

TagIt

UCT 403- Software Design with UML Lab Project report

END-Semester Evaluation

Submitted by:

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Software Bid/ Project Teams

UCT 403- Software Design with UML Lab

Group:
BS1

Dated:25/1/2023

Team Name: Ctrl-Alt-Del

Team ID (will be assigned by Instructor):

Name	Roll No	Project Experience	Programming Language used
Lovedeep	102118014	CNN based Human detection	HTML, CSS, Python
Chandravo	102118016	Saturnalia's Website	HTML, CSS, Django(Python)
Tijil	102118007	Merchandise store website	HTML, CSS, React(Javascript)
Yash	102118004	Food delivery website	HTML, CSS, Javascript
Devanshi	102118060	Python and SQL - flight runaway allocation	C++, Python, SQL

Programming Language / Environment Experience

List the languages you are most comfortable developing in, **as a team**, in your order of preference. Many of the projects involve Java or C/C++ programming.

1. HTML, CSS
2. JavaScript
3. Python

Choices of Projects:

Please select **4 projects** your team would like to work on, by order of preference: *[Write at-least one paragraph for each choice (motivation, reason for choice, feasibility analysis, etc.)]*

<i>Project Name</i>	<i>Title with Description</i>	<i>USP* of the project</i>
<i>First Choice</i>	<i>TagIt</i> -The idea is to create a website where users can register with their Information, and a custom QR code is generated, it can be printed and pasted on the side of your luggage, so if your luggage ever gets lost and a stranger found your bag, he/she could scan the QR	If User is not comfortable sharing their information User can contact using the live chat option of the site, and the person can send the user the location of the bag using the website itself which is much safer than just attaching your Number to the bag, which can be

	code and can visit the link and access your customer contact information from the website.	accessed by anyone, can help with user privacy
<i>Second Choice</i>	<p><i>Task management Website</i></p> <p>The idea is to design a website where users log in and keep track of ongoing, completed, or to-be-completed tasks. Not only that, but Users can create teams and invite others. In this case, one user becomes the team leader and can assign the other members tasks.</p>	Once the members complete tasks, they can report it on the website, and it will be updated on the leader's dashboard. The leader can contact team members using live chat. The task can be divided into subtasks in the form of a graph this way complicated tasks can be completed and tracked.
<i>Third Choice</i>	<p><i>Student marks management Website</i></p> <p>About the project: The project's primary goal is to give the student's exam results in a quick and understandable manner. The student is the system's intended user, and students are given the ability to read and execute their results by entering login details. For brand-new students, registration is also an option. The guest user is viewing.</p> <p>This project involves HTML, CSS, JavaScript, PHP, and MySQL.</p>	It is easy to view your marks and results in your respective courses which makes it simpler for one to assess their performance and make future decisions easier. It will show all the criteria for pass/fail or minimum marks required and how their performance can be improved.

<i>Fourth Choice</i>	<i>Expense Management Website</i> The idea is to design a website in which users can register and keep track of their expenses	They can log each expense on the website from any device instead of writing it down on paper. As the UPI apps have increased It is becoming difficult to keep track of person's expenses, and you can log bills and set reminders by email. At the end of each month an email is sent with a monthly statement
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Additional Remarks/ Inputs

Please tell us about any other factors that we should take into consideration (e.g., if you really would like to work on a project for some particularly convincing reason).

We want to work on the Tagit project because it solves a real-life problem, and it can be helpful for many people.

Project Description

Most people attach their name and phone number to their luggage, so if it gets lost, the Finder can contact them, and they can retrieve the package. But, In the digital age, we must protect our privacy, and writing a phone number on luggage can expose you to fraud, spam messages, etc. So, this software's goal is to protect the user's privacy and provide the user with the ability to locate Lost luggage without providing private information. This is achieved by creating a Unique QR code for every User. When the QR code has been scanned, the location will be sent to the User via email. If lost, they can check the time and location where and when the QR was scanned. The finder contacts the user using the live chat feature in the software itself. They also share their respective location to retrieve the luggage.

By contacting only through the website, the user's privacy is protected, and they can regenerate the QR code if required.

Users can also order QR stickers in different sizes from the website itself. Users can reach us from the website if they have questions or suggestions.

Functional Requirement

The software intends to protect the privacy of the user using QR, so to fulfill our Goal, the software must contain the Following System Features: -

- QR Generator
- Email Notification
- Luggage timeline
- Live chat
- Live location sharing
- Product Page
- FAQ/Suggestion

1. QR Generator

The Software should be able to generate a unique QR code for luggage.

- Priority: -
 - It is a High Priority Feature as it is essential for working on the Software.
- Stimulus: -
 - Creating an Account
- Response Sequences: -
 - Software will generate a unique QR for the User linked to their account.

2. Email Notification

The Software should be able to detect when the QR code on the luggage is scanned.

- Priority: -
 - It is a High Priority Feature as it is essential for working on the Software.
- Stimulus: -
 - When the QR code is scanned
- Response Sequences: -
 - Software will send an email notification to the user to alert them.

3. **Luggage timeline**

The Software should display the Timeline of the QR code.

- Priority: -
 - It is a High Priority Feature as it is essential for working on the Software.
- Stimulus: -
 - The luggage status is set to “Lost” by the User.
- Response Sequences: -
 - Software will display all the Times and Locations when and where the QR was scanned.

4. **Live chat**

The Software should allow the User and Finder to chat live on the Website.

- Priority: -
 - It is a High Priority Feature as it is essential for working on the Software.
- Stimulus: -
 - The luggage status is set to “Lost” by the User.
- Response Sequences: -
 - Software will allow the User to interact with the Finder with the help of Live Chat.

5. Live location sharing

The Software should allow the User and Finder to share their live location to receive/deliver the lost luggage.

- Priority: -
 - It is a Medium Priority Feature as it is not essential for working on the Software.
- Stimulus: -
 - The luggage status is set to “Lost” by the User.
- Response Sequences: -
 - Software will allow the User or Finder to send live Locations in the chat.

6. Product Page

The Software should allow the user to buy QR code stickers and keychains.

- Priority: -
 - It is a Medium Priority Feature as it is not essential for working on the Software.
- Stimulus: -
 - No stimulus.
- Response Sequences: -
 - Software will allow users to buy QR code stickers and keychains, which can be delivered to the user.

7. FAQ/Suggestion

The Software should allow the users to send suggestions.

- Priority: -
 - It is a Low Priority Feature as it is not essential for working on the Software.
- Stimulus: -
 - No stimulus.
- Response Sequences: -
 - Software will allow users to send suggestions and questions to the developers to improve services.

Non-Functional Requirement

1. Security:

- a. Software must ensure the highest level of security to protect user privacy and prevent unauthorized access to personal information.
- b. Software must meet industry standards and best practices for data security, including encryption, authentication, and access control.
- c. Software must undergo regular security audits and vulnerability assessments to identify and mitigate potential security risks.

2. Reliability:

- a. Software must be reliable and stable, and provide users with accurate location and location information even in areas with poor network coverage.
- b. Software must have high uptime and availability to ensure uninterrupted service to users.
- c. The software must have failover mechanisms to ensure continuity of service in the event of system failure.

3. User friendly interface:

- a. The software should have an intuitive and easy-to-use interface that allows the user to easily generate her QR code, track the package and communicate with the finder.
- b. Software must provide clear and concise instructions and feedback to users to minimize confusion and error.
- c. You must make the software accessible to users with a wide variety of technical skills so that it can be used easily by all users.

4. Scalability:

- a. The software must be scalable to handle large numbers of users and baggage and guarantee smooth, uninterrupted service to all users.
- b. The software should have a flexible and modular architecture that facilitates extension and integration with other systems and services.
- c. The software must be able to handle peak traffic and loads such as travel peaks and advertising campaigns.

5. Compatibility:

- a. Software must be compatible with a variety of devices and platforms, including smartphones, tablets, laptops, and desktops running a variety of operating systems.
- b. The software should be compatible with a variety of web browsers so that the user can access the software from their preferred browser.
- c. Software must be compatible with different screen sizes and resolutions so that users can use the software on different devices.

6. Performance:

- a. Software must function efficiently, provide rapid response times, and minimize downtime for maintenance or upgrades.
- b. Software speed and performance should be optimized to allow users to track packages in real time.
- c. Software must have a low error rate to minimize the possibility of user error or system failure.

7. Accessibility:

- a. You must make the software accessible to users with disabilities so that they can use the software without impediment.
- b. Software must comply with accessibility standards and guidelines such as the Web Content Accessibility Guidelines (WCAG).
- c. Software should have features and tools to assist users with varying accessibility needs. B. Screen reader or keyboard navigation.

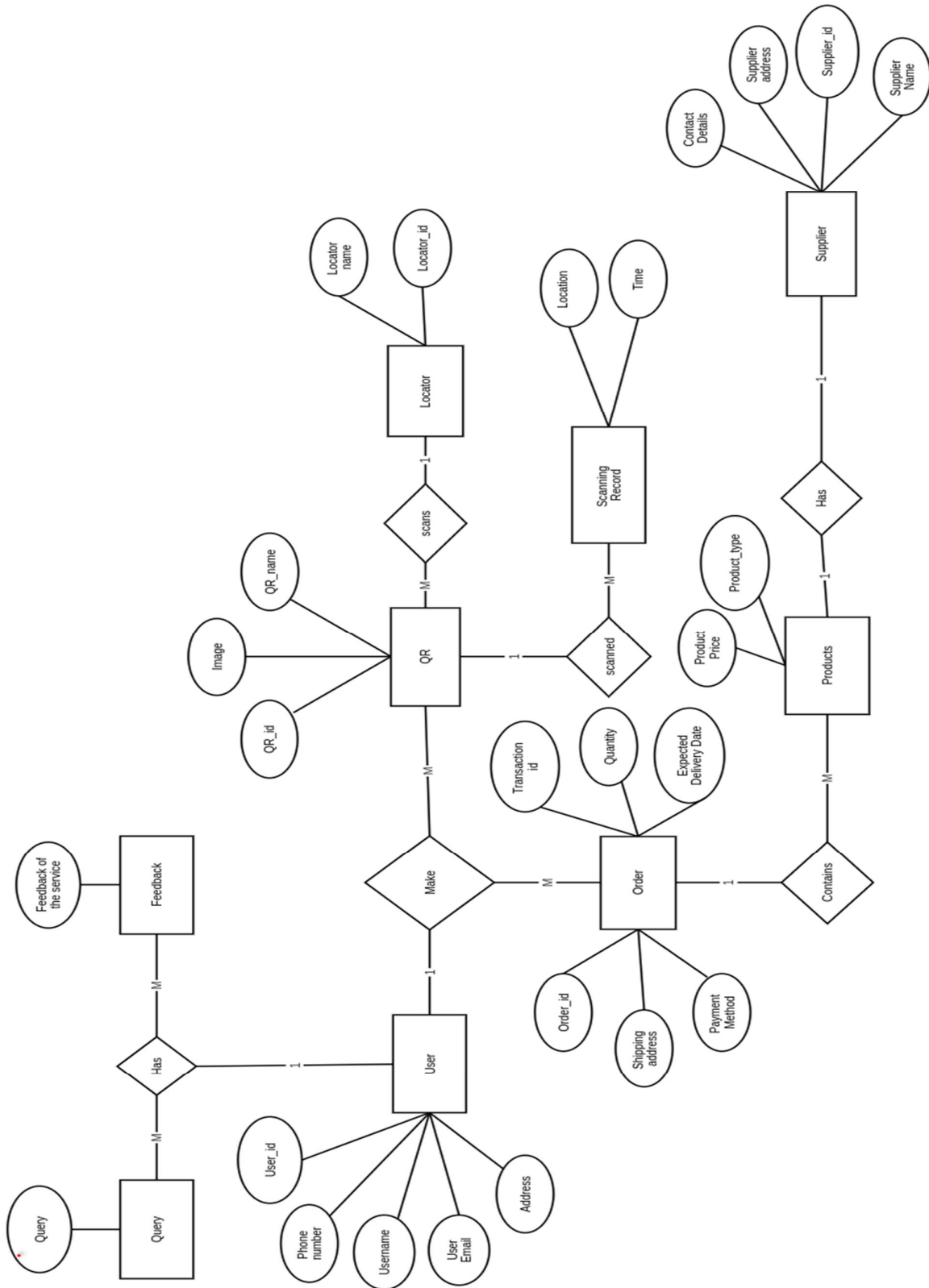
8. Privacy:

- a. Software must comply with data protection laws and regulations and ensure that user data is stored and used in accordance with data protection laws.
- b. Software must have privacy policies and procedures to ensure that user data is stored, processed, and transmitted securely.
- c. Software must allow users to control and manage their data Like Deleting your account or refusing to share your data.

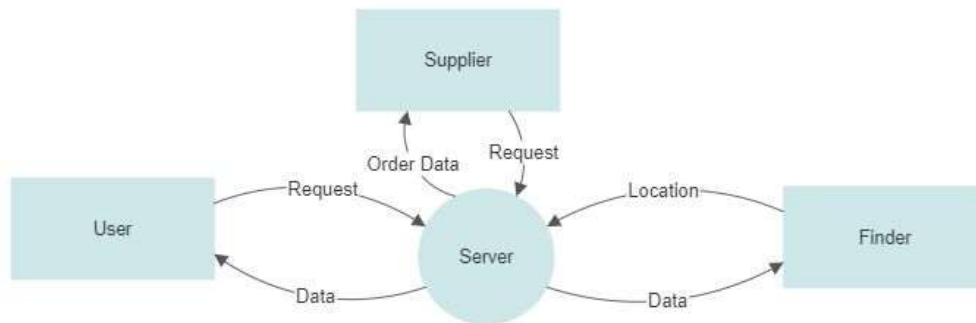
9. Customer Support:

- a. The software must have a dedicated customer support team to assist users with any issues, questions or concerns they may have.
- b. Software requires multiple channels for customer support. email, phone, or live chat.
- c. Software must have a knowledge base or FAQ section to provide users with self-service support and guidance.

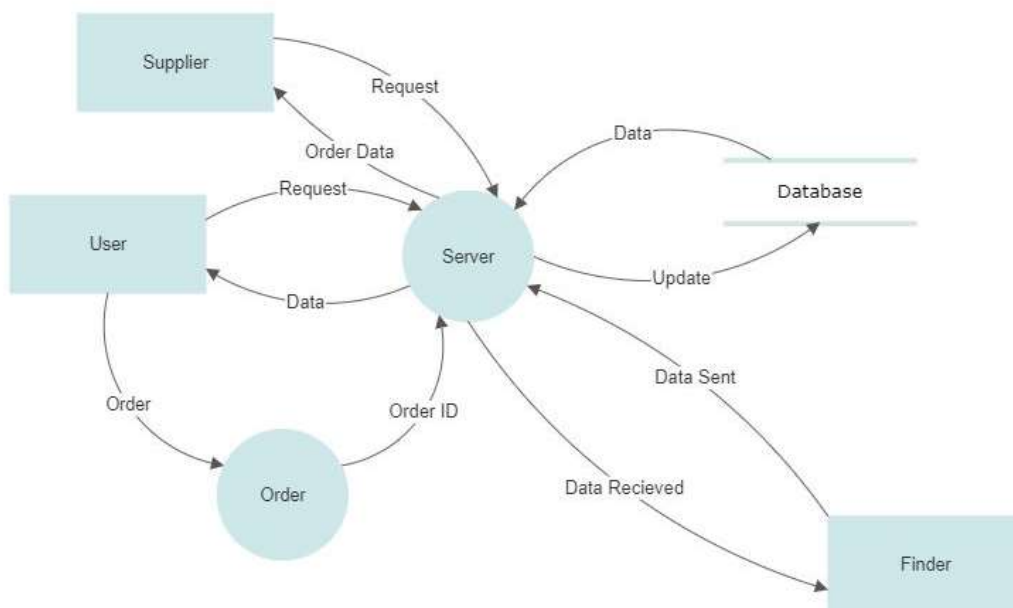
ER Diagram



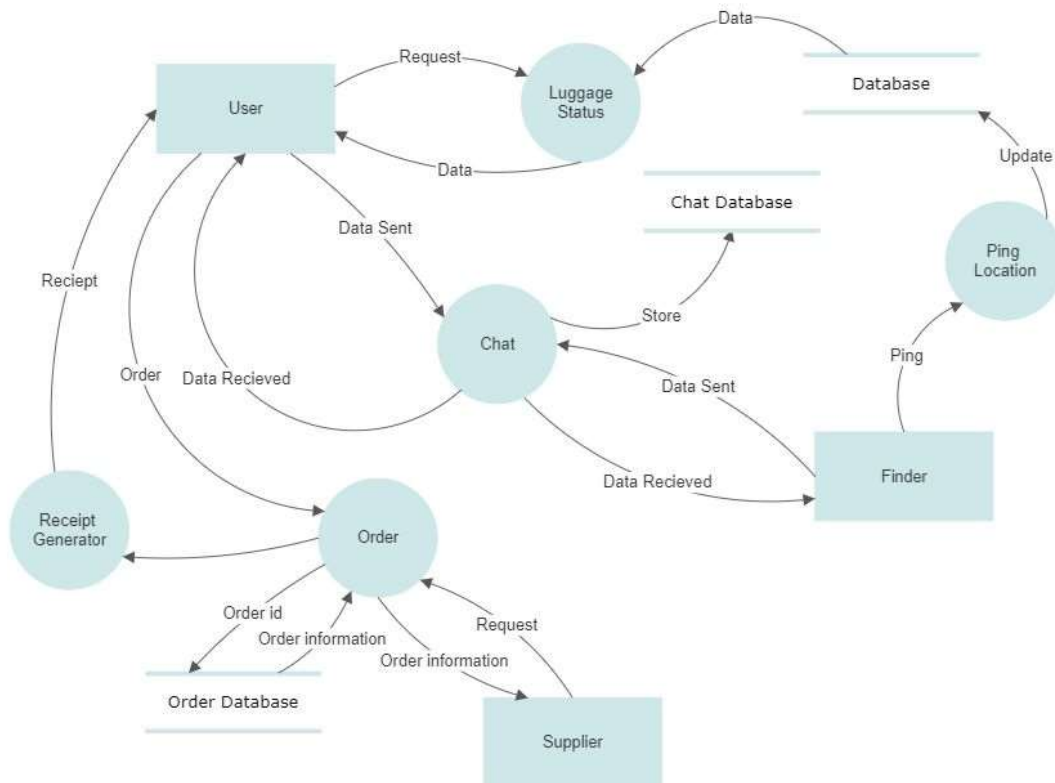
DFD Level - 0



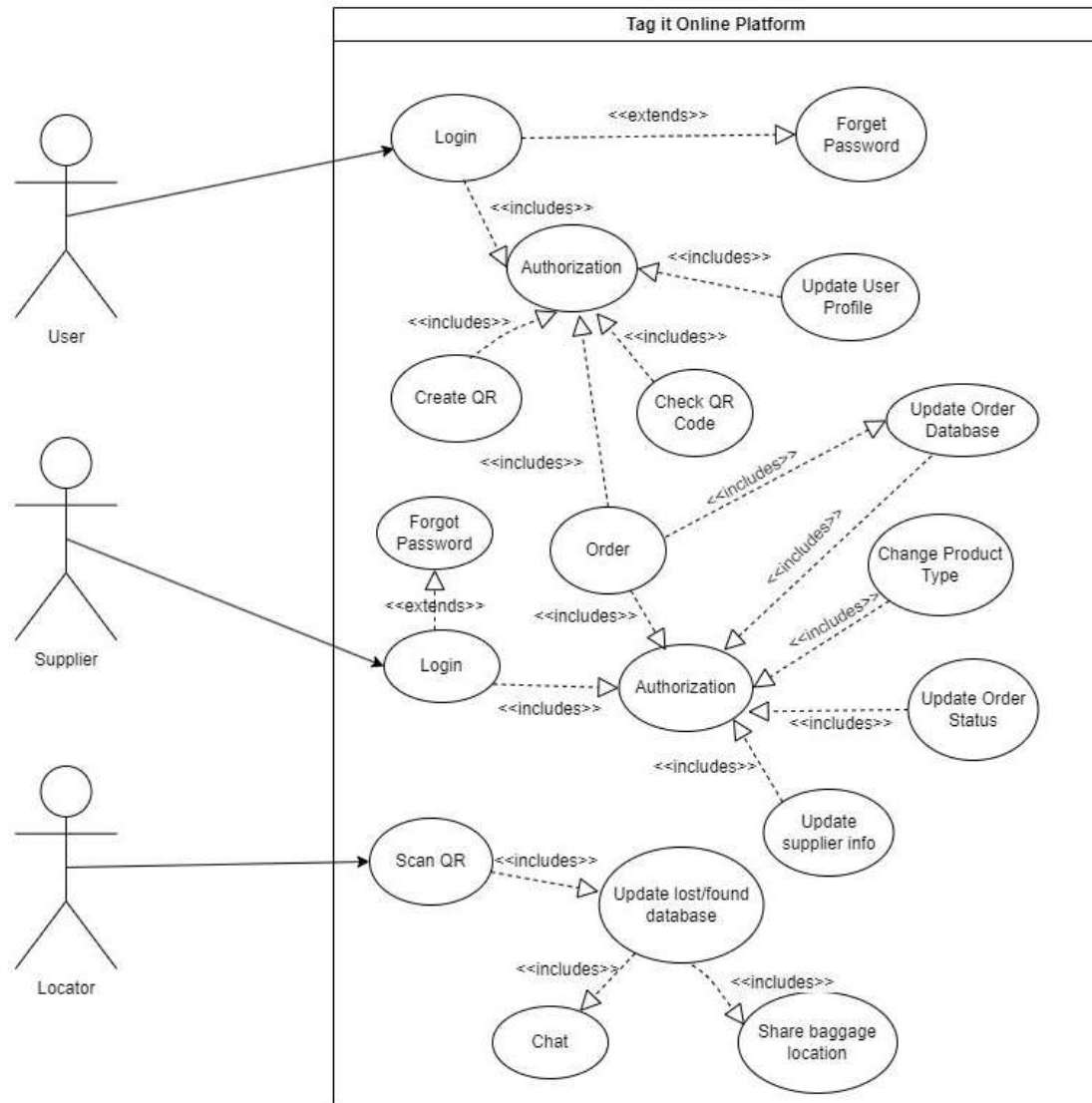
DFD Level - 1



DFD Level - 2



Use Case Diagram



Use Case Templates

Normal Flow of Events

1. (SR) Login page will be shown, and webpage will ask user to login or sign up.
2. (AA) User enter "incognito@thapar.edu" as the email and "incognito1234" as the password and User clicks 'LOGIN' button.
3. (SR) System will verify the username and password.
4. (SR) System asks for QR name and description.
5. (AA) User Fills "new" In the name field on the Q.R. page and "description" in the description field and click on generate QR.
6. (SR) System Store information and update database.
7. (SR) The webpage shows a message of successful Generation of Q.R. and Q.R. is displayed.

Exceptional Flow of Events

4. wrong Username and password ask user to try again,
6. Server Down Display Generation error "Server Down".

1. Use case Title	Create a Q.R. Code
2. Abbreviated Title	Q.R. Code generation
3. Use case id	1
4. Actors	Consumer
5. Description	Using create QR Option the user can create new Q.R. and download or print with help the feature which will also be stored in the database
5. Precondition:	The user must be a registered.
5.1. Task sequence	1.Login page will be shown. 2.Enter the User name and Password. 3. The welcome page will greet the User with the Clicking LOGIN button. 4.Enter name of the Q.R. and short description of the Q.R. 5.By Clicking on Genrate Q.R. Button a new Q.R. code is Genrated 6.Q.R. can be downloaded in form of PDF by clicking on Download Q.R. button
5.2. Post Conditions:	1.User's new Q.r. will be genrated
6. Modifictaion History:	Date 10-4-2022
7. Author:	Lovedeep Singh

Normal Flow of Events

1. (SR) Login page will be shown, and webpage will ask user to login or sign up.
2. (AA) User enter "incognito@thapar.edu" as the email and "incognito1234" as the password and User clicks 'LOGIN' button.
3. (SR) System will verify the username and password.
4. (SR) Main page is displayed.
5. (AA) Click 'Order' in navigation bar.
6. (SR) Product page is displayed.
7. (AA) Select Product type from the options.
8. (SR) System will ask user to enter Delivery and payment information.
9. (AA) Enter the required information.
10. (SR) Payment Validation.
11. (SR) Display message "Order is placed".

Exceptional Flow of Events

7. Display "Product is out of stock so try again later".

Exceptional Flow of Events

4. wrong Username and password ask user to try again,
7. Server Down Display error "Server Down".
10. payment Failed Display message "Try again payment Failed".

1. Use case Title	Placing a Order
2. Abbreviated Title	Order placement
3. Use case id	2
4. Actors	Consumer
5. Description	User will be able to order the generated Q.R. Codes in various form like key chains, stickers etc.
5. Precondition:	The user must be a registered.
5.1. Task sequence	1. Login page will be shown. 2. Enter the User name and Password. 3. The welcome page will greet the User with the Clicking LOGIN button. 4. User will be redirect to the Product page after clickin on the order button in the Navigation bar. 5. User will select a type of products from the product type on the product page 6. User will asked to select the Q.R. code User want to be printed on the product. 7. User will be prompted to enter delivery and payment information and order will placed.
5.2. Post Conditions:	1. User's order will be placed
6. Modification History:	Date 10 -4-2022
7. Author:	Lovedeep Singh

Normal Flow of Events

1. (SR) Login page will be shown, and webpage will ask user to login or sign up.
2. (AA) User enter "supplier@thapar.edu" as the email and "incognito1234" as the password and User clicks 'LOGIN' button.
3. (SR) System will verify the username and password.
4. (SR) Dashboard is displayed.
5. (SR) Supplier order will be displayed.
6. (AA) clicks on tick icon on the order.
7. (SR) Order status is updated.

Exceptional Flow of Events

4. wrong Username and password ask user to try again,
7. Server Down Display error "Server Down".

1. Use case Title	Update Order Status
2. Abbreviated Title	Update Order Status
3. Use case id	3
4. Actors	Supplier
5. Description	
Supplier will be able to update order status when the order is delivered.	
5. Precondition: The Supplier must be a registered.	
5.1. Task sequence	
1.Login page will be shown.	
2.Enter the User name and Password.	
3. The welcome page will greet the Supplier with the Clicking LOGIN button.	
4. Supplier will be shown order list page.	
5. Supplier will be able to change order status of each order listed.	
5.2. Post Conditions:	
1.User's order status will be updated	
6. Modification History: Date 10-4-2022	
7. Author: Lovedeep Singh	

Normal Flow of Events

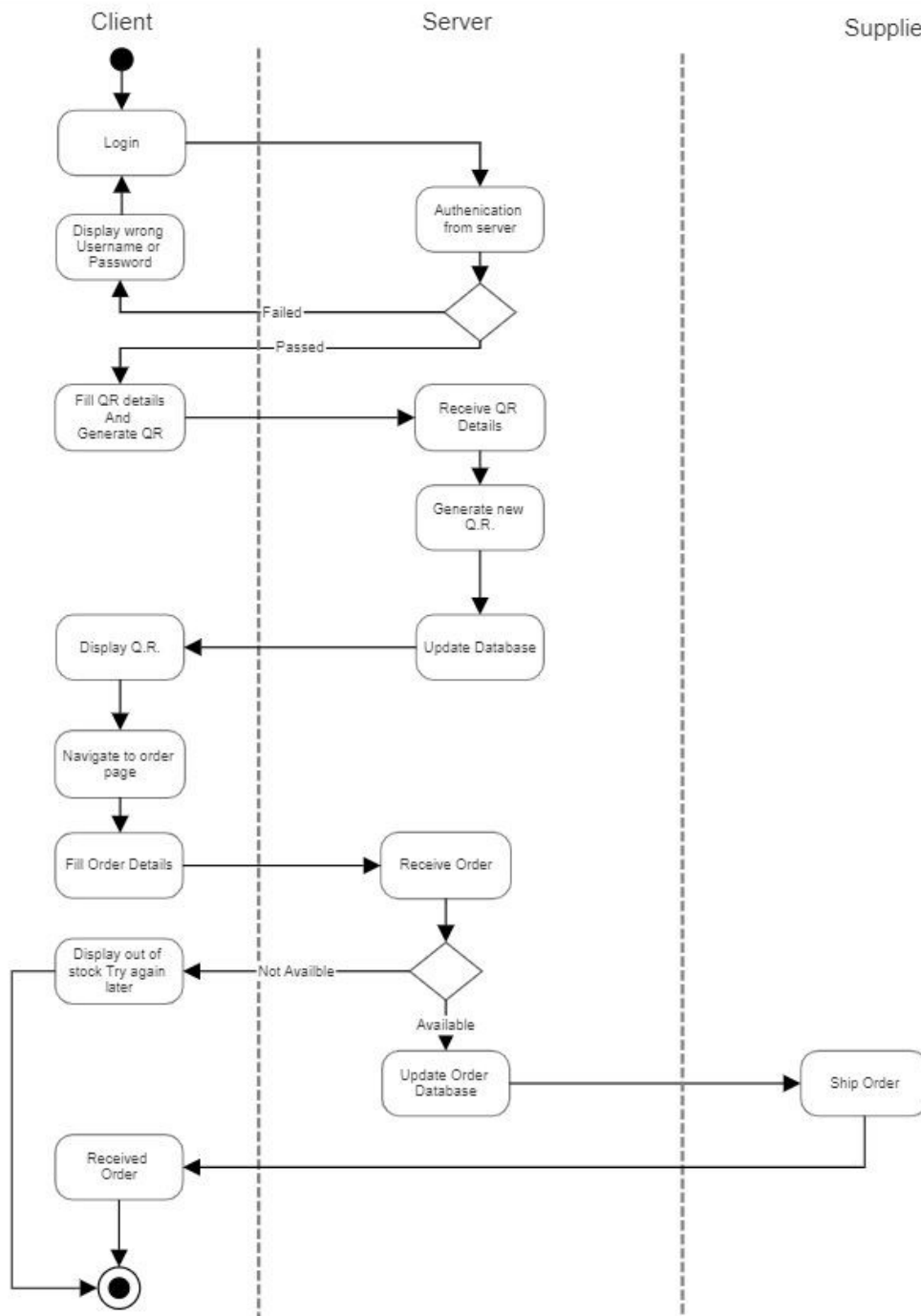
1. (AA) Scans QR.
2. (SR) System Check and store user's Location and send Email Alert to Owner.
3. (SR) Redirects to Chat windows.
4. (AA) Chat with owner

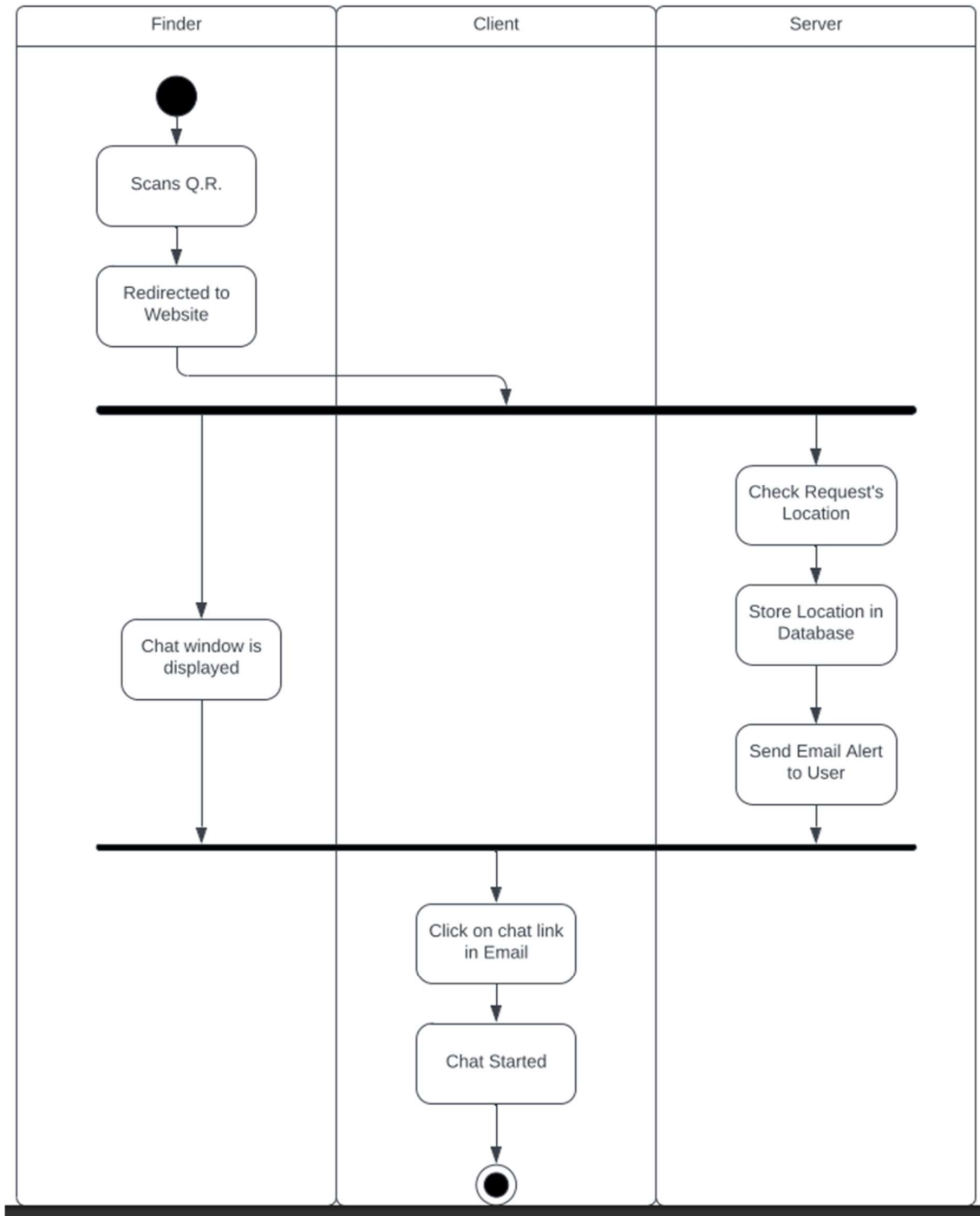
Exceptional Flow of Events

2. Server Down Display error "Server Down".

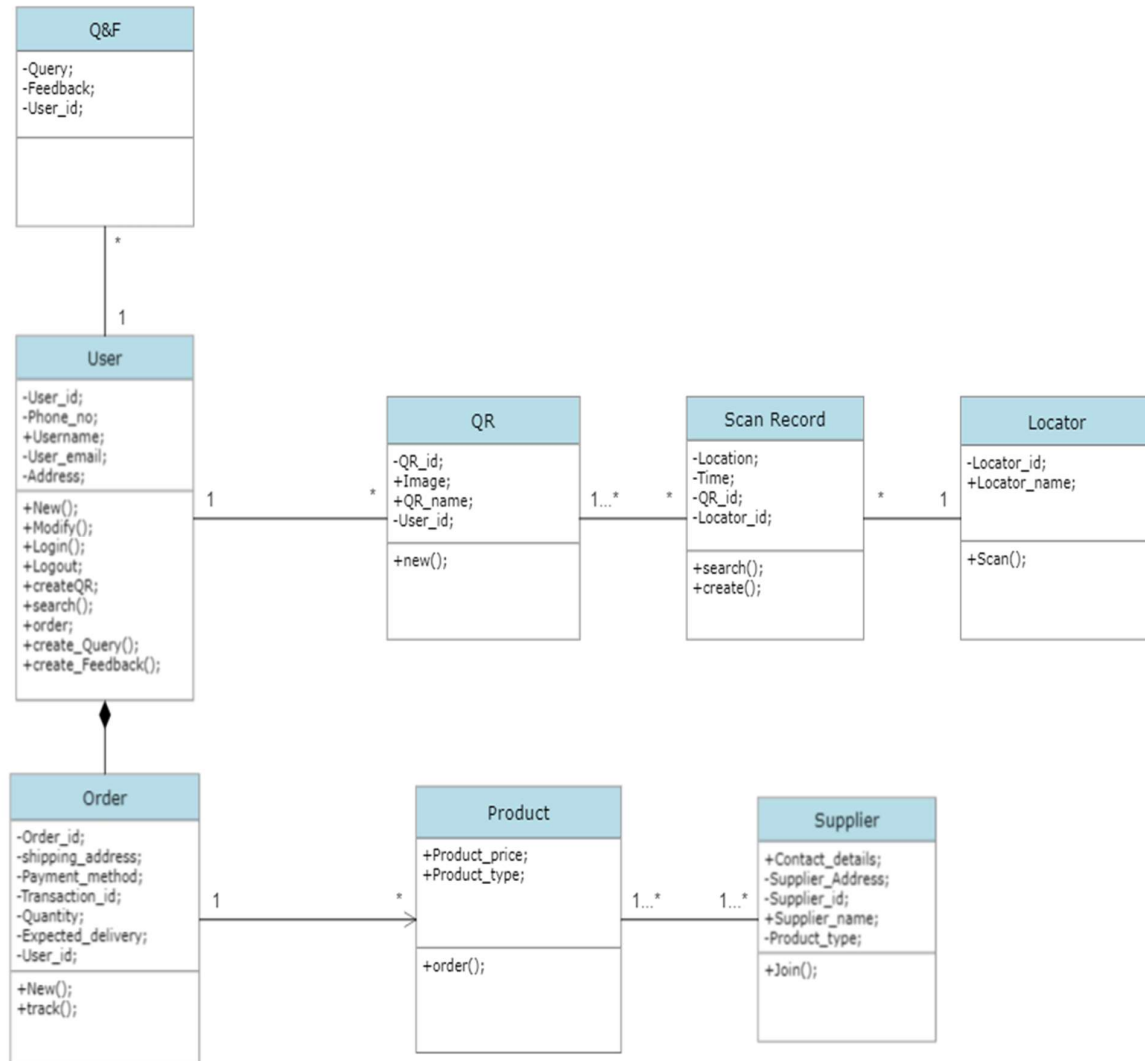
1. Use case Title	Scans Q.R.
2. Abbreviated Title	Q.R. scanned
3. Use case id	4
4. Actors	Locator
5. Description	If a Person(locator) scan a Q.R. it will be redirected to website
5. Precondition:	Q.R. must be valid.
5.1. Task sequence	1.The locator will be redirected to the chat room
5.2. Post Conditions:	1. Laguage status will be updated to lost.
6. Modifictaion History:	Date 10-4-2022
7. Author:	Lovedeep Singh

Activity Diagrams

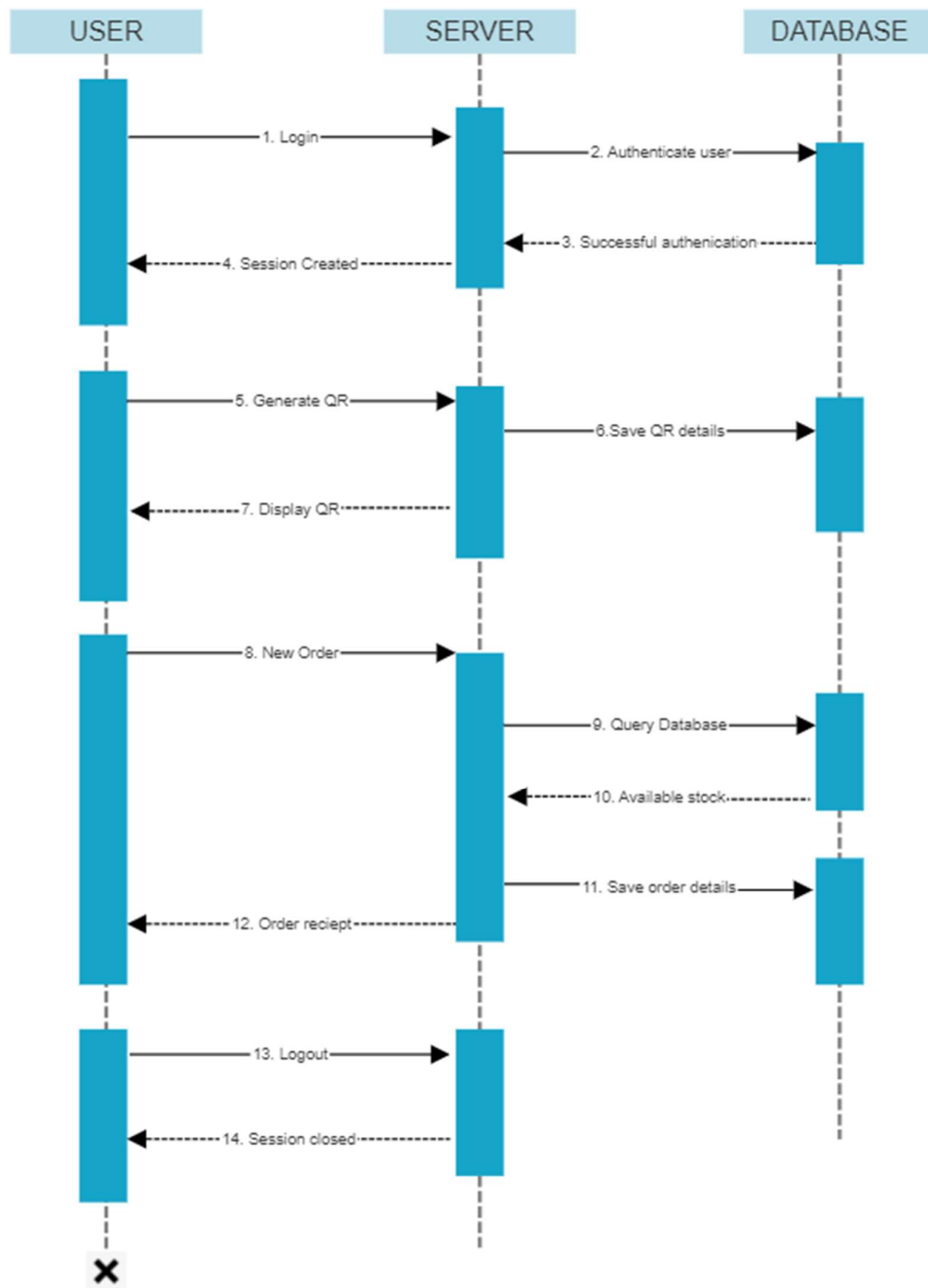




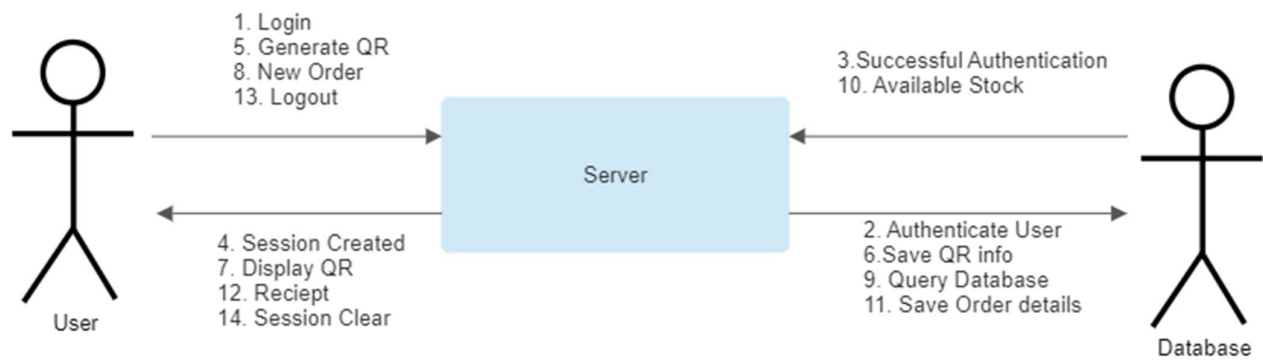
Class Diagram



Sequence Diagram



Collaboration Diagram



Deployment Diagram

