



College of Computer and Information Sciences
Department of Software Engineering

Introduction to Software Engineering SWE 201

FRESH HARVEST

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CONTRIBUTION BREAKDOWN

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3	25%	25%	25%	25%
4	25%	25%	25%	25%

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Presentation 1	25%	25%	25%	25%

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Chapter

1

CUSTOMER PROBLEM STATEMENT

1.1 Problem Statement

Every season many farms have a surplus of the seasonal crops that need to be sold to welcoming the new season but unfortunately not everyone is capable to open an actual store to sell them for many reasons

- 1- Having a store needs large budget.
- 2- The process of searching for perfect store location can be sometimes hard.
- 3- The procedures for recruiting workers may be complicated and long .

In the other side people can be busy and do not have much time to have to buy crops so they need an easier way to have them at any time and everywhere.

1.2 Glossary of Terms

Term	Description
Farmer	People who export and sell crops.
Customers	People who want to buy from us.
Local farms	Our local Saudi farms where we can find all the crops.
Customer's and Farm's Information	Where we will save all contacts information.
Crops	All type of fruits and veggies.
Users	Users can be customer, farmer or admin.
Sign in	It is the process where the users start to create their accounts.
Join	It is the process where the users can log in, to their previous accounts.
Farm visit	It is the process where the customer can make a reservation to the farm.

SYSTEM REQUIREMENTS

2.1 Enumerated Functional Requirements

Identifier	Priority Weight (Low 1 - 5 High)	Requirement
REQ-1	5	System shall allow user (sign in or join) as a Customer or a Farmer or Admin .
REQ-2	5	System shall allow Customer to add and save all his account information (name-user- password-email-address-phone number).
REQ-3	5	System shall allow Farmer to add and save all his account information (name-user-password-email-farm's address-farm's name).
REQ-4	5	System shall allow Users manage their accounts. (Ability to update them).
REQ-5	5	System shall allow Customer search for crops (fruit-vegetables).
REQ-6	5	System shall allow Customer to add their crops into the 'Shopping Bag'.
REQ-7	5	System shall allow Customer to select the farm area first then the amount before adding crops into the 'Shopping Bag'.
REQ-8	5	System shall not allow Customer adding crops when they are out of stock.
REQ-9	5	System shall allow Customer to click on 'Plase Order' button to complete the order process.
REQ-10	4	System Shall allow Customer to choose how he wants to pay (Cash-Credit Card).
REQ-11	4	System shall allow Customer to see the 'Receipt' before completing the purchase (Order Review).
REQ-12	3	System should allow Customer to save their (Card information).
REQ-13	3	System should allow Customer to contact with 'Technical Support' in case of any problem.
REQ-14	2	System should allow Customer sort prices from 'Low To High' and 'High To Low'.
REQ-15	2	System should allow Customer to make a 'Reservation' by choosing (day-date-time) to see and by crops.

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REQ-16	2	System should not allow Customer to make the 'Reservation' until he (sign in or goin).
REQ-17	5	System shall allow Farmer to (sign in) only if he has a 'Delivery Service'.
REQ-18	5	System shall allow Farmer to add and delete crops (picture - name-prices).
REQ-19	5	System shall allow Farmer to get a 'Notification' when there is an order.
REQ-20	5	System shall allow Farmer to see all orders details (crops name-amount- pay way-addresses).
REQ-21	4	System shall allow Farmer to 'Accept' or 'Decline' orders.
REQ-22	3	System should allow Farmer to add-delete (time-day-date) so the Customer can visit the farm.
REQ-23	2	System should allow Farmer to sort items die where 'Best Seller' or 'High To Low' or 'Low To High' prices.
REQ-24	5	System shall allow the Admin to close the website in case of maintenance.
REQ-25	5	System shall allow the Admin to see the best farm sales.
REQ-26	5	System shall allow the Admin to see the weekly number of visitors.
REQ-27	5	System shall allow Admin to add and save all his account information (name-user- password-email).

2.2 Enumerated Nonfunctional Requirements

Identifier	Priority Weight (Low 1 – 5 High)	Requirement
REQ-28	5	As a system, all process need to be done in a short time (1 sec).
REQ-29	5	As a system, it needs to be designed in a clear and easy way for users to work with.
REQ-30	5	As a system, it needs to be operated safely and perform well.
REQ-31	5	As a system, the programming code needs to be organised and well written.
REQ-32	5	As a system, it will support Arabic language.

Chapter

3

FUNCTIONAL REQUIREMENTS SPECIFICATION

3.1 Stakeholders

Farmer: The person who sales crops

Customer: The person who bye crops

Admin: The owner of the software

Drivery Pirsonne: The person who deliver the order

Technical Support: The people who are in charge to help users.

3.2 Use Cases

3.2.1 Casual Descriptions

UC#1 : Sign in

Where customer and farmers can create and save their new accounts information .

UC#2 : Join

Where the admin ,previous customers and farmers can join with out needing to sign in again.

UC#3 : Accounts Managing

Where the admin customers , farmers can manage their accounts information.

UC#4 : Searching For Crops

Where the customers can start searching for crops.

UC#5 : Purchase Process

Where the customers can start to order by selecting the farm's name and then selecting the amount and adding them to the shopping bag.

UC#6 : Check Out

Where the customers can see the order's information (receipt) before confirming the order.

UC#7 : Farm's Visit

Customers can choose the day and time to visit the farm.

UC#8 : Adding Crops

Where the farmer can add and delete crops name-picture-price.

UC#9 : Ordering Receive

Where the farmer can get a notification from customer's order.

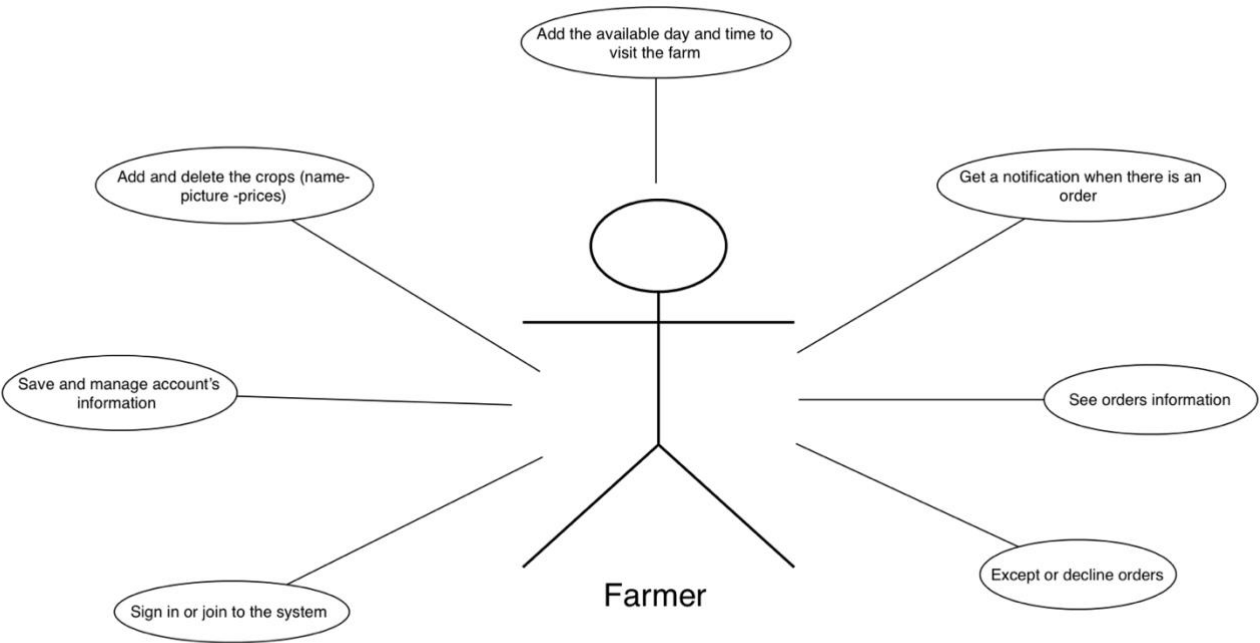
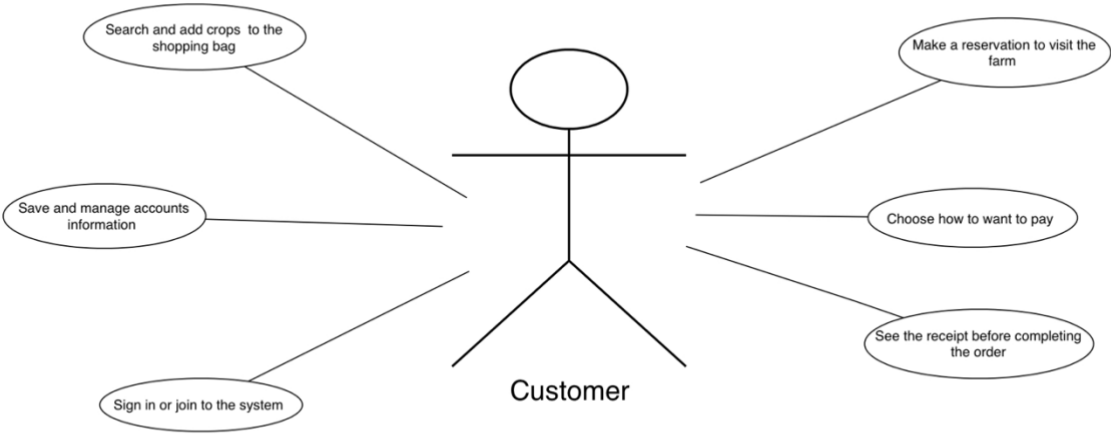
UC#10 : Farm's Visitors

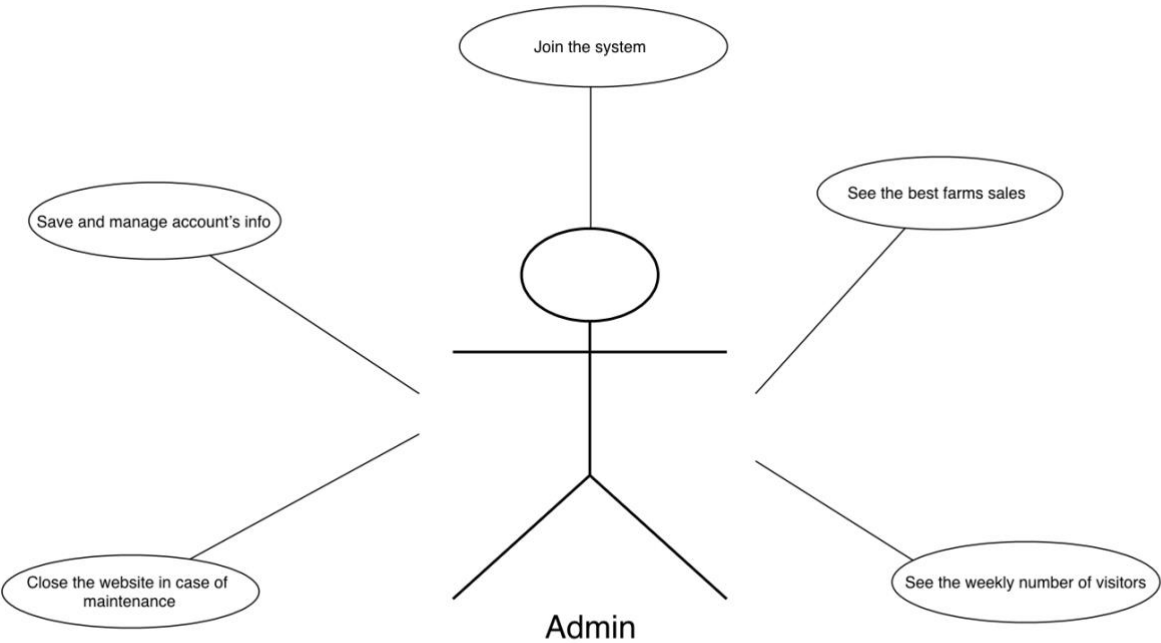
Where the farmer selects the available day-time for the visitors.

UC#11 : Admin

Where the admin can control the system.

3.2.2Use Case Diagram





3.2.3 Detailed Descriptions

Use Case	UC#6 : Check Out
Related Requirements	REQ-9, REQ-10, REQ-11
Initiating Actor	Customer
Participating Actors	-
Preconditions	Customer should be signed in or joined.
Postconditions	Ordere will be confirm.

Use Case	UC#2 : Join
Related Requirements	REQ-1
Initiating Actor	Customer, Farmer ,Admin
Participating Actors	-
Preconditions	User should be signed in before joining.
Postconditions	System will log in

Use Case	UC#8 : Adding Crops
Related Requirements	REQ-17, REQ-18
Initiating Actor	Farmer
Participating Actors	-
Preconditions	Farmer should be in the system.
Postconditions	Crops must be adding.

Use Case	UC#7 : Farm Visit
Related Requirements	REQ-15,REQ-16
Initiating Actor	Customer
Participating Actors	-
Preconditions	Customer should be loge in to the system
Postconditions	The Reservation will be confirm

3.2.4 Traceability Matrix

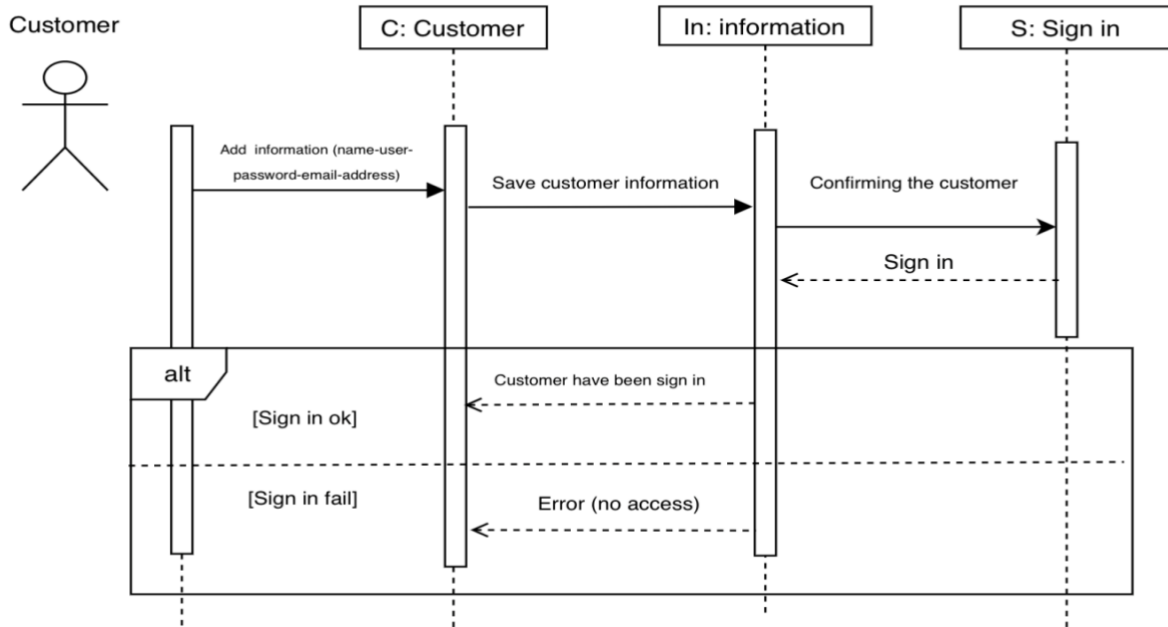
	UC#1	UC#2	UC#3	UC#4	UC#5	UC#6	UC#7	UC#8	UC#9	UC#10	UC#11
REQ-1	X	X									X
REQ-2	X										
REQ-3	X										
REQ-4			X								
REQ-5				X							
REQ-6					X						
REQ-7					X						
REQ-8					X						
REQ-9						X					
REQ-10						X					
REQ-11						X					
REQ-12						X					
REQ-13			X								
REQ-14					X						

CHAPTER 2. SYSTEM REQUIREMENTS

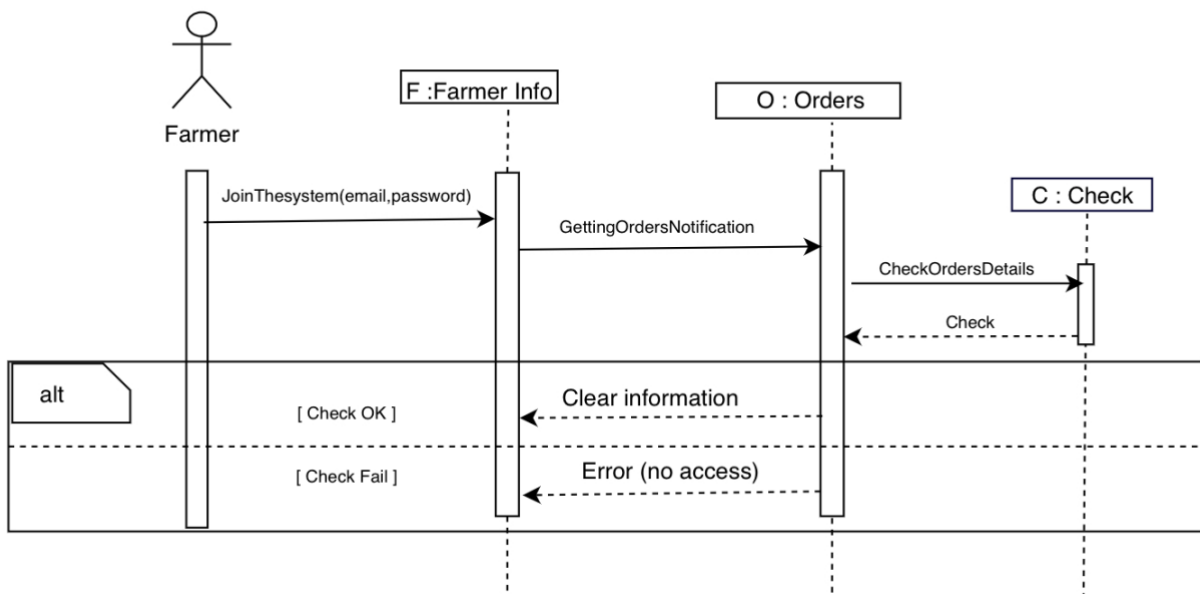
REQ-15							X				
REQ-16							X				
REQ-17	X										
REQ-18								X			
REQ-19									X		
REQ-20									X		
REQ-21									X		
REQ-22										X	
REQ-23			X								
REQ-24											X
REQ-25											X
REQ-26											X
REQ-27											X

3.3 Sequence Diagram

Sequence diagram for customer sign in



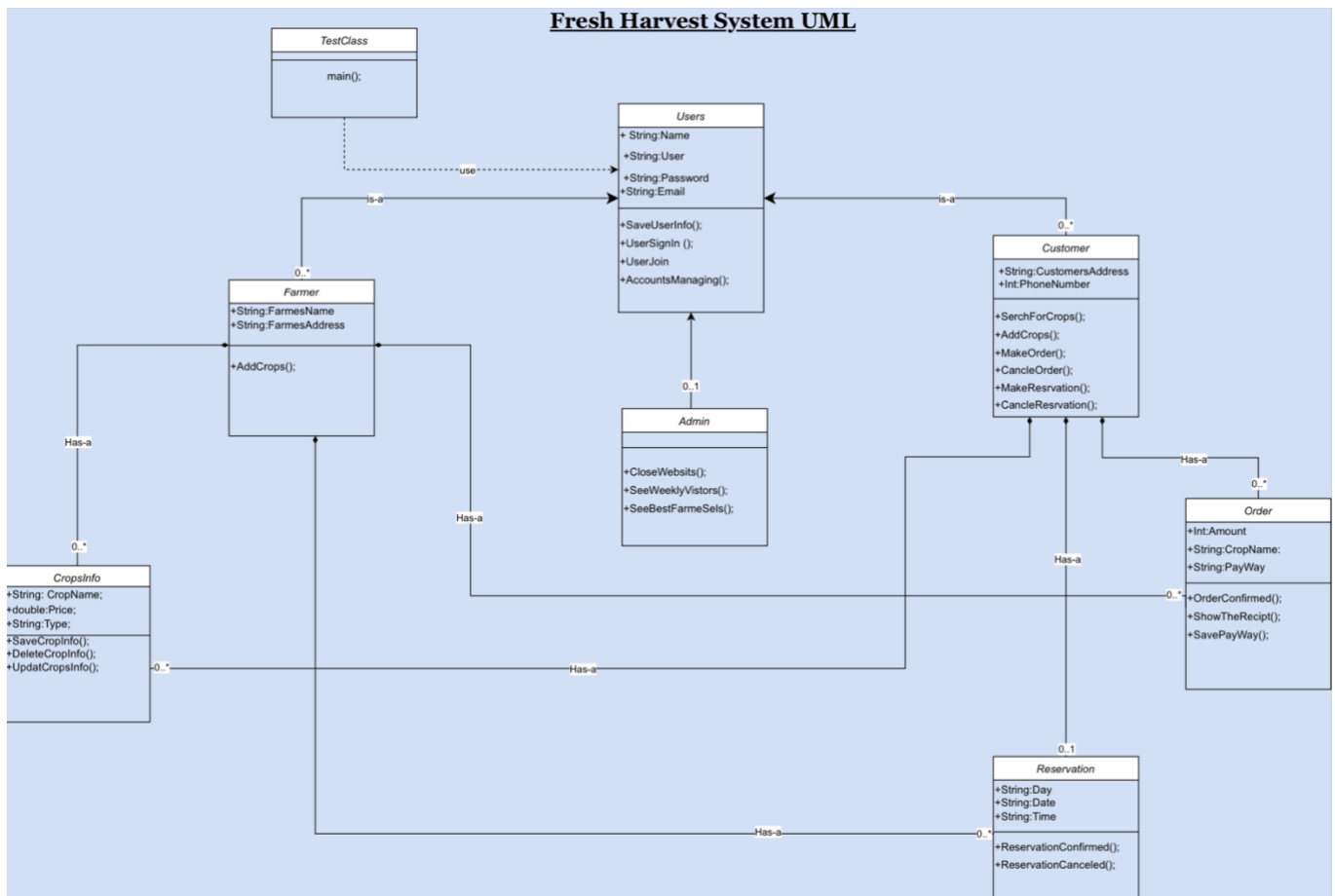
Sequence diagram for ordering receive



Chapter

4

CLASS DIAGRAM AND INTERFACE SPECIFICATION





REFERENCES

Textbook (main reference):

Software Engineering by Ian Sommerville, 10th Edition, (2015). ISBN-10:
0133943038, ISBN-13:9780133943030.