

Project:	University Bazaar System (UBS)
Team No.:	Team 5
Class:	CSE 3310; Spring 2021
Module:	System Requirements Analysis (SRA)
Deliverable:	SRA Document

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Revision History

<i>Version number</i>	<i>Date</i>	<i>Originator</i>	<i>Reason for change</i>	<i>High level description of changes</i>
1.0	04/01/2021	Team 5	Initial draft	
2.0	5/3/2021	Team 5	Improvements	

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1. Introduction and Project Overview

Develop an android application to help university students exchange information, form organizations/clubs, and buy/sell/trade goods. The system should have an appealing home screen and minimally include:

- **REGISTRATION: STUDENTS MUST REGISTER BEFORE THEY CAN USE THE SYSTEM. UNIVERSITY ID CAN BE USED AS MEMBER ID.**
 - **LOGIN: MEMBERS MUST LOGIN TO USE THE SYSTEM AFTER INITIAL REGISTRATION.**
 - **PAYMENTS: SYSTEM SHOULD BE ABLE TO HANDLE PAYMENTS (CREDIT CARDS ONLY; YOU DO NOT NEED TO ACTUALLY VALIDATE CREDIT CARDS FOR THIS PROJECT, JUST MAKE THEM 16 DIGITS LONG)**
 - **CLUBS: SYSTEM SHOULD ALLOW MEMBERS TO FORM SPECIFIC ORGANIZATIONS OR CLUBS (E.G. CHESS CLUB, MATH CLUB, EUROPEAN STUDENTS CLUB, ETC.).**
 - **SALES: SYSTEM SHOULD ALLOW FOR BUY/SELL/LEND/EXCHANGE OF MERCHANDISE (E.G. BOOKS, HOUSEHOLD ITEMS SUCH AS TVs, FURNITURE, ETC.).**
 - **COMMUNICATION: SYSTEM SHOULD ALLOW FOR SENDING MESSAGES/EMAILS TO A SINGLE, SUBGROUP OR ALL MEMBERS (E.G. FREE PIZZA AT 12 IN ERB 500, FREE MOVIE SHOWING IN THE STUDENT CENTER, A GREAT RESTAURANT JUST OPENED NEXT DOOR, CHESS CLUB TOURNAMENT BEGINS NEXT WEEK, ETC.)**
 - **EXCHANGE: EXCHANGE INFORMATION ABOUT ANY TOPIC, OF COURSE APPROPRIATE AND WITHIN LEGAL BOUNDARIES OF A UNIVERSITY SETTING SUCH AS: JOB POSTINGS, COMPANY HIRING, CLASS INFORMATION, TUTORING SERVICE, ATTENDING GRADUATE PROGRAMS, CONFERENCE INFORMATION, JOB FAIRS, SUBLEASING APARTMENTS, SHARING RIDES, ETC. (ANYTHING GOES)**
 - **SEARCH: YOU SHOULD BE ABLE TO SEARCH FOR EVENTS OR ITEMS**
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2. Objectives

2.1 BUSINESS Objectives

The following is a list of business objectives:

Objective 1: Registration: All members must provide the following information prior to using the system:

- First Name, Middle Name {Optional}, last Name
- Student/Faculty/Staff ID
- Home and mailing addresses
- E-mail address

Objective 2: Login: All members must login to the system with a user/password that was established during Member registration stage.

Objective 3: Marketplace: The system should allow users to post their item in the marketplace with description and price. The other users can see the items on the marketplace that are on sale as well as they can search for items with one keyword. They can message the seller asking about more details.

Objective 4: Clubs: This component will allow the user to bring together with other people who have the same interests and same background. Any users can create the new club and add members, or they send requests to be the member of any existing club. Users also have an option to leave the club.

Objective 5: Accounts: A user will be able to edit his/her personal information in the profile. If any information gets changed such as email, phone number or major then the user will have the option to change in the profile through this component.

Objective 6: Payments: A user can send money of entered amount by entering receiver's username and full name and the user can also request the money from users by entering the username and full name.

Objective 7: Communication: A user is able to send a message to another user, a seller, or a group.

Objective 8: Bazaar Wall: Serves as a landing page for the users after login is completed, leads to all other app features.

Objective 9: Search: The system should allow users to be able to search all event entries and club/group names.

2.2 SYSTEM Objectives

The following is a list of system objectives:

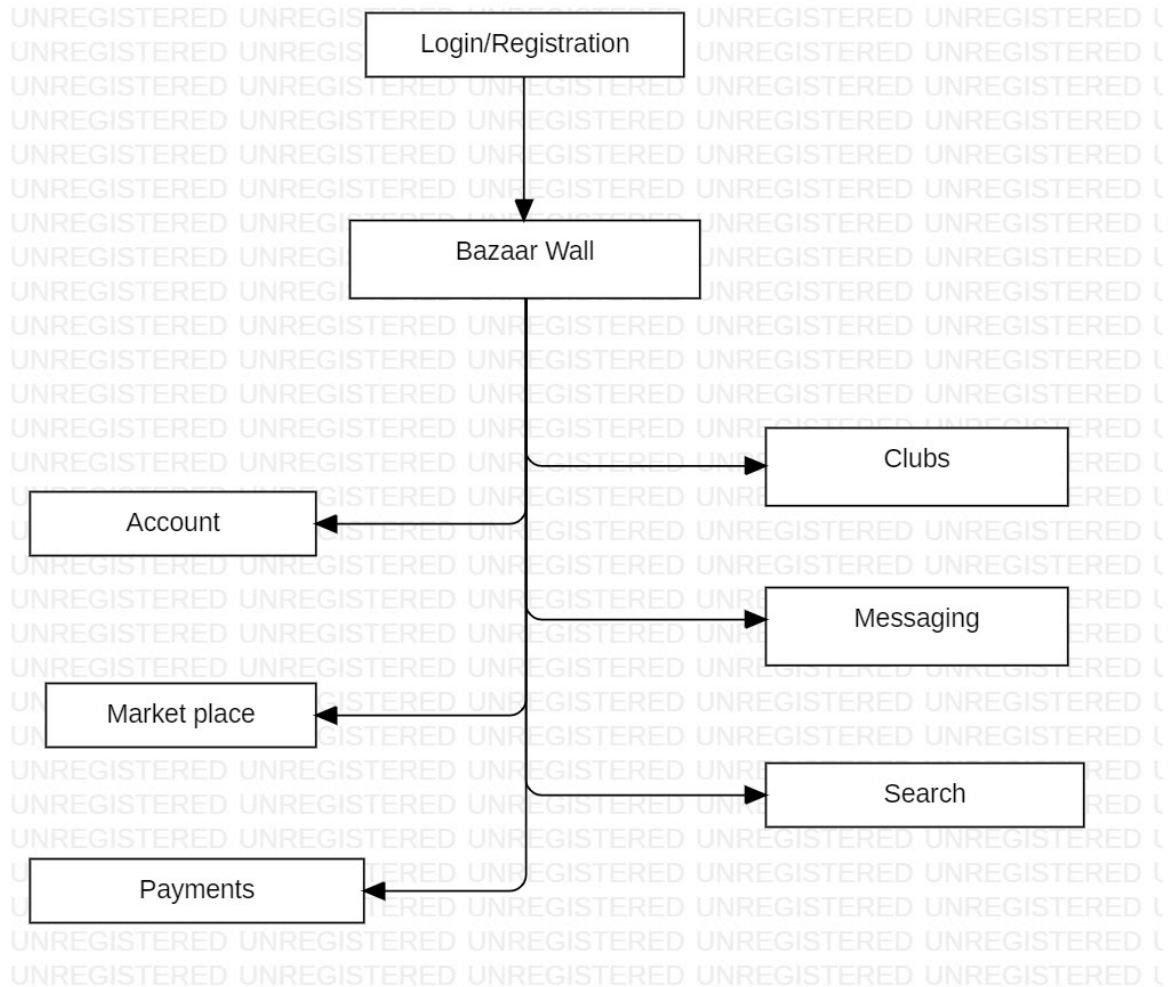
Objective 1: System will be an Android application

Objective 2: Search functionality will utilize Google's search

Objective 3: SQL-Lite will be used to save limited amount of data

Objective 4: App will be able to send simple notification

3. Project Context Diagram



4. Systems Requirements

4.1 “Registration/Login” Requirements

Requirement Title:	Registration/Login
Sequence No:	001
Short description:	Register new user
Description:	<p>New users must register before accessing the application. The following information will be collected:</p> <ul style="list-style-type: none">-Name {First, Last name}-Email address-Phone number-Select an ID { integers only}-Select a password <p>User can press:</p> <ul style="list-style-type: none">-Submit-Cancel (i.e. discard changes)-Exit screen (or close)
Pre-Conditions:	<ul style="list-style-type: none">-Application must be loaded already-Duplicate registration is not allowed
Post Conditions:	<ul style="list-style-type: none">-All “Saved” changes will be kept permanently
Other attributes:	<ul style="list-style-type: none">-None

Requirement Title:	Registration/Login
Sequence No:	002
Short description:	Login Existing User
Description:	<p>Enter User Id and Password (already established during Registration) and Press Submit</p> <p>User can press:</p> <ul style="list-style-type: none"> -Submit -Forgot ID or Password -Cancel (i.e. discard changes) -Exit screen (or close)
Pre-Conditions:	-User must have already registered
Post Conditions:	-None
Other attributes:	<p>-Allow a maximum of three tries, then recommend to use</p> <p>“Forgot Password”</p>

Requirement Title:	Registration/Login
Sequence No:	003
Short description:	Forgot password
Description:	<p>Ask user for the Answer to the “Security Question” entered during the “Registration” phase; i.e. see 001 above. Also ask for e-mail address. If both e-mail and security answer is correct, reset the password and e-mail the temporary password via e-mail</p> <p>User can press:</p> <ul style="list-style-type: none"> -Submit -Cancel (i.e. discard changes) -Exit screen (or close)
Pre-Conditions:	<p>-User must have already registered</p> <p>-Validate e-mail and security question</p>
Post Conditions:	<p>-Recommend use to change their temporary password after accessing the system</p>
Other attributes:	<p>-Lock system after 3 tries</p> <p>-Consider adding more than one security question</p>

4.2 “Search” Requirements

Requirement Title:	Search
Sequence No:	001
Short description:	Search events and groups
Description:	<p>Users can input text into textbox to perform a keyword search on:</p> <ul style="list-style-type: none">- Bazaar Wall event entries- Bazaar Wall discussion entries- Club/Group names <p>User can press:</p> <ul style="list-style-type: none">- Search (performs the search)- Previous search (any previous searches)- Exit textbox (cancels the search)
Pre-Conditions:	<ul style="list-style-type: none">- User must be logged in / registered- Application must be on landing page

Post Conditions:	- Search must be logged
Other attributes:	- None

Requirement Title:	Search Results
Sequence No:	002
Short description:	Displays results
Description:	<p>Displays results from keyword match between user input and event entries and</p> <p>User can press:</p> <ul style="list-style-type: none"> - Back (returns to landing page) - View (views desired search result)
Pre-Conditions:	- User must have input text into search bar
Post Conditions:	- None

Other attributes:	- None
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4.3 “Payments” Requirements

Requirement Title:	Payments
Sequence No:	001
Short description:	Send Money
Description:	<p>The user must fill the previous information in order to send money.</p> <ul style="list-style-type: none"> - Name of money Receiver - Username of money Receiver - Amount of money to be sent - Credit/Debit card details <p>User can press either OK or Cancel the transaction.</p>
Pre-Conditions:	- User should select the send money option

Post Conditions:	<ul style="list-style-type: none"> - Credit card validation - Final Confirmation of payments
Other attributes:	<ul style="list-style-type: none"> - None

Requirement Title:	Payments
Sequence No:	002
Short description:	Request Money
Description:	<p>User can request money from another registered account existed in the bazaar system.</p> <ul style="list-style-type: none"> - Name and username of money sender - Amount of money you are requesting <p>User can press either OK or Cancel the transaction.</p>
Pre-Conditions:	<ul style="list-style-type: none"> - User should select the send money option under payments
Post Conditions:	<ul style="list-style-type: none"> - Final Confirmation of payments

Other attributes:	- None
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4.4 “Market Place” Requirements

Requirement Title:	Market Place
Sequence No:	001
Short description:	List the item on sale in market
Description:	<p>User can list their item for sale in marketplace of Bazaar System</p> <ul style="list-style-type: none">- User can create a new posting- User can add the descriptions of items along with picture and prices <p>User can press</p> <ul style="list-style-type: none">- A new post- Back
Pre-Conditions:	<ul style="list-style-type: none">- User should press marketplace option
Post Conditions:	<ul style="list-style-type: none">- Ask user to post the items for sale- Post the item in bazaar marketplace along with description and price
Other attributes:	<ul style="list-style-type: none">- User cannot edit once the post is posted.

Requirement Title:	Market Place
Sequence No:	002
Short description:	Buyer can message the seller
Description:	<p>User can view the item and send message to seller.</p> <ul style="list-style-type: none"> - User can send message regarding the items - Ask user to post the items for sale - The seller can reply to the message to buyer
Pre-Conditions:	- User should press marketplace option
Post Conditions:	- The conversation is stored at messages.
Other attributes:	- User can delete message from user's side

Requirement Title:	Market Place
Sequence No:	003
Short description:	Search in Market Place
Description:	<p>User can search with keywords in marketplace</p> <ul style="list-style-type: none"> - User will see list of items listed on marketplace - User can click one item and read the description of that items - User must type in search bar
Pre-Conditions:	<ul style="list-style-type: none"> - User should press marketplace option - User should enter at least valid word to search
Post Conditions:	<ul style="list-style-type: none"> - None
Other attributes:	<ul style="list-style-type: none"> - None

4.5 “Accounts” Requirements

Requirement Title:	Account
Sequence No:	001
Short description:	Change the existing email
Description:	<p>Existing users will be able to change the email in their account profile.</p> <p>User can press:</p> <ul style="list-style-type: none">- Save changes- Cancel (i.e. discard changes)
Pre-Conditions:	<ul style="list-style-type: none">- Application must be loaded already- User should be logged in- Multiple emails are not allowed.
Post Conditions:	<ul style="list-style-type: none">- All “Saved” changes will be displayed in the account profile
Other attributes:	<ul style="list-style-type: none">- None

Requirement Title:	Account
Sequence No:	002
Short description:	Change the existing phone number
Description:	<p>Existing users will be able to change the phone number in their account profile.</p> <p>User can press:</p> <ul style="list-style-type: none"> - Save changes - Cancel (i.e. discard changes)
Pre-Conditions:	<ul style="list-style-type: none"> - Application must be loaded already - User should be logged in - Multiple phone numbers are not allowed.
Post Conditions:	<ul style="list-style-type: none"> - All “Saved” changes will be displayed in the account profile
Other attributes:	<ul style="list-style-type: none"> - None

Requirement Title:	Account
Sequence No:	003
Short description:	Change the existing major
Description:	<p>Existing users will be able to change the major in their account profile.</p> <p>User can press:</p> <ul style="list-style-type: none"> - Save changes - Cancel (i.e. discard changes)
Pre-Conditions:	<ul style="list-style-type: none"> - Application must be loaded already - User should be logged in
Post Conditions:	<ul style="list-style-type: none"> - All “Saved” changes will be displayed in the account profile
Other attributes:	<ul style="list-style-type: none"> - None

4.6 “Clubs” Requirements

Requirement Title:	Clubs
Sequence No:	001
Short description:	Create the new club
Description:	<p>Existing users will be able to create the new clubs to form the group with people of the same interest.</p> <p>User can press:</p> <ul style="list-style-type: none">- Create new club
Pre-Conditions:	<ul style="list-style-type: none">- Application must be loaded already- Users should be logged in with registered account
Post Conditions:	<ul style="list-style-type: none">- Users can add new members in the group
Other attributes:	<ul style="list-style-type: none">- None

Requirement Title:	Clubs
Sequence No:	002
Short description:	Join the existing clubs
Description:	<p>Existing users will be able to send requests in the clubs to be the member of it.</p> <p>User can press:</p> <ul style="list-style-type: none"> - Send request to join
Pre-Conditions:	<ul style="list-style-type: none"> - Application must be loaded already - Users should be logged in with registered account
Post Conditions:	<ul style="list-style-type: none"> - Users will be able to communicate with the members of the club
Other attributes:	<ul style="list-style-type: none"> - None

Requirement Title:	Clubs
Sequence No:	003
Short description:	Leave the group
Description:	<p>Members of groups will be able to leave the group at anytime</p> <p>User can press:</p> <ul style="list-style-type: none"> - Leave the group
Pre-Conditions:	<ul style="list-style-type: none"> - Application must be loaded already - Users should be logged in with registered account - Users must be the member
Post Conditions:	<ul style="list-style-type: none"> - Users will not be able to access in the leaved group
Other attributes:	<ul style="list-style-type: none"> - None

4.7 “Communication” Requirements

Requirement Title:	Communication
Sequence No:	001
Short description:	Sending messages
Description:	User chooses the person/group they want to communicate with and send a message User can press: - send - back
Pre-Conditions:	- User will need to be in a group - Selected the item they want - Selected the person
Post Conditions:	- None
Other attributes:	- None

4.8 “Bazaar Wall” Requirements

Requirement Title:	Bazaar Wall
Sequence No:	001
Short description:	Landing page
Description:	<p>Users can navigate the app from the bazaar wall landing page</p> <p>User can press:</p> <ul style="list-style-type: none">- Search Bar- Marketplace- Communication (Clubs/Groups/Messaging)- Account- Create new event/announcement/discussion- View event/announcement/discussion
Pre-Conditions:	<ul style="list-style-type: none">- User will need to be logged in / registered- Be on the landing page/bazaar wall
Post Conditions:	-None
Other attributes:	-None

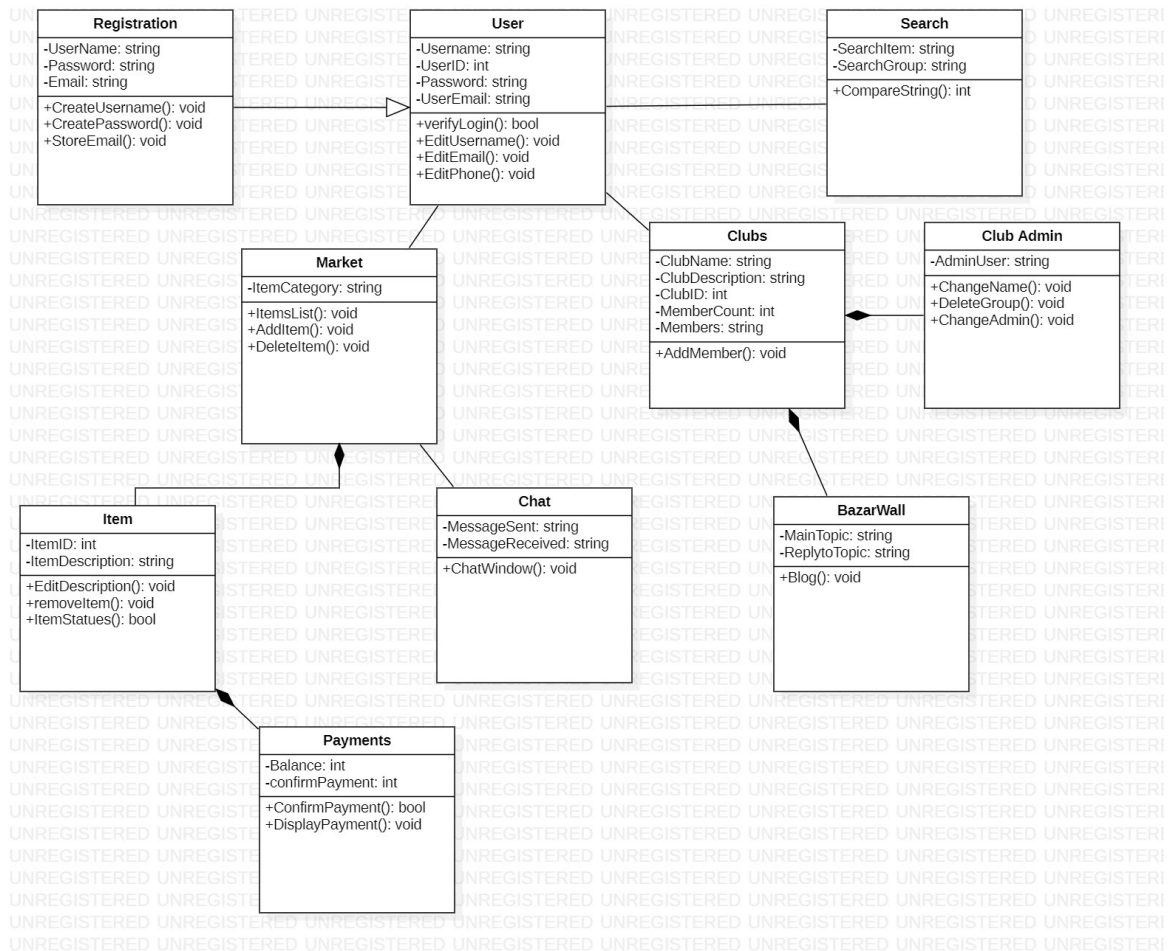
5. Software Processes and Infrastructure

5.1 Hardware and Infrastructure

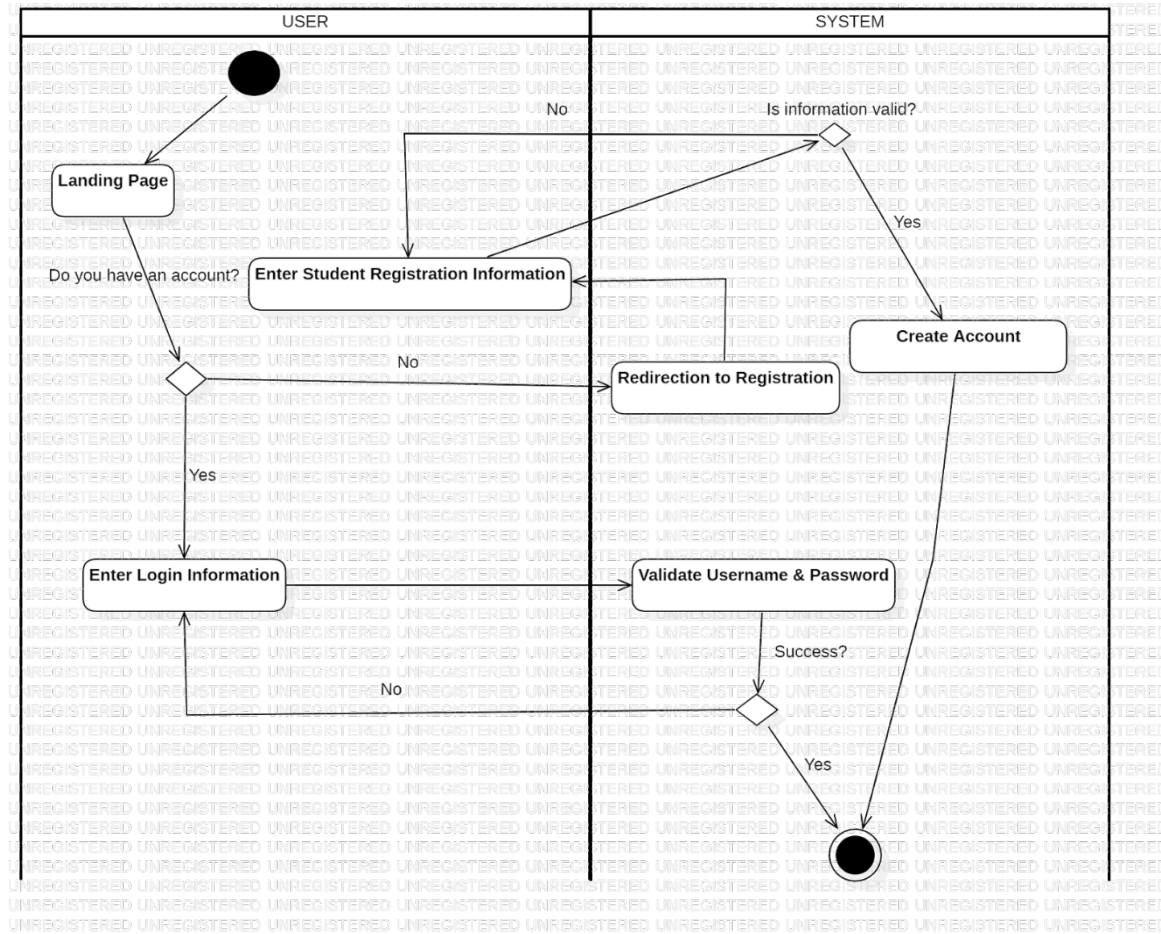
This project will use Android version 4.1 (Jelly Bean).

5.2 UML Diagrams

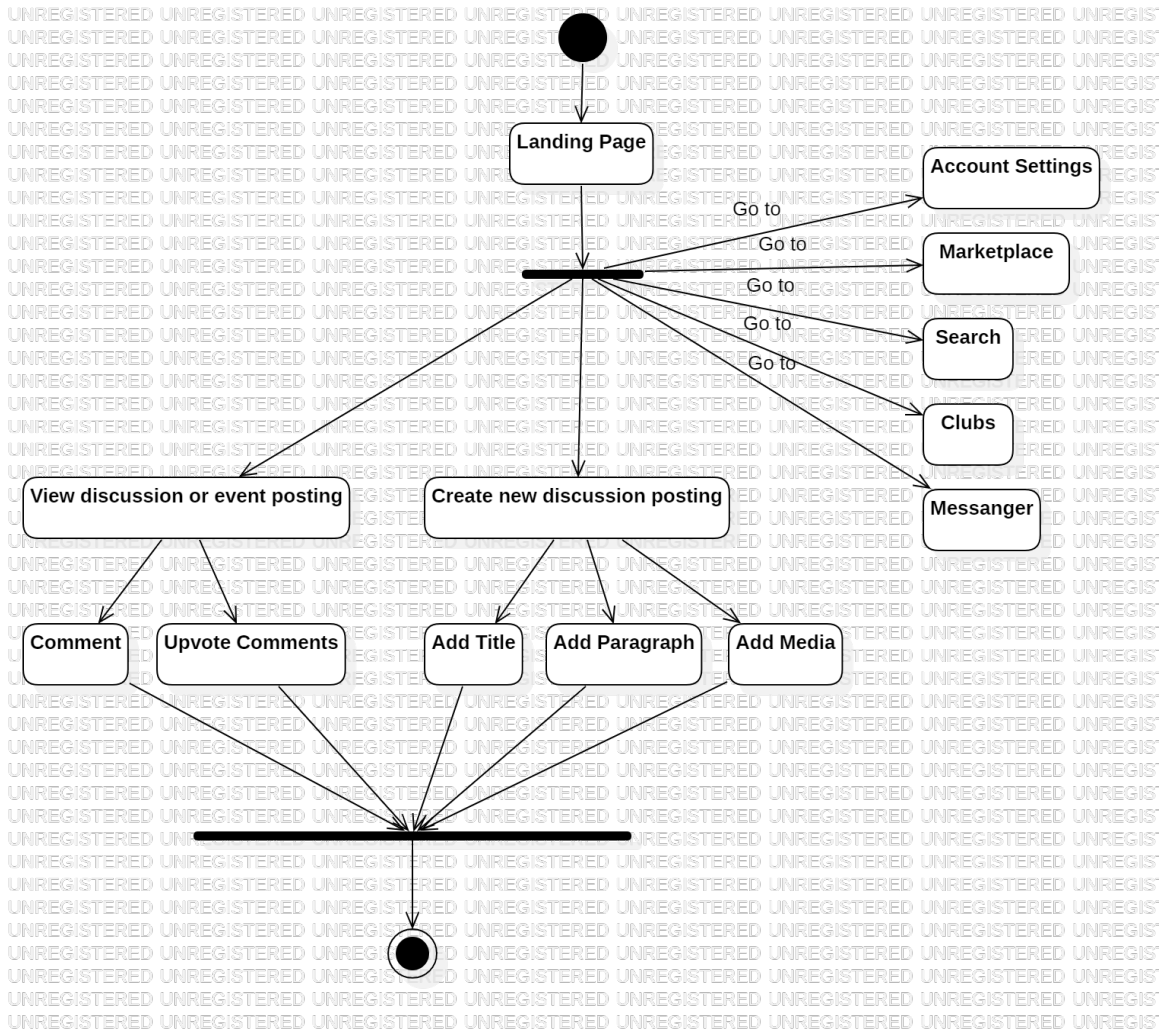
UML DIAGRAM: CLASS DIAGRAM



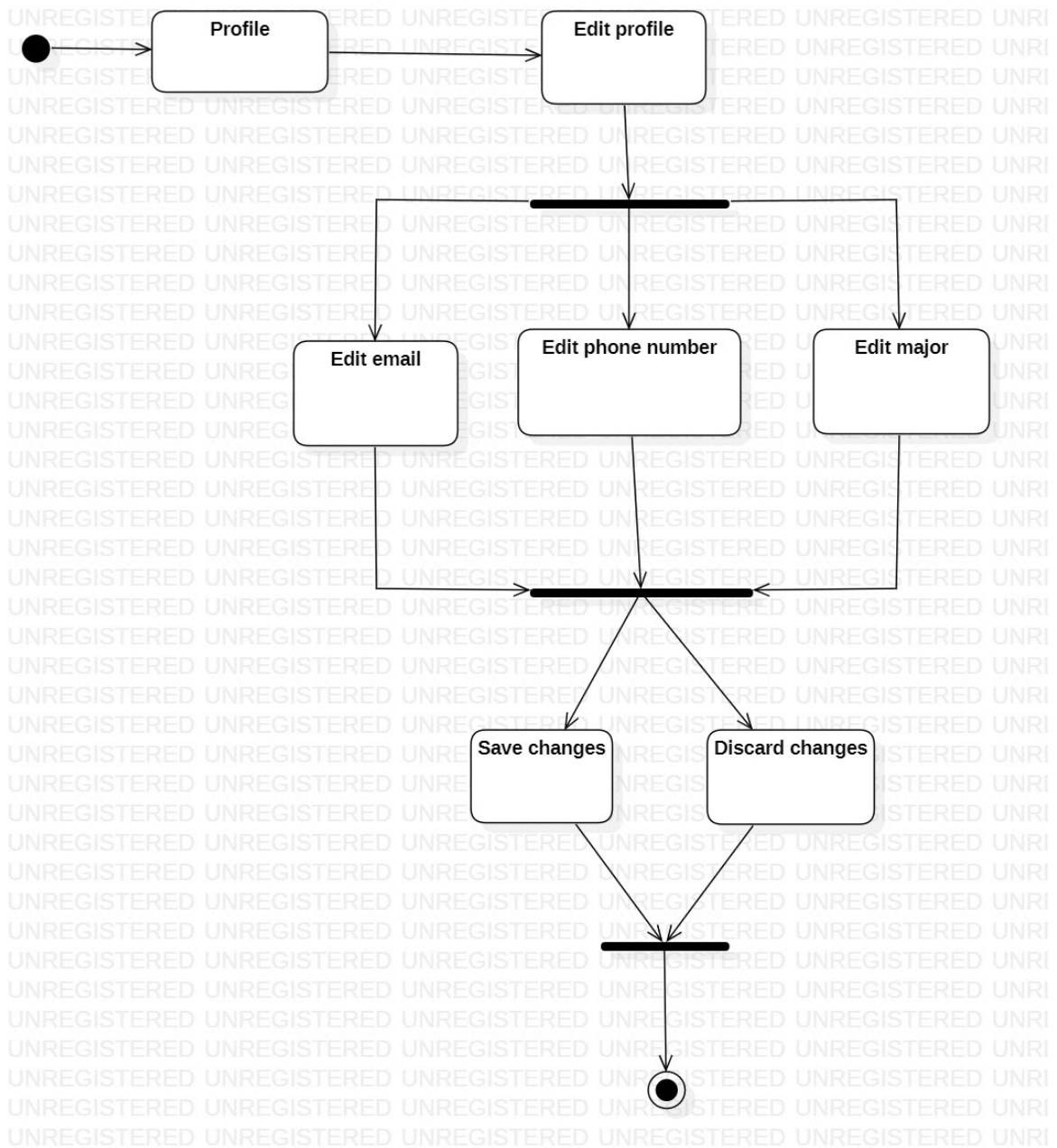
UML Diagram: Activity Diagram: Login and Registration



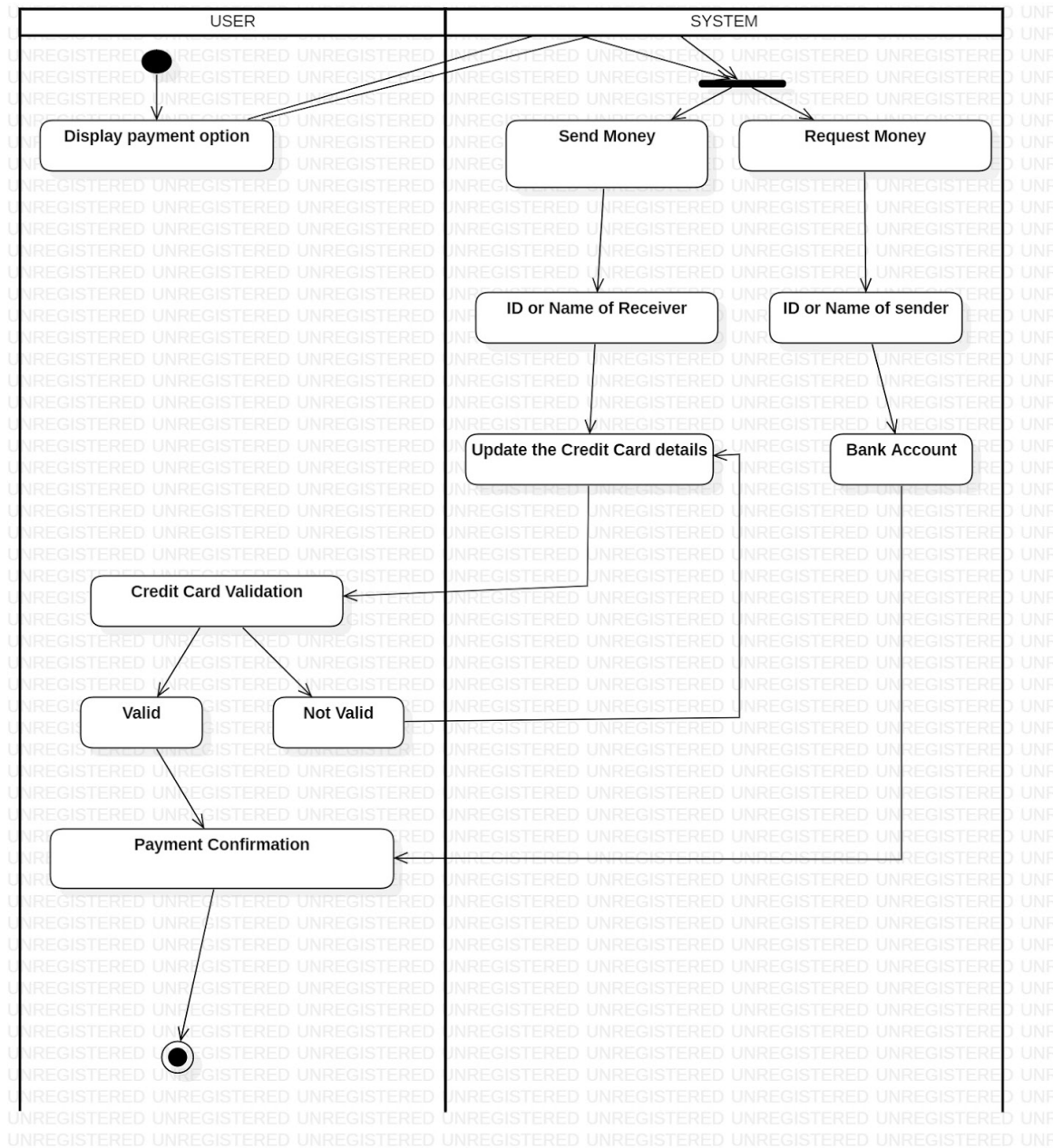
UML Activity Diagram: Bazaar Wall



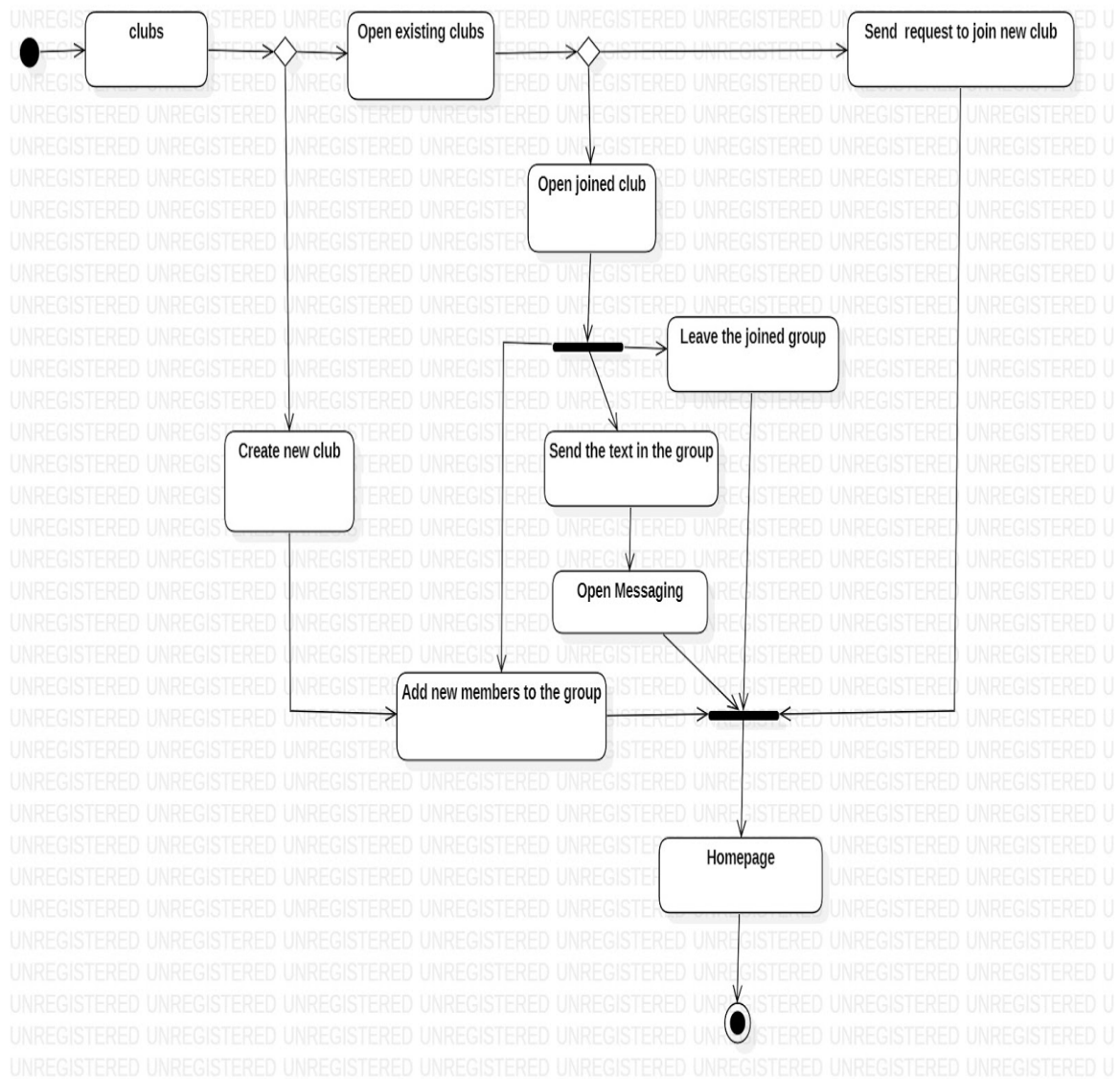
UML Activity Diagram: Activity Diagram: Account



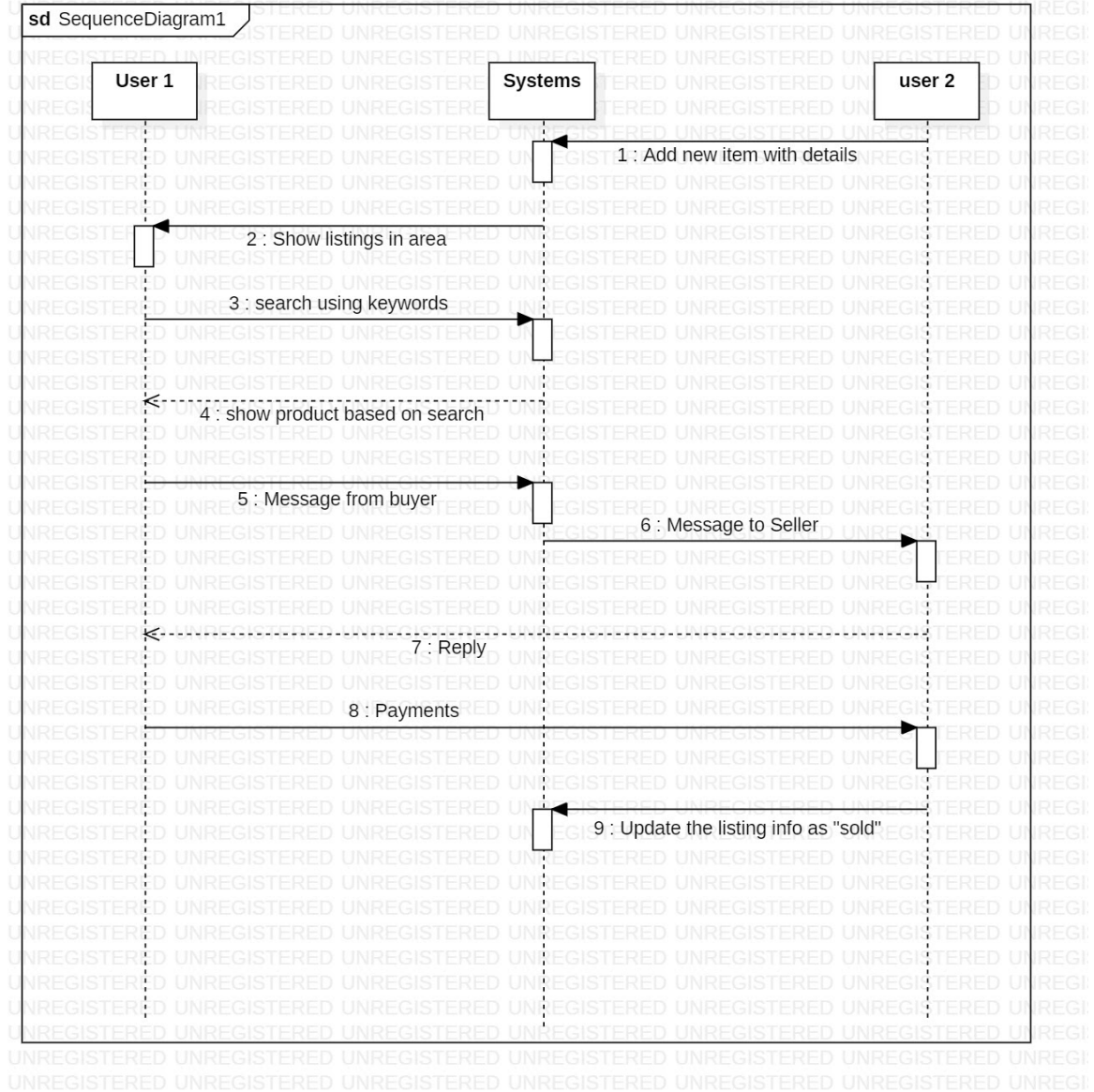
UML Activity Diagram: Payments



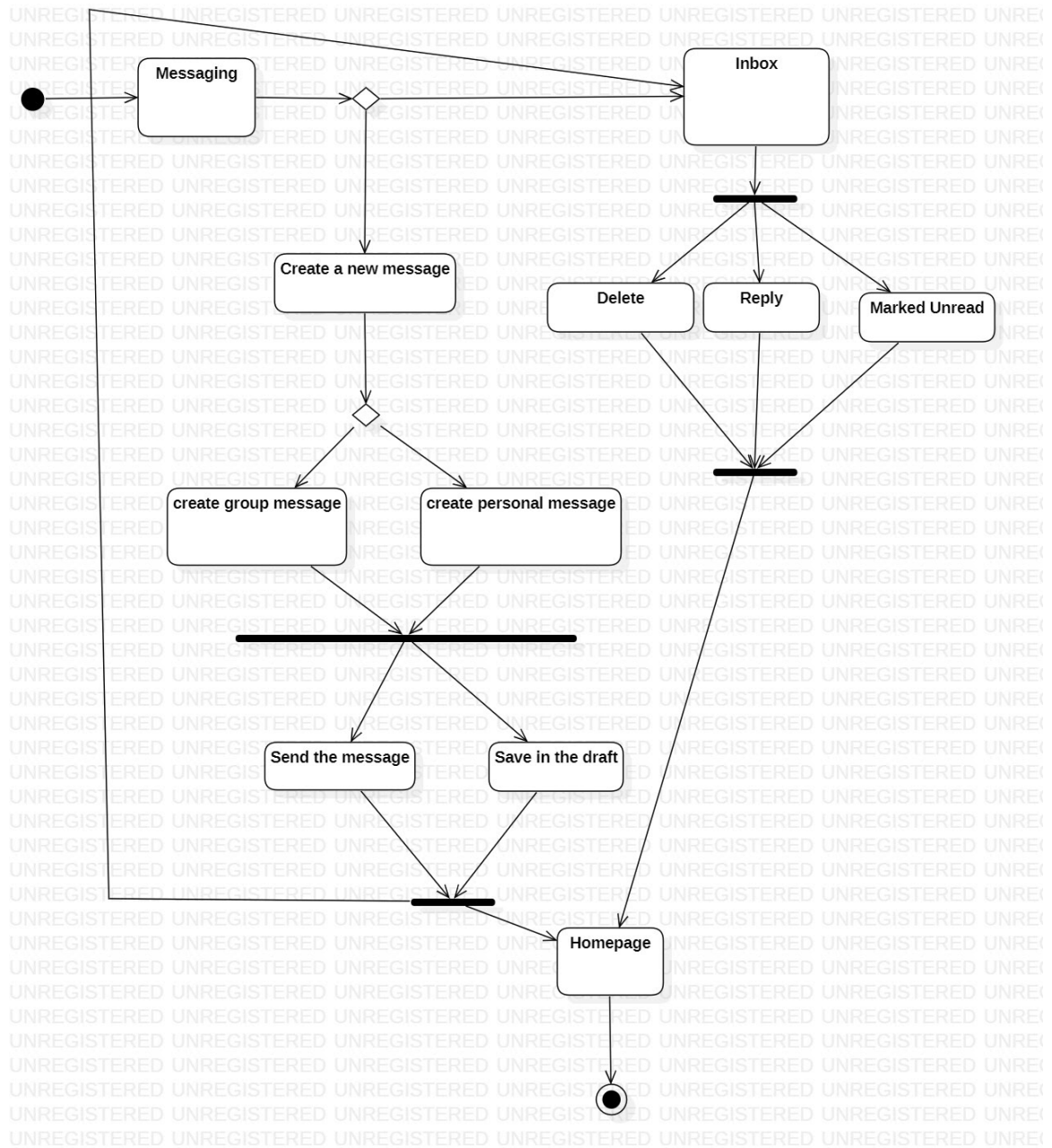
UML Activity Diagram: Clubs



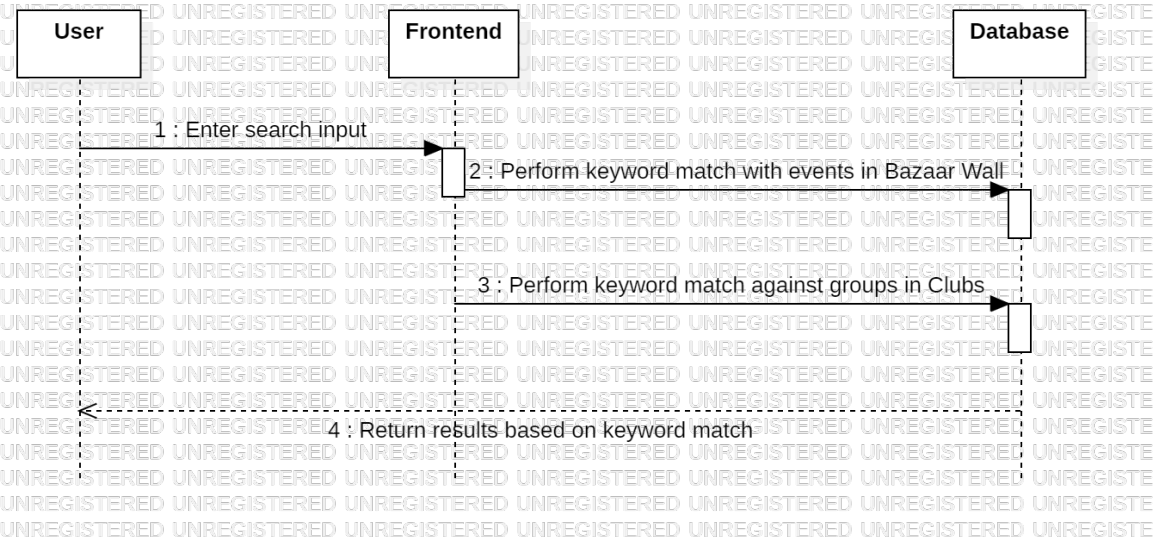
UML Sequence Diagram: Marketplace



UML Activity Diagram: Messaging



UML Sequence Diagram: Search



5.3 Conceptual Data Model - Database

None available at this time

5.4 Screen Shots

No screenshots available at this time

5.5 Test Plan

Test plan will be provided at a later stage

6. Assumptions and Constraints

6.1 ASSUMPTIONS

The following is a list of assumptions:

- UTA Students can only use this product.
- Provided information should be authentic
- Ignore compliance issues

6.2 CONSTRAINTS

The following is a list of constraints:

- Team lacks android experience
- Schedule very aggressive

6.3 Out of Scope material

The following is a list of “out of scope” material:

- Post Project maintenance is not covered
- App security is not guaranteed.

7. Delivery and Schedule

{List all tasks/milestones from start of the project to the end with specific dates for both Anticipated Start & End Dates

Task/Milestone Description	Anticipated Start Date	Anticipated End Date	Status	Comments
Prepare Requirements and UML diagram	2/4/2021	3/4/2021	Complete	Deliverable UML document. Increment 1 Deliverable
SRA document (Includes project objectives, Requirements and UML diagrams)	3/16/2021	4/1/2021	In Progress	Deliverable will be the SRA document. All stakeholders agree on the content of the SRA by signing in section 8. Increment 2 Deliverable
Home screen design and implementation	3/20/2021	4/2/2021	To Be Completed (TBC)	
Login and registration design and implementation	4/4/2021	4/10/2021	TBC	
Bazaar wall design and implementation	4/6/2021	4/14/2021	TBC	
Account design and implementation	3/30/2021	4/15/2021	TBC	
Payments design and implementation	4/5/2021	4/19/2021	TBC	
Clubs design and implementation	3/30/2021	4/28/2021	TBC	
Marketplace design and implementation	4/10/2021	4/21/2021	TBC	
Messaging design and implementation	4/10/2021	4/24/2021	TBC	
Search design and implementation	4/10/2021	4/24/2021	TBC	
Test case design	4/6/2021	4/22/2021	TBC	Increment 3 Deliverable
External Documentation (i.e. User Manual)	4/23/2021	5/4/2021	TBC	
Project presentation	4/27//2021	5/4/2021	TBC	
Final Milestone: project delivery		5/4/2021	TBC	Increment 4 Deliverable

8. Stakeholder Approval Form

Stakeholder Name	Stakeholder Role	Stakeholder Comments	Stakeholder Approval Signature and Date
Bahram Khalili	Development Mgr		
Akshit Singhal	Project Assistant		
Benjamin Barani	Developer		Barani, Benjamin 04/01/2021
Mahdy Joudeh	Developer		Joudeh, Mahdy 4/01/21
Sunil Pandey	Developer		Sunil Pandey 04/01/2021
Nishan Pathak	Developer		Pathak, Nishan 4/01/2021

Appendix:

None