Department of Parking Services can generate tickets for users that have any violations tied to their account
Use Case ID: Use Case Name: Use Case Participants:	44 generateTicket Department of Parking Services
Entry Condition:	Department of Parking Services activates Generate Ticket option
Flow of Events	1. The Department of Parking Services accesses the GS2 desktop application 2. The Department of Parking Services initiates login 3. Log in menu pops up with User ID and User Password 4. The Department of Parking Services enters the User ID and Password 5. The Department of Parking Services will initiate the log in process 6. The log in process, if successful, takes the user to Main Menu 7. User will initiate Lists option 8. User will initiate any List option 9. User will click on any specific user, if successful, a drop down menu would appear 10. User will initiate the Generate Ticket option
Exit Condition:	Log off, back, or close program
Quality Constraints	1. The results should be show within 5 seconds 2. The results can only be available for 10 minutes 3. After 10 minutes the user should re log in to view the records

Rationale: Need of the Department of Parking Services to actively generate tickets for violations; this helps the university keep order with parking services and higher funding.

Test Cases

Test-case identifier	student login
Feature to be tested	successful login with Student account-type
Feature Pass/Fail Criteria	Pass if the user successfully logs in and is presented the home screen
Entry Condition:	users type in the account username and password on the login screen.
Test Procedure:	1. Users access the GS2 desktop application 2. Users initiate login 3. Log in menu pops up with User ID: 1111 and User Password: 1111 4. User enters the User ID and Password 5. User will initiate the log in process
Data	1. users are read from a 'users.txt' file, and are attempted to be matched with the typed in username/password 2. passwords should be compared in encrypted form
Exit Condition:	log off or close program.
Log:	1. Login Successful.

Test-case identifier	admin login
Feature to be tested	successful login with admin account-type
Feature Pass/Fail Criteria	Pass if the user successfully logs in and is presented the home screen
Entry Condition:	users type in the account username and password on the login screen.
Test Procedure:	1. Users access the GS2 desktop application 2. Users initiate login 3. Log in menu pops up with User ID: 1111 and User Password: 1111 4. User enters the User ID and Password 5. User will initiate the log in process
Data	1. users are read from a 'users.txt' file, and are attempted to be matched with the typed in username/password 2. passwords should be compared in encrypted form 3. Account type should be 4 (element 3) in the row of information
Exit Condition:	log off or close program.
Log:	1. Login Successful.

Test-case identifier	main menu
Feature to be tested	main menu shown upon log in
Feature Pass/Fail Criteria	Pass if the user successfully logs in and is presented the main menu
Entry Condition:	successful login
Test Procedure:	1. Stack of menu buttons visible
Data	1. JButtons with action listeners
Exit Condition:	log off or close program.
Log:	1. menu shown as expected

Test-case identifier	administrator able to view list of all users
Feature to be tested	admin can view a table of users
Feature Pass/Fail Criteria	pass if admin is shown table of users with buttons on the end to view their profile or delete them
Entry Condition:	1. Logged in as admin 2. on the home screen
Test Procedure:	1. Click “Manage All Users”
Data	1. JTable 2. Read in users from ‘users.txt’
Exit Condition:	log off or close program.
Log:	List of users shown as expected

Test-case identifier	main menu
Feature to be tested	main menu shown upon log in
Feature Pass/Fail Criteria	Pass if the user successfully logs in and is presented the main menu
Entry Condition:	successful login
Test Procedure:	1. Stack of menu buttons visible
Data	1. JButtons with action listeners
Exit Condition:	log off or close program.
Log:	1. menu shown as expected

Test-case identifier	student can add classes from table view
Feature to be tested	the ability of a student account to register for classes
Feature Pass/Fail Criteria	Pass if the user successfully adds a class from the table area list of classes
Entry Condition:	users click “look-up classes to add” from the home screen
Test Procedure:	1. Users select “look-up classes to add” 2. click on “add class” on class of choice
Data	1. “users.txt” is read and written to 2. “classes.txt” is read in and altared
Exit Condition:	log off or close program.
Log:	1. users.txt file updates to show classes user is registered in 2. classes.txt file updates to show incremented value of people in class

Test-case identifier	student can add classes from textfield area
Feature to be tested	the ability of a student account to register for classes
Feature Pass/Fail Criteria	Pass if the user successfully adds a class from the text area list of classes
Entry Condition:	users click “add/drop classes” from the home screen
Test Procedure:	1. Users select “add/drop classes” 2. user enters class CRN of choice into one of the text areas 3. click “add courses”
Data	1. “users.txt” is read and written to 2. “classes.txt” is read in and altered
Exit Condition:	log off or close program.
Log:	1. users.txt file updates to show classes user is registered in 2. classes.txt file updates to show incremented value of people in class

Test-case identifier	students cannot register for more than 5 classes
Feature to be tested	restriction of # of classes able to be registered for
Feature Pass/Fail Criteria	pass if user is notified of attempting to add more than 5 classes
Entry Condition:	users click “look up classes to add” from the home screen
Test Procedure:	1. Users select “look up classes to add” 2. user adds 6 classes of choice 3. on the sixth attempt a popup should tell the user that you aren’t allowed more than 5 classes
Data	1. “users.txt” is read and written to 2. “classes.txt” is read in and altered 3. JTextPane for the popup window
Exit Condition:	log off or close program.
Log:	1. popup is successfully shown

Test-case identifier	student cannot register for class if agreement hasn't been agreed to
Feature to be tested	cannot add classes if agreement hasn't been agreed to
Feature Pass/Fail Criteria	pass if user is notified of inability to register due to agreement hold
Entry Condition:	users click "look up classes to add" from the home screen
Test Procedure:	1. Users select "look up classes to add" 2. user adds 1 class 3. popup should show saying they haven't agreed to the agreement yet, so they can't register
Data	1. "users.txt" is read and written to
Exit Condition:	log off or close program.
Log:	1. popup is successfully shown

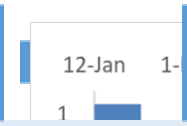
Test-case identifier	student agrees to agreement
Feature to be tested	agreeing to agreement
Feature Pass/Fail Criteria	pass if user is successfully updated in "users.txt" file to show they have agreed to the agreement
Entry Condition:	users click "Registration Agreement" from the home screen
Test Procedure:	1. Users selects "Registration Agreement" 2. User should read the agreement here 3. User selects "I agree"
Data	1. "users.txt" is read and written to
Exit Condition:	log off or close program.
Log:	1. users.txt file now shows that the user has agreed (no changed into yes)

Test-case identifier	student can register for classes after agreement is agreed to
Feature to be tested	ability to register after agreement agreed to
Feature Pass/Fail Criteria	pass if user is successfully updated in “users.txt” file to show they have classes registered for
Entry Condition:	users click “look up classes to add” from the home screen
Test Procedure:	1. Users selects “look up classes to add” 2. User attempts to add any class
Data	1. “users.txt” is read and written to
Exit Condition:	log off or close program.
Log:	1. users.txt file now shows that the user has classes registered for

Test-case identifier	student can view their own schedule
Feature to be tested	student schedule view
Feature Pass/Fail Criteria	pass if user is successfully shown a table without borders of their classes and who is teaching them
Entry Condition:	users click “View Student Schedule” from the home screen
Test Procedure:	1. Users selects “View Student Schedule”
Data	1. “users.txt” is read
Exit Condition:	log off or close program.
Log:	1. user is shown a table of what classes they are in and who is teaching them

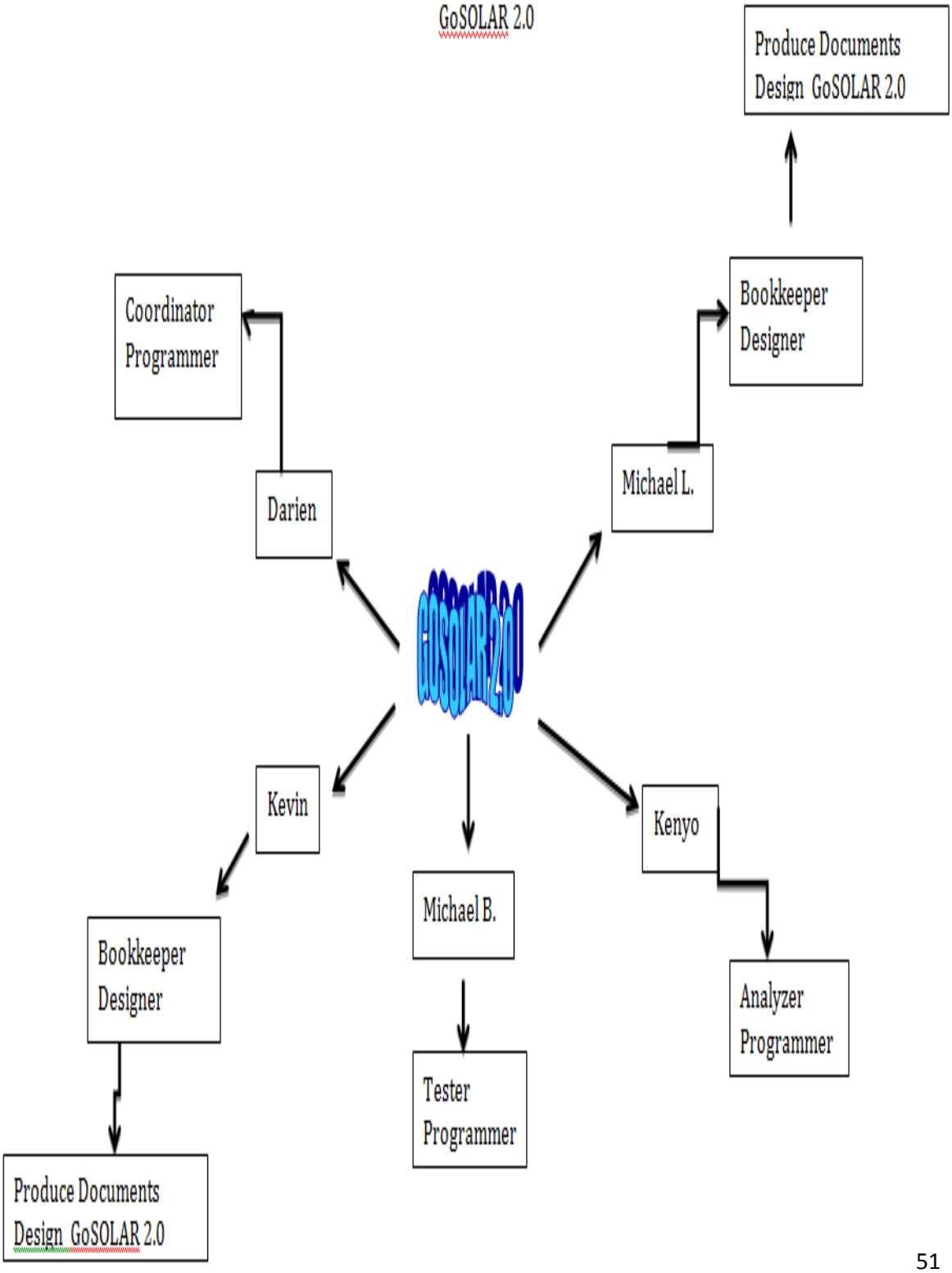
Test-case identifier	user account creation
Feature to be tested	creating a user account
Feature Pass/Fail Criteria	pass if user account is successfully made and is shown in the users.txt file
Entry Condition:	users click “New User” from the login screen
Test Procedure:	1. Users selects “New User” from the login screen 2. User enters username of choice 3. User enters password of their choice 4. User enters their student id 5. User selects “submit”
Data	1. “users.txt” is read and written to
Exit Condition:	log off or close program.
Log:	1. users.txt file now shows that the user has been created (account type should be 0, and agreement should say ‘no’)

Test-case identifier	password encryption
Feature to be tested	encrypting user passwords
Feature Pass/Fail Criteria	pass if password is saved as an encrypted key in the users.txt file
Entry Condition:	users click “New User” from the login screen
Test Procedure:	1. Users selects “New User” from the login screen 2. User enters username of choice 3. User enters password of their choice 4. User enters their student id 5. User selects “submit”
Data	1. “users.txt” is read and written to 2. PasswordService.java is used to encrypt the String
Exit Condition:	log off or close program.
Log:	1. users.txt file now shows their password to be an encrypted String

Task	Description	Start	Duration (Days)	End		Column2	Column3	Colu 4
1	**Group Formation; WD**	12-Jan	10	**22-Jan**				
2	Preliminary documents	22-Jan	12	3-Feb				
3	Gantt Chart	3-Feb	1	4-Feb				
4	**Requirements Elic.**	22-Jan	14	**5-Feb**				
5	System Design	6-Feb	3	9-Feb				
6	Cost Analysis	9-Feb	5	14-Feb				
7	Dictionary	9-Feb	5	14-Feb				
8	Rationale update	9-Feb	5	14-Feb				
9	Update RTM	9-Feb	5	14-Feb				
10	Update WD and Gantt	13-Feb	1	14-Feb				
11	Sys Analysis- Prep Delivery	14-Feb	4	18-Feb				
12	**Sys Analysis and Design**	6-Feb	13	**19-Feb**				
13	Class Interface	20-Feb	5	25-Feb				
14	Interaction Diagram	25-Feb	6	3-Mar				
15	Dictionary Update	25-Feb	6	3-Mar				
16	Rationale update	25-Feb	6	3-Mar				
17	Update WD and Gantt	2-Mar	1	3-Mar				
18	Prep for Submission	4-Mar	1	5-Mar				
19	**Object Design**	20-Feb	13	**5-Mar**				
20	Update Documents	6-Mar	4	10-Mar				
21	Update RTM	6-Mar	4	10-Mar				
22	Prep For Submission	11-Mar	1	12-Mar				
23	**Rationale**	6-Mar	6	**12-Mar**				
24	Prepare Test Cases	13-Mar	4	17-Mar				
25	Update Documents	17-Mar	15	1-Apr				
26	Update RTM	17-Mar	15	1-Apr				
27	Prep For Submission	1-Apr	1	2-Apr				
28	**Test doc/Code Submit**	13-Mar	20	**2-Apr**				
29	Update Documents	3-Apr	4	7-Apr				

30	Update RTM	3-Apr	4	7-Apr
31	Create User Guide	8-Apr	3	11-Apr
32	Print Source Code	8-Apr	3	11-Apr
33	Final Draft	12-Apr	2	14-Apr
34	Prep For Submission	14-Apr	2	16-Apr
35	**Final Report**	3-Apr	13	**16-Apr**
	Major Deadlines in Bold			
	Completed Deadlines in Blue			

UML DIAGRAM
Team Awesome
GoSOLAR 2.0



Function Point Cost Analysis

User	Total Functions
Administrator	58
Registrar	32
Faculty	7
Students	53
Financial Aid	36
Parking Services	10
General Functionality	115

2.1 Administrator
2.1.1 The administrator shall be able to log in. – 2 functions
2.1.2 The administrator shall be able to add/remove students. – 4 functions
2.1.3 The administrator shall be able to add/remove faculty. – 4 functions
2.1.4 The administrator shall be able to add/remove a department. – 4 functions
2.1.5 The administrator shall be able to update faculty profile. – 15 functions
2.1.6 The administrator shall be able to update student profile. – 15 functions
2.1.7 The administrator shall be able to add/remove a course. – 4 functions
2.1.8 The administrator shall be able to update course specific information. – 2 functions
2.1.9 The administrator shall be able to change administrative password. – 3 functions
2.1.10 The administrator shall be able to update the calendar of events. – 5 functions

2.2 Registrar
2.2.1 The registrar shall be able to log in to the department account. – 2 functions
2.2.2 The registrar shall be able to update student profiles. – 15 functions
2.2.3 The registrar shall be able to update department profile. – 15 functions

2.3 Faculty
2.3.1 Instructors
2.3.1.1 Instructors shall be able to view teaching schedule. – 2 functions
2.3.1.2 Instructors shall be able to log in. – 2 functions
2.3.2 Student Teachers
2.3.2.1 Student Teachers shall be able to view teaching schedule. – 2 functions
2.3.2.2 Student Teachers shall have access to all functions of a normal student. – 1 function

2.4 Students
2.4.1 Students shall be able to log in. – 2 functions
2.4.2 Students shall be able to add/drop classes. – 5 functions
2.4.3 Students shall be able to pay fees via Payment and Fees. – 5 functions
2.4.4 Students shall be able to view classes offered this semester. – 2 functions
2.4.5 Students shall be able to view current schedule for this semester. – 2 functions
2.4.6 Students shall be able to update student profile. – 15 functions

2.4.6.1Students shall be able to update emergency contacts. – 2 functions
2.4.6.2Students shall be able to update phone numbers. – 2 functions
2.4.6.3Students shall be able to update current mailing address. – 2 functions
2.4.7 Students shall be able to view final exam schedule. – 2 functions
2.4.8 Students shall be able to view course completed so far. – 3 functions
2.4.9 Students shall be able to view forms. – 3 functions
2.4.9.1Students shall be able to view apply to graduate form. – 4 functions
2.4.9.2Students shall be able to view apply to drop from GSU form. – 4 functions

2.5 Department of Financial Aid
2.5.1 The department of financial aid shall be able to log in to the department account. – 2 functions
2.5.2 The department of financial aid shall be able to update student profiles. – 15 functions
2.5.3 The department of financial aid shall be able to update department profile. – 15 functions
2.5.4 The department of financial aid shall be able to view all available financial aid options. – 4 functions

2.6 Department of parking services
2.6.1 The Department of Parking Services shall be able to update any user profile. – 5 functions
2.6.2 The Department of Parking Services shall be able to generate tickets for users that have any violations tied to their account. – 5 functions

3.0 General Functionality
3.1 GS2 shall have options to back to previous location, back to main menu, log off, and quit program functions. – 3 functions

3.2 GS2 shall have a main menu. -20 functions

3.3 GS2 shall contain a help option. – 2 functions

3.4 Payment and Fees
3.4.1 Balance
The software shall keep track of a student's balance. – 2 functions
3.4.2 Payment Options
The student shall be able to pay by credit card, cash, money order, or check. – 4 functions
3.4.3 The student shall be able to receive a refund when balance (3.4.1) is negative. – 10 functions
3.4.4 The student shall be able to pay for all fees from all departments in one single interface called "Payment and Fees". – 15 functions

3.5 User Profiles

All users, except administrators, shall have a profile. – 7 functions

3.5.1 All users, except administrators, shall be able to customize their own personal profiles. - 15 functions

3.5.2 These profiles shall be able to be visible by anyone. – 2 functions

3.5.3 Student profiles shall include name, age, major, preferred email, place of origin, gender, and phone number. - 8 functions

3.5.4 Faculty Profile

3.5.4.1 Instructor profile shall include name, age, area of research, preferred email, place of origin, schools attended, gender, and phone number. – 9 functions

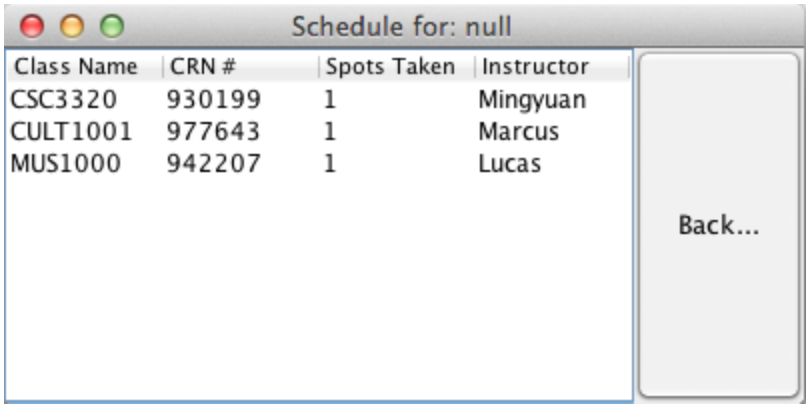
3.5.4.2 Student teacher profile shall include name, age, area of research, preferred email, gender, phone number. – 7 functions

3.5.5 Department profiles shall include name of the department, department email, location on campus, website address, and phone number. – 6 functions

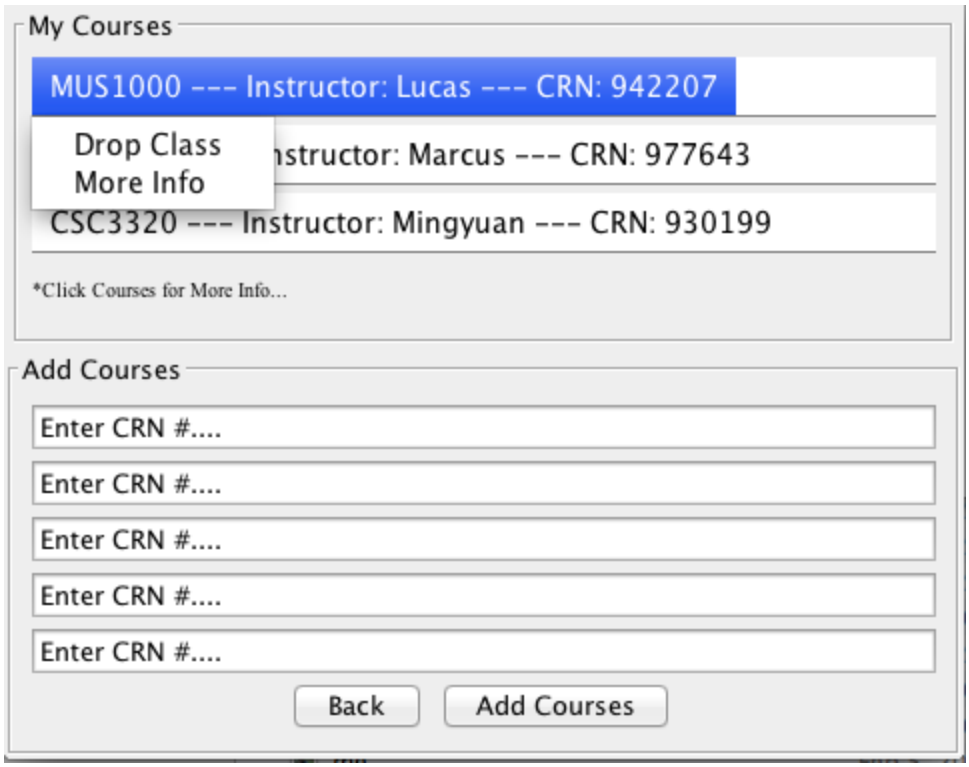
3.6 Calendar

GS2 shall contain a calendar of events on user login screen. – 5 functions

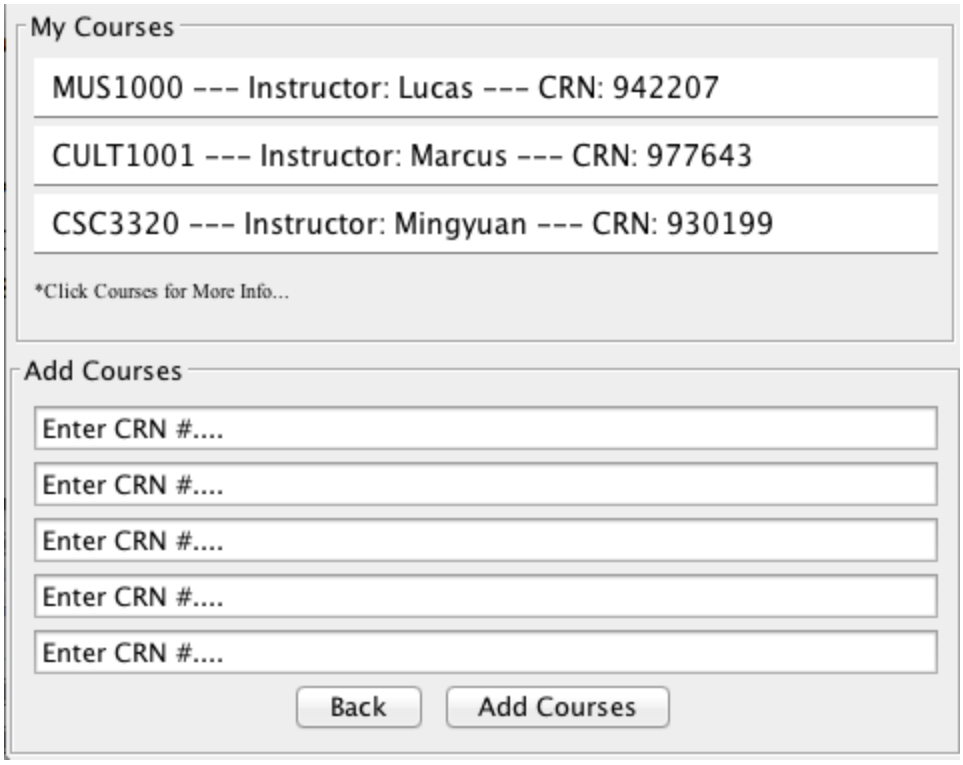
Horizontal Prototype



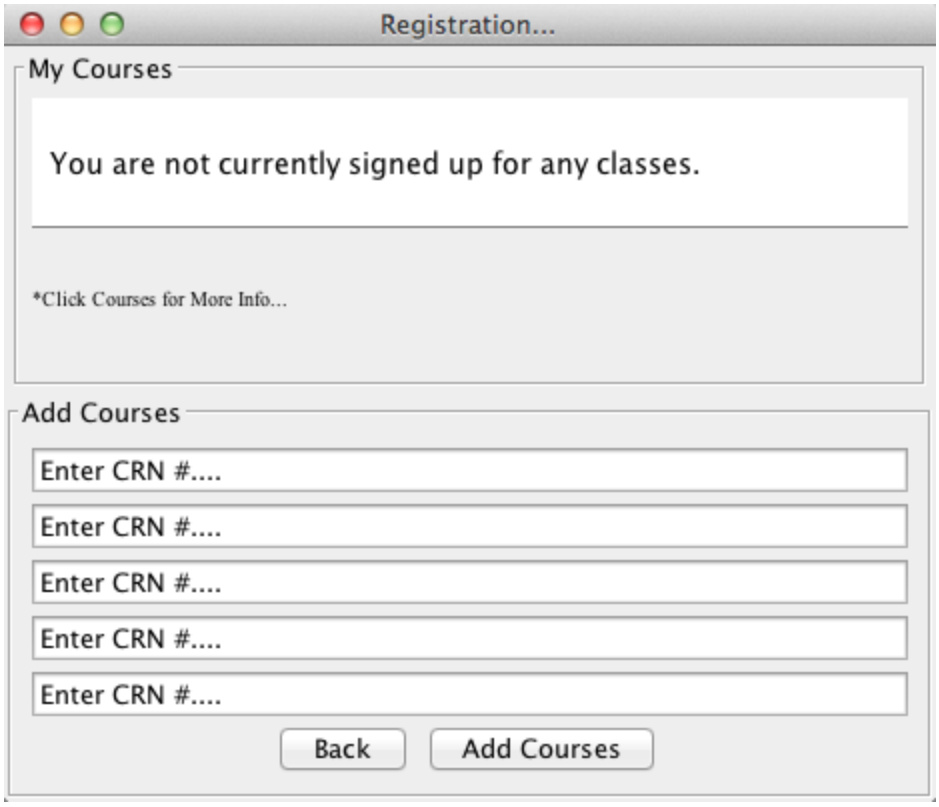
General schedule for students and faculty.



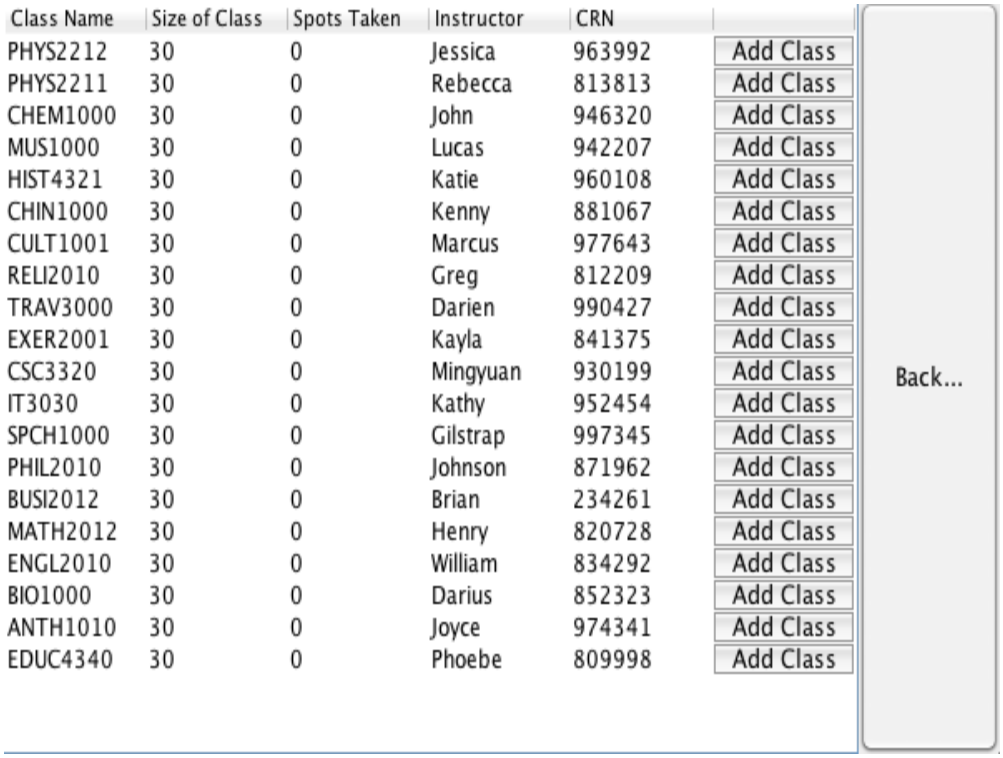
Current course schedule with options to view course information and drop class. Also, this interface allows users to add multiple course by having CRN #s.



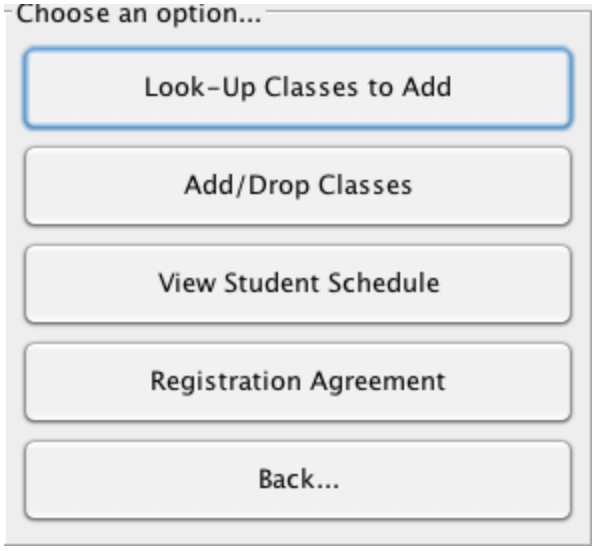
Registration menu with courses.



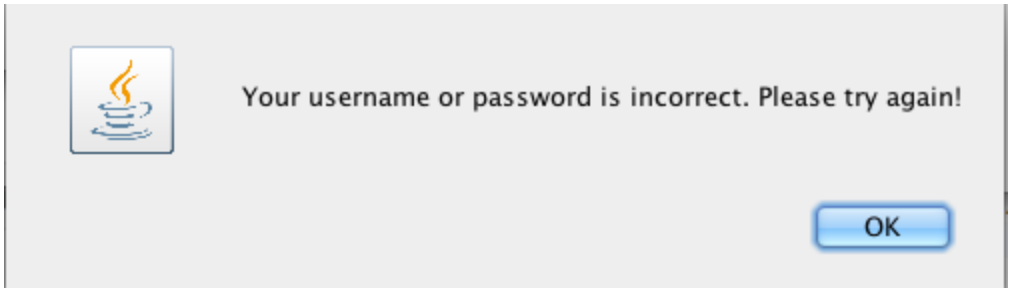
Registration interface with no courses.



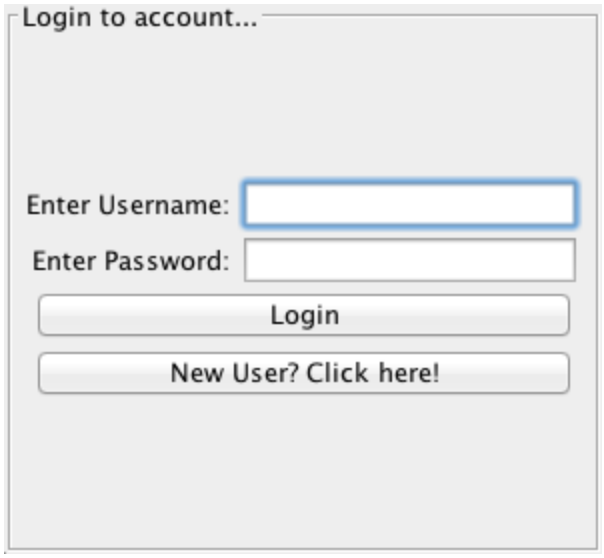
List of classes available this semester and use case to add class.



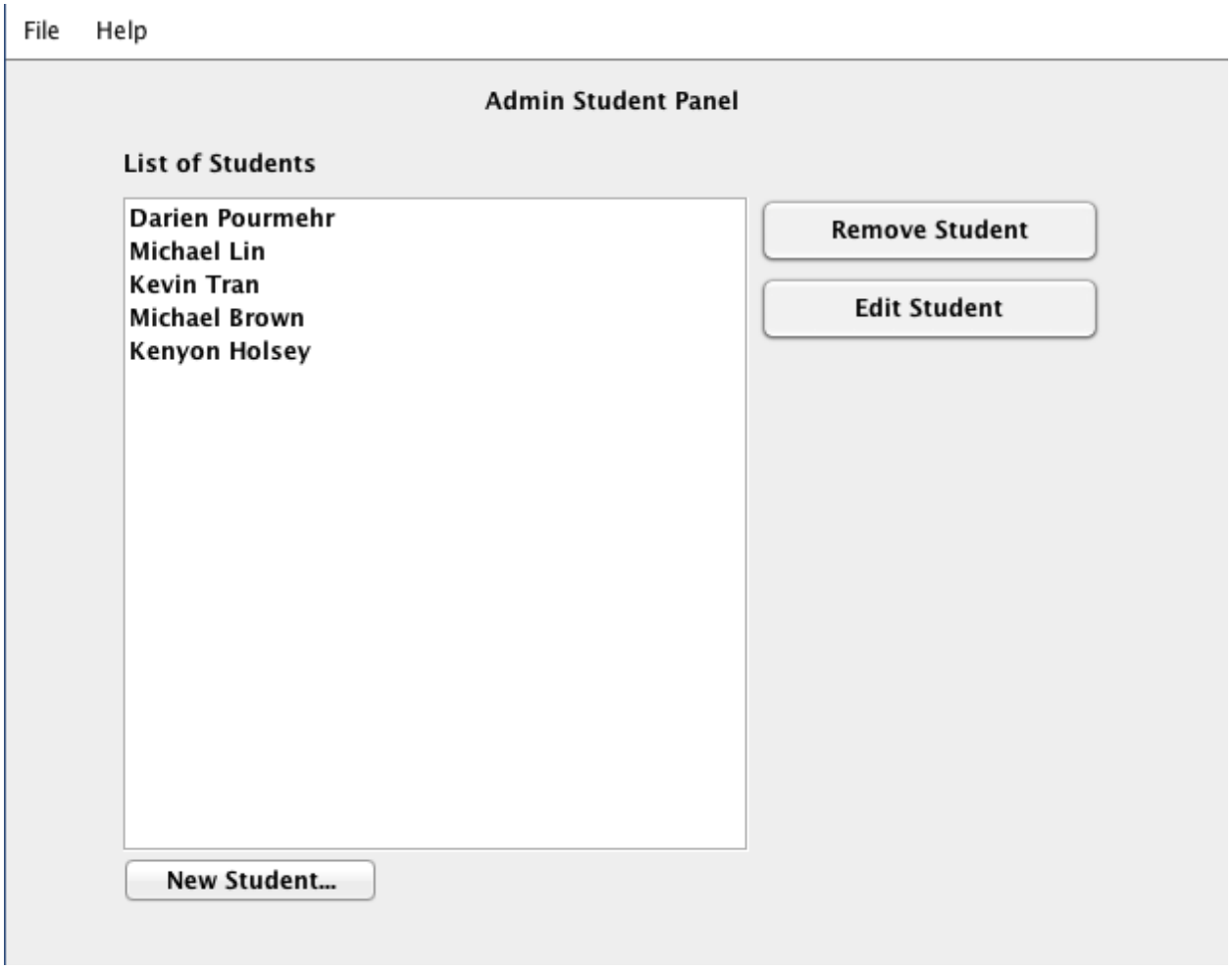
GS2 basic main menu for all users

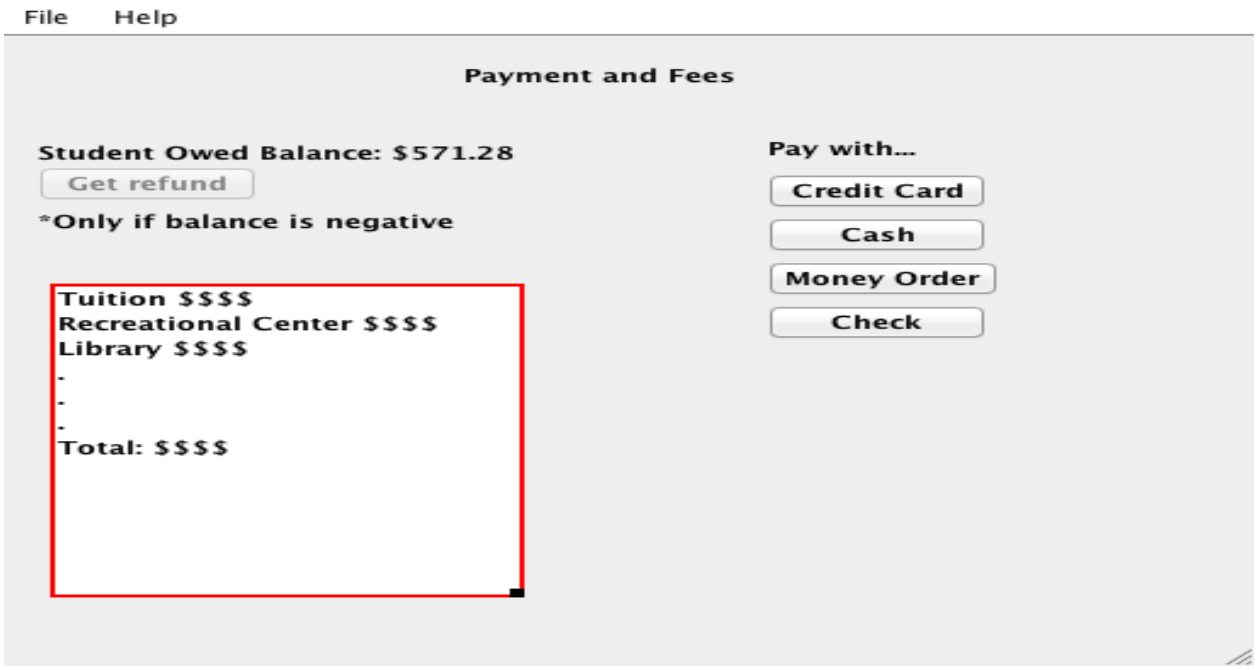


Error message upon incorrect user password or username.

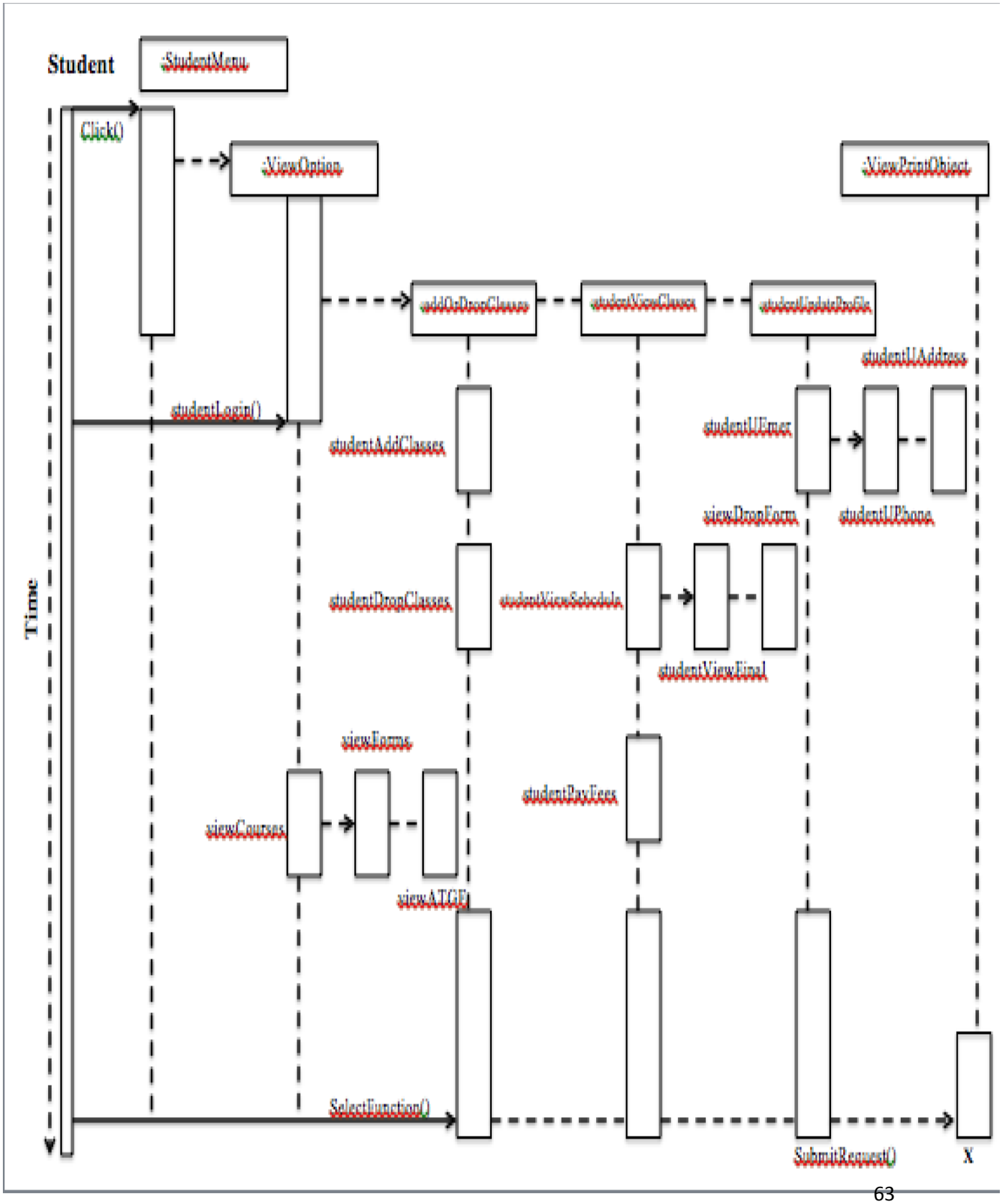


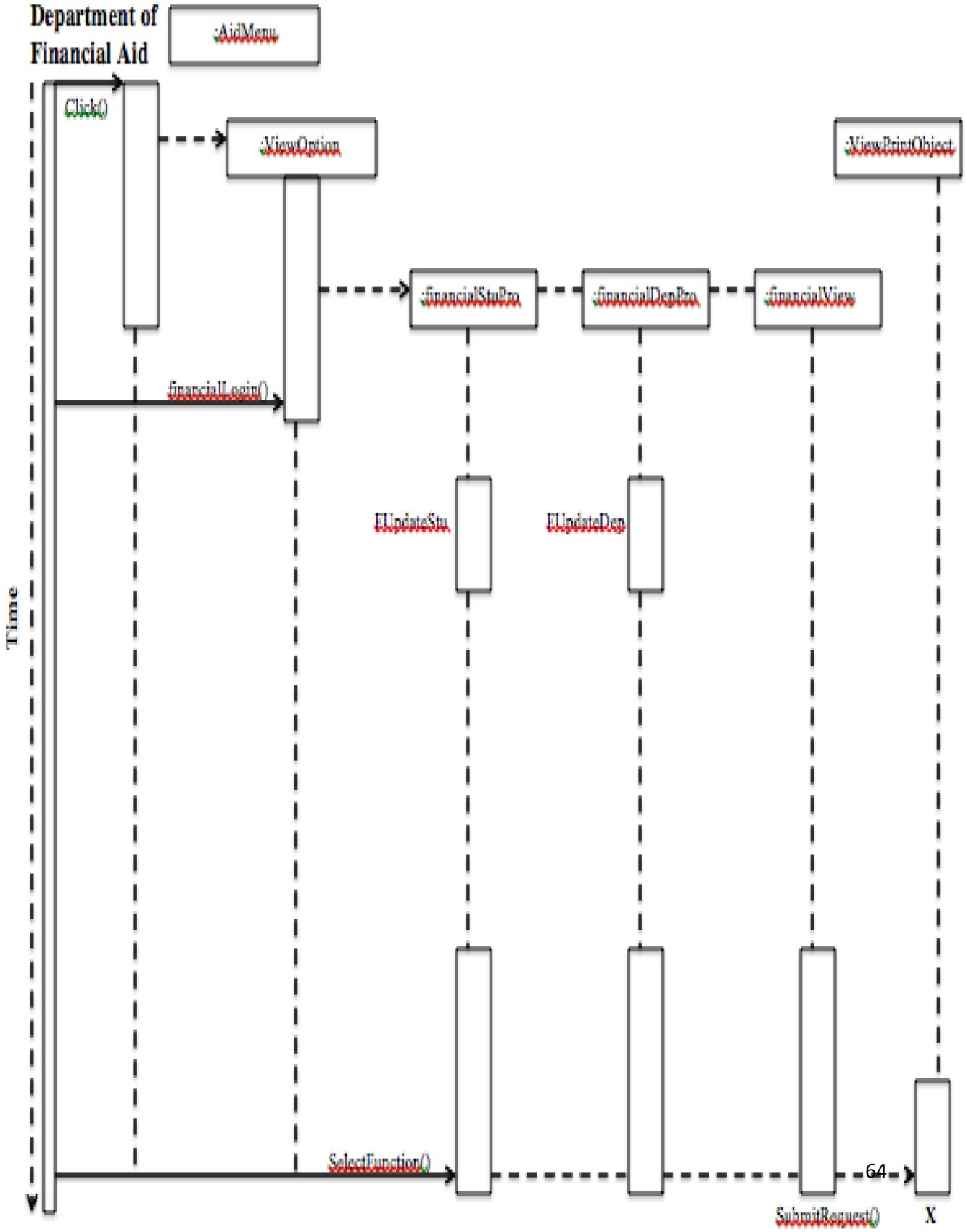
User Log In interface.

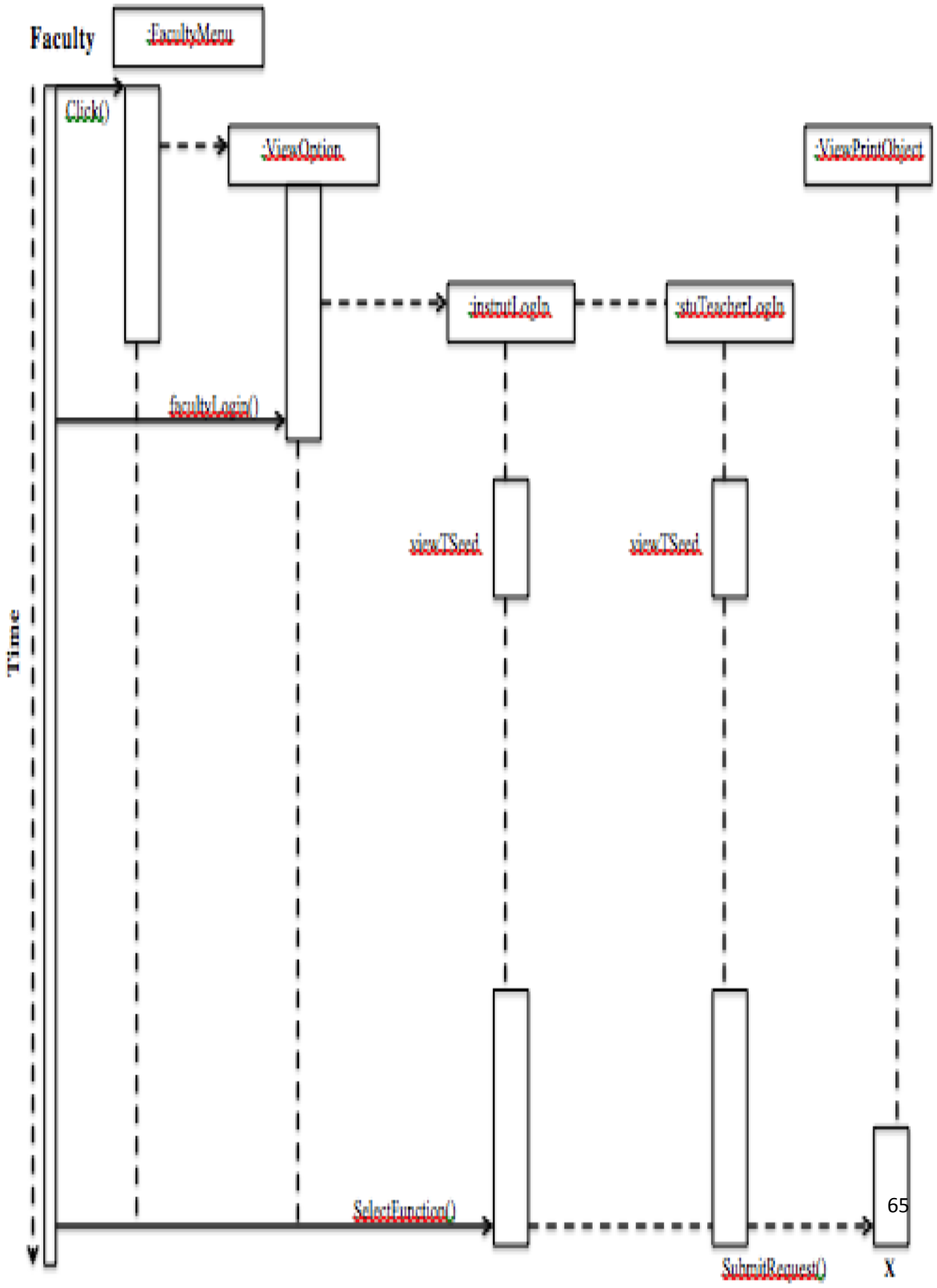

File
Help
Admin Student Panel
List of Students
Darien Pourmehr
Michael Lin
Kevin Tran
Michael Brown
Kenyon Holsey
Remove Student
Edit Student
New Student...

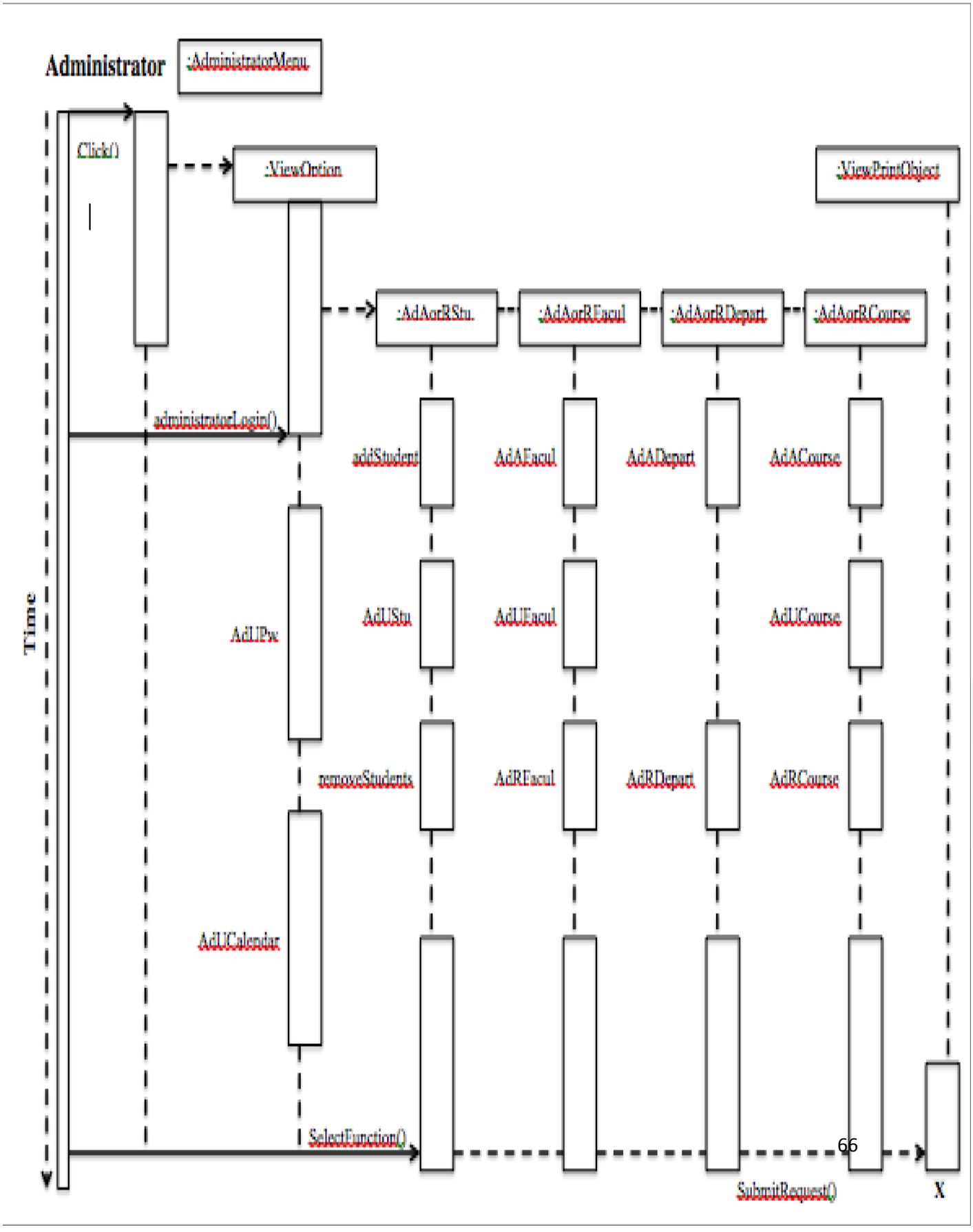

File
Help
Payment and Fees
Student Owed Balance: $571.28
Get refund
*Only if balance is negative
Tuition $$$$
Recreational Center $$$$
Library $$$$
.
.
.
Total: $$$$
Pay with...
Credit Card
Cash
Money Order
Check

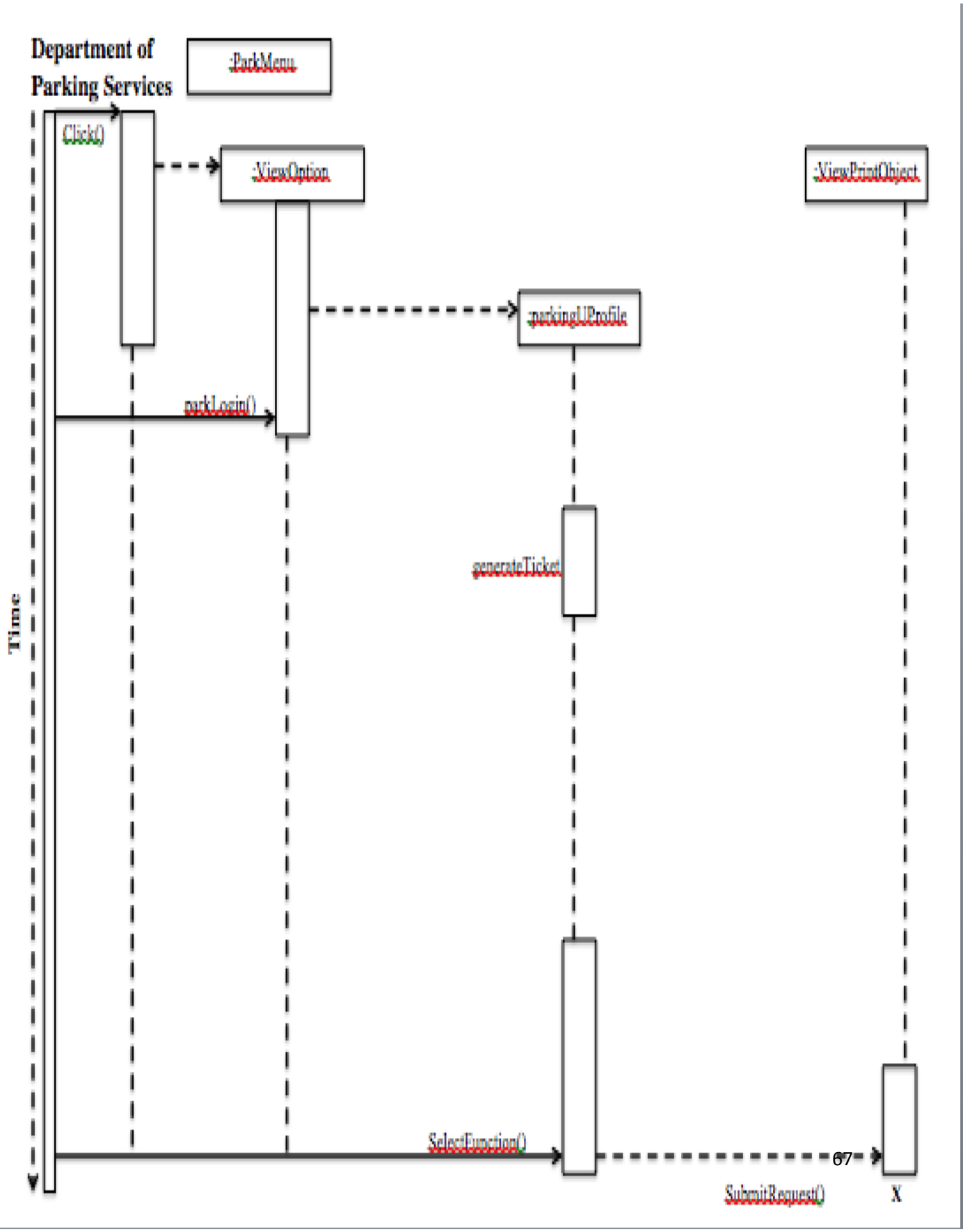
Interaction Diagrams

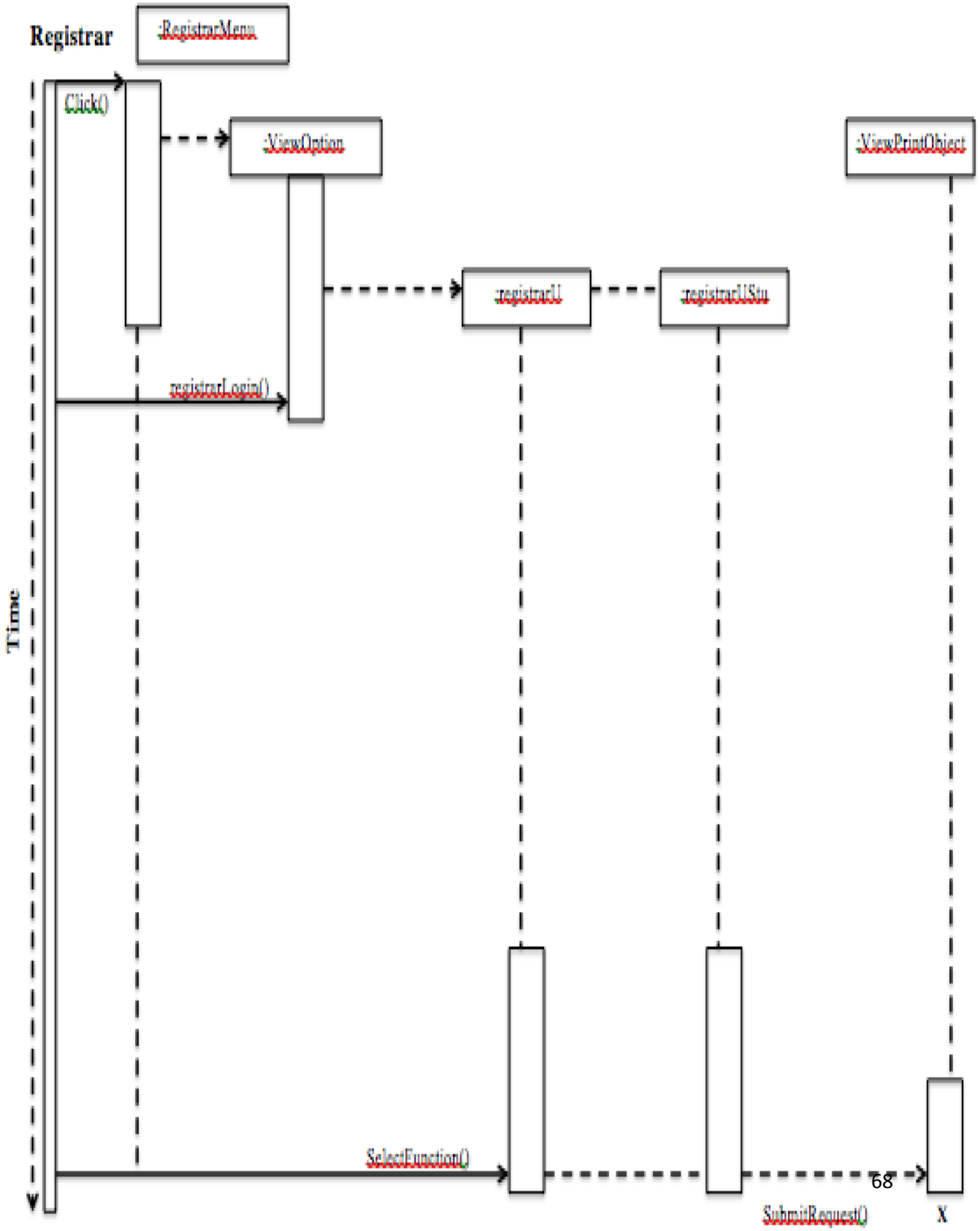

Student
:StudentMenu
Click()
:ViewOption
:ViewPrintObject
addOrDropClasses
studentViewClasses
studentUpdateProfile
studentUAddress
studentLogin()
studentAddClasses
studentUEmail
studentUPhone
viewDropForm
studentDropClasses
studentViewSchedule
studentViewFinal
viewForms
viewCourses
studentPayFees
viewATGF
SelectFunction()
SubmitRequest()
X
Time


Department of Financial Aid
:AidMenu
Click()
:ViewOption
:ViewPrintObject
:financialStuPro
:financialDepPro
:financialView
financialLogin()
EUpdateStu
EUpdateDep
Time
SelectFunction()
SubmitRequest()
X

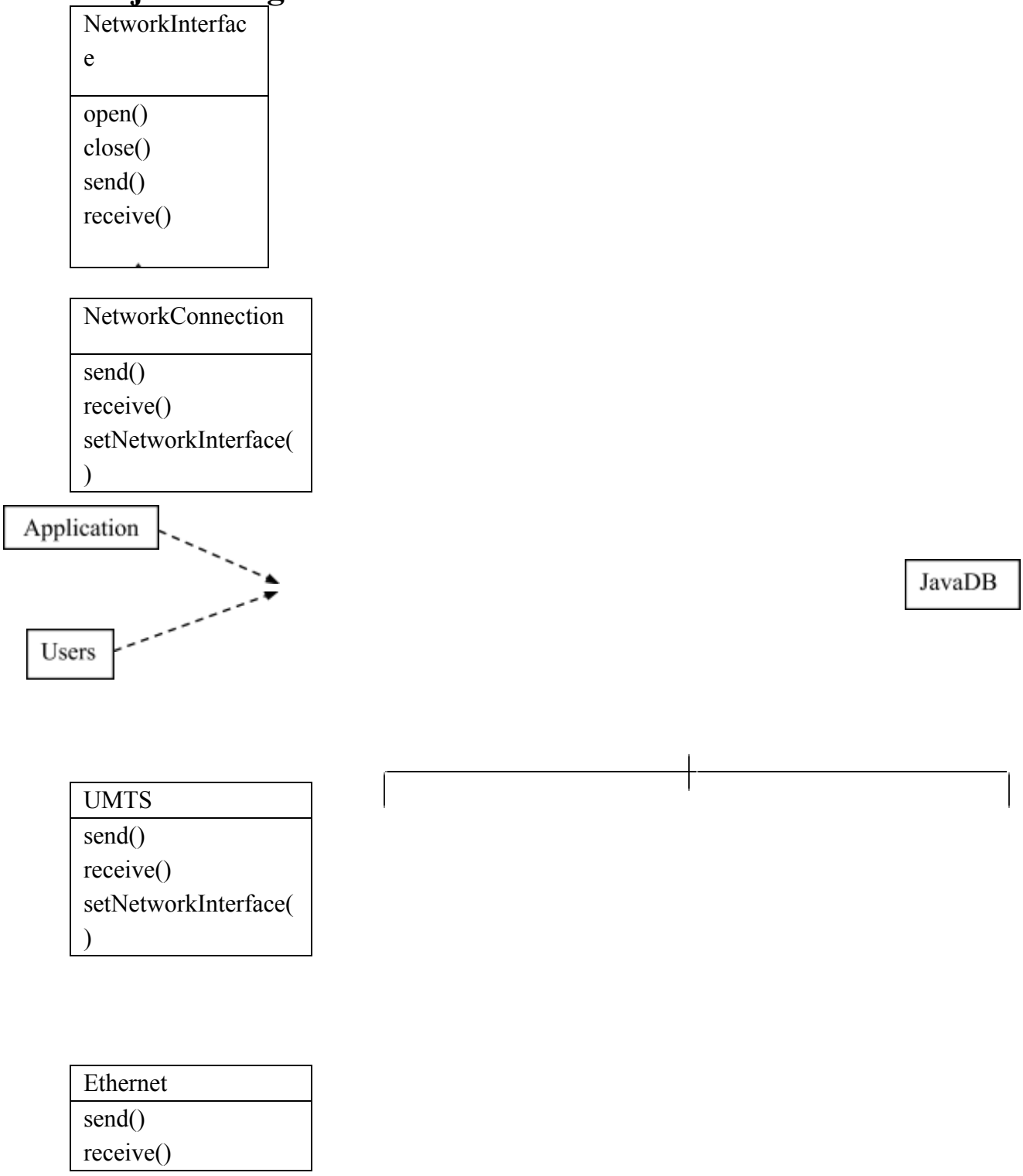

Faculty
:FacultyMenu
Click()
:ViewOption
:ViewPrintObject
:instrutLogIn
:stuTeacherLogIn
facultyLogin()
viewTSeed
viewTSeed
Time
SelectFunction()
SubmitRequest()
X


Administrator
:AdministratorMenu
Click()
:ViewOption
:ViewPrintObject
:AdAorRStu.
:AdAorRFacul
:AdAorRDepart
:AdAorRCourse
administratorLogin()
addStudent
AdAFacul
AdADepart
AdACourse
AdUPw
AdUStu
AdUFacul
AdUCourse
removeStudents
AdRFacul
AdRDepart
AdRCourse
AdUCalendar
SelectFunction()
SubmitRequest()
X
Time


Department of
Parking Services
:ParkMenu
Click()
:ViewOption
:ViewPrintObject
:parkingUIProfile
parkLogin()
generateTicket
Time
SelectFunction()
SubmitRequest()
X

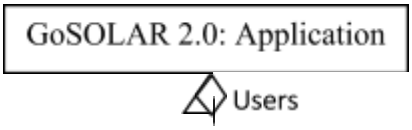

Registrar
:RegistrarMenu
Click()
:ViewOption
:ViewPrintObject
:registrarU
:registrarUStu
registrarLogin()
Time
SelectFunction()
SubmitRequest()
X

Object Design

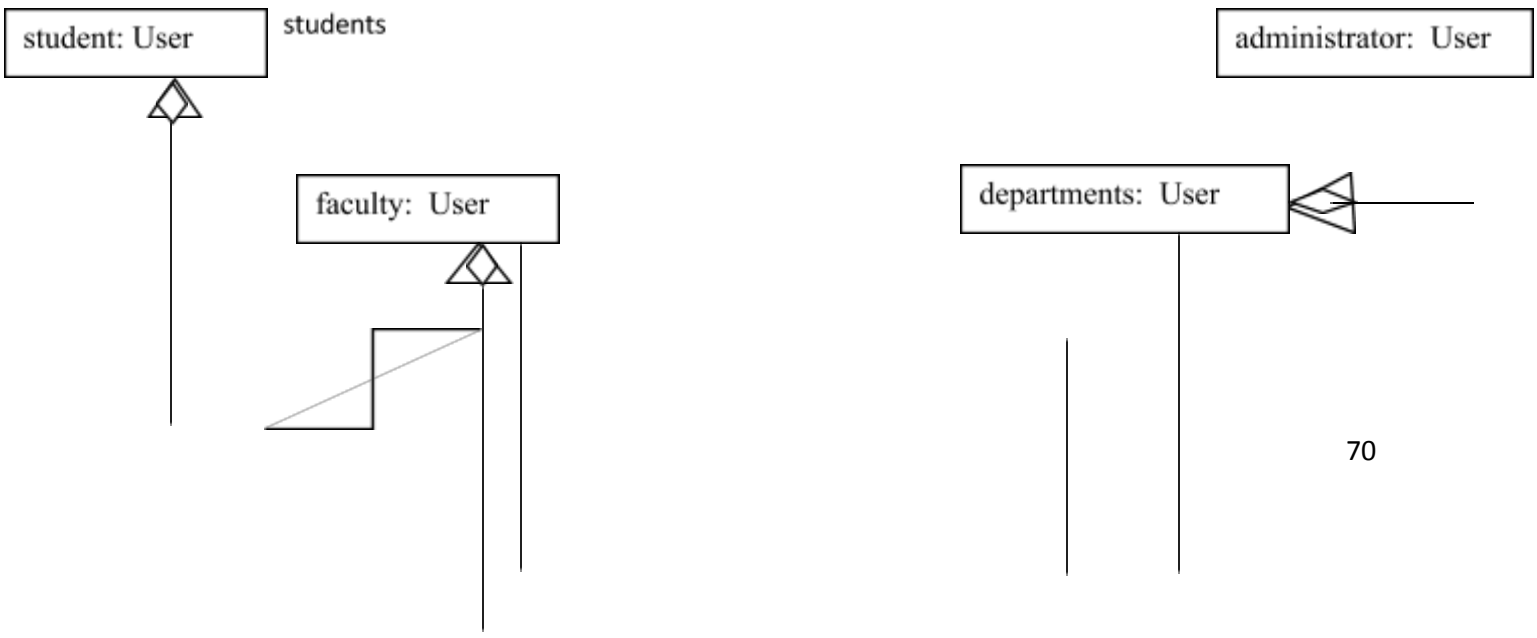


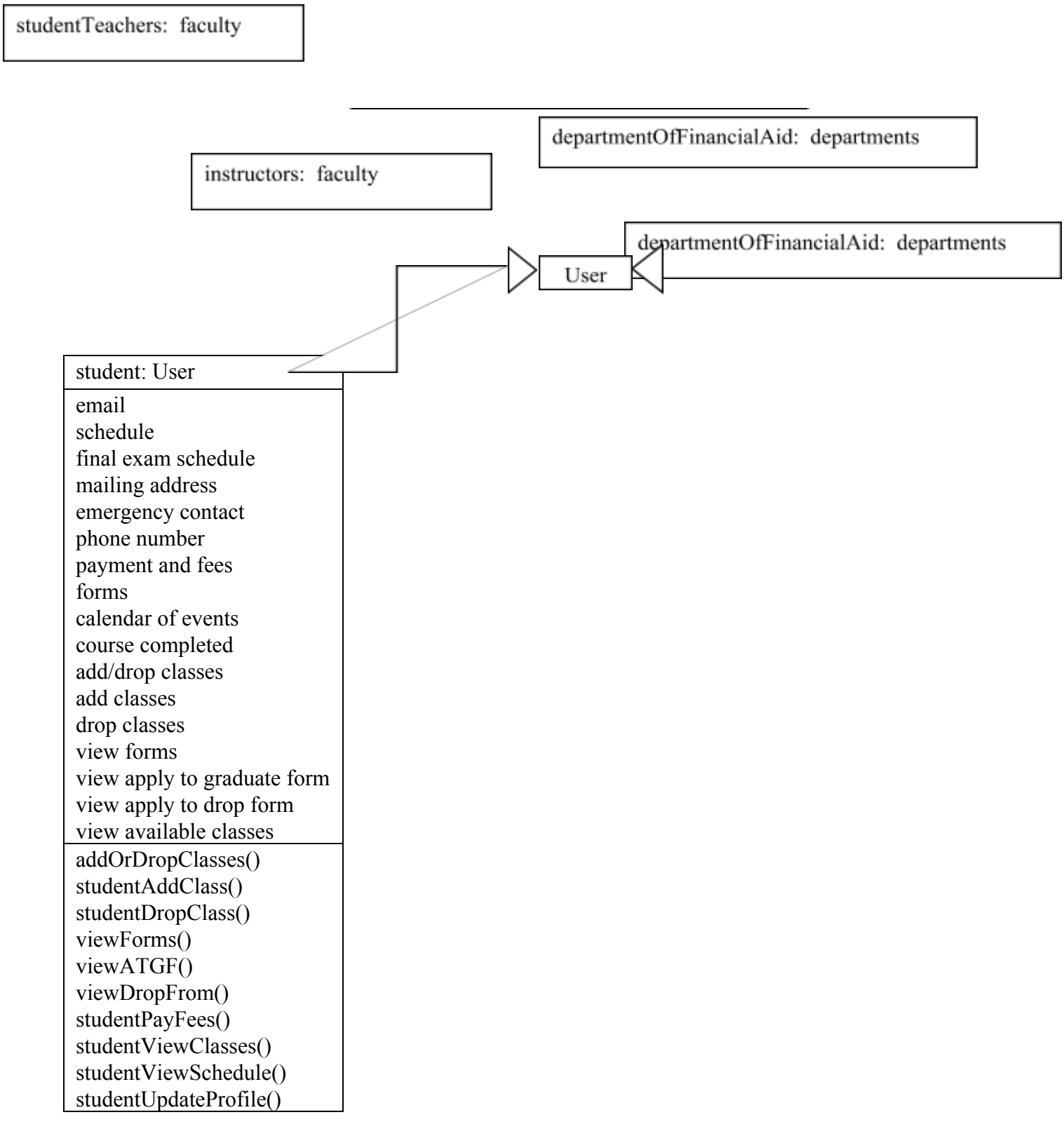
setNetworkInterface( )

WaveLAN
send() receive() setNetworkInterface( )

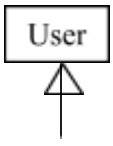


User
name profile user name password
login() logOff() back() closeProgram() updateProfile() helpOption() changePass() generateTicket( ) mainMenu()



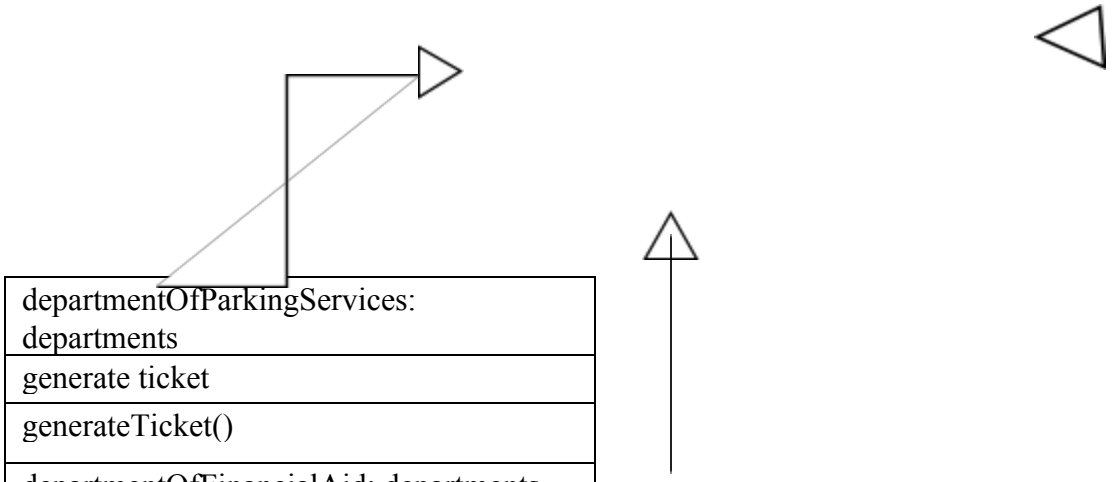

studentTeachers: faculty
departmentOfFinancialAid: departments
instructors: faculty
departmentOfFinancialAid: departments
User
student: User
email
schedule
final exam schedule
mailing address
emergency contact
phone number
payment and fees
forms
calendar of events
course completed
add/drop classes
add classes
drop classes
view forms
view apply to graduate form
view apply to drop form
view available classes
addOrDropClasses()
studentAddClass()
studentDropClass()
viewForms()
viewATGF()
viewDropFrom()
studentPayFees()
studentViewClasses()
studentViewSchedule()
studentUpdateProfile()

studentUpdateEmer() studentUpdateAddress() studentViewFinal()
administrator: User
add/remove course add course remove course update calendar update student profile remove department add department add/remove department add/remove student add student remove student update course information update administrative password update student profile
addStudent() removeStudent() addOrRemoveStu() AdAorRDepart() AdRDepart() AdUpdateFacul() AdUpdateStu() AdUCalendar() AdRCourse() AdAorRCourse() AdACourse() AdUCourse() AdUPw()



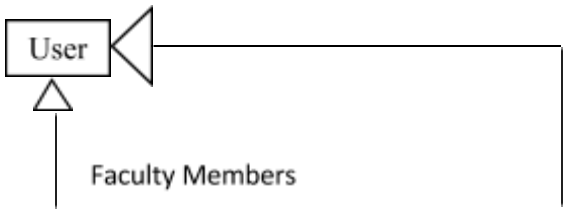
departments: User
email mailing address phone number

calendar of events update student profiles
uStudentProfile()

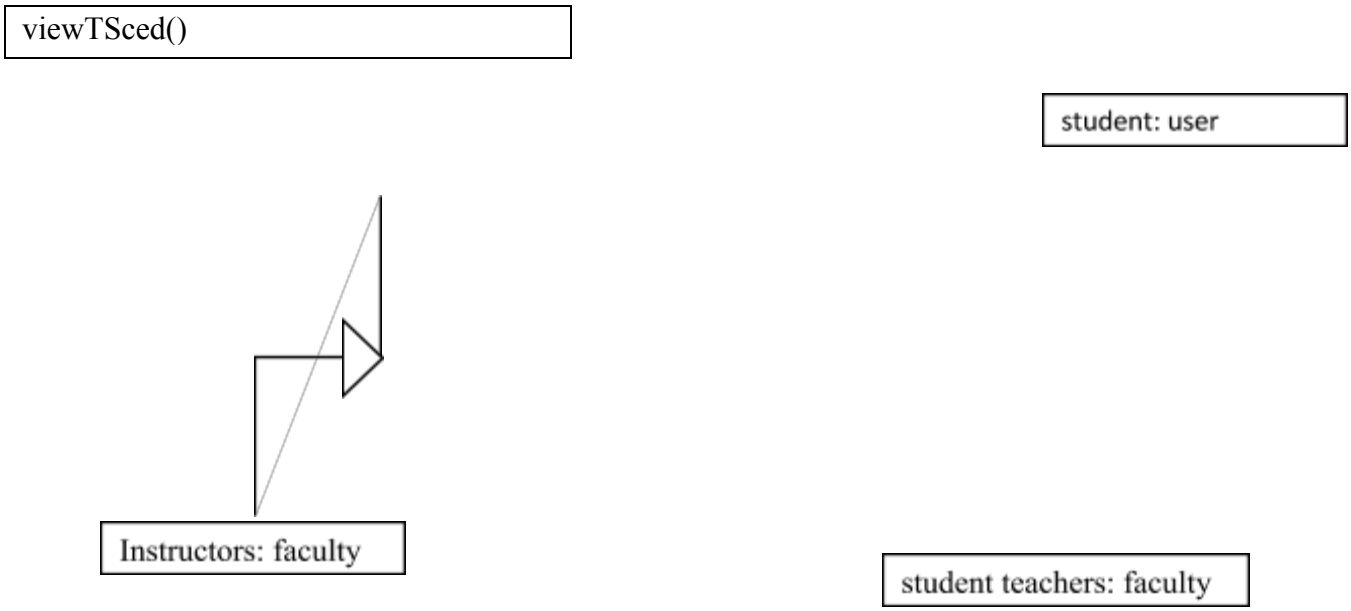


departmentOfParkingServices: departments
generate ticket
generateTicket()
departmentOfFinancialAid: departments
view financial aid options
financialVOptions()

registrar: departments

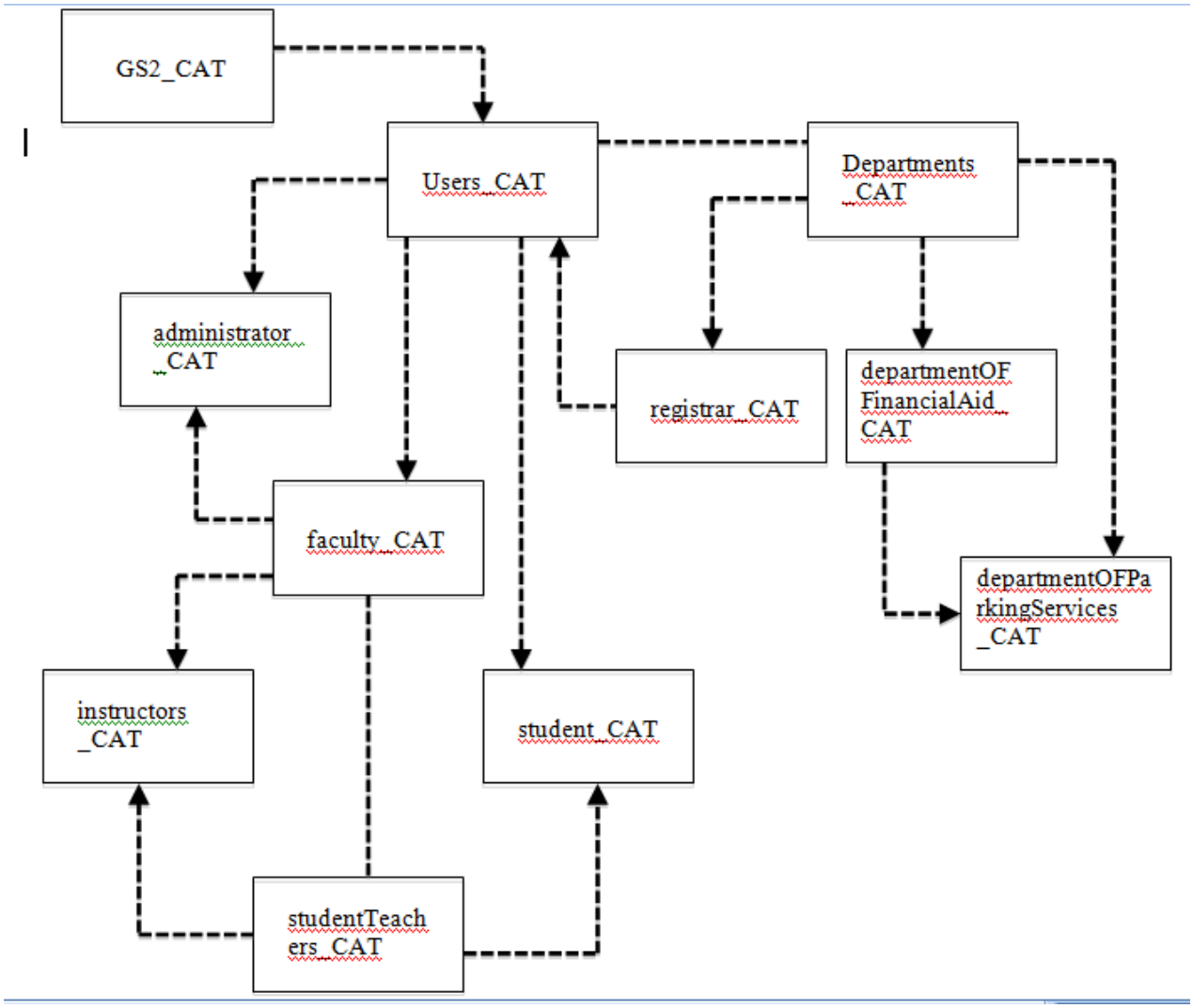


faculty: User
email mailing address phone number calendar of events view teaching schedule



Category Interaction Diagram

Category	Class
User	administrator
	faculty
	student
Faculty	instructors
	studentTeachers
Departments	departmentofFinancialAid
	departmentofParkingServices
	registrar


GS2_CAT
Users_CAT
Departments_CAT
administrator_CAT
registrar_CAT
departmentOFFinancialAid_CAT
faculty_CAT
departmentOFParkingServices_CAT
instructors_CAT
student_CAT
studentTeachers_CAT

Glossary:

Exit	Leaves the program completely via alt+f4, exit box, or other means. This resets program and closes it.
Log Off	Signs the current user out, and backs the interface to the login screen.
Back	A function that takes user back to the original location.
Avatar	a picture or chosen figure that represents the actor.
Users	people that are part of the university system, and they have access to all the assets and/or privileges provided by the university. Users in GoSOLAR 2.0 include the administrator, faculty/staff, instructors, and students.
Profile	a menu of various information on a specific user. An administrator can see all information on any student profile; however, students can see only see non-private information like email, website, social media, and etc. Also, a profile contains all information that is on a user's record.
Registrar	the Office of the Registrar supports the academic goals of the University and processes that directly affect our students faculty and staff. Provides services for students, faculty and staff related to registration, grading, enrollment certification, academic record and transcript maintenance, degree certification and classroom scheduling.
Administrator (admin)	person that manages the different operations of GoSOLAR 2.0. Some of the admin's job includes maintenance, user profile and general information updates.
Department of Financial Aid	helps students find affordable ways to pay for their education, and different options students can take.
Department of Parking Services	helps students find parking options for the various vehicles they might drive. Also, general information about parking/tickets can be found in their website.
Courses	classes that is currently available for students to take in the current semester. A course may have prerequisite courses that must be completed; this is to make sure that the student has sufficient knowledge to actively participate and succeed in the course they are seeking to take. For necessary

	advancement to a high-level course, a passing grade of 70% or C is required.
Instructor	university faculty that are designated by their specific department to teach a specific course or multiple courses.
Student Teacher	university faculty that are designated by their specific department to teach a specific course or multiple courses. Also, student teachers take classes. In most cases, these students need to teach a course(s) to complete their dissertation.
Administrative Action	special powers granted to admin(s) on GoSOLAR 2.0. These included server updates/maintenance, add/drop powers, and etc.
Fees	any fees including institution, transportation, technology, sustainability, student center, facility, recreation, library facility, international education, health, athletic, activity, and etc.
Desktop Application	An application that runs by itself on a desktop or laptop computer. Users will need to go on a website initially to download and install the application. Then the users can access it via an icon on the PC.
GoSOLAR 2.0	a University portal designed to give students, faculty and staff personalized access to wide-ranging campus resources in a single location.
Calendar of Events	a calendar of all events, important dates, university holidays, and etc. in the current semester.
Withdraw	after the first week of school, students can choose to withdraw from a class at which time will end up with a grade of W in that class. All undergraduate students can withdraw up to six times.
Undergraduate Student	any student that has not received his or her first bachelor's degree.
Graduate Student	any student that has received his or her first bachelor's degree; the number of hours taken does not matter.
Freshman	all undergraduate students with 0-29 semester hours

Sophomore	all undergraduate students with 30-59 semester hours
Junior	all undergraduate students with 60-89 semester hours
Senior	all undergraduate students with 90 or more semester hours
Problem Ticket	a report of any bug, glitch, or problems in GoSOLAR 2.0 portal to the administrator.