

Software Requirements Specification

BigSale.com

Online Wholesale Site

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1 Overview

1.1 Introduction

BigSale.com is an online market where sellers provide items and buyers purchase items directly. This site is not for retailing but wholesaling. Buyer and sellers could maximize their profit by trading in wholesaling way.

1.2 Stakeholders

1.2.1 BigSale.com Inc.

BigSale.com gains profit by providing online site to sellers and buyers and getting commission from sellers. The Company operates and maintains the site conveniently. Admin will do maintenance job.

1.2.2 Buyers

Buyers could buy items with cheaper price than offline shop. Buyers do not need to be bothered to visit shops to buy items.

1.2.3 Sellers

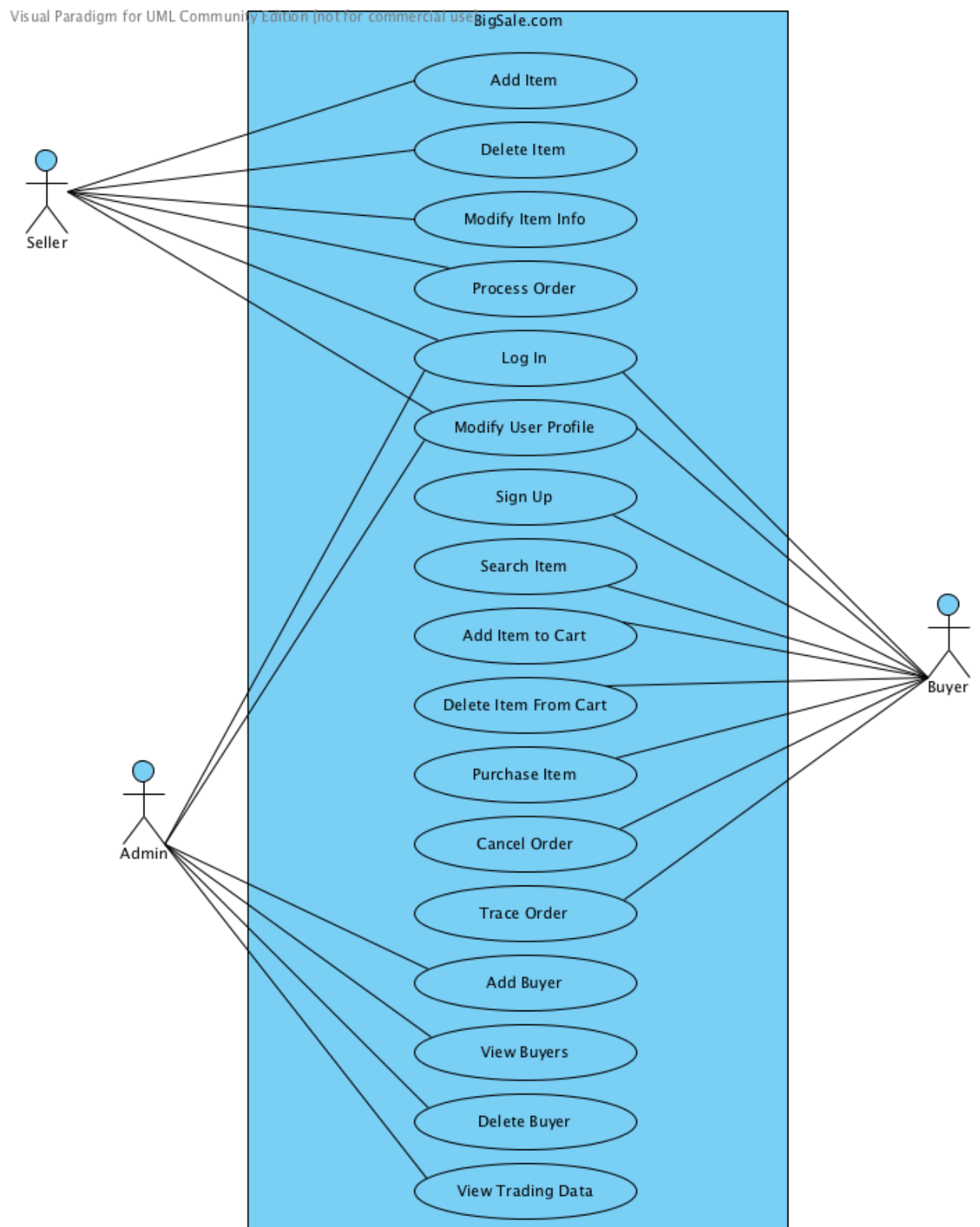
Sellers shall pay commission to register the site as sellers. Sellers do not rent building to display their items. They do not have to hire clerk to sell items and maintain their building.

1.3 Resources

Server OS	: Redhat Linux
Implementation Language	: Java, JSP
Web Container	: Tomcat Ver 7.0
Database System	: MySQL
Java Enterprise Platform	: Spring 3.0
ORM Platform	: Hibernate 3.0
Unit Test Platform	: TestNG, Mockito
Payment	: Paypal

2 Use Case Model

2.1 Use Case Diagram



2.2 Use Case Description

2.2.1 Use case 1: Add Item

Actor	Seller
Pre-condition	Seller shall log in the site.
Post-condition	The information about item shall be stored in the database. Buyers shall be able to search the item. Seller shall be able to see the item added
Trigger	Click 'Add Item' Button.
Basic Flow	1. Display a adding item view. 2. Enter Item information. 3. Click 'Submit' Button.
Extensions	3a. If 'Cancel' button is clicked, post-condition shall not be accomplished. 3b. If mandatory fields (item name, item price, stock, and item picture) are not filled, message popup will guide a seller to reenter item information.

2.2.2 Use case 2: Delete Item

Actor	Seller
Pre-condition	Seller shall log in the site.
Post-condition	The information about item shall be removed from the database. Buyers shall not be able to search the item. Item shall be deleted from a seller's item list view.
Trigger	Click 'Delete Item' Button.
Basic Flow	1. Display message popup to confirm if a user wants to delete item. 2. Click 'Submit' Button.
Extensions	2a. If 'Cancel' button is clicked, post-condition shall not be accomplished.

2.2.3 Use case 3: Modify Item Information

Actor	Seller
Pre-condition	Seller shall log in the site.
Post-condition	The information about item shall be updated in the database. Buyers shall be able to search the item with new information. Item shall be displayed from a seller's item list view with new information.
Trigger	Click 'Modify Item' Button.
Basic Flow	1. Display an adding item view with information added previously. 2. Modify the information of the item. 3. Click 'Submit' Button.
Extensions	3a. If 'Cancel' button is clicked, post-condition shall not be accomplished.

2.2.4 Use case 4: Process orders

Actor	Seller
Pre-condition	Seller shall log in the site. There shall be an order at least.
Post-condition	The information about order shall be updated in the database.

	When delivery process is finished successfully, in buyer's trace order view order stage shall be displayed as 'delivering' and mail shall be send to the seller who bought the item. The changed information about the order shall be displayed in buy's order process view.
Trigger	Click 'View Orders' Button.
Basic Flow	1. Display an order processing view. 2. Click 'Finished' button when delivery process is finished. 3. Click 'Exit' Button.
Extensions	.

2.2.5 Use case 5: Log in

Actor	Seller, Buyer, and Admin
Pre-condition	.
Post-condition	The proper initial view shall be displayed according to the actor.
Trigger	Click 'Log in' Button.
Basic Flow	1. Display a log in view. 2. Enter id and password. 3. Click 'Submit' Button.
Extensions	3a. If there is not id matched with password, log in failure message shall be displayed.

2.2.6 Use case 6: Modify User Profile

Actor	Seller, Buyer, and Admin
Pre-condition	Actor shall log in the site.
Post-condition	The changed profile information shall be stored in database. The proper initial view shall be displayed according to the actor.
Trigger	Click 'Modify Profile' Button.
Basic Flow	1. Display a change profile view. 2. Click 'Modify' button to change either password or e-mail address. 3. Enter new profile. 4. Enter the present password 5. Click 'confirm' button
Extensions	5a. If 'Cancel' button is clicked, the changed information shall not be stored in database. 5b. If the input in present password field does not match with the password in the database, post-condition shall not be accomplished and message shall be display to guide user to reenter password.

2.2.7 Use case 7: Sign Up

Actor	Buyer
Pre-condition	.
Post-condition	The buyer information shall be stored in database. The login view shall be displayed
Trigger	Click 'Sign up' Button.
Basic Flow	1. Display a sign up view. 2. Enter information about the buyer. 3. Click 'Confirm' Button.
Extensions	3a. If 'Cancel' button is clicked, post-condition shall not be accomplished. 3b. If mandatory fields (id, password, and email) are not filled, message

	popup will guide a buyer to reenter information. 3c. If either or email is duplicated with data in database, , message popup will guide a buyer to reenter information.
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2.2.8 Use case 8: Search Item

Actor	Buyer
Pre-condition	.
Post-condition	Searched items information shall be displayed.
Trigger	Click 'Search' Button.
Basic Flow	1. Display searching results.
Extensions	1a. If there is no item matching with search query, "no item matched" shall be displayed.

2.2.9 Use case 9: Add Item to Cart

Actor	Buyer
Pre-condition	Searched Items shall be displayed.
Post-condition	The item added to cart shall be stored in database.
Trigger	Click 'Add to cart' button at the searched item list.
Basic Flow	1. Display a cart view. 2. Click "Continue to shopping"
Extensions	1a. If a buyer did not log in the site log in view shall be displayed.

2.2.10 Use case 10: Delete Item from Cart

Actor	Buyer
Pre-condition	There shall be an item at least in the cart.
Post-condition	The deleted item shall be deleted from database. The deleted item shall not be displayed in the cart view.
Trigger	Click 'Delete' Button.
Basic Flow	1. Display a message popup to confirm actor's action. 2. Click 'Confirm' Button.
Extensions	2a. If 'Cancel' button is clicked, post-condition shall not be accomplished.

2.2.11 Use case 11: Purchase Item

Actor	Buyer
Pre-condition	There shall be an item at least in the cart.
Post-condition	The purchased item shall be added in order table in database. The purchased item shall be displayed in order view.
Trigger	Click 'Purchase Button.
Basic Flow	1. Display a payment view by using PayPal external system. 2. Enter payment information. 3. Display a message popup to confirm actor's action. 4. Click 'Confirm' Button.
Extensions	4a. If 'Cancel' button is clicked, post-condition shall not be accomplished.

2.2.12 Use case 12: Trace Order

Actor	Buyer
Pre-condition	.

Post-condition	.
Trigger	Click 'View Orders' Button.
Basic Flow	1. Display an order view. 2. Click "Exit" button.
Extensions	

2.2.13 Use case 13: Cancel Order

Actor	Buyer
Pre-condition	There shall be an order at least in the order list.
Post-condition	The order canceled shall be deleted from database. The payment-canceling request shall be sent to PayPal external system. The cancelled order shall be displayed with cancelled status in the order view.
Trigger	Click 'Cancel Order' Button.
Basic Flow	1. Display a message popup to confirm actor's action. 2. Click 'Confirm' Button.
Extensions	2a. If 'Cancel' button is clicked, post-condition shall not be accomplished.

2.2.14 Use case 14: Add Buyer

Actor	Admin
Pre-condition	Admin shall login the site.
Post-condition	The buyer information shall be stored in database.
Trigger	Click 'Add Buyer' Button.
Basic Flow	1. Display a add buyer view. 2. Enter buyer information. 3. Click 'Confirm' Button. 4. Send E-mail to the buyer with URL for entering password. 5. Buyer enter password.
Extensions	3a. If 'Cancel' button is clicked, post-condition shall not be accomplished and following procedures do not happen. 5a. If the buyer does not enter password within two days from the date email being sent, the buyer's information shall be deleted from database.

2.2.15 Use case 15: View Buyers' List

Actor	Admin
Pre-condition	Admin shall login the site.
Post-condition	.
Trigger	Click 'View Buyers' Button.
Basic Flow	1. Display a Buyers' List View. 2. Click "Exit" button.
Extensions	.

2.2.16 Use case 16: Delete Buyer

Actor	Admin
Pre-condition	Admin shall login the site. Buyers' list view shall be displayed
Post-condition	The buyer information shall be deleted from database. The buyer shall not be displayed in the buyers' list view.
Trigger	Click 'Delete Buyer' Button.

Basic Flow	1. Display a message popup to confirm actor's action. 2. Click 'Confirm' Button.
Extensions	2a. If 'Cancel' button is clicked, post-condition shall not be accomplished

2.2.17 Use case 16: View Trading Data

Actor	Admin
Pre-condition	Admin shall login the site.
Post-condition	.
Trigger	Click 'View Trading Data' Button.
Basic Flow	1. Display a trading data view according to category. 2. Click 'Exit' Button.
Extensions	.

3 Non-Functional requirements

3.1 Security

User Information like name, email, password shall be stored in database after being encrypted with SHA-256 hash algorithm.

Only admin account shall access database fully.

When there is no interaction between users and the site, after 10 minutes session shall be expired.

During purchase HTTPS protocol shall be used instead of HTTP.

3.2 Performance

Every QUERY request shall be responded within 2 seconds except reporting functions.

Every HTTP request shall be responded within 3 seconds except reporting functions.

QUERY request for reporting shall be responded within 5 seconds.

HTTP request for reporting shall be responded within 10 seconds.

3.3 Capacity

Database system shall store less than 10,000 users information.

Database system shall handle less than 50 simultaneous query requests.

Web container shall handle less than 50 simultaneous http requests.

3.4 Availability

The web site shall runs 24/7 without stopping except maintenance time.

User shall be available to access the site in anywhere Internet connection is available.

3.5 Usability

User shall use the site in easy way.

English is the only language supported.

3.6 Maintainability

Hibernate shall be used for ORM so as for the site to be adapted in any SQL using database system.

Spring MVC platform shall be used.

JSP shall be used for View Layer.

3.7 Compatibility

The site could be deployed in any JSP compatible web container.

The site shall not support IE8 and previous versions that are not compatible with W3C specification.

View for mobile devices is not supported in this version.

3.8 Recovery

Database shall backup every two weeks automatically.

User manual shall provide explanation how to recover the system.

3.9 Documentation

All software development life cycle (SDLC) shall be documented.

These documents shall include Software Requirements Specifications (SRS), Software Design Description (SDD), Software Test Description (STD), User Manual, and Source Code.

4 User Interface

4.1 Common

4.2 Index.html

The diagram illustrates a web page layout with the following components:

- Address Bar:** A white rectangular box at the top containing the URL `http://bigsale.com/` in red text.
- Header:** A wide, light gray button with rounded corners and a gradient, containing the text **Big Sale - Whole Sale** in bold black font.
- Search Section:** On the left, the word **Search** is followed by a white rectangular input field. On the right, the text Log in is displayed.
- Main Content Area:** Divided into two columns.
 - Left Column:** Features a large, bright green rectangular button with rounded corners labeled **Featured Items** in bold black font. Below it is an orange rectangular button labeled **Site Map** in bold black font.
 - Right Column:** A tall, yellow rectangular box labeled **Ad** in bold black font.

4.2.1 Login

<http://bigsale.com/login/>

ID

PW

Confirm

Cancel

4.2.2 Modify Profile

http://bigsale.com/change_profile/

New PW

E-mail

Confirm

Cancel

4.3 Buyers

4.3.1 Sign up

<http://bigsale.com/signup/>

ID

PW

Confirm PW

E-Mail

Confirm

Cancel

4.3.2 Searched Item

<http://bigsale.com/search?q=orange>

Big Sale - Whole Sale

Search

[Log in](#)

<input type="checkbox"/>	<input type="checkbox"/>	Orange #1	<input type="checkbox"/>	Add To Cart
<input type="checkbox"/>	<input type="checkbox"/>	Orange #2	<input type="checkbox"/>	Add To Cart
<input type="checkbox"/>	<input type="checkbox"/>	Orange #3	<input type="checkbox"/>	Add To Cart
<input type="checkbox"/>	<input type="checkbox"/>	Orange #4	<input type="checkbox"/>	Add To Cart
<input type="checkbox"/>	<input type="checkbox"/>	Orange #5	<input type="checkbox"/>	Add To Cart

Ad

4.3.3 Cart

<http://bigsale.com/cart>

Big Sale - Whole Sale

User : Daniel

<input type="checkbox"/>	<input type="checkbox"/>	Item #1	<input type="checkbox"/>	Delete	Buy
<input type="checkbox"/>	<input type="checkbox"/>	Item #2	<input type="checkbox"/>	Delete	Buy
<input type="checkbox"/>	<input type="checkbox"/>	Item #3	<input type="checkbox"/>	Delete	Buy

Checked Items : [Delete](#) [Buy](#)

Ad

4.3.4 Order

<http://bigsale.com/order>

Big Sale - Whole Sale

User : Daniel

<input type="checkbox"/>	<input type="checkbox"/>	Order #1	<input type="checkbox"/>	Cancel	Info
<input type="checkbox"/>	<input type="checkbox"/>	Order #2	<input type="checkbox"/>	Cancel	Info
<input type="checkbox"/>	<input type="checkbox"/>	Order #3	<input type="checkbox"/>	Cancel	Info

Checked Items : [Cancel](#)

Ad

4.4 Sellers

4.4.1 Add Item

http://bigsale.com/add_item/

ID : hanmoi

Item Images

Title

Price

Stock

Update

**Description
(Optional)**

Confirm **Cancel**

4.4.2 Item List

http://bigsale.com/Item_list

ID : hanmoi

<input type="checkbox"/>	<input type="checkbox"/>	Item #1	<input type="checkbox"/>	Delete Modify
<input type="checkbox"/>	<input type="checkbox"/>	Item #2	<input type="checkbox"/>	Delete Modify
<input type="checkbox"/>	<input type="checkbox"/>	Item #3	<input type="checkbox"/>	Delete Modify

Checked Items : [Delete](#)

4.4.3 Check Order

http://bigsale.com/Order_list

ID : hanmoi

<input type="checkbox"/>	<input type="text"/>	Order #1	<input type="checkbox"/>	<u>Delivered</u>
<input type="checkbox"/>	<input type="text"/>	Order #2	<input type="checkbox"/>	<u>Delivered</u>
<input type="checkbox"/>	<input type="text"/>	Order #3	<input type="checkbox"/>	<u>Delivered</u>

Checked Items : Delivered

4.5 Admin

4.5.1 Add Seller

This UI is Similar to sign up one.

4.5.2 Buyers' List

http://bigsale.com/buyer_list

Big Sale - Whole Sale

[Admin](#)

<input type="checkbox"/>	<input type="checkbox"/>	Buyer #1	<input type="checkbox"/>	<u>Delete</u> <u>Modify</u>
<input type="checkbox"/>	<input type="checkbox"/>	Buyer #2	<input type="checkbox"/>	<u>Delete</u> <u>Modify</u>
<input type="checkbox"/>	<input type="checkbox"/>	Buyer #3	<input type="checkbox"/>	<u>Delete</u> <u>Modify</u>

Checked Items : [Delete](#)

4.5.3 View Trading Data

http://bigsale.com/trading_data/

**Buyers Ranking According
to trading amount**

**Sellers Ranking According
to trading amount**

Total Trading Amount

[Admin](#)
[Create Report](#)
[Exit](#)

**Trading
Amount
Graph
every
month**