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Appendices

Appendix A: Gantt chart

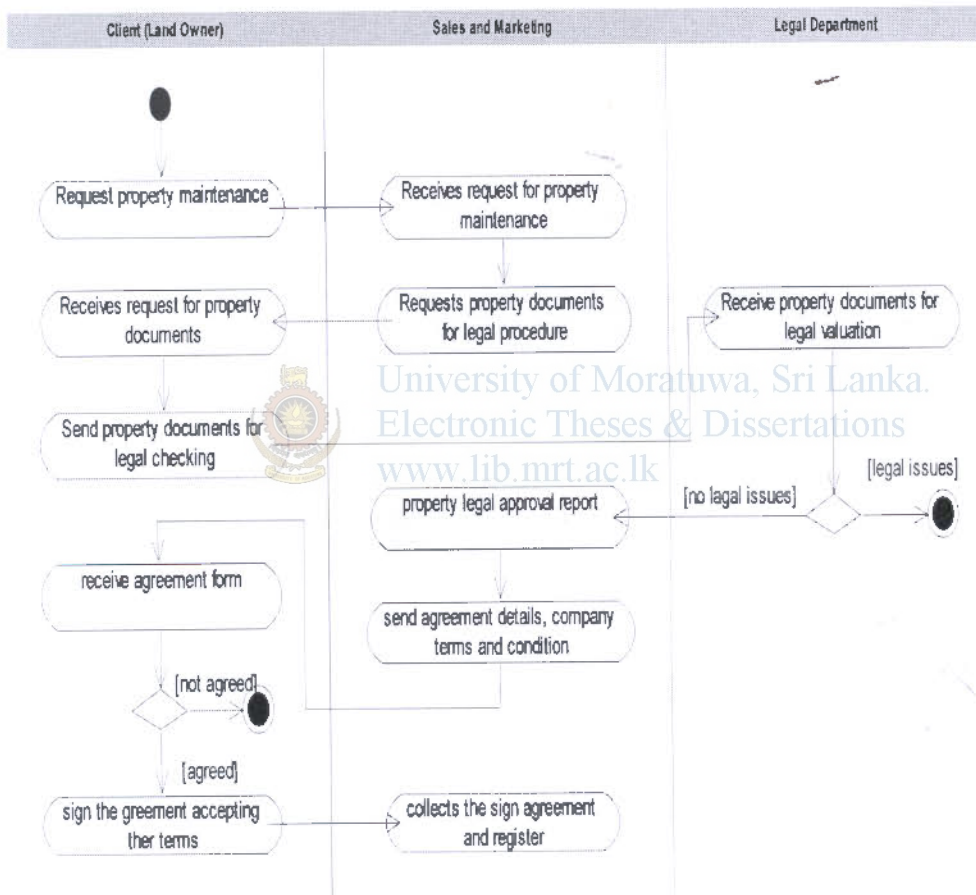


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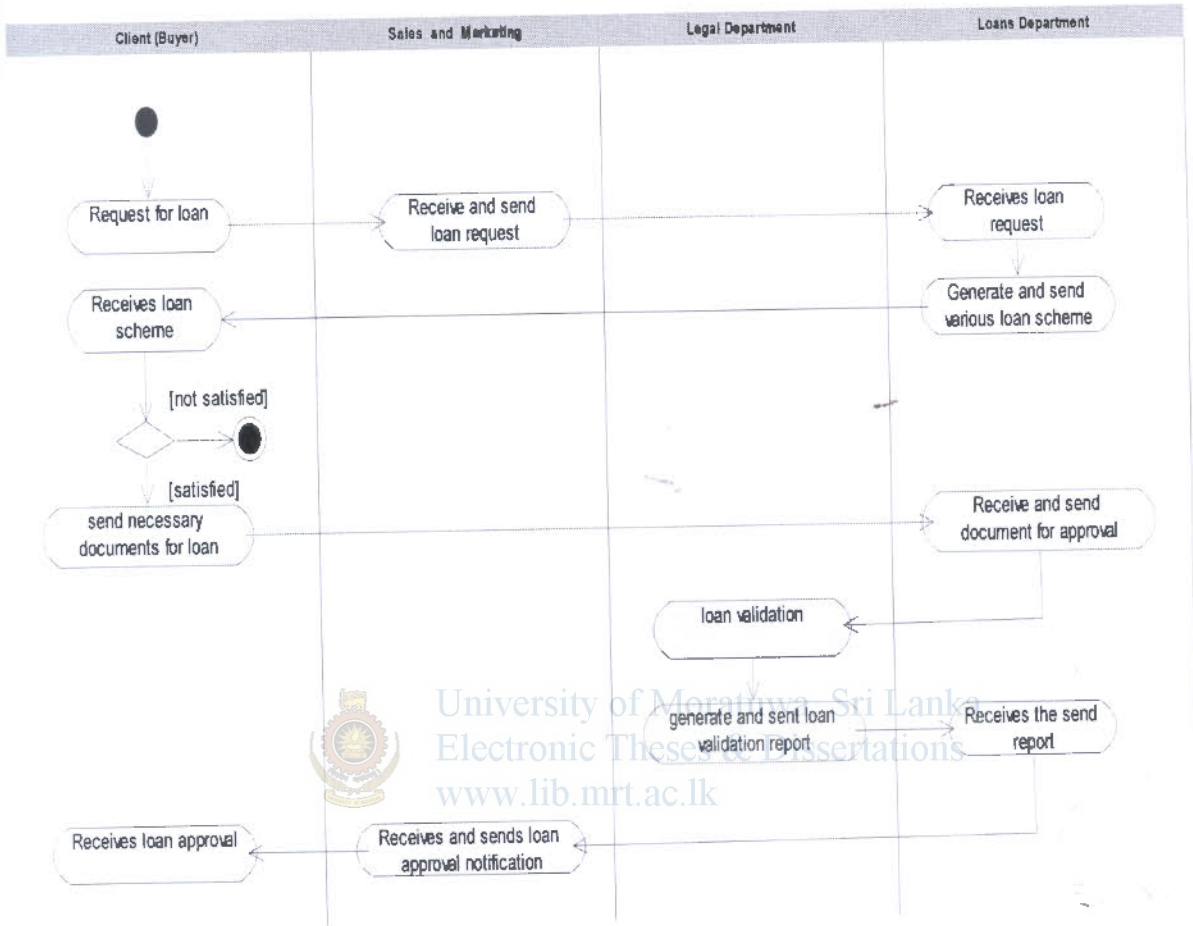
Appendix B: Process Diagram

Property Maintenance Process

The diagram below shows the activities involved in the property maintenance process of a manual real estate system. The detailed explanation of this process has been documented in the primary research section.



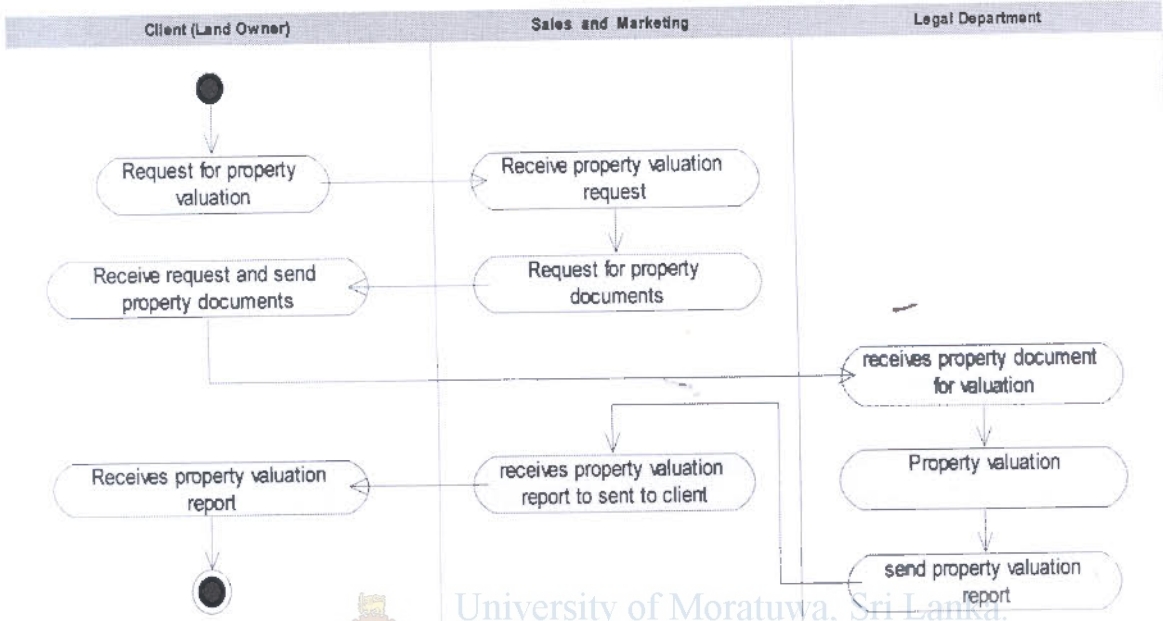
Loan Request Process



The above diagram shows the activities involved in the loan request process in a manual system. The detailed explanation of activities happening within the loan request process has been explained in detail in the primary research section.

Handling Title – Valuation Report Process

The diagram below depicts the activities involved in the handling title-valuation report process of a manual real estate system as explained in the primary research section.



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Appendix C: Through-put Efficiency Calculation

Throughput efficiency is one of a number of important measures for a process. The throughput becomes an essential factor to be considered to compare the efficiency of a manual system against a computerized solution to be implemented. Efficiency calculations for critical processes are already been discussed in detail in the primary research section.

Inquiry Handling Process

Action	Action Time	Waiting Time
Provide form to fill clients details and requested service	15 min	20 min
Provide Company information	15 min	10 min
Provide service Details	15 min	-
Provide property information	15 min	15 min
TOTAL TIME	60 min	105 min

$$\begin{aligned}\text{Throughput Efficiency} &= (\text{Action Time}/\text{Total Time}) * 100 \\ &= (60/105) * 100 \\ &= 57.14 \%\end{aligned}$$

Property Acquiring Process

Action	Action Time	Waiting Time
Collecting property information from brokers	10 min	-
Preparing property valuation report	2880 min	1440 min
Sending property valuation report	30 min	10 min
Informing finance department of	30 min	-

payment settlement		
TOTAL TIME	2950	4400

Throughput Efficiency = (Action Time/Total Time)*100
= (2950/4400)* 100
= 66.44%

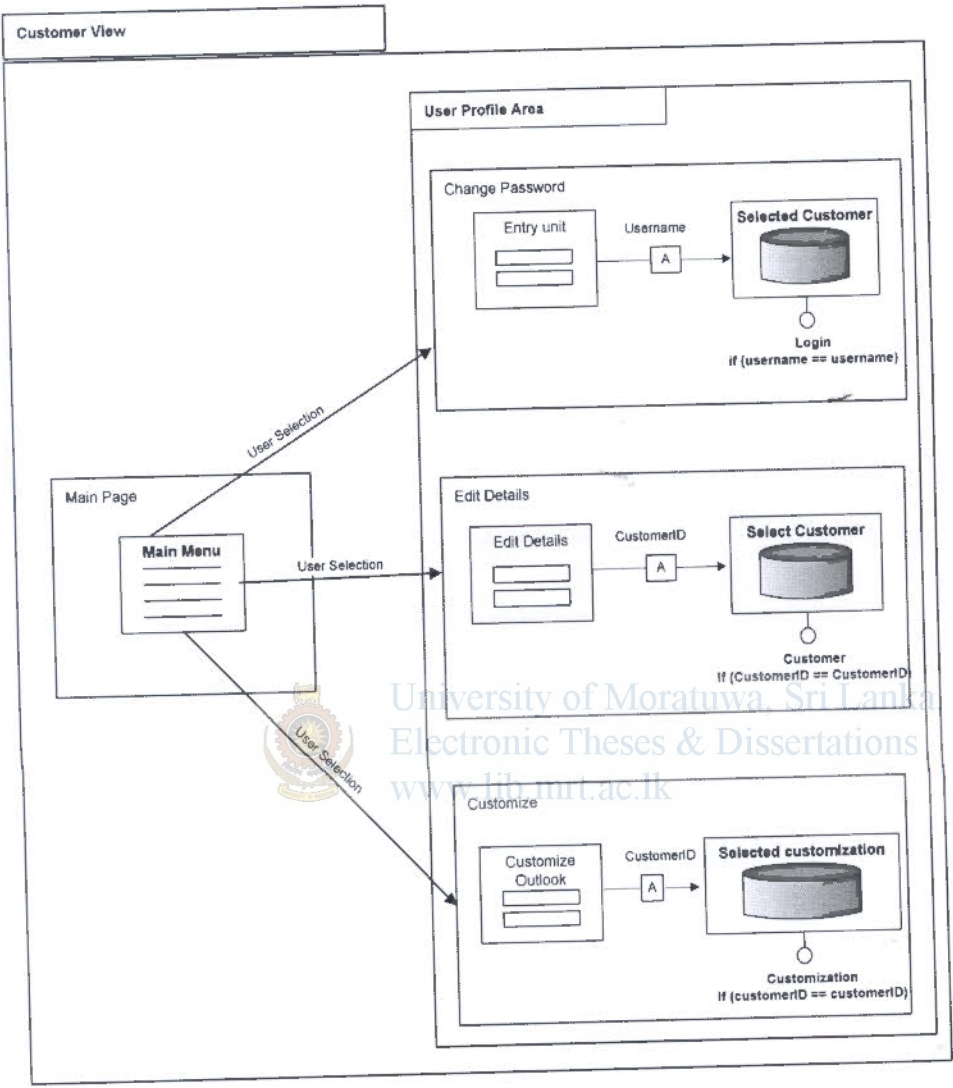
Property Maintenance Process

Action	Action Time	Waiting Time
Receive property document for maintenance purpose	10 min	-
Property valuation	2880 min	1440 min
Signing the agreement form	4320 min	30 min
Collecting the agreement form	1440 min	720 min
TOTAL TIME	8650	10840

Throughput Efficiency = (Action Time/Total Time)*100
= (8650/10840)* 100
= 78.9%

Appendix D: Hyper Text Modeling

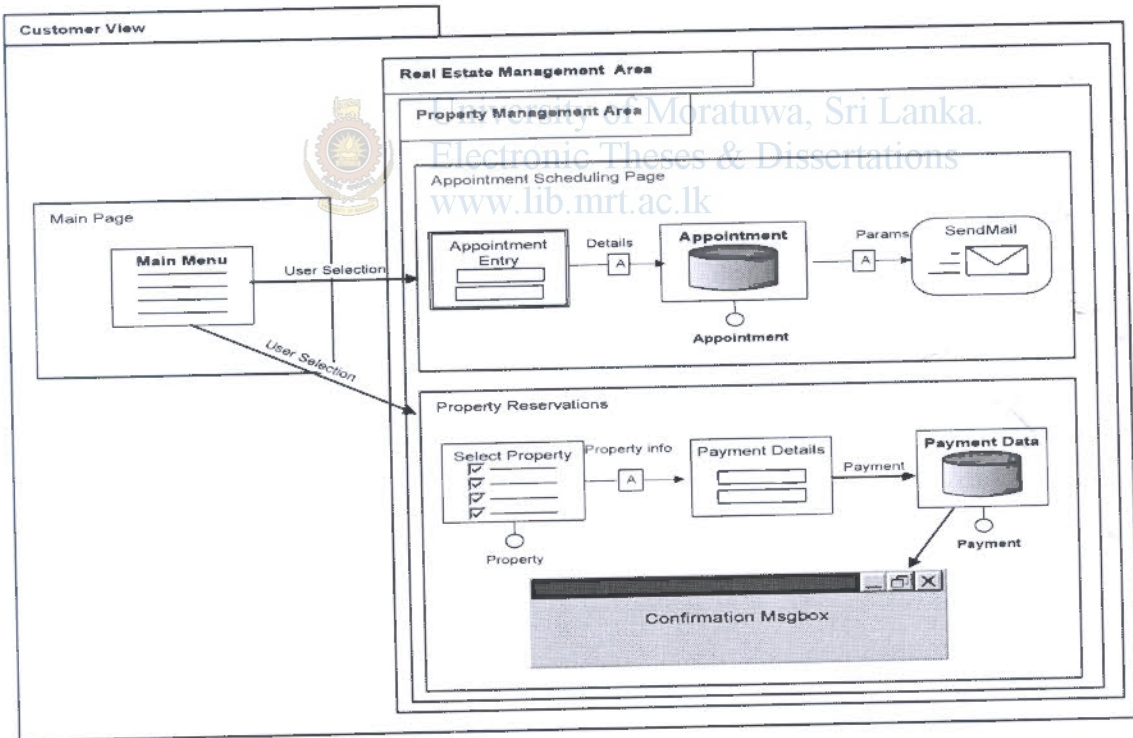
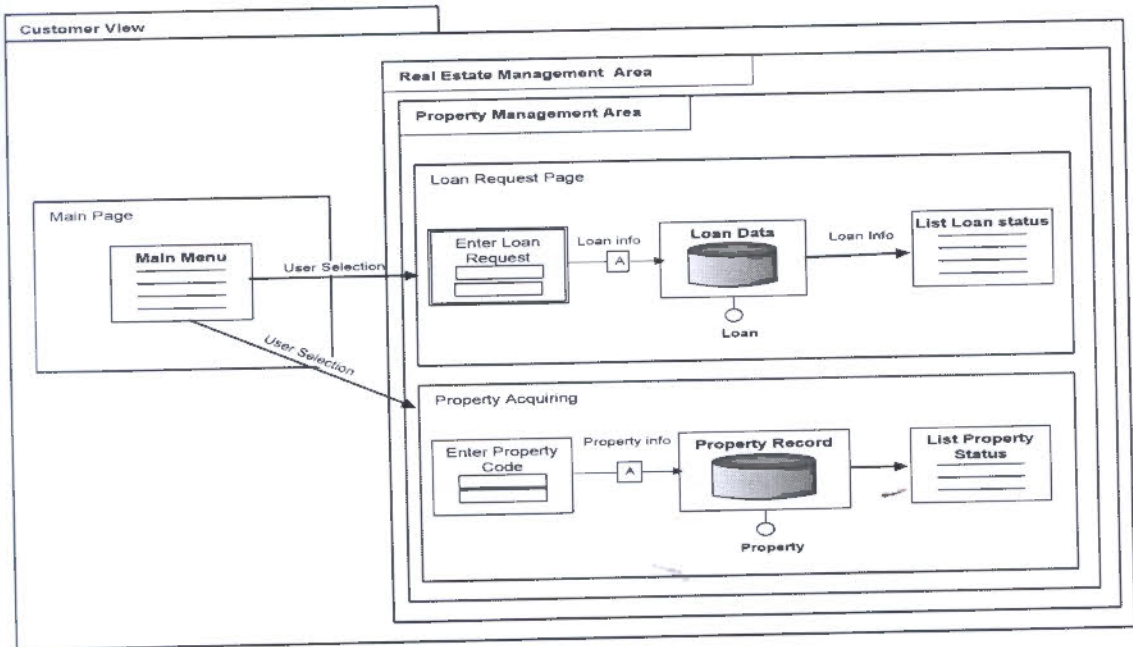
User Profile Area



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The above diagram explains the front end specification of the user profile area for the customer view of the proposed real estate management system. The detailed description on hyper text modeling and other critical model diagrams have already been discussed in the system design section

Real Estate Management Area

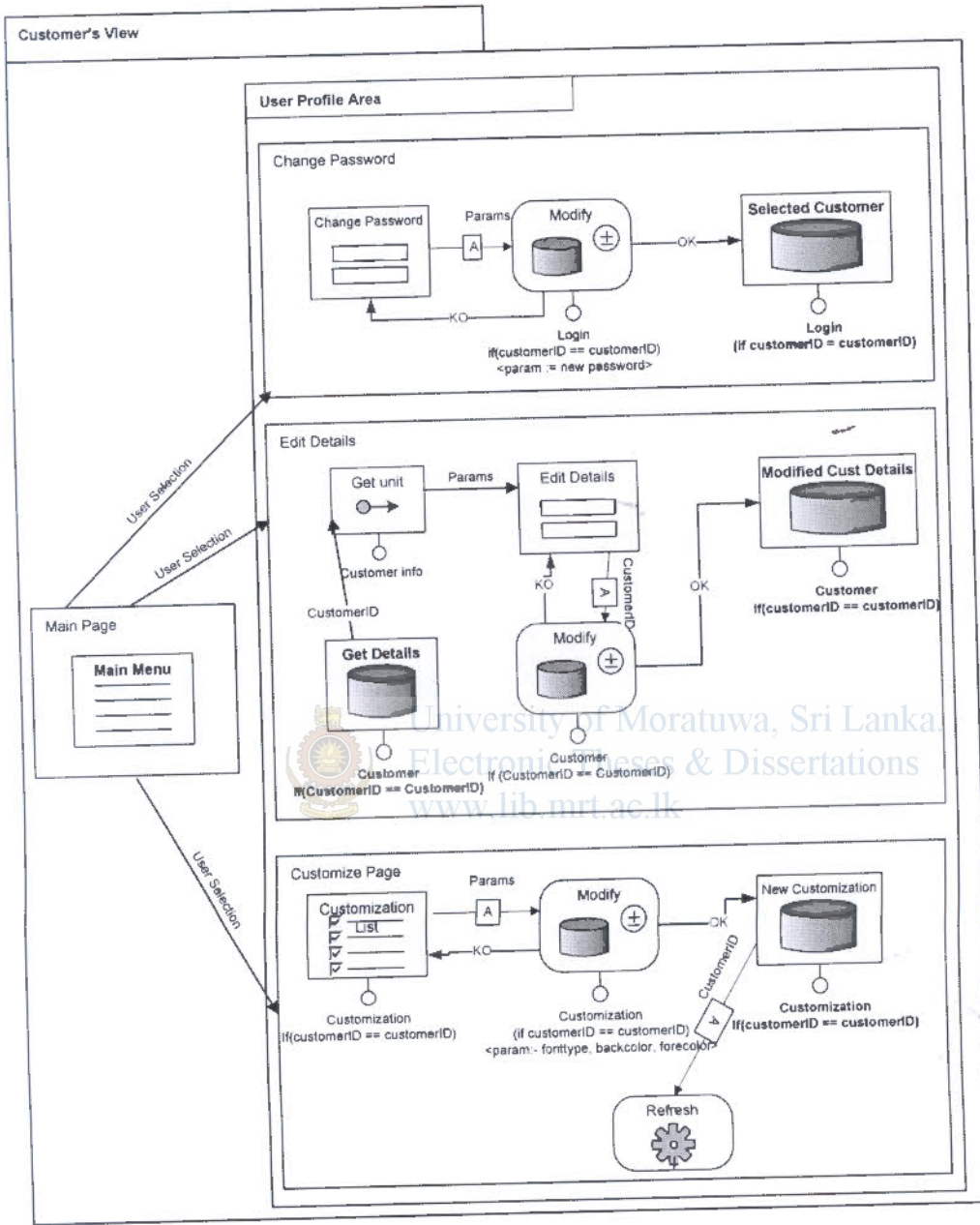


The diagram above explains the front specification of the online system proposed for the real estate management area. All other information on hypertext modeling has been discussed in the system design section.



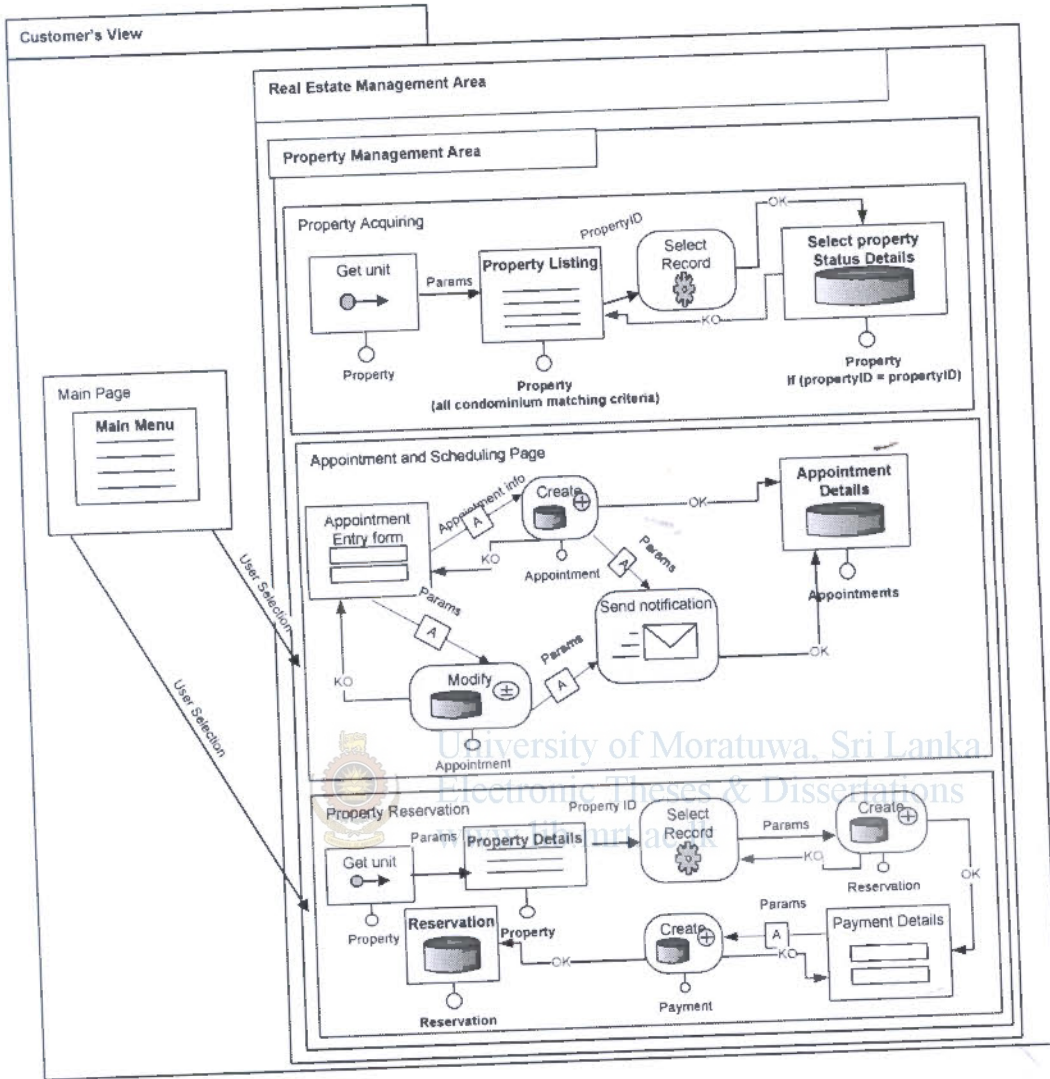
Appendix E: Content Management Modeling

User Profile Area



The above diagram depicts the content management model for the user profile area in the proposed real estate management system.

Real Estate Management Area



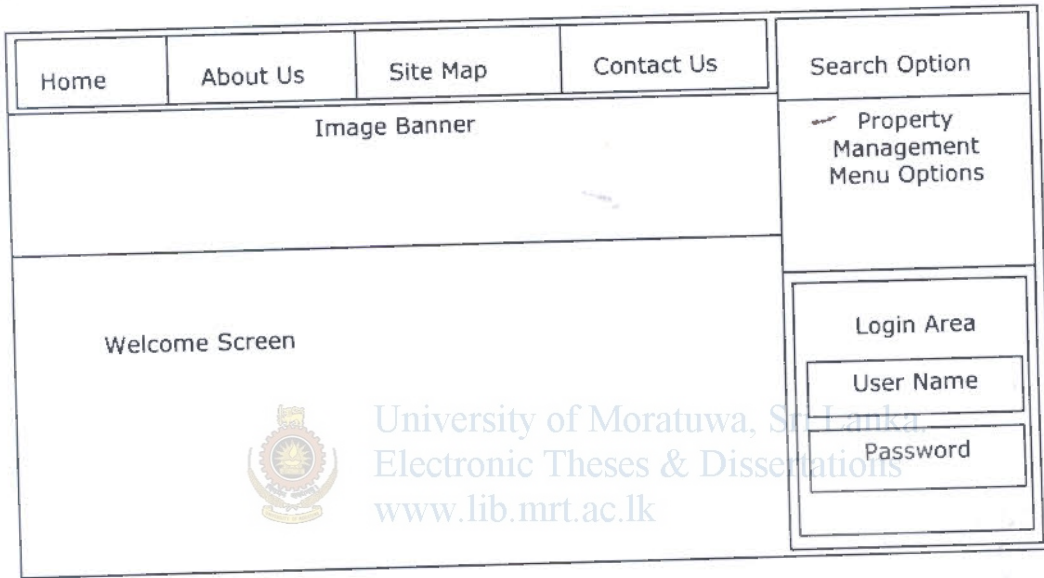
The above diagram depicts the content management model for the real estate management area in the proposed real estate management system.

Appendix F: Story boarding

The diagram below shows the outlines of the screen designed that are implemented in the proposed real estate management system.

Description: The screen below is the outline design of the implemented login screen of the real estate management system

Screen Functionality

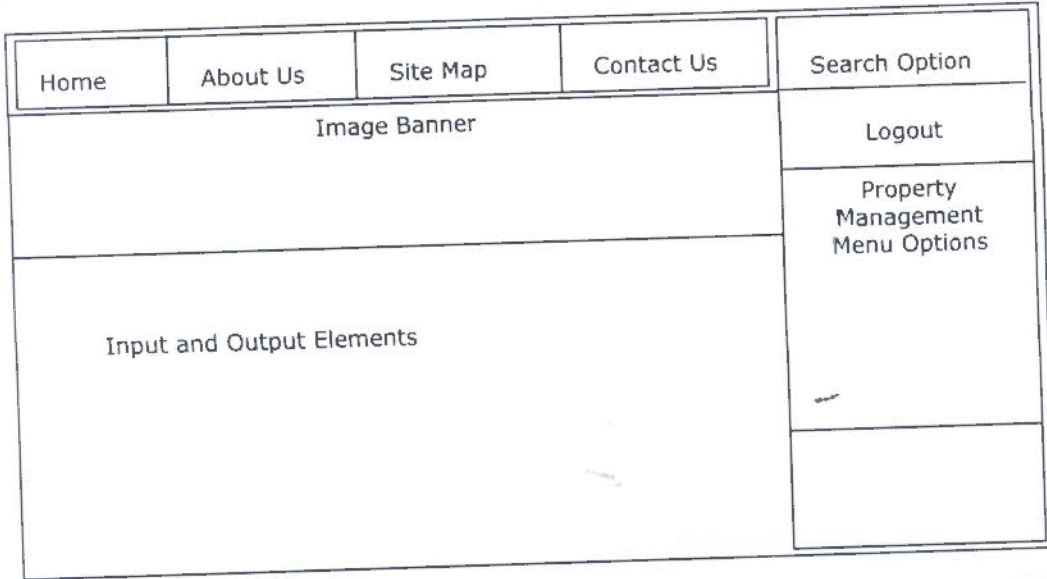


Background: Images
Color Scheme: Shades of Orange, White and Blue
Font: Verdana

Audio: None
Video: None
Stills: None

Description: The screen below is the outline design of the implemented main page of the real estate management system

Screen Functionality



Background: Images
Color Scheme: Shades of Orange, White and Blue
Font: Verdana

Audio: None
Video: None
Stills: None

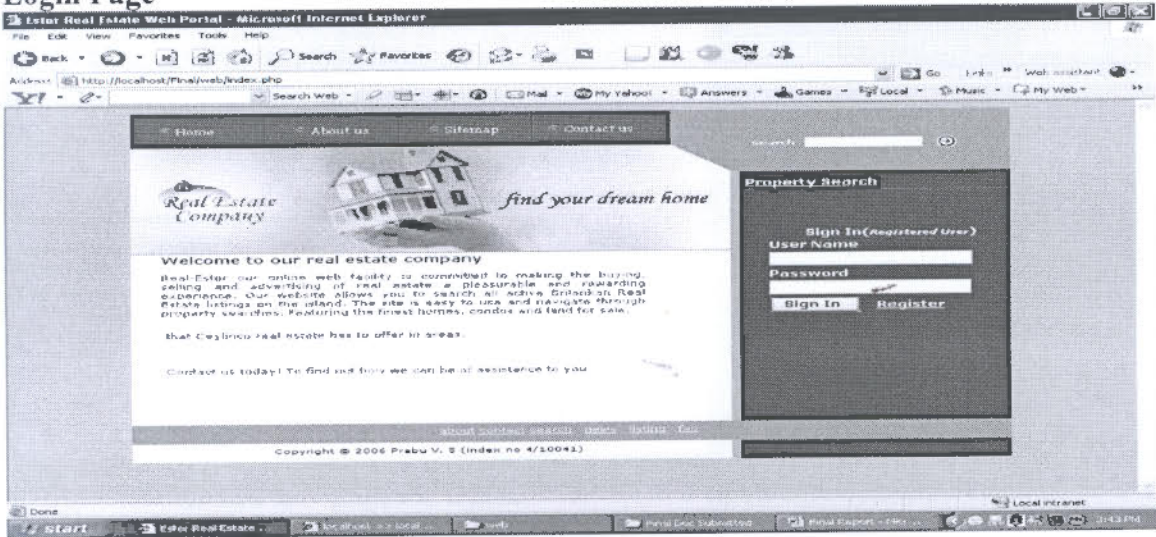
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The above two diagram show the generalized view of the User Interface created in the project. Most of the UI screens were kept consistent so that the web site exhibited user friendliness and consistency.

Appendix G: User Guide

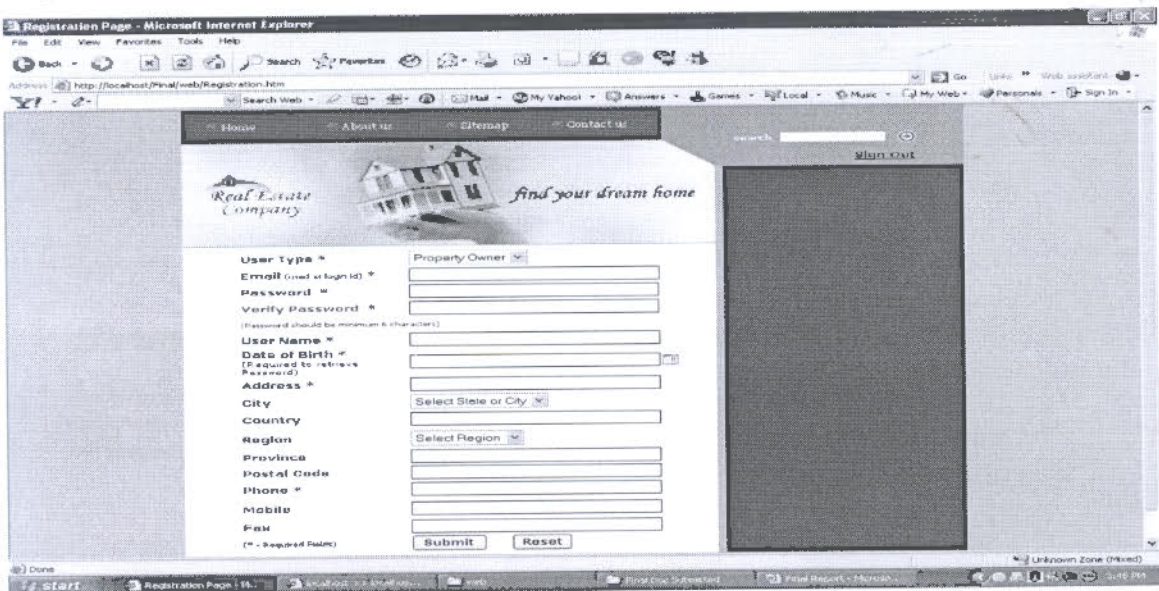
The login screen for customer view, the customer has to login to make use of the real estate functionality.

Login Page



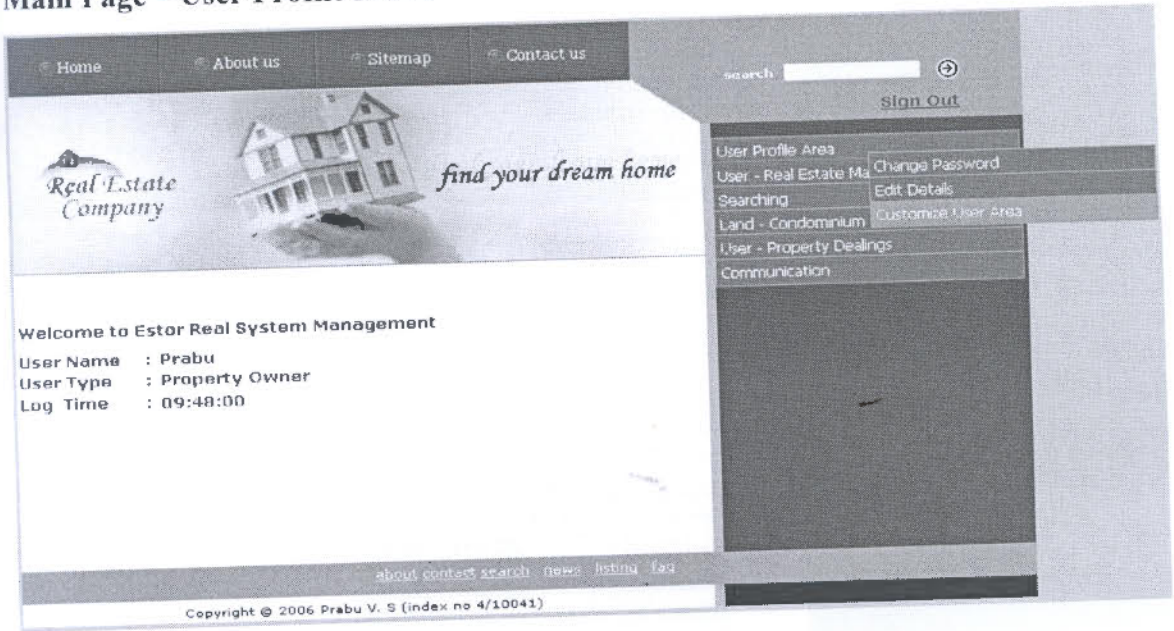
The user has to enter the correct userid and password to proceed to the main page. If wrong password or user id being entered the system returns back to login page.

Registration Page



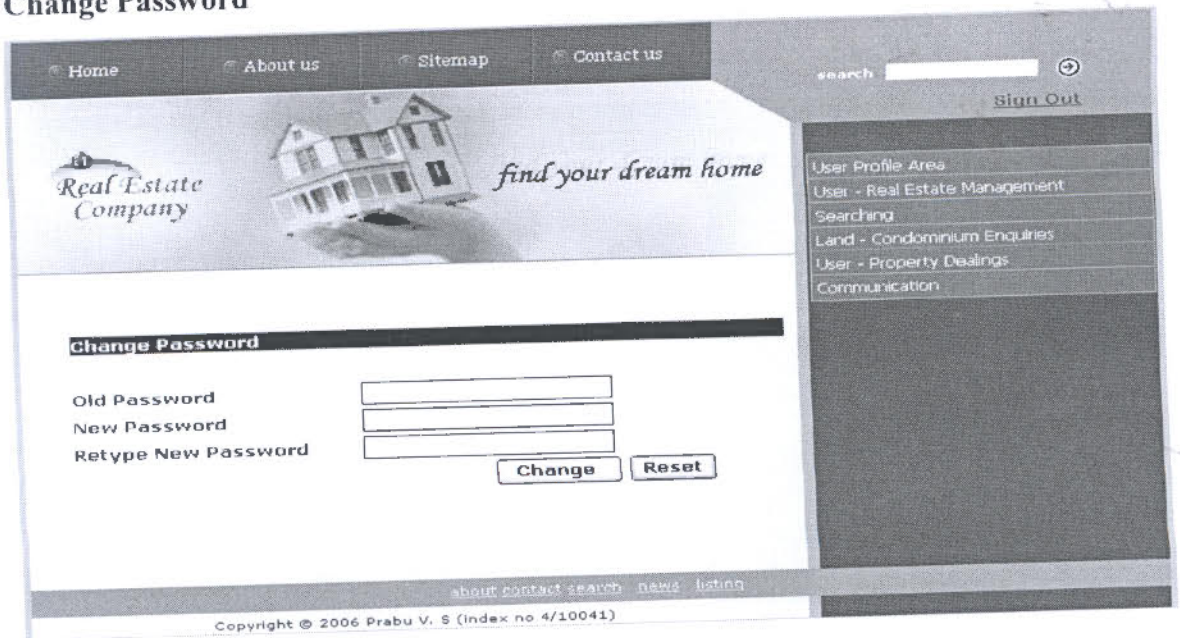
The above page provides user of the web application to register before using its functionality.

Main Page – User Profile Menu



The above form shows the main page of the customer view with the user profile area menu has been expanded.

Change Password



The above page allows authorized user of the system to change their existing password. All 3 textboxes have to be entered with valid values.

Edit Page

The edit page allows authorized user to edit their profiles. Important fields are were entry is necessary is indicated using the (*) mark.

Main Page - Real Estate Management Menu

The form above show the expanded User – Real Estate Management menu options of the online system.

Property Registration – Built / Land Property

Home About us Sitemap Contact us

Real Estate Company *find your dream home*

User Name : Prabu
 Navigation : Main Page → Property Registration Page (Built Property)

Step 1

Property Category : Built

Property Identification No (automatically generated) : BP-2006-3

Property Address :

Property City : Select City

Property Province : Select Province

Property Country : Select Country

Property Type : Rental

Submit Reset

about contact search news listing faq

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The above page allows built property to be registered into the system.

Property Reservation

Real Estate Company *find your dream home*

User Name : Prabu
 Navigation : Main Page → Property Listing Page

Property Category : Buildings

Status : Open Search

Pic	Code	City	Status	View	Reserve
	BP-2006-2	Colombo	OPEN	View	Reserve

about contact search news listing faq

The property Reservation form allows users to list property and reserve property.

Property Advertising Page

Property ID	Activity
BP-2006-2	View
LP-2006-2	View
LP-2006-1	View
BP-2006-1	View

The property advertising page allows users to send request to advertise their properties either on the web site or on newspaper or magazines.

Appointment Scheduling

Plc	Code	City	Status	View	Schedule
	BP-2006-2	Colombo	OPEN	View	Appointments

Allows users to fix appointments with real estate management staff for visiting or further discussion on the chosen property.

Loan Request

Home About us Sitemap Contact us search Sign Out

Real Estate Company find your dream home

User Name : Prabu
Navigation : Main Page → Property Listing Page

Property Category : Buildings
Status : Open Search

Pic	Code	City	Status	View	Request
	BP-2006-2	Colombo	OPEN	View	Loan Request

User Profile Area
User - Real Estate Management
Searching
Land - Condominium Enquiries
User - Property Dealings
Communication

Allows user to select property for buying and also allows users for posting loan request.

Property Enquiry

Home About us Sitemap Contact us search Sign Out

Real Estate Company find your dream home

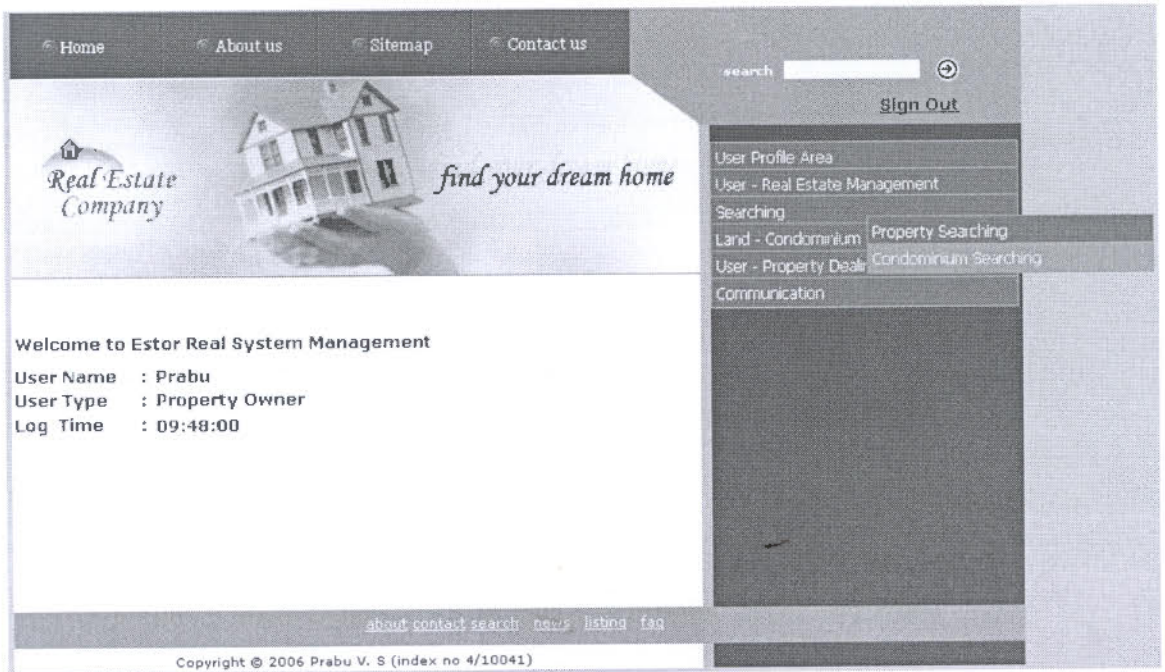
User Name : Prabu
Navigation : Main Page → Property Registration Page (Built Property)

Step 1
Enquiry Category : Building
Enquiry Details :
(Specify your property details in the above field)
Submit Reset

User Profile Area
User - Real Estate Management
Searching
Land - Condominium Enquiries
User - Property Dealings
Communication

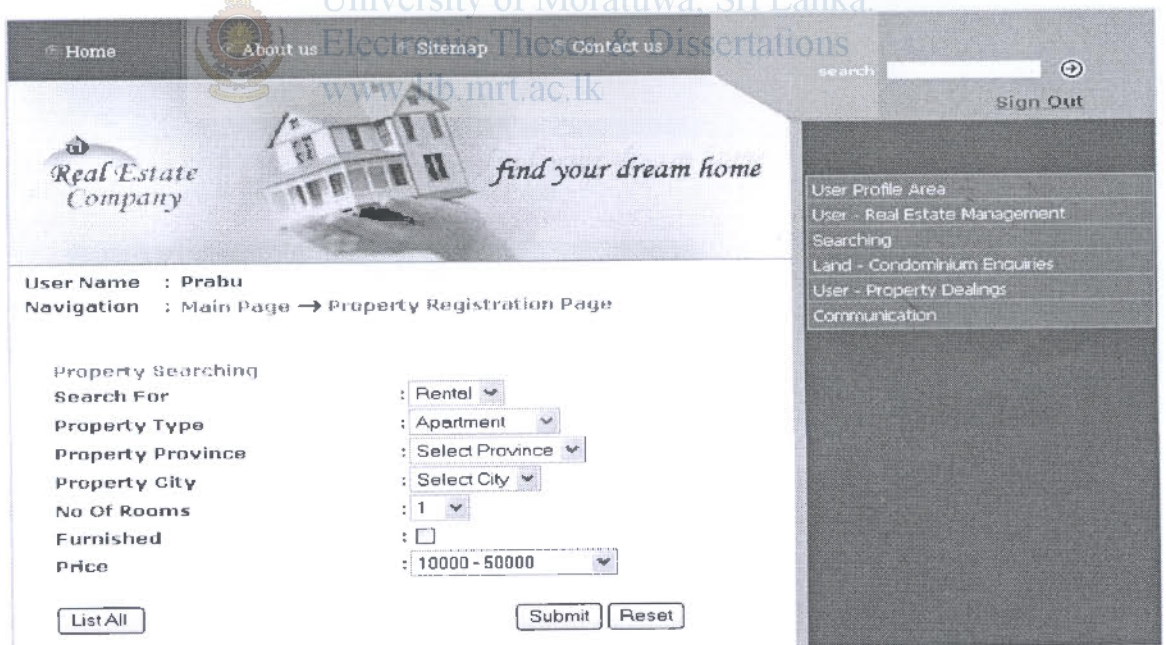
The web page allows users of the system (customers) to post property enquiries.

Main Page - Property Searching Menu



The form above helps to perform searching options available in the online application

Advanced Search Option



The page allows users to specify criteria for searching property.

Property Enquiry Listing

User Name : Prabu
Navigation : Main Page → Property Listing Page

Enquiry Date	Enquiry Category	Status	Staff Assigned	Activity
30/07/2006	Building	IN-PROCESS	vs_prabu	View
30/07/2006	Building	IN-PROCESS	vs_prabu	View

The page allows users to view their enquiries and status of the enquiries.

Property Advertisement Listing

User Name : Prabu
Navigation : Main Page → Property Listing Page

Enquiry Date	Enquiry Category	Status	Advertisement Request Date	Activity
AD-2006-0001	SpotLight	APPROVED	24/07/2006	View
AD-2006-0002	SpotLight	PENDING	24/07/2006	View

The page shows the properties being advertised by the user using this system.

Appointment Listing

Real Estate Company *find your dream home*

User Name : Prabu
 Navigation : Main Page → Property Listing Page

Enquiry Date	Enquiry Category	Status	Staff Assigned	Activity
APP-2006-0001	BP-2006-2	PENDING	Not Assigned	View
APP-2006-0002	LP-2006-1	PENDING	Not Assigned	View
APP-2006-0003	DP-2006-2	PENDING	Not Assigned	View

Sign Out

- User Profile Area
- User - Real Estate Management
- Searching
- Land - Condominium Enquiries
- User - Property Dealings
- Communication

Show the users requested appointments and their status

Loan Listing

Real Estate Company *find your dream home*

User Name : Prabu
 Navigation : Main Page → Property Listing Page

Enquiry Date	Enquiry Category	Status	Staff Assigned	Activity
LN-2006-0001	BP-2006-2	PENDING	Not Assigned	View
LN-2006-0002	BP-2006-2	INPROGRESS	vs_prabu	View

Sign Out

- User Profile Area
- User - Real Estate Management
- Searching
- Land - Condominium Enquiries
- User - Property Dealings
- Communication

The web page shows the user loan request and their status.

Communication Message Box

Real Estate Company *find your dream home*

User Name : Prabu
Navigation : Main Page → Property Listing Page

Message Date	Sender	Message	Activity
vs_prabu	29-07-2006	ow are you clinet ..	View
vs_prabu	29-07-2006	ow are you clinet ..	View
vs_prabu	29-07-2006	sssss	View

Sign Out

- User Profile Area
- Staff Management Area
- User - Real Estate Management
- Enquiry Handling
- Communication

The web page allows the users of the system to view message posted by the staff of the real estate organization.

Home About us Sitemap Contact us

Real Estate Company *find your dream home*

University of Moratuwa Sri Lanka
Faculty of Distance Education
www.lib.mrt.ac.lk

Welcome to Estor Real System Management

User Name : Prabu
User Type : Management Staff
Log Time : 09:58:24

Search

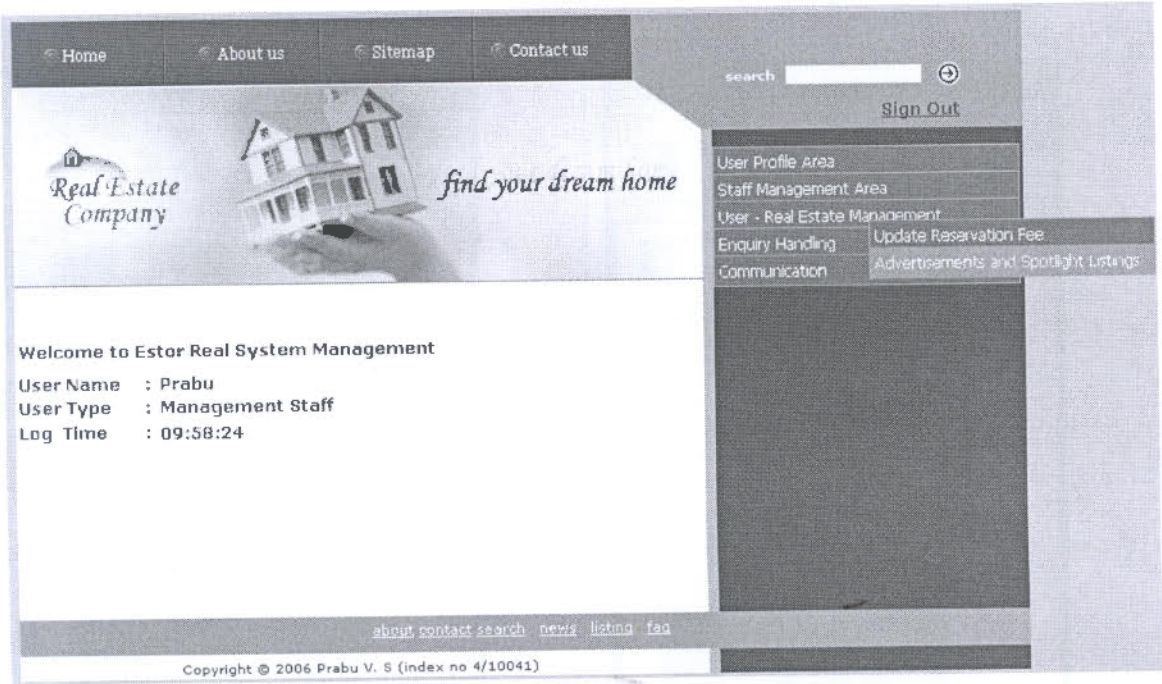
Sign Out

- User Profile Area
- Staff Management Area
 - Add New staff
 - Reset Password
 - Log Details
- User - Real Estate Ma
- Enquiry Handling
- Communication

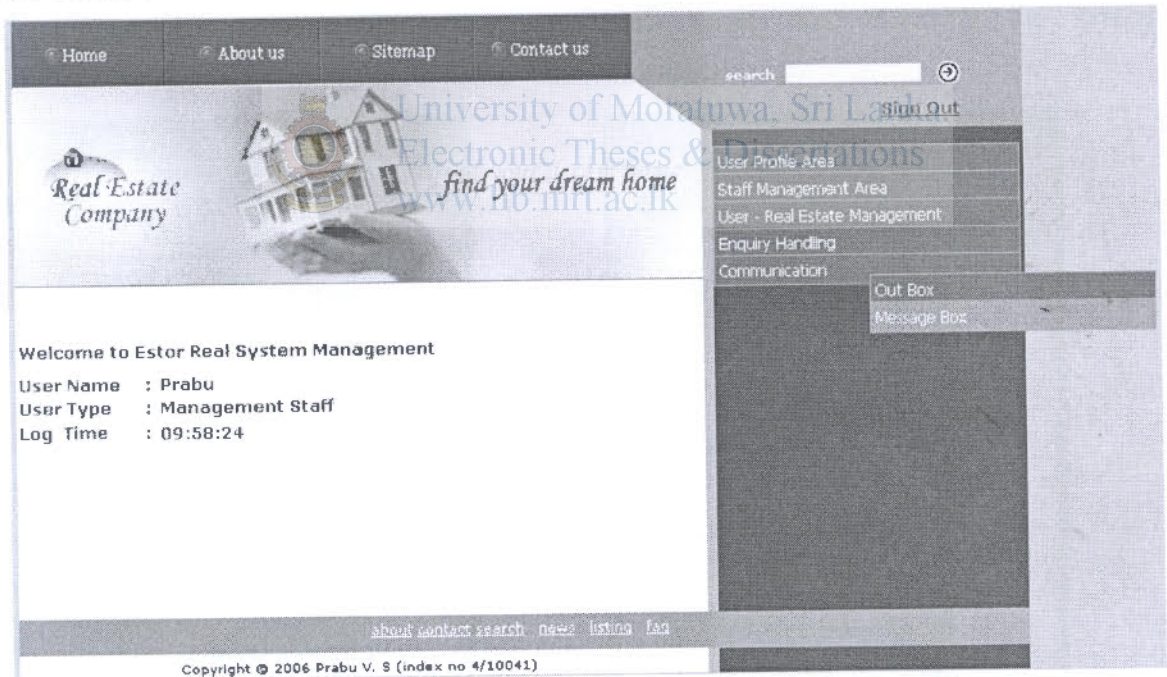
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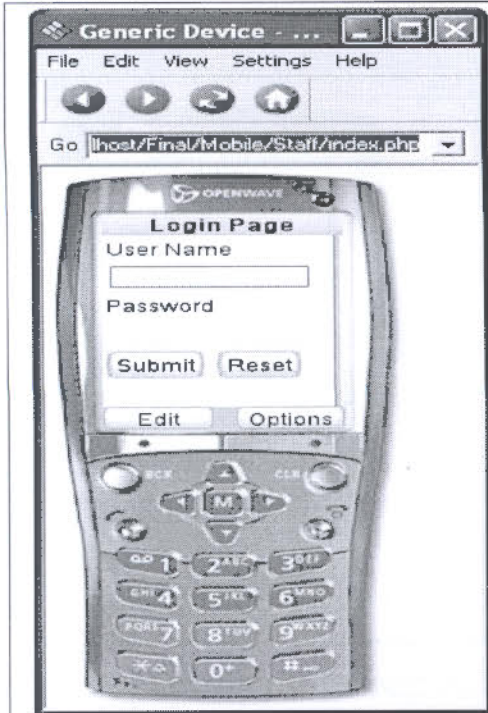
The form allows the administrator to add users to the system, reset password and list the log details.



The above form helps staff or administrators of the system to handle enquiries posted by the customers.



Allows staff or administrators to send messages to the customer and view already sent message.



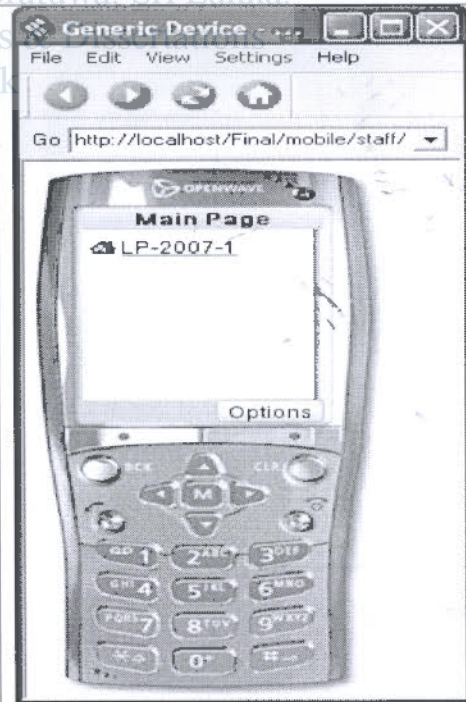
Mobile based interface for login



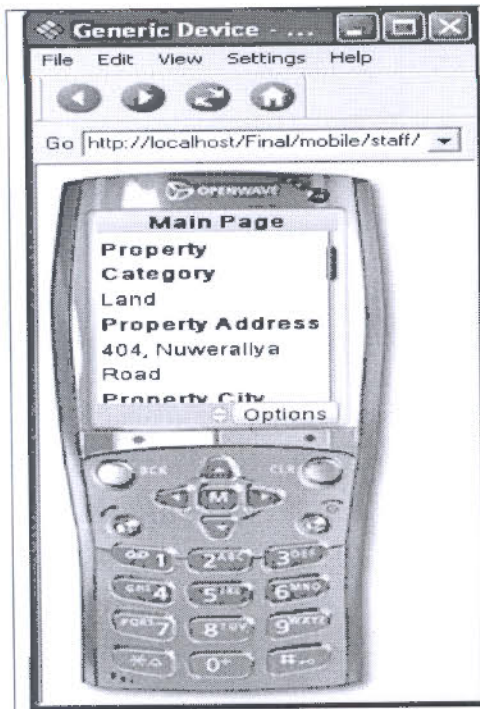
Main menu for accessing the system functionalities



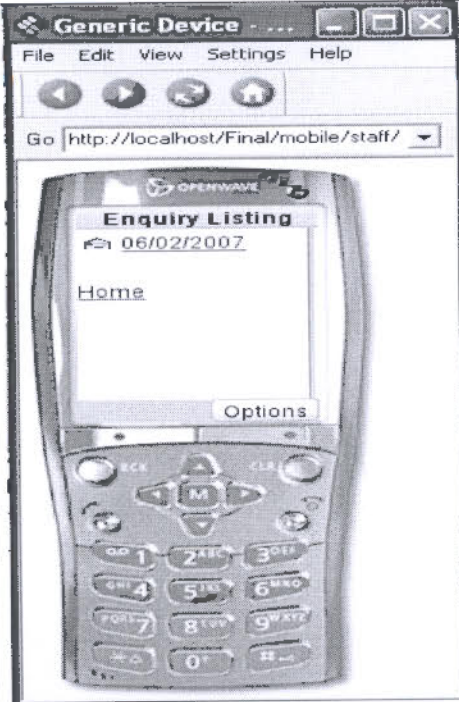
Mobile Interface for property search operations



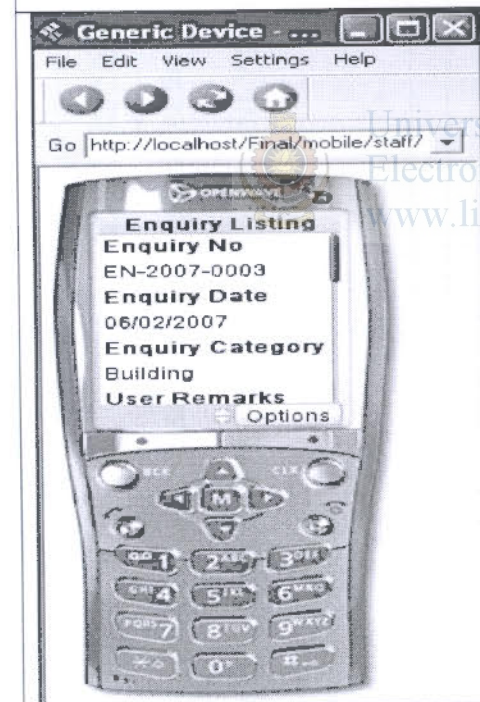
Interface that list all the available land property



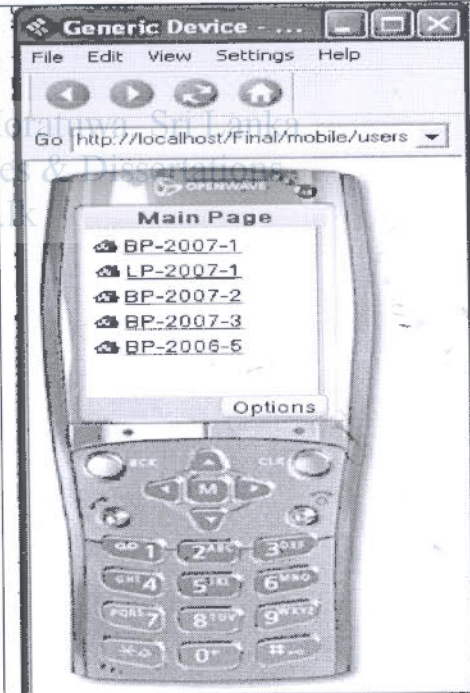
Interface that displays the property details



Property enquiry interface for mobile users



Interface displaying details of property enquiry for mobile users



List of all properties being displayed as a result of search activity

Appendix H: Sample Questionnaire

QUESTIONNAIRE

This section consists of data relevant to individual characteristics of the respondent.

INSTRUCTIONS: PLEASE INDICATE (X) ONE ANSWER ONLY IN THE GIVEN SPACE.



INDIVIDUAL CHARACTERISTICS

1. Organization Name: _____

2. Your Name: _____

3. What is your present position in the organization?

- 1. Chief Executive Officer (CEO) _____
- 2. Director _____
- 3. Manager _____
- 4. IT executive _____
- 5. Any Other (Please specify) _____

4. What is your gender?

- 1. Male _____
- 2. Female _____

5. What is your age?

- 1. Less than 25 Years _____
- 2. 25 - 34 Years _____
- 3. 35 - 44 Years _____
- 4. 45- 54 Years _____

5. 55 Years and above

6. Please indicate your educational qualifications (You can fill each row if applicable)?

	Computing	Business	Other
1. Diploma	_____	_____	_____
2. Higher Diploma	_____	_____	_____
3. Bachelors Degree	_____	_____	_____
4. Masters Degree	_____	_____	_____
5. Doctorate	_____	_____	_____
6. Professional Qualifications (CIMA, CIM, BCS, ACS)	_____	_____	_____
7. Any other (specify)	_____	_____	_____

INVOLVEMENT OF WEB – MOBILE TECHNOLOGY IN REAL ESTATE INDUSTRY

One of the important purposes of this survey is to identify the features to be automated in an online system.

7. Are you a computer literate?

If YES then, how would you rate your IT Knowledge?

- 1 - No (0%)
- 2 - Limited (25%)
- 3 - Average (50%)
- 4 - Good (50-75%)
- 5 - Excellent (>75%)

YES/NO

8. How would you rate your internet usage?

- 1 - Not at all (0%)
- 2 - Limited (25%)

- 3 - Average (50%)
- 4 - Good (50-75%)
- 5- Excellent (>75%)

9. For what purpose do you use internet?

1. Email	
2. Online Games	
3. News	
4. Stock Exchange Applications	
5. Chatting	
6. Searching information using Search tools	
7. Using Peer - to - Peer software's	
8. Other online Application	

10. Do like investing on real properties?

- 1 - YES
- 2 - NO

11. If you have marked anything other than 'Not at all' for question 11 then, state what media would you prefer to get information about real properties

- 1 - News Papers
- 2 - Magazines
- 3 - Internet
- 4 - Hand bills
- 5- Banners
- 5- Other

If others please state _____

12. Have you used any real estate companies for buying or selling or renting property?

1 - YES

2 - NO

13. If your choice was YES to the previous questions then, State your experience?



14. Would an online real estate management system benefit you on buying real properties? If you answer is 'Yes' please state how?

1. Yes

2. No

13. Have you used an online system to keep track of information pertaining to real estate transaction?

1. Yes

2. No

If Yes, Please state the online system

14. For the Previous Questions if the reply was NO, then would you like your real estate activity to be computerized?

1. YES

2. NO

15. What features would you expect from the real estate online system? Please rank your choice

1.	Property registration (Vacant Land /Built)	
2.	Property search based on districts (Vacant Land / Built)	
3.	Property search for rental	
4.	Property search for purchasing	
5.	Accessibility to owner details	
6.	Accessibility to agents details	
7.	Scheduling appointment with brokers	
8.	Scheduling appointment with customers	
9.	Online property advertisement	
10.	Allowing users to perform payments online	
11.	Securing the online system	
12.	Second hand Property Advertising	
13.	Construction Buyer Inquiry Handling	
14.	Easy use of interface for web application	

16. If there are any features missing above, please specify them

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	

17. Do you make use of mobile phones?

1. YES
2. NO

18. For what purpose do you use mobile phones, other answering or making phone calls?

1. Surfing internet	
2. Games	
3. Using mobile applications	
4. SMS	
5. Others , Please State	

19. If you have selected 'using mobile application' options for the previous questions then state whether having a mobile application for real estate management will benefit you?

1. YES
2. NO

20. If YES, what features would you expect from the mobile based real estate system? Please rank your choice

1. Property search based on districts	
2. Property search for rental	
3. Property search for purchasing	
4. Accessibility to owner details	
5. Accessibility to agents details	
6. Scheduling appointment with brokers	
7. Scheduling appointment with customers	
8. Securing the online system	
9. Easy use of interface for mobile application	

21. If there are any features missing above, please specify them