

SW Engineering CSC648/848

Section 01 Fall 2017

Project RECycle

Team 13

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Milestone 2

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Date	Document History
10/27/2017	First Draft (Submitted for Review)
11/2/2017	Final Draft (Requests Incorporated into Doc)

1. Data Definitions V2

1. Types of users:

- a. **Browser:** Can just view the website to get an idea about the market trends
 - b. **Selling Agent:** Needs to register. Can add house details, can remove house details, can modify the house details.
 - Name,
 - ID,
 - Location,
 - Years of experience,
 - Reputation(E, G, F)/(Rating),
 - Photo,
 - Contact Info,
 - House Listed
 - c. **Buyer:** Has to register to purchase a property. He can buy house or contact the seller to have a look at the house.
 - Name,
 - ID,
 - Location,
 - ContactInfo,
 - Interested property name,
 - Photo.
 - d. **Admin:** Admin can ban users, remove properties from listing, view statistics for the website.
 - Name,
 - ID,
 - Admin specific GUI,
 - Log in portal
- ## 2. **Property details:** Contains Details of the property
- Date of posting
 - Seller of house
 - Property location/address (elaborated on below),
 - Size in square feet,
 - Price,
 - Number of bedrooms,
 - Bath, Kitchen,
 - Lot size,
 - Date of construction,
 - Images of house
- ## 3. **Address details:** Contains the address details
- Zipcode,
 - City,
 - Street,
 - Country,
 - Apartment number/House number

NOTE: Data definitions within MVC mockups and vertical prototypes are more or less consistent with milestone 1. Modify this page as new data definitions are added.

2. Functional Requirements V2

Priority 1

Buyer

1. The buyer shall be able to search the website for a property using zipcode, name of the city
2. The buyer shall be able to filter the search details by price, the area of the property, the number of rooms and the year of construction
3. The buyer shall be able to see a list of featured properties in the home page (as will all users)
4. The buyer shall be able to sign in, register and create an account for himself/herself
5. A registered buyer will be able to contact the seller

Seller

6. The seller shall be able to sign in, register and create an account for himself/herself
7. The seller shall be able to add/delete/modify details of the property
8. Seller will be able to view current listings as well as contacts at their personal dashboard.

Admin

9. The admin shall be able to suspend a seller/buyer if needed

Priority 2

Buyer

10. The buyer shall be able to edit his/her profile
11. Buyer will be able to view 'favorited' homes on dashboard as well as contacts.

Seller

12. The seller shall be able to edit his/her profile
13. The seller shall be able to contact a customer service representative through interactive messaging

Admin

- 14. The admin shall be able to add/delete/modify the details of property
- 15. The admin shall be able to contact a seller/buyer by message

Priority 3

Buyer

- 16. The buyer shall be able to contact a customer service representative through interactive messaging
- 17. The buyer shall be able to send message or email to the seller/real estate agent
- 18. The buyer shall be able to rate a seller

Admin

- 19. The admin shall be able to respond a seller/buyer

3. UI Mockups and Storyboards

Starts on next page.

#1 Homepage.

Use case: buyer, seller
Admin

Signin

Signup

pop up
sign in

Welcome,
username: _____
password: _____
Forgot your password? Need to sign up?

click
log₁₀
90 to
#1

RECycle

- profile #4
- favorite #5
- Sell dashboard #10
- edit profile #15
- ...
- Customer service #6
- Logout

eye
to
#2
is not
sigh in

Buy a house

Sell a house -

More houses...

Adv

Adv

click
to
new
Info
#11

New

New

Box

No. 11

Adv

May


Adv

About

Help

Folder

2017

REcycle 


Sign up your account

username: _____

Password: _____

confirm your password: _____

password level



phone: _____

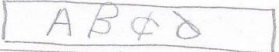
Email: _____

Address: _____

store ☐ Zipcode: _____

city: _____

captcha




go to
1

go to
#1

#3
sign in Page

User: Buyer, Seller, Admin

REcycle 

Sign in

Welcome,

Username: _____

Password: _____

go to #1 go to #1


Forget your password? go to #13

Need to sign up? go to #2

*If user click on profile, favorite, seller dashboard, it would redirect to this page.

#4
User Profile

we case i seller, buyer,
admin

RECYCLE 



User Profile

Info

Info

User name : _____

User Email : _____

User Phone : _____

User Account created date : _____

User last login : _____

Send Message



to #7

Footer

#5
Edit Profile/Favorite

we care: seller,
buyer,
admin

go to 1

Recycle 



set
this
as
header

Edit Profile/Favorite

Inbox ←

Edit

Favorite

Inbox

Edit
similar as user Profile except no send message

UserEmail: _____

User password: _____

confirm password: _____

phone: _____

address: _____

state ☒ Zipcode: _____

city: _____

cancel

ok

Favorite

Addr	Price	Rating	

Favor

Inbox





Reply?

#6

we have: buyer, seller

customer service

RECycle 



Customer service

- subject :
- problem / issue :

cancel

send

Footer

go to #1

#7
Message a user

Use case: seller, buyer, Admin

REcycle

Send a message

Reason

↓

issue

buy a house

others

drop down menu

issue

• subject: _____

• description:

cancel

ok

buy a house

• house address or ID

• subject: _____

• description: _____

cancel

ok

others

• subject: _____

• description:

cancel

ok

Footer

RECYCLE



Admin Page

Index

same as seller
burger

All user

click can go to user page

All users

Username

Jack

All house

Edit Users

All house

click can go to house this page

house Id

Addr

123


Edit User

Username



#9
sell house

wechat: seller

REcycle 



Sell a house / Fill in house Information

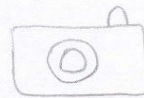
upload picture

upload picture

Address

description

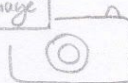
=
=
=



upload house image



upload more image



max is
5

Confirm

Footer


go
to
#1

description

Address

#10
Seller dashboard


usecase: seller

REcycle 







Seller dashboard

Edit button


Add a house


go to
#9

	Address	price	rating	customer Info
				
				
				
...				

Footer

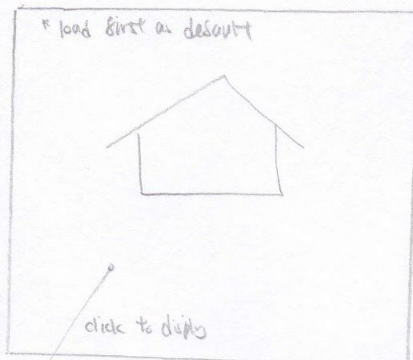
#11
buy a house (house info)

usecase: buyer

RECYcle 



House info



House address: _____




add
to
favorite

House description: _____

house price

Seller name: _____

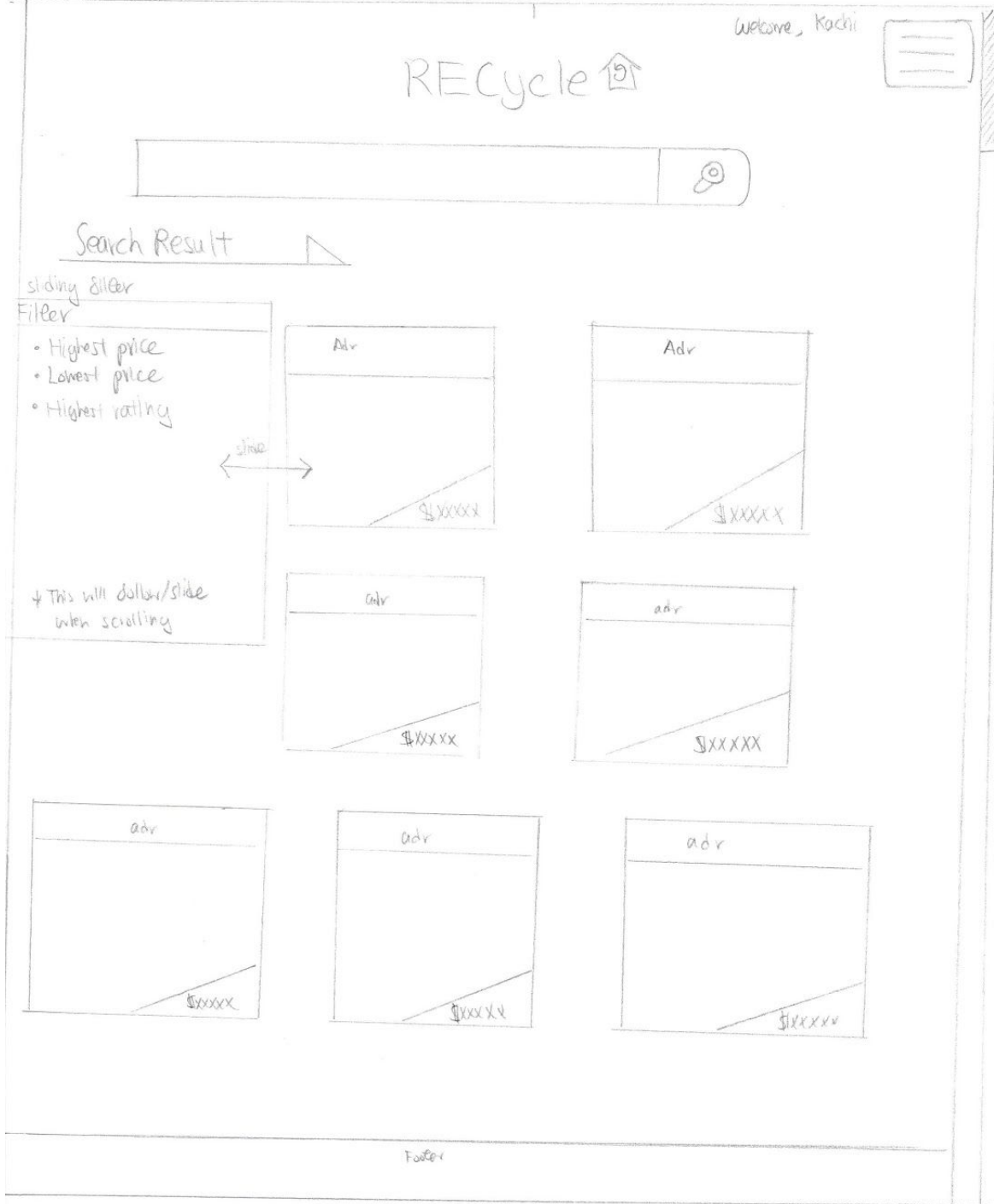
Selling rating: 


★★★★★

click the name to
go to user profile

Buy the house / contact seller

go to #1



RECycle 



Forgot your password?

Type your email/username: _____

We will send you a email with your password soon!

Resend?

cancel

ok

Footer

go to #1

go to #1

#14 Edit house

Use case: seller

RECycle

Edit a house

upload a picture

Address

description

≡

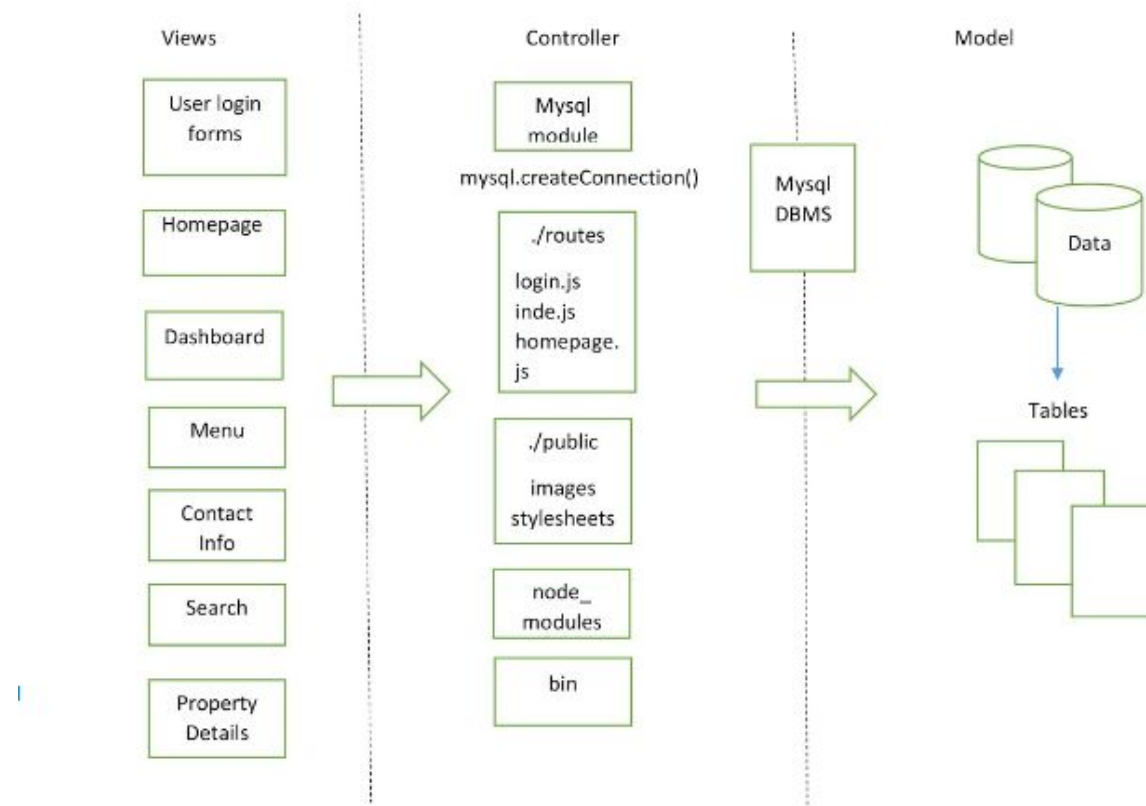
Edit

Address

Footer

4. High-level Architecture & Database Organization

High-Level Architecture



Database Organization

Two tables organized in the next page.

Property Table

Size (square feet)
Price
Bedroom #
Bathroom #
Lot size
Date of Construction
Images of House
Property Type
House #
Street
Zip Code
City
State
Country

Seller Table

Name
ID (identification of any kind)
Location
Years of Experience
Reputation
Photo
Contact Info
House Listings

Media Storage

Use a folder on server to store images of houses.

Search/Filter Architecture/Implementation

Use the 'like' clause in SQLQuery to have an all-inclusive string-based search. The like clause solves all of the issues.

APIs

None as of now.

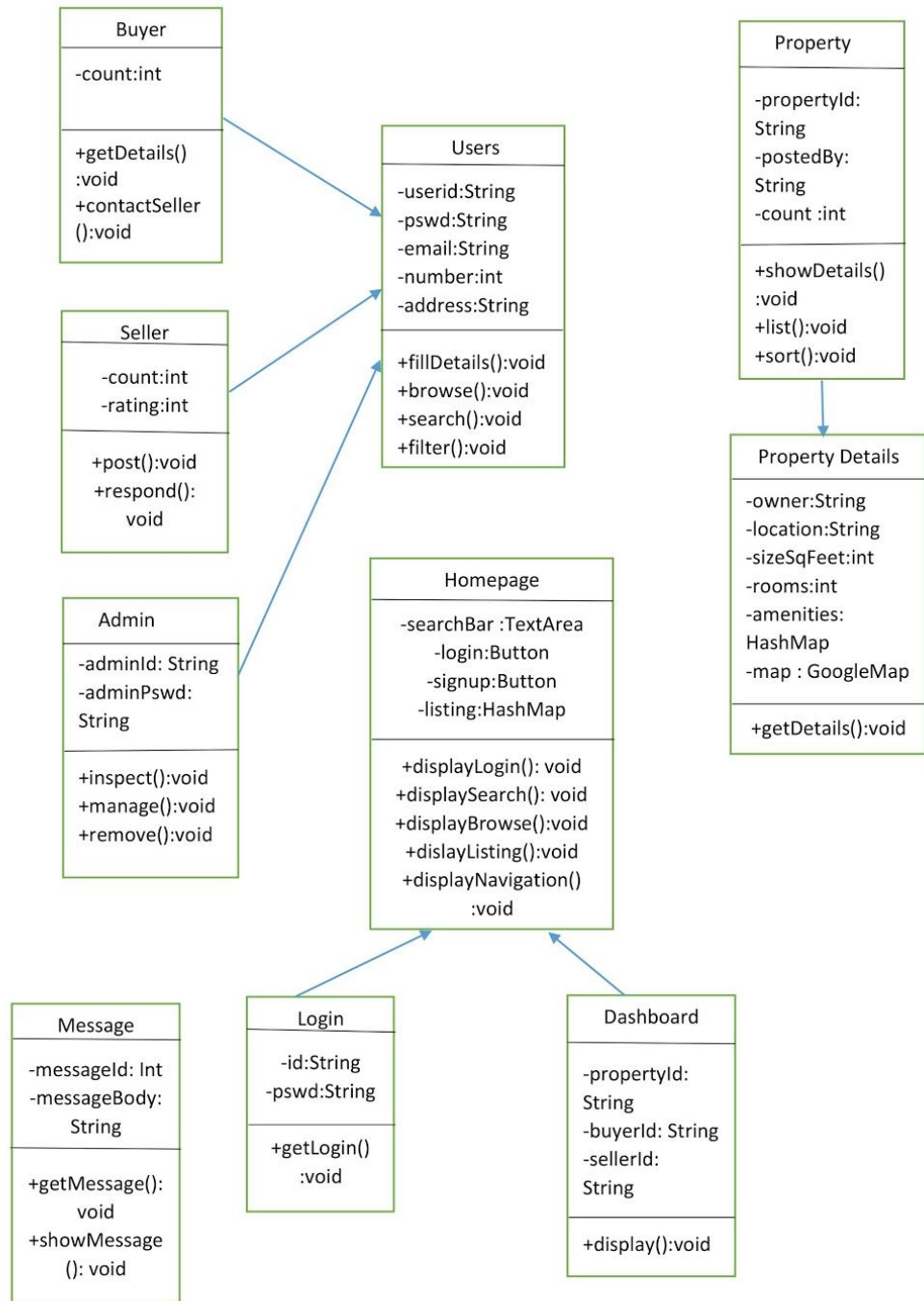
Non-Trivial Algorithms

None of note.

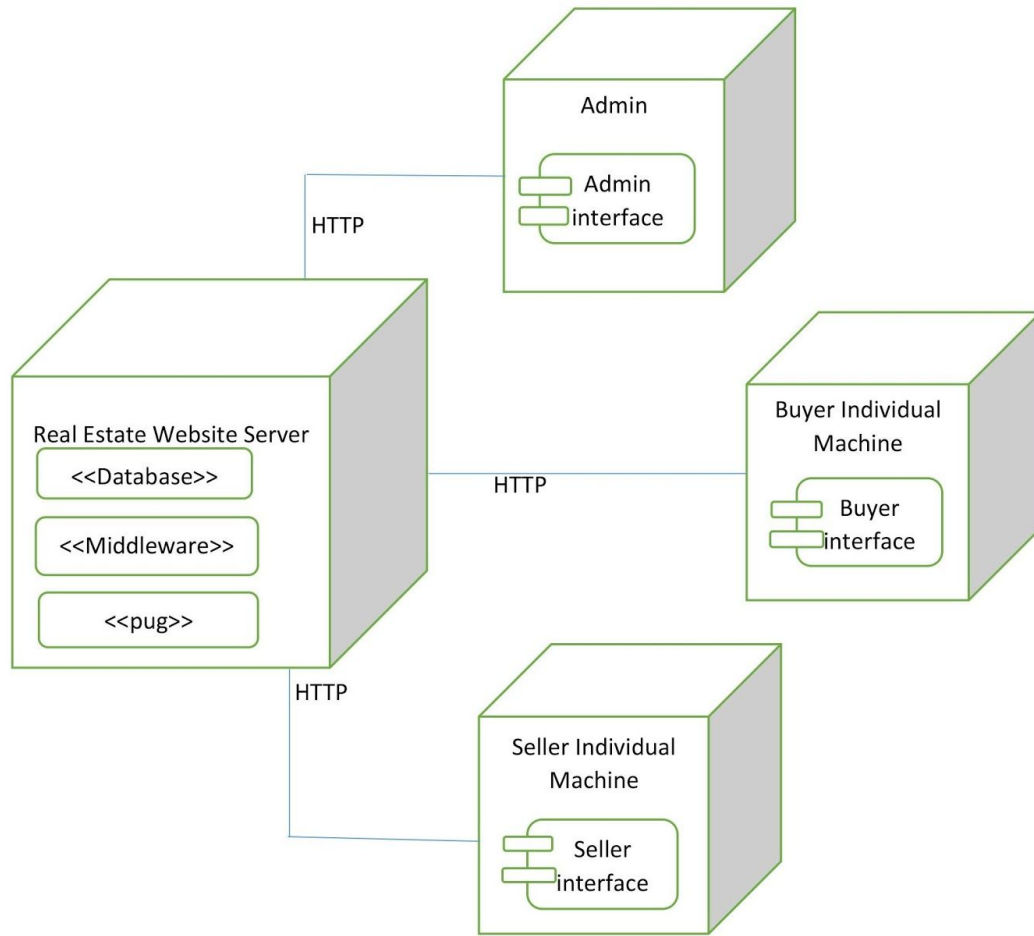
5. High-level UML Diagrams

Class Diagram

Featured on next page.



Deployment Diagram



6. Risks of the Project

For this project, there are several risks we would like to discuss. The two broad types of risks I think are relevant to our group are *technical risks* and *legal/content risks*.

Technical Risks

This project is introducing the members of our team to many new frameworks & tools that we are not well acclimated with, and that has imposed some difficulties on us already. Currently our technical issue is figuring out the implementation of various parts of the website's database, and this issue is taking up some amount of time. It is likely that issues similar to this will crop up as development on the website continues, so we note this risk as one that will exist throughout the project's duration. The reader of this paragraph may well claim that this risk directly relates to *scheduling risk* as well (in that solving technical issues creates the necessity for a time extension for the various project milestones), however our group has yet to fail to submit a milestone on time, so I do not believe that scheduling risks are all that likely.

Legal/Content Risks

The other possible risk we observe is related to copyright- our website will require the use of plenty of images of houses, some of which will be copyrighted by vengeful copyright vultures who would like to make a quick buck off of poor students using their images. While we do think the risk of copyright infringement is low, as the website will be pretty much inaccessible unless you have knowledge of it beforehand, we suppose the chance of occurrence is not 0, so we list it as a possible risk.