

December 19, 2017

Final Project for SW Engineering Class  
CSC 648-848 Section 02 Fall 2017

# UNLOCK.COM

Team 01

Sannuj Singhal (ssinghal@mail.sfsu.edu)

Joseph Wibowo

Paul Fontaine

Daniel Herrera

Gurchetan Johal

Steven Huynh

URL location: [sfsuse.com/fa17g01](http://sfsuse.com/fa17g01)

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## **1. Product Summary**

The name of our product is unlock.com. Through unlock.com we aim to provide the simplest home buying experience available in the market today. Though our website does not have a unique feature to set us apart from the competition, we are sure that the simplicity of using our website will attract a large user base.

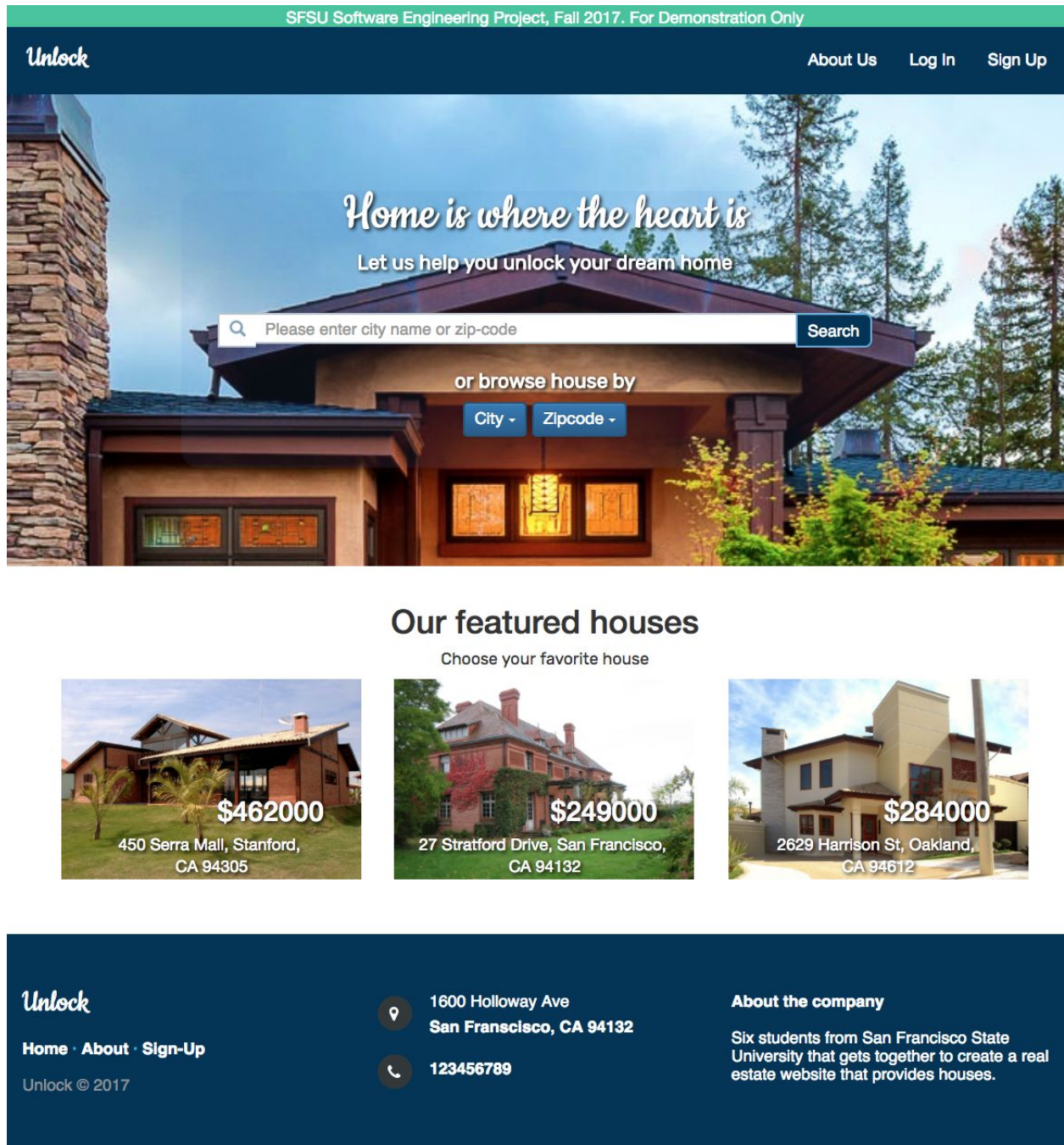
These are the basic features we have implemented for our users:

1. An unregistered buyer/seller will be able to view featured houses on the home page.
2. An unregistered buyer/seller will be able to search for a house based on city name or zip-code.
3. An unregistered buyer/seller will be able to view the number of results that are available after using the search option.
4. An unregistered buyer/seller will be able to view a property listing.
5. A listed property will have pictures of it on display for unregistered buyers/sellers to see.
6. A listed property's location will be shown on a map for unregistered buyers/sellers to see.
7. An unregistered buyer/seller will be able to sign-up for the website.
8. A registered buyer/seller will be able to do all the things described above.
9. A registered buyer/seller will be able to log-in to the website.
10. A registered buyer will be able to contact a real estate agent after viewing a property listing.
11. A registered seller will be provided a personalized dashboard.
12. A registered seller will be able to post new property listings.
13. The admin, using workbench, will be able to delete user accounts.
14. The admin, using workbench, will be able to delete property listings.

You may view unlock.com at the following link: [sfsuse.com/fa17g01](https://sfsuse.com/fa17g01)

### 3. Screen Shots of actual final product as shown in the demo

#### 3.1 Home Page (Unregistered User)



### 3.2 Search Results Page (Unregistered User)

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Unlock

City ▾ Zip code ▾ Enter City or ZIP code Search

About us Log in Sign Up

Found 1 results for San Francisco:



\$249000

27 Stratford Drive, San Francisco, CA 94132

Large place for comfortable living

Unlock

Home · About · Sign-Up

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1600 Holloway Ave  
San Francisco, CA 94132



123456789

About the company

Six students from San Francisco State University that gets together to create a real estate website that provides houses.

### 3.3 Property Listing Page (Unregistered User)

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Unlock

City ▾ Zip code ▾ Enter City or ZIP code Search


About us Log in Sign Up

\$249000

27 Stratford Drive

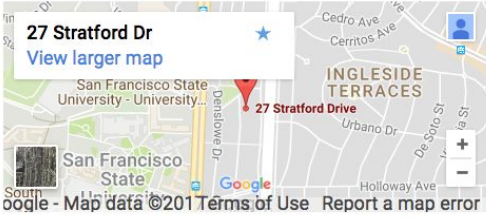
Large place for comfortable living

Street: 27 Stratford Drive
ZIP: 94132
City: San Francisco
Price: \$249000
Description: Large place for comfortable living
Bedrooms: 3
Baths: 2
Backyard: 1
Pool: 1
AC: 1
Publish Date: Tue Dec 19 2017 08:15:02 GMT+0000 (UTC)
Year: 2000



Hello! I really like this house, please give me further information about this house please

Please Log In to Send Message Or Create My Account



27 Stratford Dr  
View larger map

San Francisco State University - University...  
INGLESIDE TERRACES  
27 Stratford Drive  
San Francisco State  
Holloway Ave  
Google - Map data ©2017 Terms of Use Report a map error

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1600 Holloway Ave  
San Francisco, CA 94132

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About the company

Six students from San Francisco State University that gets together to create a real estate website that provides houses.


### 3.4 Sign Up Page (Unregistered User)

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Unlock

City ▼ Zip code ▼ Enter City or ZIP code Search

About us Log in Sign Up



Create an account.

Username

Email

Password

Password (repeat)

☒ Buyer

☐ Seller

☐ I agree to the terms of service.

Sign Up

You already have an account? Login here.

Unlock

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San Francisco, CA 94132

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About the company

Six students from San Francisco State University that gets together to create a real estate website that provides houses.



### 3.5 Log In Page (Registered Buyer/Seller)

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Unlock


City ▾

Zip code ▾

Enter City or ZIP code

Search

[About us](#)[Log in](#)[Sign Up](#)



## Login to your account.

Username

Password


Log me in

Don't have an account? [Sign up here.](#)


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San Francisco, CA 94132



123456789

**About the company**

Six students from San Francisco State University that gets together to create a real estate website that provides houses.



### 3.6 Property Listing Page (Registered Buyer)

**\$249000**

**27 Stratford Drive**

Large place for comfortable living

**Street:** 27 Stratford Drive

**ZIP:** 94132

**City:** San Francisco

**Price:** \$249000

**Description:** Large place for comfortable living

**Bedrooms:** 3

**Baths:** 2

**Backyard:** 1

**Pool:** 1

**AC:** 1

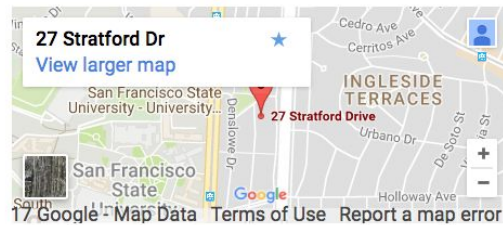
**Publish Date:** Tue Dec 19 2017 08:15:02 GMT+0000 (UTC)

**Year:** 2000



Hello! I really like this house, please give me further information about this house please

Send Message



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San Francisco, CA 94132



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#### About the company

Six students from San Francisco State University that gets together to create a real estate website that provides houses.

### 3.7 Message Sent Pop Up Page (Registered Buyer)

The screenshot shows a web application interface for a real estate website. At the top, there is a navigation bar with the 'Unlock' logo on the left and links for 'About us' and 'HI testbuy' on the right. Below the navigation bar, there is a header section with a 'City' dropdown menu and a 'Zip code' input field. The main content area is divided into two columns. The left column displays property details for a house at '27 Stratford Drive'. The details include the price '\$249000', a description 'Large place for comfortable living', 3 bedrooms, 2 baths, 1 backyard, 1 pool, and 1 AC. The publish date is 'Tue Dec 19 2017 08:15:02 GMT+0000 (UTC)' and the year is '2000'. The right column features a large image of the house, a text input field with the placeholder text 'Hello! I really like this house, please give me further information about this house please', a 'Send Message' button, and a map showing the location of the house at '27 Stratford Dr' in San Francisco. A modal dialog box is open in the center of the screen, displaying the message 'Message sent !'. The dialog box contains the text 'Your message has been sent!', 'The agent in charge of this house will contact you soon on your email address.', and 'Thank you.' There is a 'Close' button in the bottom right corner of the dialog box.

### 3.8 Agent Dashboard/View Posted Listings Page (Registered Seller)

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City ▾Zip code ▾Enter City or ZIP codeSearch

About usDashboardHi testsell

Agent Dashboard

House Listing

Add new house

My House Listing

Unlock

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1600 Holloway Ave  
San Francisco, CA 94132

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About the company

Six students from San Francisco State University that gets together to create a real estate website that provides houses.

### 3.9 Add New House Page (Registered Seller)

## Agent Dashboard

[House Listing](#)[Add new house](#)

### Adding new house

Please fill in the information for the new house

<b>Street</b>	<input type="text" value="ex: 123 example street"/>	<b>Backyard</b>	<input type="text" value="Please enter number of Backyard"/>
<b>Zip Code</b>	<input type="text" value="ex: 98765"/>	<b>Pool</b>	<input type="text" value="Please enter number of pool"/>
<b>City</b>	<input type="text" value="ex: San Francisco"/>	<b>AC</b>	<input type="text" value="Please enter number of AC"/>
<b>Price</b>	<input type="text" value="ex: \$123456"/>	<b>Heater</b>	<input type="text" value="Please enter number of Heater"/>
<b>Description</b>	<input type="text" value="ex: great house! with plenty of space"/>	<b>Year</b>	<input type="text" value="Enter Year"/>
<b>Bedrooms</b>	<input type="text" value="Please enter number of Bedrooms"/>	<b>Lot</b>	<input type="text" value="Enter size of the land"/>
<b>Baths</b>	<input type="text" value="Please enter number of Baths"/>	<div>Choose FilesNo file chosen</div>	

Add this house to my listing

Drop files here to upload

Upload picture

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San Francisco, CA 94132



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#### About the company

Six students from San Francisco State University that gets together to create a real estate website that provides houses.

### 3.10 About Us Page (Unregistered User)


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About us Log in Sign Up


## CSC 648 Team 1 members




**Sannuj Singhal**  
Team Lead  
[Sannuj Singhal](#)




**Joseph Wibowo**  
Front End Lead  
[Joseph Wibowo](#)




**Johal Gurchetan**  
Back End  
[Johal Gurchetan](#)



**Paul Fontaine**  
Back End Lead  
[Paul Fontaine](#)



**Steven Huynh**  
Back End  
[Steven Huynh](#)



**Danny Herrera**  
Front End  
[Danny Herrera](#)

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Six students from San Francisco State University that gets together to create a real estate website that provides houses.

## 4. Workbench screen shots of your actual DB

### 4.1 User Model Database

MySQL Workbench screenshot showing the 'users' table in the 'fa17g01' database. The table has columns: user\_id, is\_agent, username, email, and password. The query 'select \* from users' is executed, showing 25 rows. The bottom panel shows the Action Output for the query.

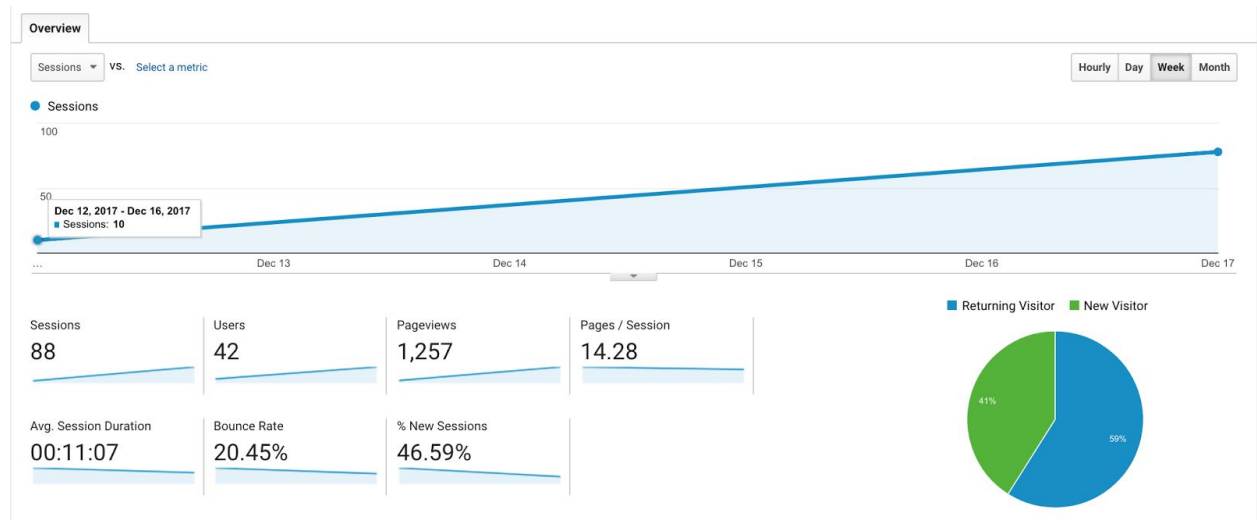
#	Time	Action	Message	Duration / Fetch
32	23:56:08	select count(*) from houses LIMIT 0, 1000	1 row(s) returned	0.031 sec / 0.000 sec
33	00:04:38	select count(*) from houses LIMIT 0, 1000	1 row(s) returned	0.031 sec / 0.000 sec
34	00:11:25	select count(*) from houses LIMIT 0, 1000	1 row(s) returned	0.046 sec / 0.000 sec
35	00:11:44	select * from houses LIMIT 0, 1000	15 row(s) returned	0.094 sec / 2.359 sec
36	00:12:18	select * from users LIMIT 0, 1000	12 row(s) returned	0.047 sec / 0.000 sec
37	00:16:25	select * from users LIMIT 0, 1000	12 row(s) returned	0.047 sec / 0.000 sec

### 4.2 Property Model Database

MySQL Workbench screenshot showing the 'houses' table in the 'fa17g01' database. The table has columns: house\_id, agent\_id, description, bedrooms, baths, backyard, pool, ac, heater, yr, publish\_date, price, street, and city. The query 'select \* from houses;' is executed, showing 26 rows. The bottom panel shows the Action Output for the query.

#	Time	Action	Message	Duration / Fetch
33	00:04:38	select count(*) from houses LIMIT 0, 1000	1 row(s) returned	0.031 sec / 0.000 sec
34	00:11:25	select count(*) from houses LIMIT 0, 1000	1 row(s) returned	0.046 sec / 0.000 sec
35	00:11:44	select * from houses LIMIT 0, 1000	15 row(s) returned	0.094 sec / 2.359 sec
36	00:12:18	select * from users LIMIT 0, 1000	12 row(s) returned	0.047 sec / 0.000 sec
37	00:16:25	select * from users LIMIT 0, 1000	12 row(s) returned	0.047 sec / 0.000 sec
38	00:17:23	select * from houses LIMIT 0, 1000	15 row(s) returned	0.094 sec / 2.609 sec

## 5. Google analytics plot for your WWW site





## 6. Team member contributions

### Sannuj Singhal (Team Lead)

#### Contribution to team



Sannuj Singhal

Tue 12/19/2017 1:58 PM

To: Joseph Wibowo <joeynathanwibowo@gmail.com>; Gurchetan Singh Johal; Paul Louis Pierre Fontaine; Steven Huynh; extra414@yahoo.com ^



Reply all | v

#### Contribution as Team Lead

- 1) Worked on integrating, completing, and submitting all milestone documents as well as final folder
- 2) Delegated tasks to team in order to ensure that they were completed
- 3) Communicated with Professor Petkovic on issues we were dealing with, and got valuable feedback on a timely manner
- 4) Helped Joey create sign-up page, that was integrated into the web page
- 5) Ran extensive QA on website to ensure site ran properly
- 6) Made sure that delivery of final product was made on time

Have a great winter break everyone!

Best Regards,

Sannuj Singhal

**Amount of commits to Github: 15**

## Joey Wibowo (Front-End Lead)

### CSC 648 team 01 Milestone 5 - Joey/ Joseph contribution



Joseph Wibowo <joeynathanwibowo@gmail.com>

Sun 12/17/2017 9:31 PM

To: ● Sannuj Singhal

Cc: Paul Louis Pierre Fontaine; extra414@yahoo.com; Gurchetan Singh Johal; Steven Huynh ↗

Joseph Wibowo Front End Lead contribution

1. Setting the server using node + express.js, setting up framework for the about pages.
2. Designed the UI mock ups of the entire website for the horizontal prototype.
3. Code and designed, the webpages.
  - Home page
  - house details page (Sannuj inspired)
  - Login page
  - registration page
  - about page
  - search results page
  - agent dashboard page
4. made changes according to Prof. Petkovic review, such as ,
  - shrink the hero page,
  - change disclaimer color,
  - change pictures of the login and registration
  - took out inbox messages.
5. worked with Sannuj to change the tweaks on some pages
6. worked with paul in connecting
  - the search bar to the back end,
  - the results page,
  - 2 tabs of dashboard,

Thanks Sannuj

Joseph

**Amount of commits to Github: 86**

## Paul Fontaine (Back-End Lead)

### CSC 648 team 01 Milestone 5 - Paul contribution



Paul Louis Pierre Fontaine

Mon 12/18/2017 8:11 PM

To: ● Sannuj Singhal

Cc: extra414@yahoo.com; Gurchetan Singh Johal; Steven Huynh; Joseph Wibowo <joeynathanwibowo@gmail.com> ↗



Reply all | ▾

Paul Fontaine Back End Lead contribution

1. Leading Back End Team
2. Design of the code and database structure with Chetan and Steven
3. Realization of the vertical prototype
4. With the Front End team, routing of their static pages for the horizontal prototype
5. New housing upload feature
6. With Steven, developed log in and sign up feature

Thanks Sannuj and thanks to the all team for this wonderful work.

Paul Fontaine

**Amount of commits to Github: 113**

## Danny Herrera (Front-End Team Member)

### Contribution



Dan Far <extra414@yahoo.com>

Mon 12/18/2017 8:55 PM

To: ● Sannuj Singhal; Paul Louis Pierre Fontaine; Steven Huynh; Gurchetan Singh Johal;  
Joseph Wibowo <joeynathanwibowo@gmail.com> ↗



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#### Daniel Herrera Front End Member Contributions

- Design on setting up the Sign-up page
  - Designing the Inbox page (page was removed upon agreement)
  - Designing the pop-up (which was integrated into the pages)
  - Worked testing (QA response) and designing the QA response and feedback
  - Worked on SW and HW testing
  - Being the representative spokesman for the project for final demo
- (All front-end work was given to my tech lead Joey Wibowo in which he committed)
- Danny

**Amount of commits to Github: 2**

## Gurchetan Johal (Back-End Team Member)

### Backend Team Member(Chetan Johal) Contribution



Gurchetan Singh Johal

Mon 12/18/2017 9:44 PM

To: ● Sannuj Singhal; Paul Louis Pierre Fontaine; Joseph Nathan Wibowo; Steven Huynh; extra414@yahoo.com ↗



↻ Reply all | ▼

Chetan Johal Back End Team Member contribution

1. Defining the Data Definitions for the database elements
2. Designed the architecture of Database Organization and deployment diagrams with Paul and Steven
3. Hacking of the search functionality code with Paul for the vertical prototype
4. Checked for coding style and bugs in the search functionality feature which we used for QA and usability test
5. Performed Code review for frontend and backend team

Thank you everyone! It was really great working with you all.

Chetan Johal

**Amount of commits to Github: 3**

## Steven Huynh (Back-End Team Member)

### Backend Steven Contribution



Steven Huynh

Mon 12/18/2017 11:22 PM

To: ● Sannuj Singhal

Cc: Paul Louis Pierre Fontaine; Gurchetan Singh Johal; joeynathanwibowo@gmail.com; extra414@yahoo.com ^



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Steven Huynh Back End Team Member Contribution

1. Designed architecture of database with Paul and Chetan
2. Implemented database and populated database
3. Provided SQL commands for API to connect the frontend and backend
4. Designed deployment diagrams with back end team
5. Provided code for field validation
6. Performed quality assurance testing
7. Login & signup with Paul

Thanks team!

Steven Huynh

**Amount of commits to Github: 2**

## **7. Post Analysis**

In building our website, unlock.com, our overall experience was a pleasant one. This can be attributed to the expertise of Joey and Paul, our front-end and back-end leads, who were able to handle any major issues while helping the rest of the team fix their issues as well. But with any major endeavor, we had our fair share of challenges. Some of the major issues we faced while building our website were the following:

- 1) Issues with routing
- 2) Visual alignment of the site
- 3) Difference between running the site on our localhost and the server

First, let us discuss issues with routing. Because of the sheer amount of pages that we created and used in our website, we had trouble connecting all of the pages to each other. Running QA to find errors in our website, we were able to see where the pages were disconnected and connect them.

Another issue we faced was the visual alignment of the site. This was an unexpected and very frustrating issue, as sometimes when we changed the layout of a page, a totally different type of page was displayed on our website.

Finally, we had a lot of problems testing our code. This was due to the fact that we had to route our site differently whenever we wanted to test the code and we did not want to just integrate untested code onto our server. On top of that, it was not just one file that we had to change the routing information on, but multiple files. Through this process, we learned the importance of patience and being efficient.

Besides these major issues, our development of the website went fairly smoothly. It was a learning experience for all those involved, and it is something that we will definitely use in the future in our careers.



# Receipt Proof

## Post Analysis



Sannuj Singhal

Today, 3:26 PM

Joseph Wibowo <joeynathanwibowo@gmail.com>; Paul Louis Pierre Fontaine; Gurchetan Singh Johal; Steven Huynh; extra414@yahoo.com



Reply all



Hey guys,

Here is the post analysis I wrote for the group.

In building our website, unlock.com, our overall experience was a pleasant one. This can be attributed to the expertise of Joey and Paul, our front-end and back-end leads, who were able to handle any major issues while helping the rest of the team fix their issues as well. But with any major endeavor, we had our fair share of challenges. Some of the major issues we faced while building our website were the following:

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Best Regards,

Sannuj Singhal