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19CSE204

OBJECT ORIENTED PARADIGM

ONLINE COURIER MANAGEMENT SYSTEM

GROUP 3

NAME	ROLL NUMBER	CONTRIBUTION
CHINTHAKUNTA GOWTHAMI REDDY	CB.EN.U4CSE20413	Problem statement
		Sign up, login, service availability (usecase +object diagram+ time sequence diagram)
		class diagram
DASARI HARSHAVARDHAN REDDY	CB.EN.U4CSE20414	Problem statement
		Book order, Pickup, payment (usecase +object diagram+ time sequence diagram)
		class diagram
KILARAPU REETHIKANJALI	CB.EN.U4CSE20430	Problem statement
		Delivery, logout, generate report. (usecase +object diagram+ time sequence diagram)
		class diagram
PUSARLA TARUN VAMSI	CB.EN.U4CSE20450	Problem statement
		Register complaint,track status, cancelation request (usecase +object diagram+ time sequence diagram)
		class diagram

PROBLEM STATEMENT:

In modern age, as time increases, needs and requirements of the person are also increased. Everything can't be gotten at the nearest markets or areas, so there is a need to import things from different places according to the needs. With the arrival of pandemic situation, the need of people to send or receive items from different parts of the world has grown to the large extent. People when transfer their products using any courier service wants to know whether their product has been shifted to their right place or not, if not then by what time it will be shifted and where it is now. Taking all this information manually is very difficult and time taking process. To handle all these activities, include various processes and paper work from the management side also. This need is fulfilled by one such application Courier Management System which is an online application for the courier management that enables people to receive the goods from the source and send them to required destination and tack their status from time to time.

The Courier Management System is an application which consists of different modules. Here we have Admin, User, Employee and Delivery boy. They can login to the application if they have been already registered, if they are not registered then they can register in to the website by entering the required details. Once the registration is done, they can login into the application and can perform activities according to their requirements. They will then check for the availability for their particular pickup and delivery locations. While taking orders from the customers, it will take all the details of its customers who is placing the orders and who is receiving the order all the details for the recipient such as its pickup address, delivery address, name, mobile number, mail id. The user will also be asked to enter the details regarding the package like weight, type of material, width, length of the package. After that amount will be calculated according to the entered details. The user can choose the type of delivery like speed delivery, normal delivery and many more. Payment will be done according to the quoted amount and choose mode of payment as per the user's choice. During the billing process system will generate a tracking id for their products. Through this tracking id, customers or its recipient will be able to track their products from any location using Internet. It will provide status of the product after placing orders within 5 to 10 min minutes. If the total weight, materials entered by the user does not match with the package then the package will be returned to the user and money paid will be refunded to them within 24hrs. The user has the privilege to cancel the pickup request within 24hrs from the ordered time.

The courier management system will provide the details like where the current consignment is there, by when it will reach the destination, or if any delay due do some reason, the route of the package, date of placing package, final date to reach the package. All these details will be updates by the employee. The picked package will be given at those locations particular branch, then these orders will be processed to the destination address's branch. When the consignment will visit to the city office destination, a message will be sent to the recipient with delivery status confirmation. Then after getting this message its recipient can take the package by going to the office or a delivery boy will delivery it, which can be done by using an opt sent to them or by Track id. The confirmation regarding the order and date of receiving and time along with greeting messages for providing further service in future. When the recipient will receive their packages, the information will be updated by the delivery boy. According to the updated information the employee will generate a report and send it to the

admin. The admin keeps track of all the employees and the delivery details and generates the final report. The admin has the privilege to update the details of the employee and to view the order summary of the users.

ACTORS:

Admin, Delivery Agent, Customer, Customer Support agent, Receiver.

TASK LIST:

Admin: Tracks the details and problems of customers, Delivery agents.

Deliver Agent: Picks and delivers the package and updates order status for a particular order number.

Customer: Books order based on their availability and convenience.

Customer support agent: Helps to solve the problems of Customer.

Receiver: Receives the package

USE CASE DOCUMENTS:

Use Case:1

Use Case Name	Signup
Description	User creates an account in the enterprise as a registered users, admin or employee
Primary Actor(s)	User
Secondary Actor(s)	System
Pre-condition	User should enter the website and should have valid details
Post-condition	Account is created successfully
Trigger	User Clicking on signup button
Level	Blue
Stakeholders	Nil

BASIC FLOW

1	User enters the website and click on sign up button. on clicking a sign-up page will open.
2	User enters valid details like email id, username password, name, phone number
3	System sends a verification mail to given mail id.
4	User opens the mail and click on the verification link.
5	After successful verification system saves user details.

6	System Prompts account is created successfully and redirects to login page.

Alternates

1	Invalid Details	If the mail id is not valid user is a given a prompt to renter the valid mail id
2	Cancel Registration	1. If the user wants to cancel the registration, Clicks the cancel button 2. System returns the user to home page and enter details are not stored by the system

EXCEPTION

1	If the user loses the internet connection or couldn't complete the registration, then system will autosave the details entered.
2	User can continue the registration.

Noun:

User, User_id, Signup button, system.

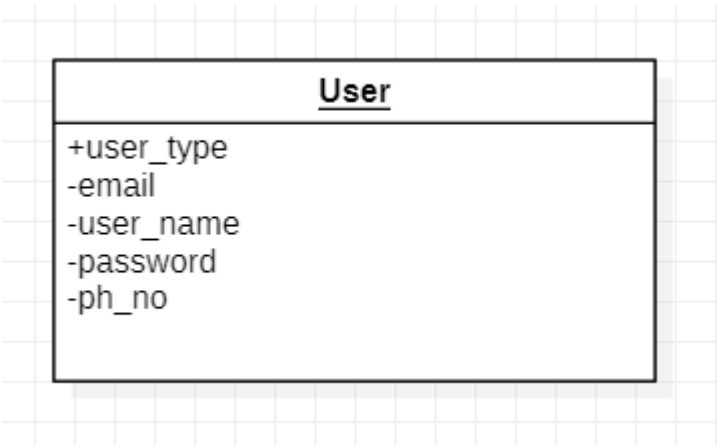
Conceptual Class List:

User

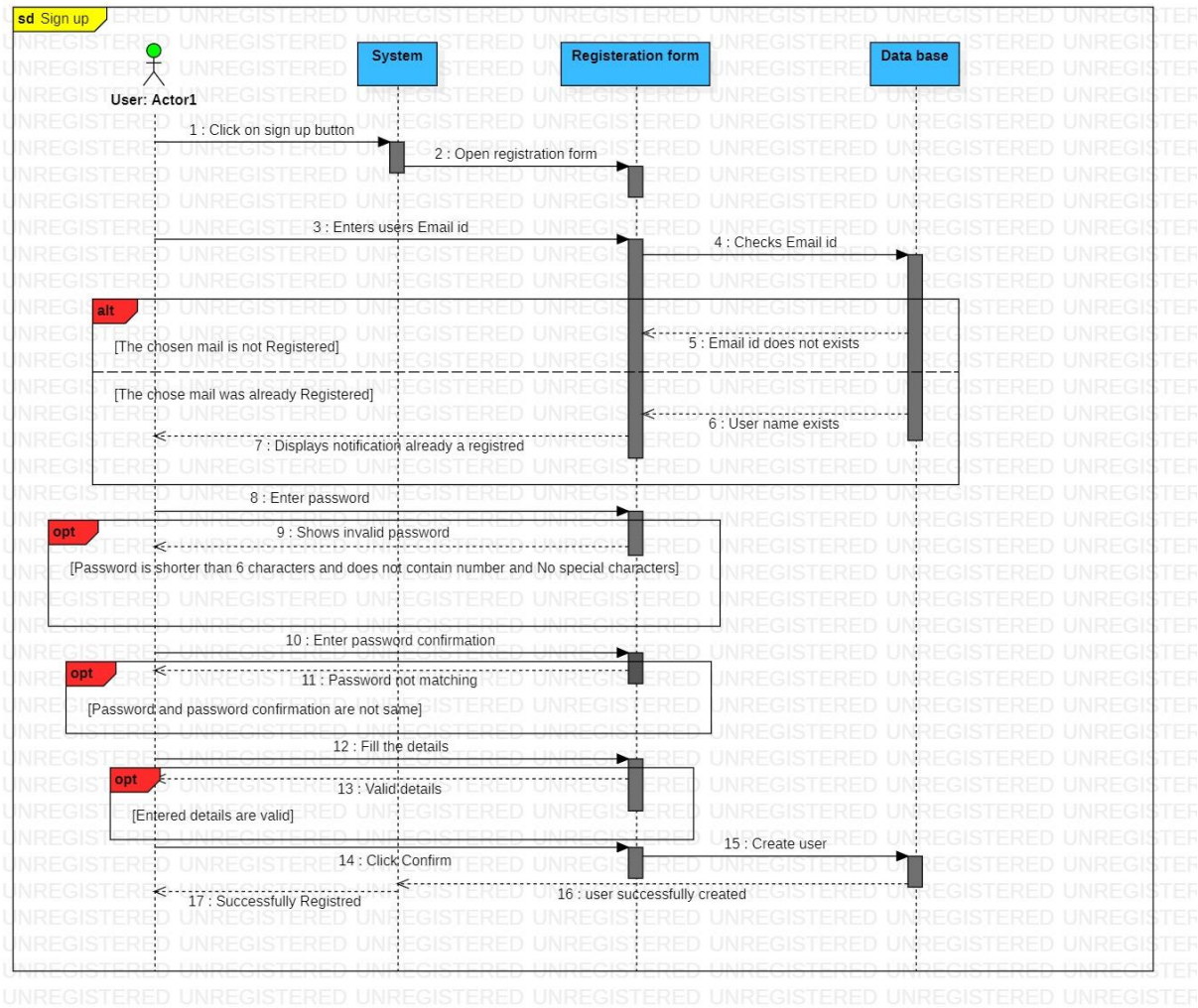
Attributes:

1. User_type
2. Email
3. User_name
4. Password
5. Ph_no

Object Model:



Time sequence diagram:



Use Case:2

Use Case Name	Login
Description	Admin, Customer, Employee Enters Login ID and Password to login the system. Account page is displayed after entering the details.
Primary Actor(s)	User
Secondary Actor(s)	System
Pre-condition	Login Page should be opened and user should already register.

Post-condition	If the User entered password is correct, The User logged into the System else same page is displayed with a pop up to enter correct details.
Trigger	User opens Account
Level	Blue
Stakeholders	Nil

BASIC FLOW

1	User enters User ID
2	User enters Password
3	System validates the login details
4	Details are valid. System opens account page.

Alternate Scenario

1	Invalid login details lead to login failed.
2	If user forgets password.
3	System provides “Forgot Password” option, where user can recover password.

EXCEPTION

No failure condition

Noun:

User, Admin, Delivery agent, Employee, login_id

Conceptual Class List:

User, Admin, Delivery agent

Attributes:

User class

1. Username
2. Password

Admin class

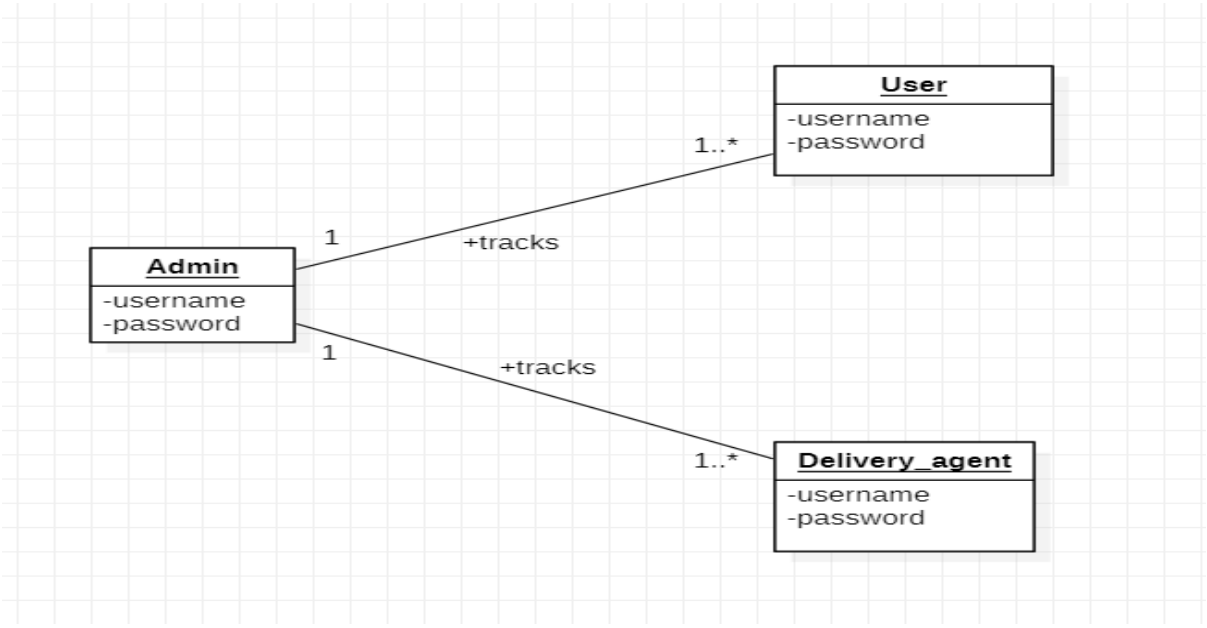
1. Username

2. Password

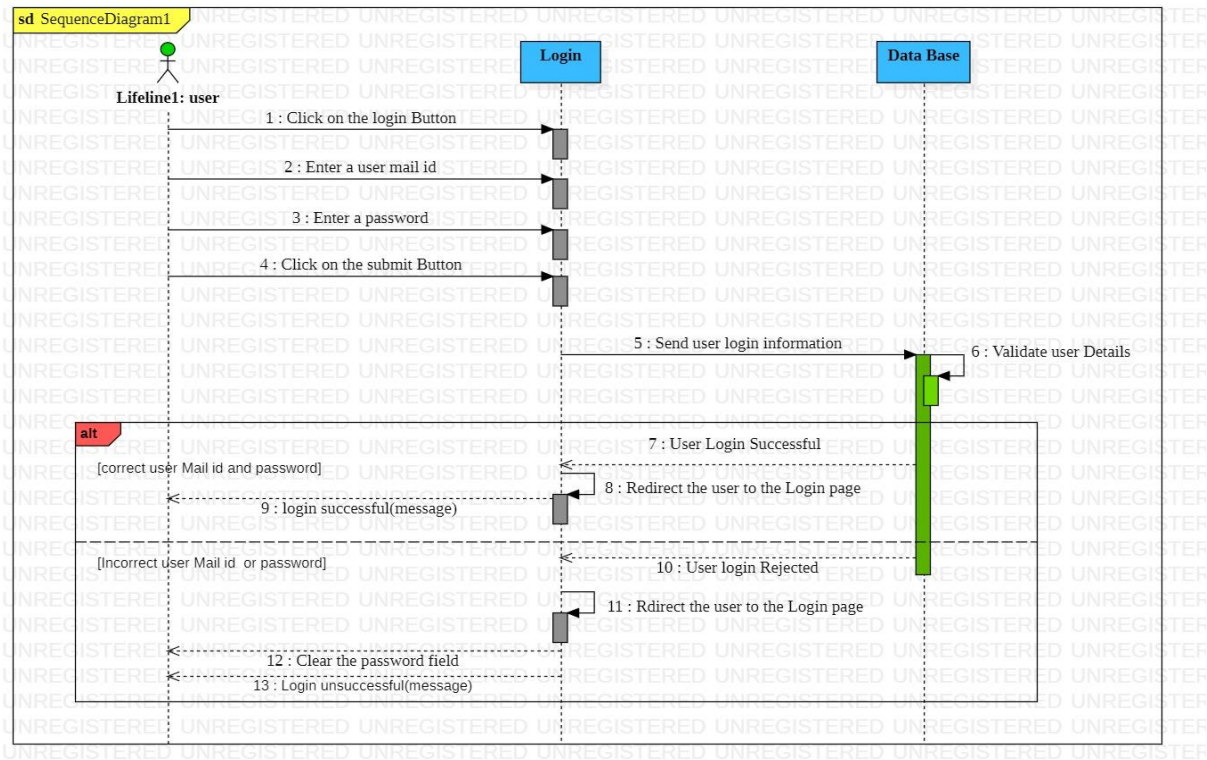
Delivery_agent class

1. Username
2. password

Object Model:



Time sequence diagram:



Use Case:3

Use Case Name	Service Availability
Description	User checks for the service availability in their location as well as in destination.
Primary Actor(s)	Customer, Receiver
Secondary Actor(s)	System
Pre-condition	User should be logged into the system and should know the pin code of both locations.
Post-condition	User gets confirmation regarding the service availability.
Trigger	When user wanted to deliver a package
Level	kite
Stakeholders	User, Admin, Receiver

BASIC FLOW

1.	User will log into the website and selects search availability option.
2.	System asks the user to enter the pin codes of both the location.
3.	After entering the details user will click on search button.
4.	System checks for the availability in both locations and matches with branch details
5.	Based on availability system will prompt respective message a. If yes- system prompts service is available b. If no – system prompts service is not available

Alternate Scenario

1	Service is not available system will redirect to the home page.

EXCEPTION

No failure condition

Noun:

User, Receiver, branch, user_pincode, branch_pincode, reciever_pincode

Conceptual Class List:

User, Receiver, Branch

Attributes:

User class

1. Username
2. User_pincode
3. User_ph

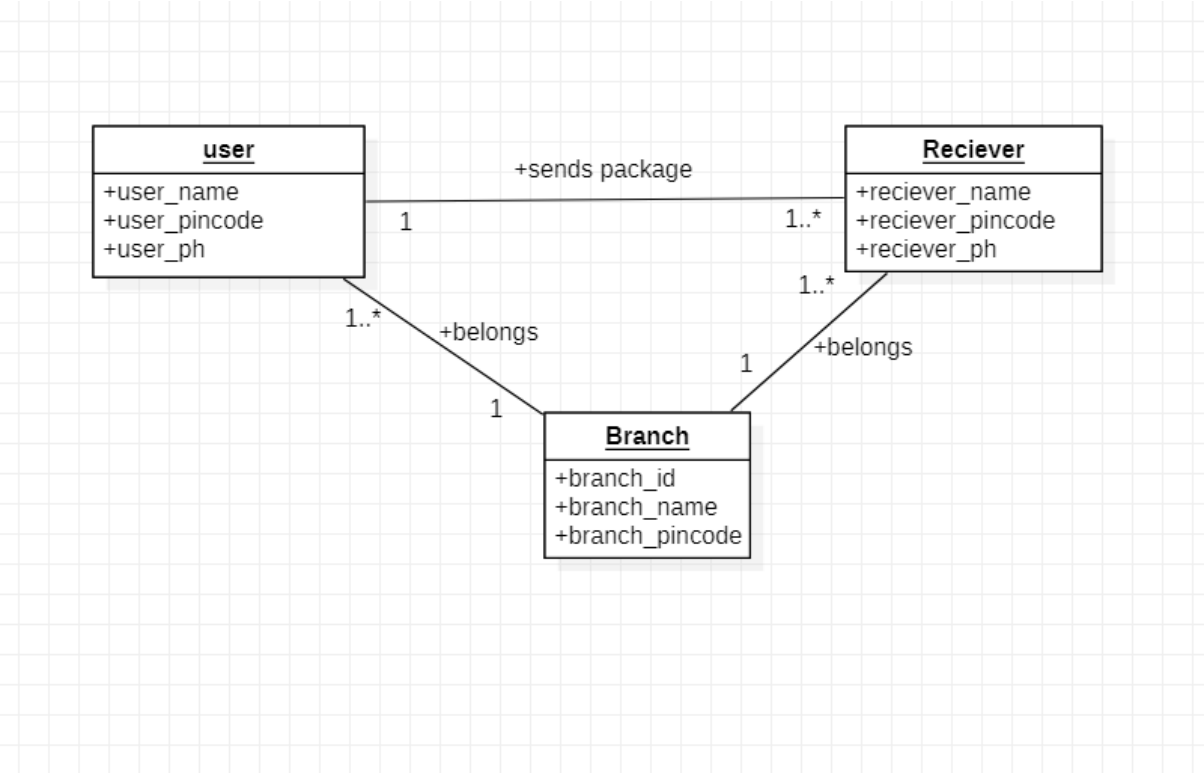
Receiver class

1. Receiver_name
2. Receiver_pincode
3. Receiver_ph

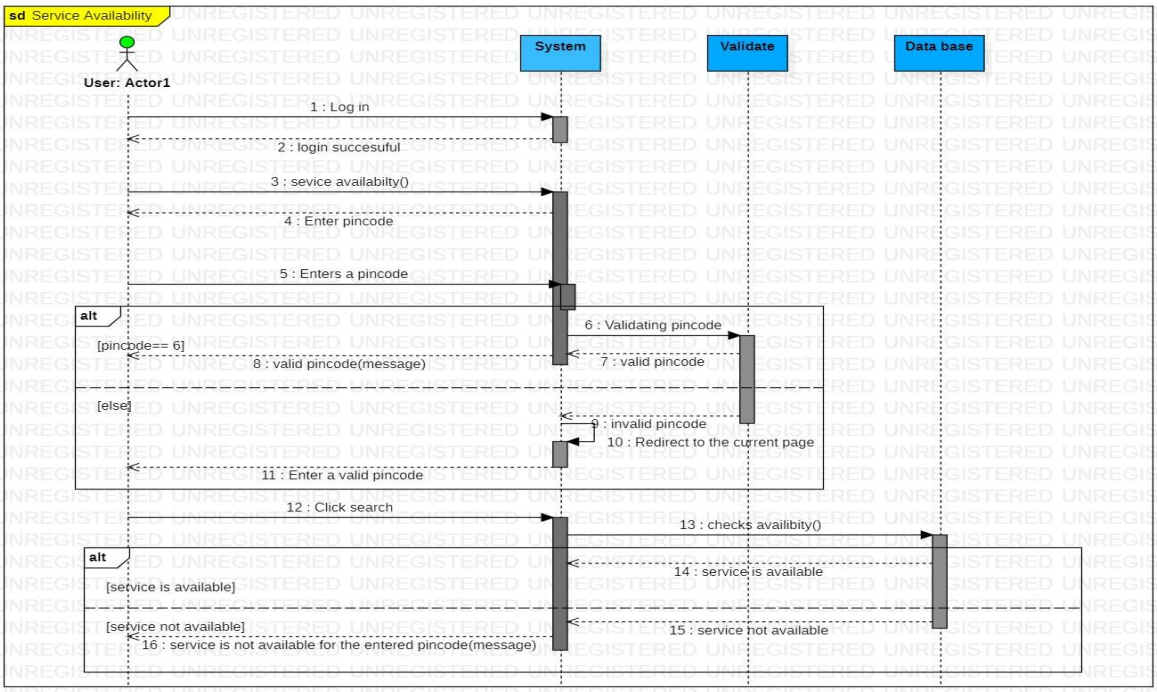
Branch class

1. Branch_id
2. Branch_name
3. Branch_pincode

Object Model:



Time sequence diagram:



Use Case:4

Use Case Name	Book Order
Description	After checking availability user places order for the package to be delivered.
Primary Actor(s)	Customer, Receiver
Secondary Actor(s)	System
Pre-condition	User should be logged into the system and should know whether the service is available or not.
Post-condition	User Books order successfully and an order number is assigned to the order.
Trigger	When user clicks on Book order.
Level	White
Stakeholders	Nil

BASIC FLOW

1.	User will log into the website and selects Book order
2.	System asks the user to enter the details of package and both pickup and destination address.
3.	After entering the details user will click on Book order
4.	System checks for the availability in both locations.
5.	Based on availability system will prompt respective message a. If yes- system prompts service is available

	b. If no – system prompts service is not available
6.	If service is available then system asks user to enter approximate weight of the package.
7.	System calculates amount based on the entered weight per gram and displays the amount and details entered by user for reverification and after clicking on book order an order will be placed and redirects to payment page.

Alternate Scenario

1	If Service is not available
2	System will ask the user to enter the correct destination address or prompts service is not available at that particular location.

EXCEPTION

No failure condition

Noun:

User, Receiver, package, amount, pickup, destination.

Conceptual Class List:

User, Receiver, package, amount

Attributes:

User class

1. Username
2. User_pincode
3. User_ph
4. User_id

Receiver class

1. Receiver_name
2. Receiver_pincode
3. Receiver_ph
4. Receiver_id

Package class

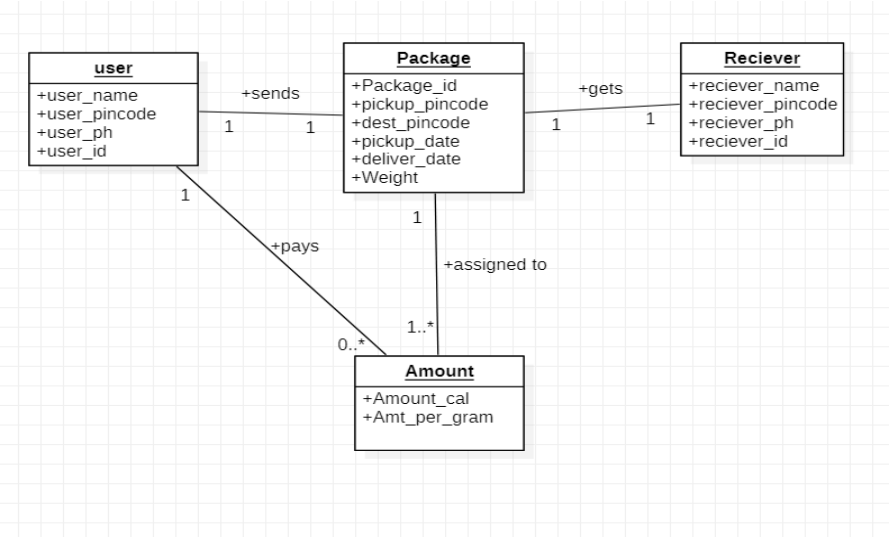
1. Package_id
2. Pickup_pincode
3. Dest_pincode

4. Pickup_date
5. Deliver_date
6. Weight

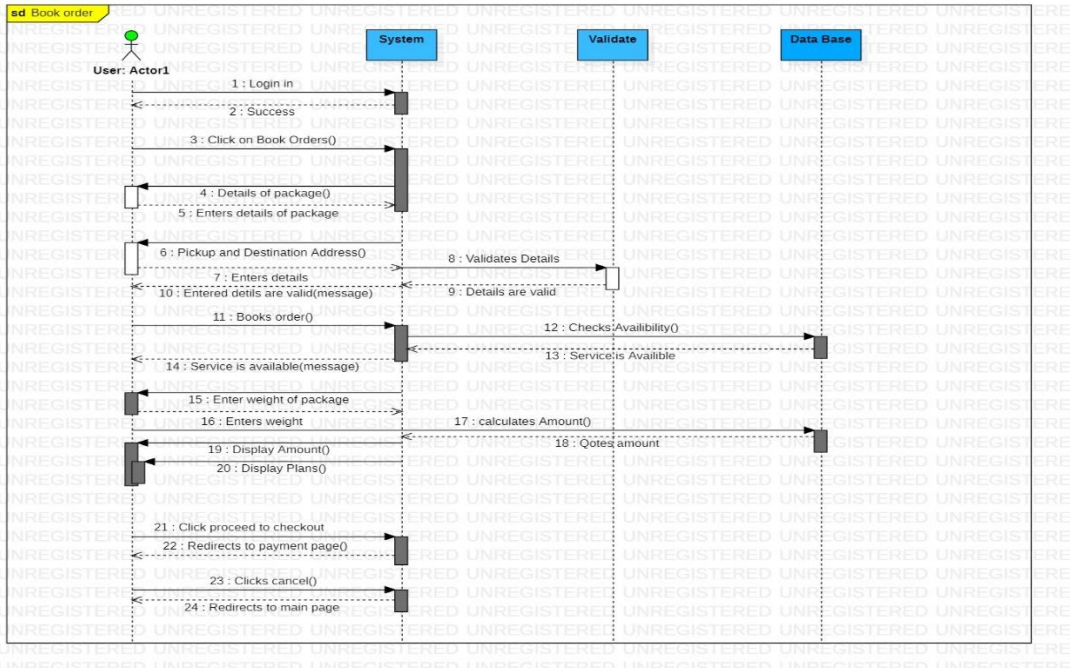
Amount class

1. Amount_cal
2. Amt_per_gram

Object Model:



Time sequence diagram:



Use Case:5

Use Case Name	Payment
Description	After Placing the order user redirects to payment page where user can pay with different modes of payment.
Primary Actor(s)	Customer
Secondary Actor(s)	System
Pre-condition	User should be logged into the system and enter correct details.
Post-condition	User Books order successfully and a confirmation mail with all the details are sent.
Trigger	When user clicks on make payment.
Level	Kite
Stakeholders	Nil

BASIC FLOW

1.	After successful verification of details user will redirect to payment page.
2.	System asks the user to select appropriate payment method.
3.	After selection of the payment method user will pay the respective amount.
4.	After successful payment user redirects to home page with a prompt displaying payment done successfully our agent will pick your order.
5.	System redirects to the page where user can schedule the pick-up date and time.

Alternate Scenario

1	If the user doesn't have sufficient balance in the payment mode chosen then system redirects to the payment page again with a pop-up payment failed.

EXCEPTION

No failure condition

Noun:

User, order, payment, pickup date, system.

Conceptual Class List:

User, order, payment.

Attributes:

User class

1. Username
2. User_pincode
3. User_ph
4. User_id

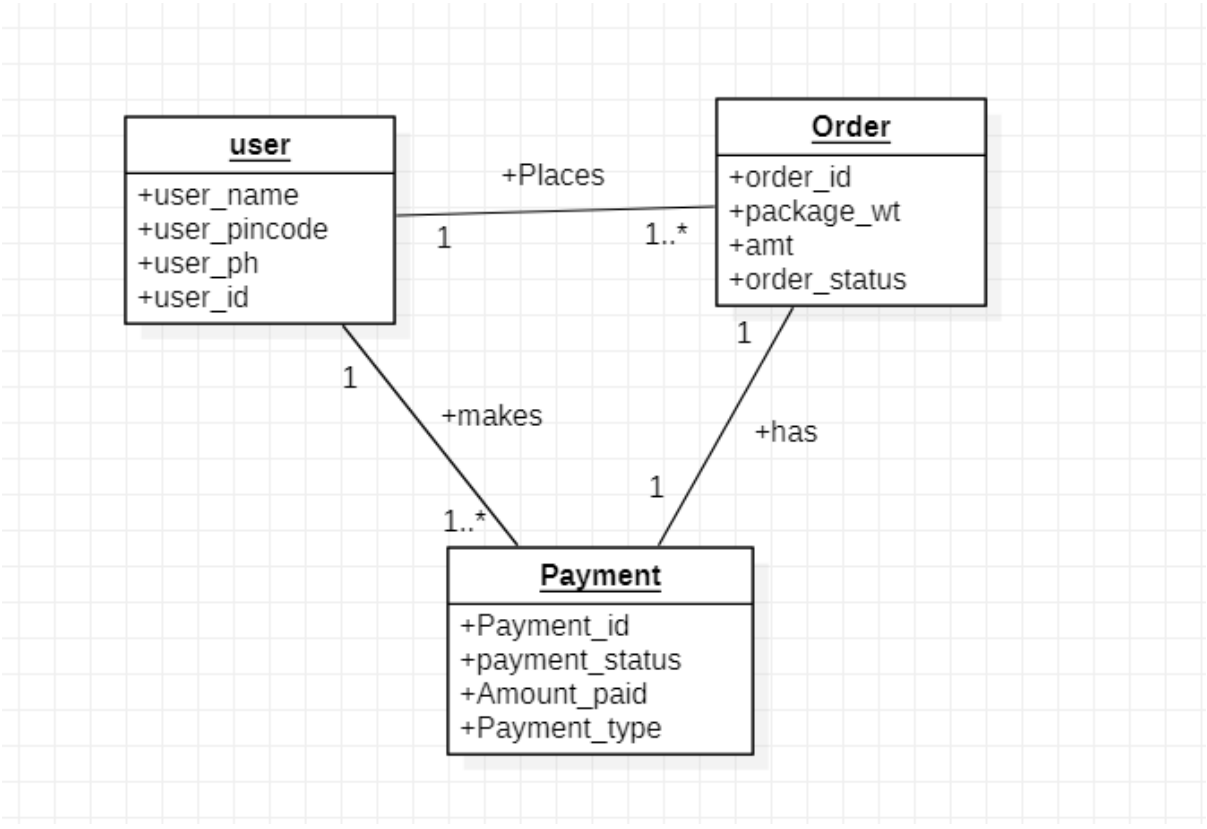
Order class

1. Order_id
2. Package_wt
3. Amt
4. Order_status

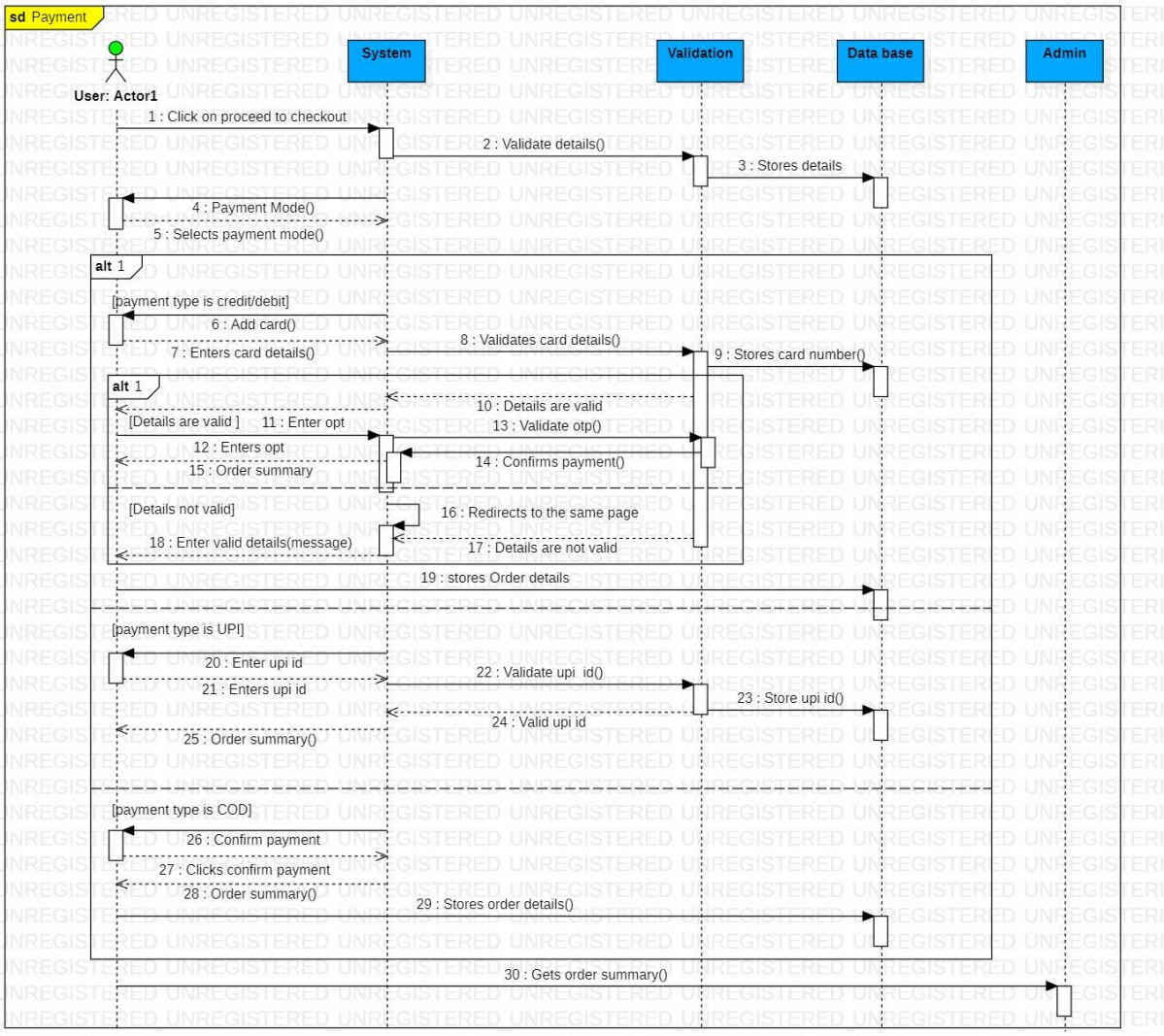
Payment class

1. Payment_id
2. Payment_status
3. Amount_paid
4. Payment_type

Object Model:



Time sequence diagram:



Use Case:6

Use Case Name	Pick up
Description	Pick up staff will update the details of order
Primary Actor(s)	Pick up agents
Secondary Actor(s)	System
Pre-condition	Agent should login to the system
Post-condition	Agent update the details of shipment
Trigger	When an agent is allocated with a particular order number
Level	Indigo
Stakeholders	Nil

BASIC FLOW

1.	Agent assigned to a particular package will go and pick the package from the pick-up address
2.	After successful pick-up agent will login to the website and update the details of shipment by a particular otp given to the user.
3.	System verifies the otp and updates the status of package.
4.	After successful verification system sends mail to customer regarding the status of package.
5.	Agent gets logged out of website

Alternate Scenario

1	If the otp entered is not correct system asks the agent to resend otp.

EXCEPTION

If the customer is not available at that time of pick-up, then customer is asked to reschedule the pick-up date

Noun:

User, package, user, delivery agent, pick_up address.

Conceptual Class List:

User, package, Delivery agent.

Attributes:

User class

1. Username
2. User_pincode
3. User_ph
4. User_id

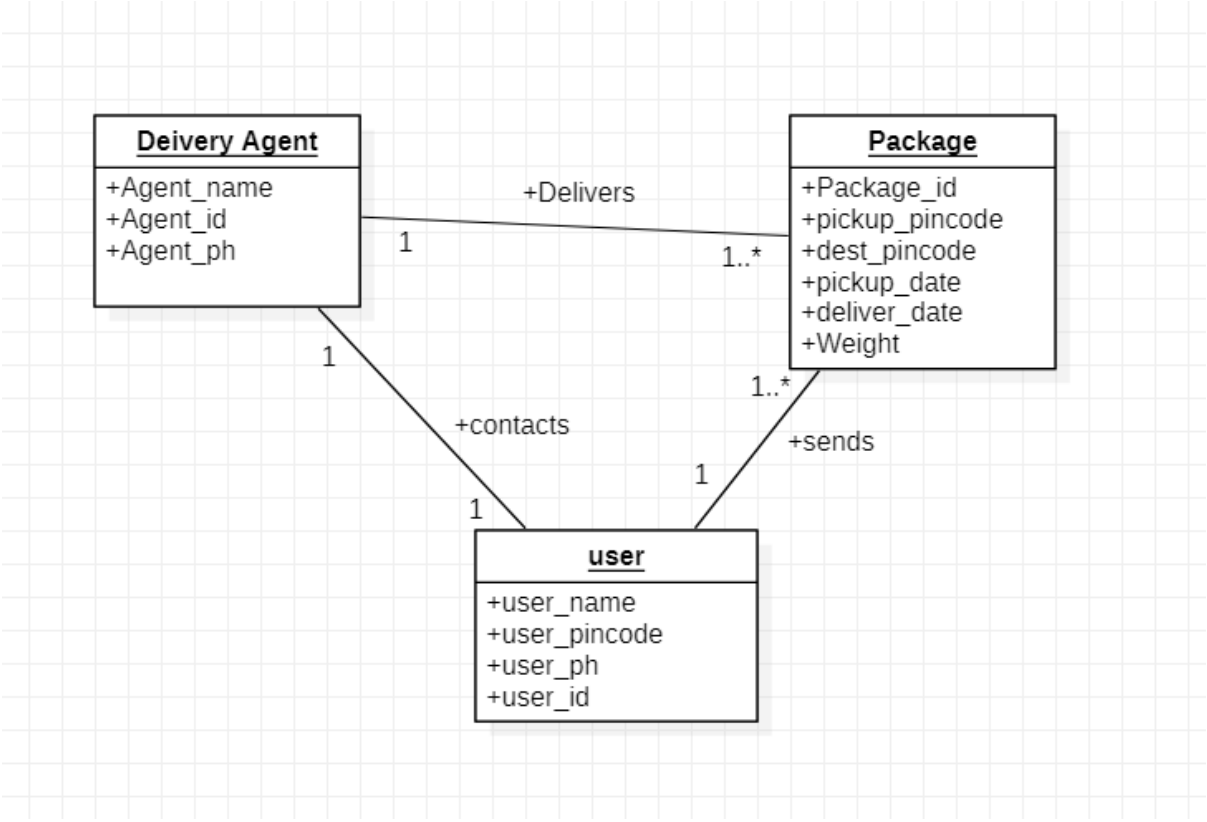
Package class

1. Package_id
2. Pickup_pincode
3. Dest_pincode
4. Pickup_date
5. Deliver_date
6. Weight

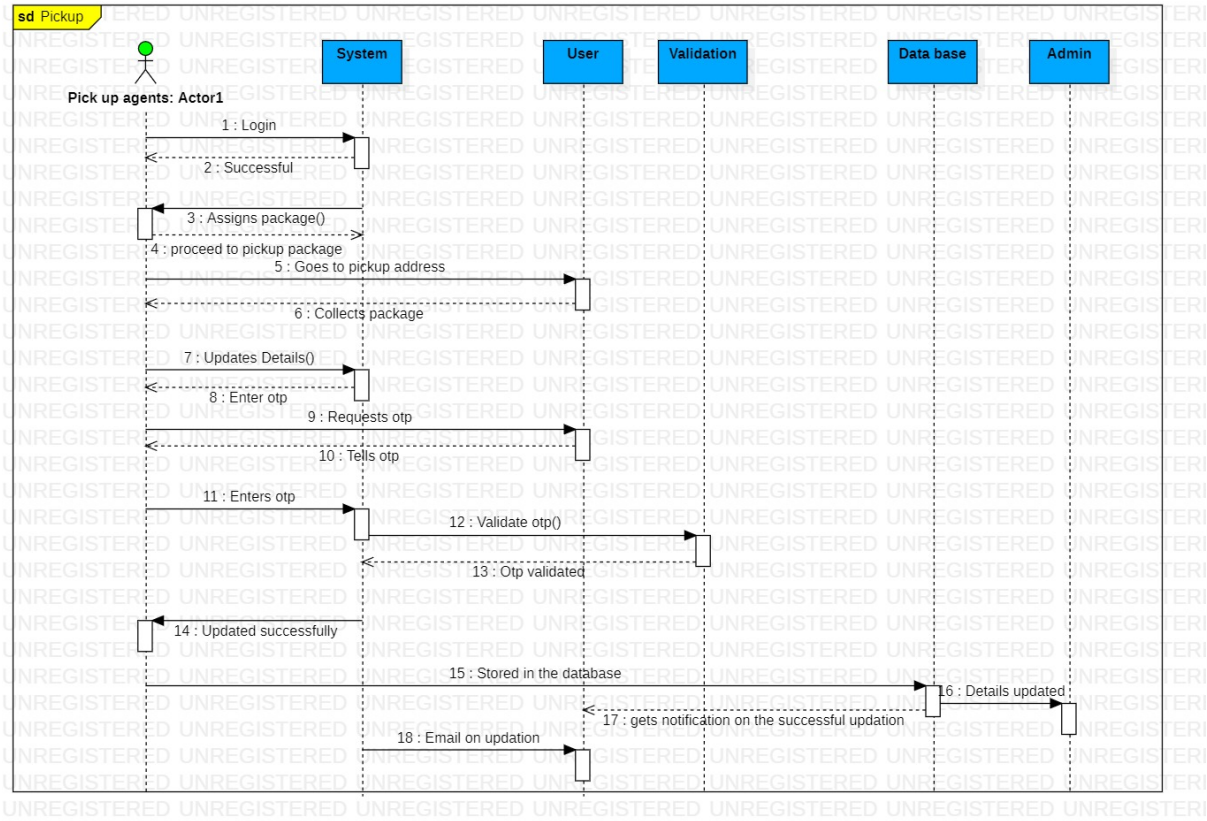
Delivery agent

1. User_name
2. User_pincode
3. User_ph
4. User_id

Object Model:



Time sequence diagram:



Use Case:7

Use Case Name	Register complaint.
Description	User registers the complaint regarding late delivery and damaged packages.
Primary Actor(s)	Customers, receiver.
Secondary Actor(s)	System
Pre-condition	User should have an order number.
Post-condition	User will get reply for the successful complaint registered and generates complaint id.
Trigger	When user gets any problem with the package or delivery
Level	Indigo
Stakeholders	Customer, Receiver, Agent

BASIC FLOW

1.	User will login to the website and selects register a complaint.
2.	System asks for to enter order number.

3.	System verifies order number and ask to enter the reason for complaint
4.	After entering a valid complaint then system will generate a complaint id.
5.	System prompts complaint is saved successfully.
6.	User gets reply from the admin within 2-4 hrs
7.	Complaints get resolved by admin and complaint id gets expired.

Alternate Scenario

1	If order number is not correct then system displays invalid order number and asks the user to enter the correct order number.

EXCEPTION

If the complaint given by user is not resolved by admin, then admin will send a mail saying that from our side a customer support will call u in an hour.

Noun:

User, complaint, admin, customer_support, system, order number complaint_id.

Conceptual Class List:

User, complaint, admin, customer_support.

Attributes:

User class

1. Username
2. User_ph
3. User_id

Complaint class

1. Complaint_id
2. Complaint_status

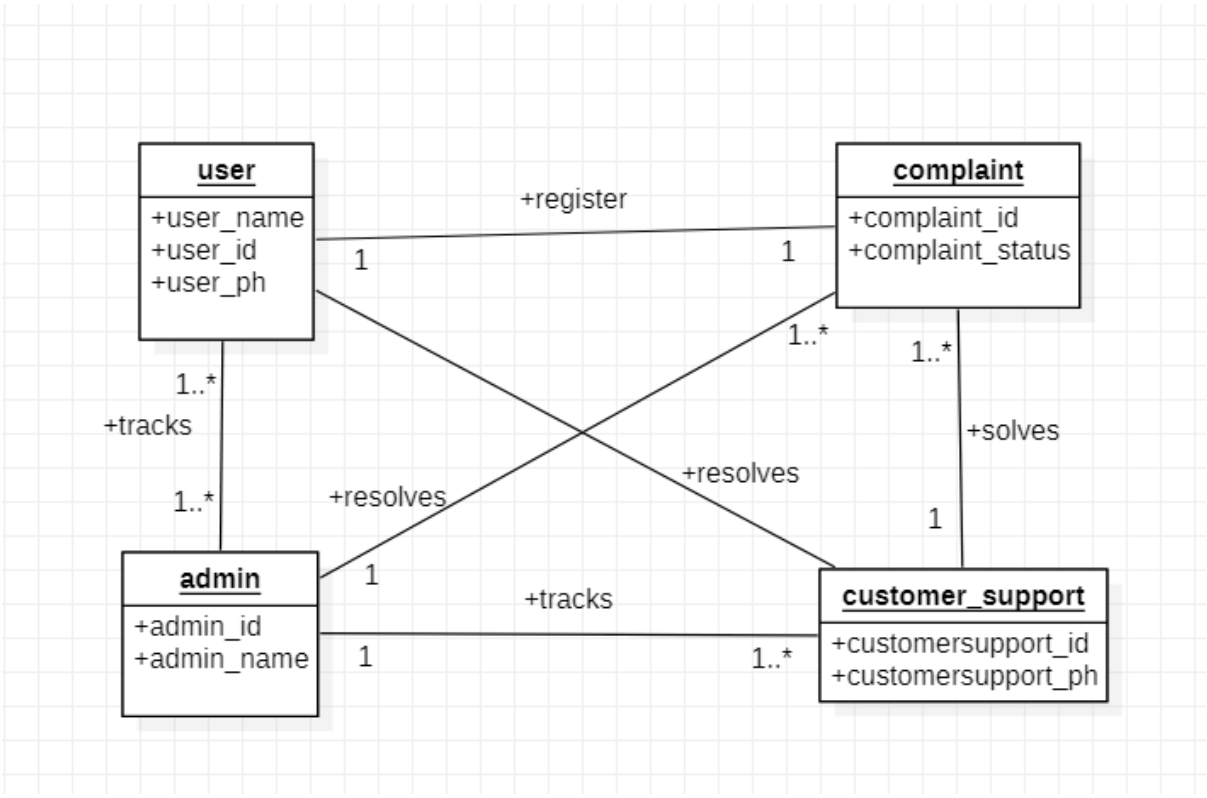
Customer_support

1. Customersupport_id
2. Customersupport_ph

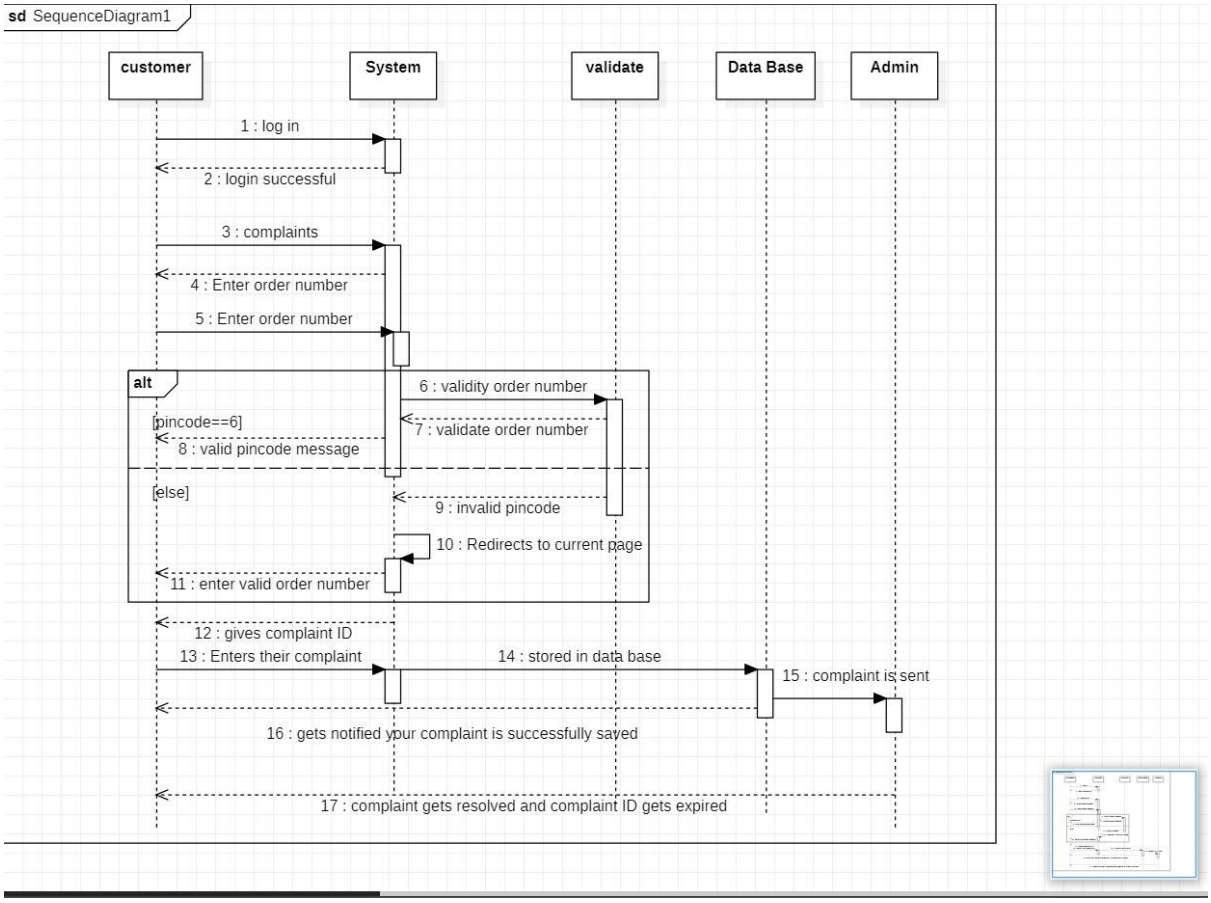
Admin class

1. Admin_id
2. Admin_name

Object Model:



Time sequence diagram:



Use Case:8

Use Case Name	Track Status
Description	Registered user will login to the website and can track the status of order placed by them.
Primary Actor(s)	Customers, agent.
Secondary Actor(s)	System
Pre-condition	User should have an order number.
Post-condition	User will get to know the order status
Trigger	When agent picks an order.
Level	Blue
Stakeholders	Nil

BASIC FLOW

1.	User will login to the website and selects track status.
2.	System asks for to enter order number.
3.	System verifies order number.
4.	After Successful verification, system will display the status of order.

Alternate Scenario

1	If order number is not correct then system displays invalid order number and asks the user to enter the correct order number.

EXCEPTION

If the order status is not updated in an hour from pick up time, then user can report the same to admin.

Noun:

User, order, delivery agent, system.

Conceptual Class List:

User, order, Delivery agent.

Attributes:

User class

1. Username
2. User_pincode
3. User_ph

4. User_id

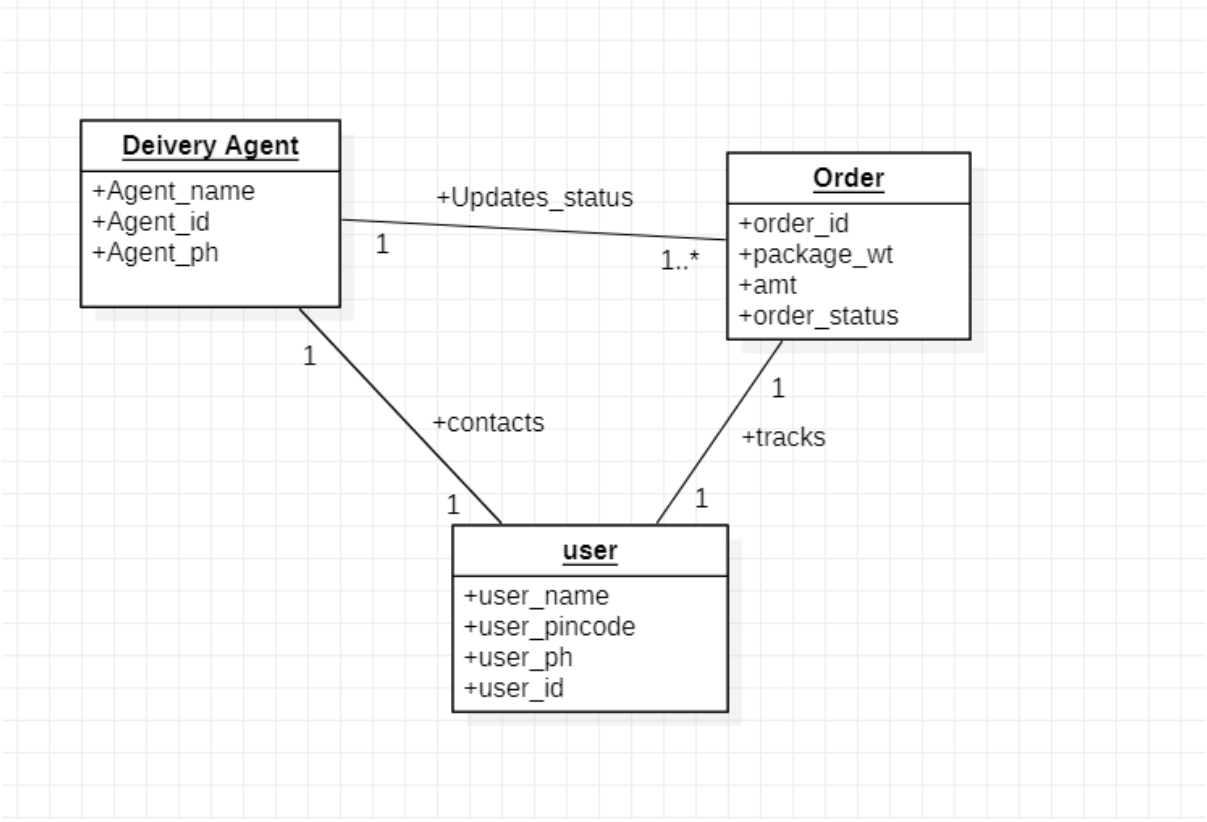
Order class

1. Order_id
2. Package_wt
3. amt
4. Order_status

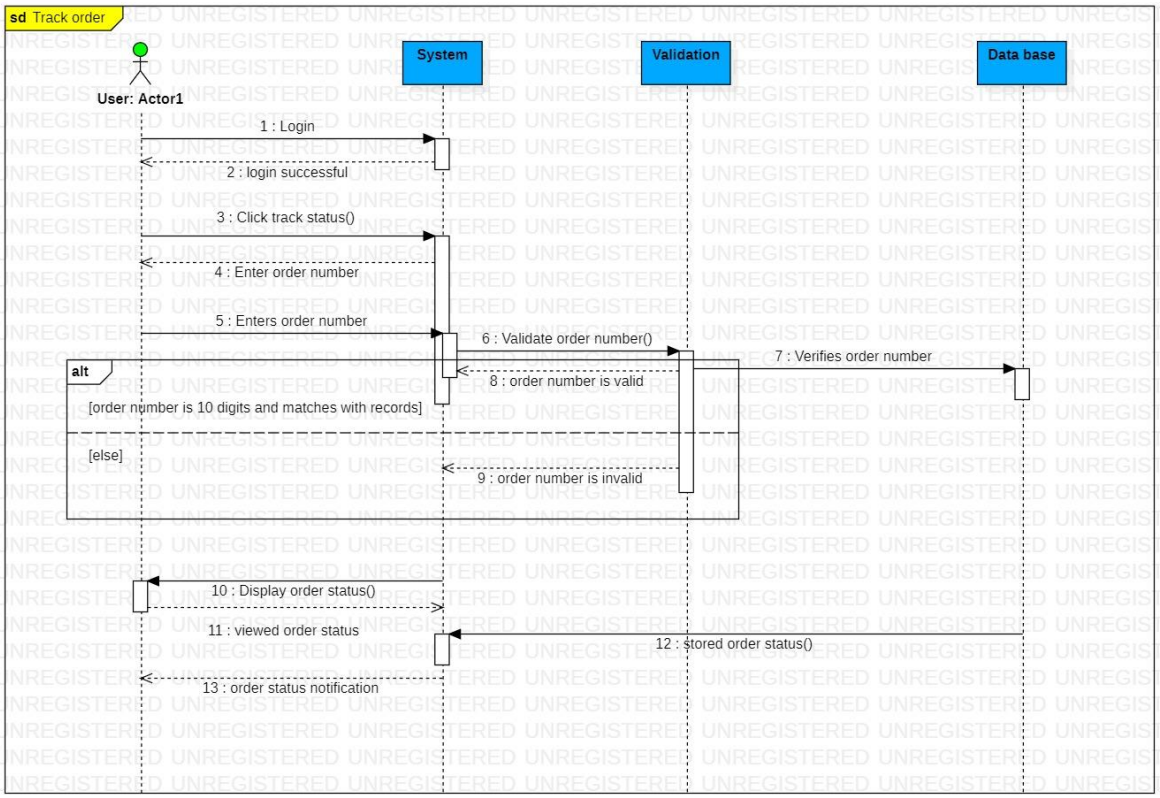
Delivery agent

1. User_name
2. User_pincode
3. User_ph
4. User_id

Object Model:



Time sequence diagram:



Use Case:9

Use Case Name	Cancellation Request
Description	The Users are able to cancel their order up to 24hrs before the pickup of the package. Once user clicks cancel, they are asked to provide the reason for cancellation. After which the order gets cancelled.
Primary Actor(s)	User
Secondary Actor(s)	System
Pre-condition	1. Order must be placed by the user 2. User must exist in the system
Post-condition	1. Order status must be set to be cancelled. 2. A confirmation Email and SMS must be sent to the user.
Trigger	The user clicks on the “Cancel Pickup request” on the website.
Level	Kite
Stakeholders	User

BASIC FLOW

1.	User clicks on “Cancel pickup Request.”

2.	User enters Track id and Email address.
3.	System gets the information of the user like name, address and order details. And also displays an “abort” button.
4.	If the users decide not to cancel the order, then the user clicks on the abort. The system then displays Pickup request not cancelled.
5.	If the user decides to cancel the order, then they click on the “cancel Pickup request”. The system then asks for the reason of cancellation, after which the order will be cancelled and then sends a confirmation mail to the user.
6.	The status of the order will be updated and the money will be refunded to the user with in 3 to 4 working days.

Alternate Scenario

1.	If the entered Track id does not match then it asks the user enter again till they are correct.
2.	If the mode of payment is Cash at pickup time, then the money will not be refunded to the user as their payment status is not paid.

EXCEPTION

If the user didn’t receive the refunded amount then the user can contact customer care services.

Noun:

User, order, payment, system, abort button, track_id,payment_mode.

Conceptual Class List:

User, order, payment.

Attributes:

User class:

1. User_name
2. User_pincode
3. User_ph
4. User_id

Order class

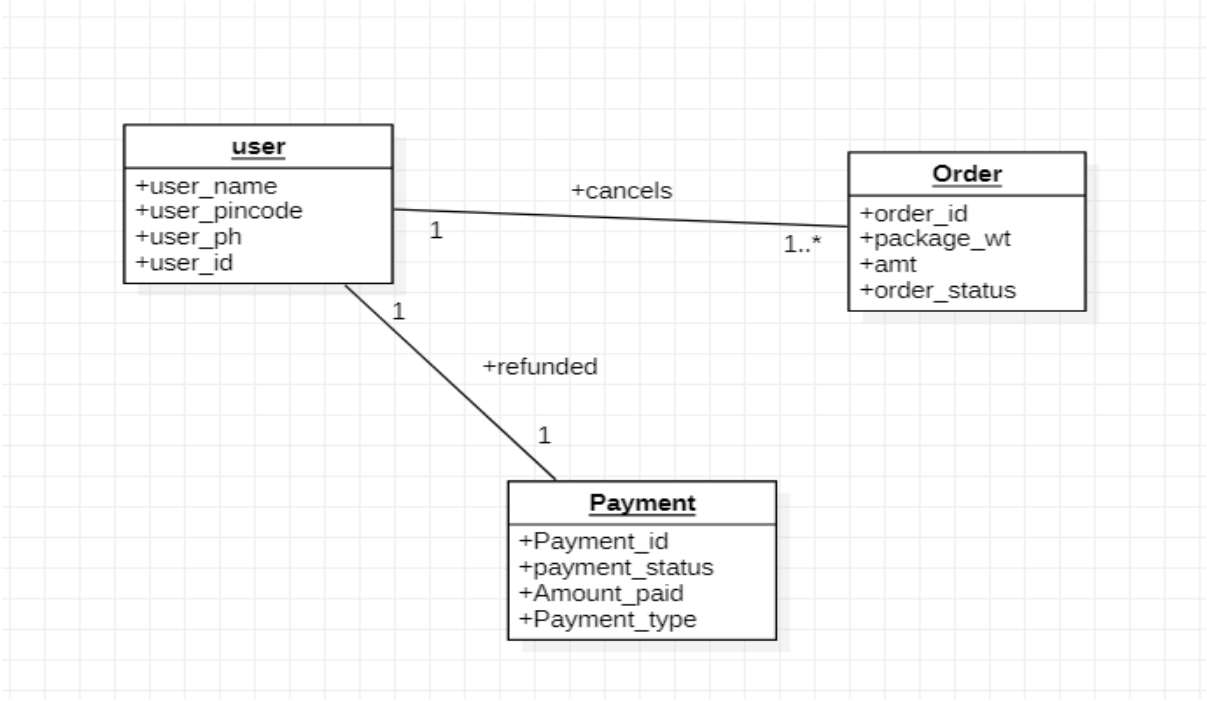
1. Order_id
2. Package_wt
3. Amt

4. Order_status

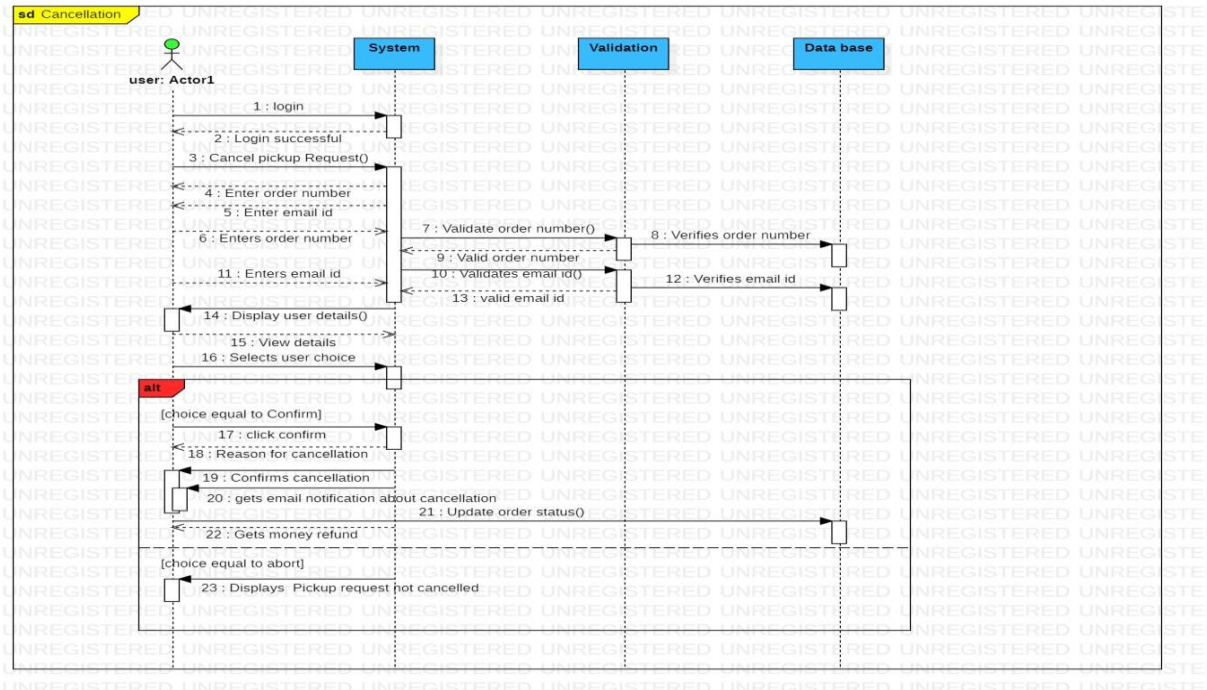
Payment class

1. Payment_id
2. Payment_status
3. Amount_paid
4. Payment_type

Object Model:



Time sequence diagram:



Use Case:10

Use Case Name	Delivery
Description	Delivery agent can update delivery details regarding the order.
Primary Actor(s)	Delivery agent
Secondary Actor(s)	user
Pre-condition	Delivery agent should login in to the application.
Post-condition	Delivery agent successfully updates status of the order.
Trigger	Delivery agent clicks on update details
Level	Kite
Stakeholders	User

BASIC FLOW

1.	Delivery agent selects booking details of the order.
2.	They will update the status of the order like it is delivered or not delivered.
3.	The system checks if the status of the order is delivered or not delivered.
4.	If the updated status is delivered or not delivered then the system send mail to user regarding the status of the order.

Alternate Scenario

1	The package is delivered but the status is not updated.

EXCEPTION

If the customer is not available at that time of pick-up or delivery then customer is asked to reschedule the pick-up date or delivery date.

Noun:

User, Delivery agent, delivery_item, order, system, login_id

Conceptual Class List:

User, Delivery agent, Delivery item

Attributes:

User class

1. User_id
2. User_password
3. User_ph
4. User_email
5. User_details

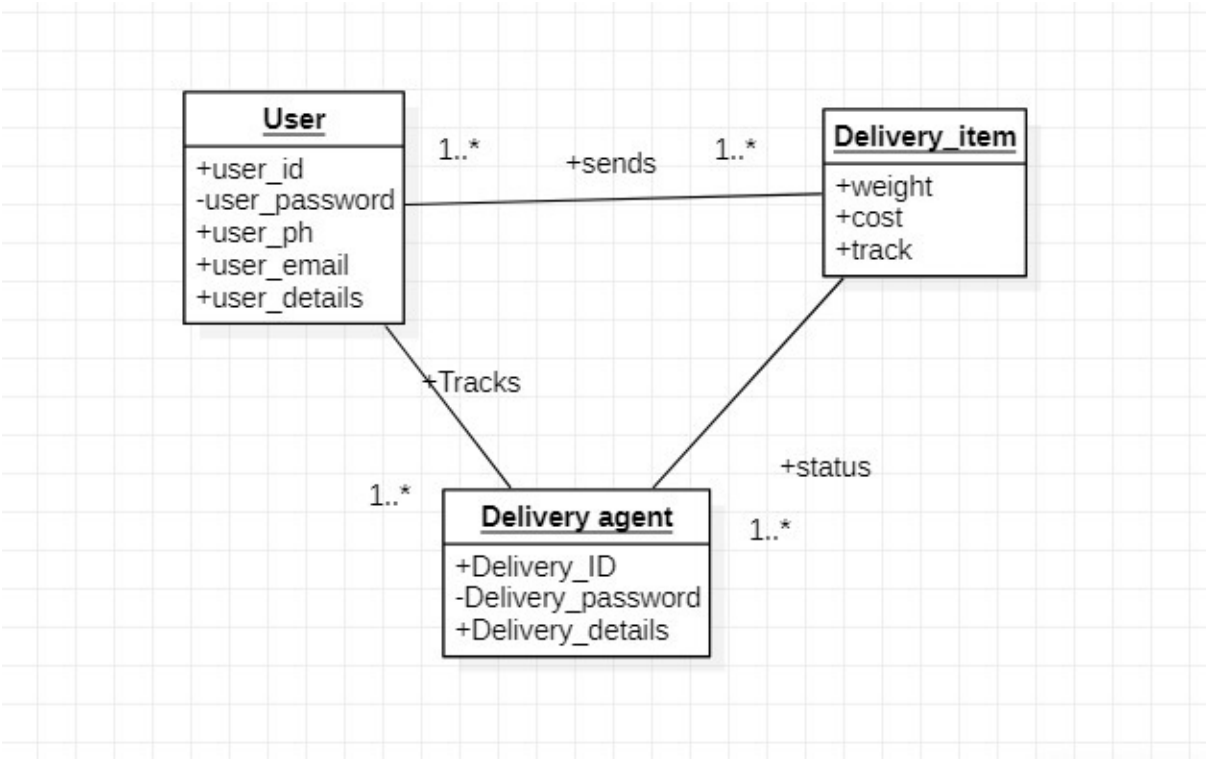
Delivery_item

1. Weight
2. Cost
3. Track

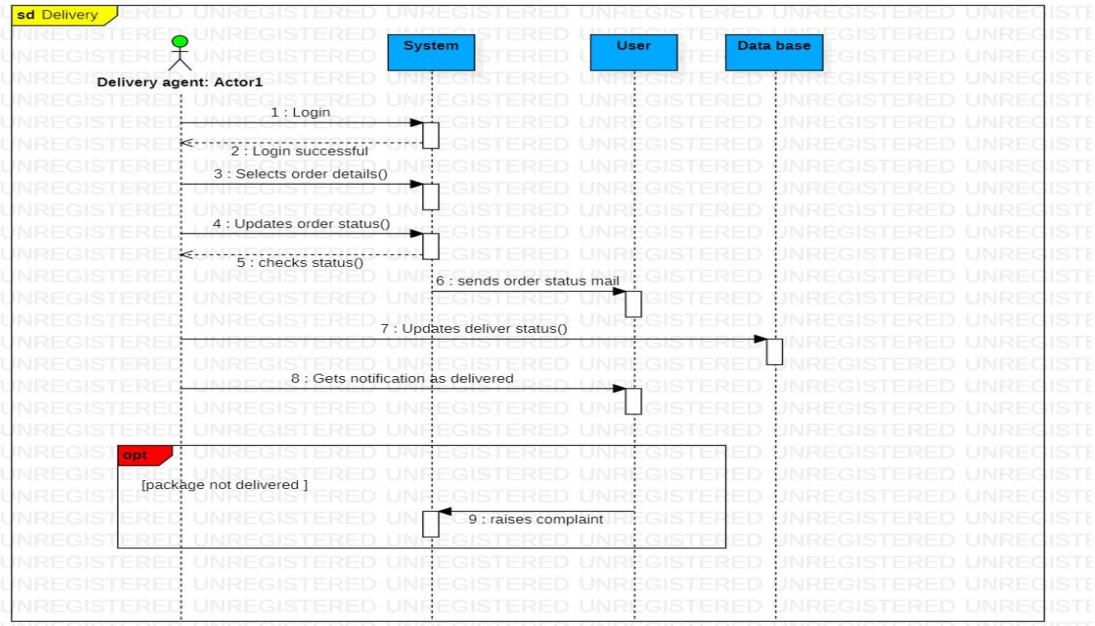
Delivery_agent

1. Delivery_id
2. Delivery_password
3. Delivery_details

Object Model:



Time sequence diagram:



Use Case:11

Use Case Name	Log out
Description	User account will be closed and redirected to login page
Primary Actor(s)	Customer, Employee, Admin
Secondary Actor(s)	System
Pre-condition	On clicking logout button, the system asks for confirmation
Post-condition	Once if the user clicks log out button it will display “Your account is Successfully logged out”
Trigger	User closes the Account
Level	Low level
Stakeholders	Customer, Employee, Admin

BASIC FLOW

1.	User clicks on logout button
2.	System asks confirmation as a popup message
3.	On clicking “yes” button, page will be logged out
4.	It shows “Your Account is Successfully logged out”

5.	Redirected to login page

Alternate Scenario

1.	None

Exceptions

1.	User might have poor network connection

Noun:

User, Admin, Delivery agent, Employee, login_id.

Conceptual Class List:

User, Admin, Delivery agent

Attributes:

User class

1. user_id
2. user_password
3. user_details

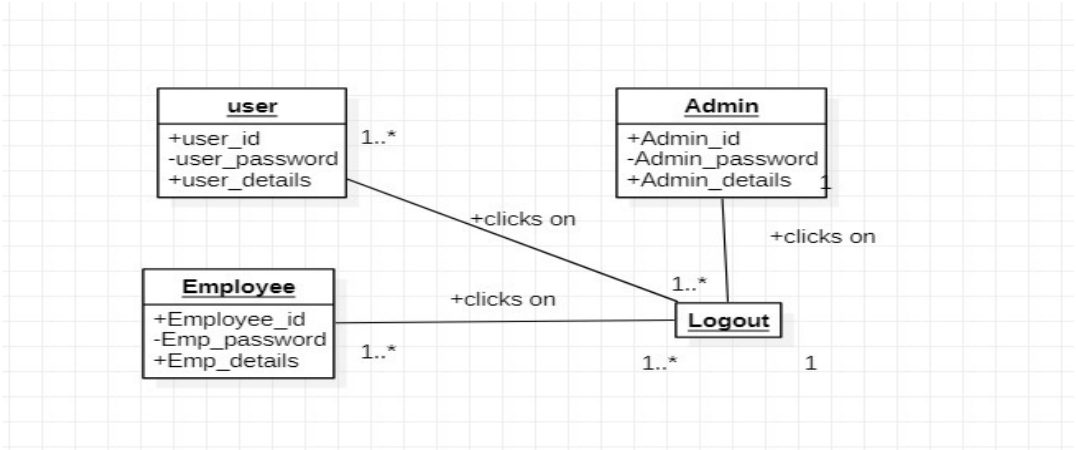
Admin class

1. Admin_id
2. Admin_password
3. Admin_details

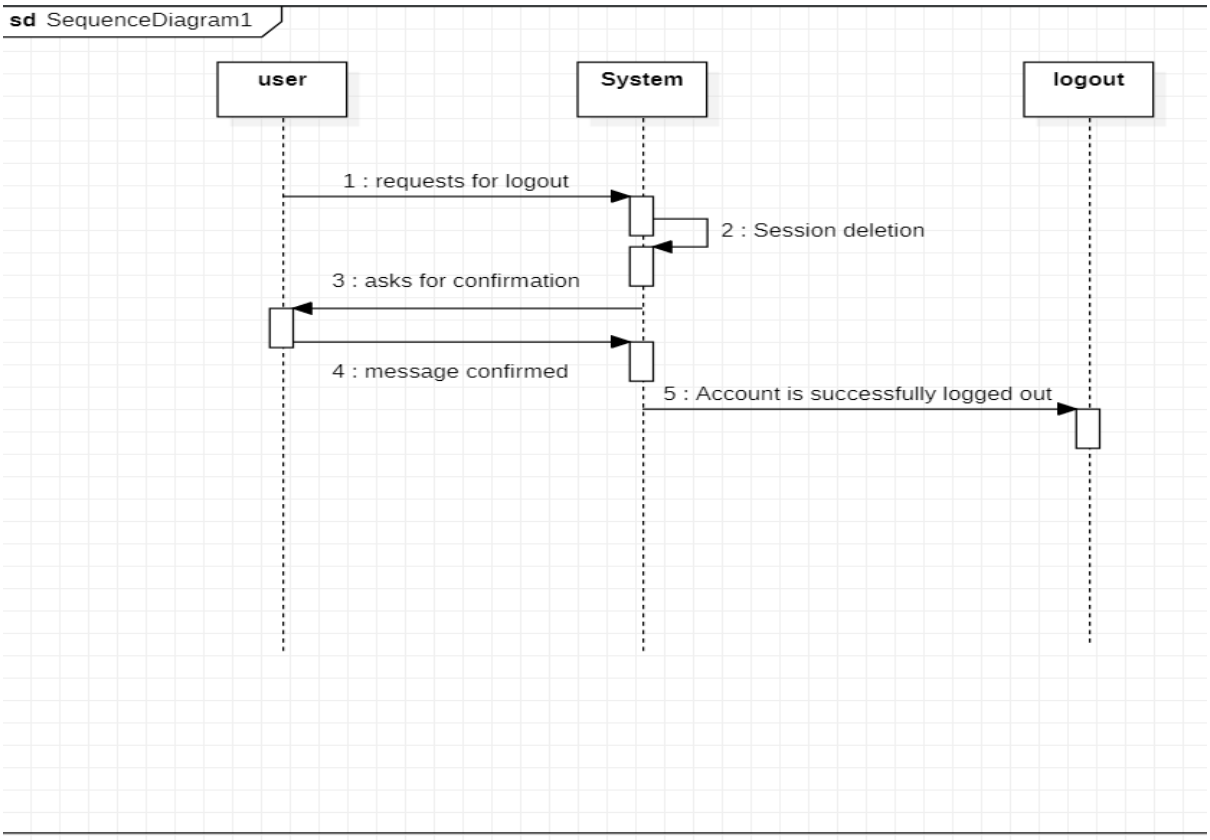
Admin class

1. Employee_id
2. Emp_password
3. Emp_details

Object Model:



Time sequence diagram:



Use Case:12

Use Case Name	Generate report
Description	the Administrator can create a report for a certain period of time.
Primary Actor(s)	Admin
Secondary Actor(s)	System
Pre-condition	The administrator must log in to the system.
Post-condition	The administrator viewed the report successfully.
Trigger	The admin Generates “Report”
Level	Low level
Stakeholders	User

BASIC FLOW

1.	The User Clicks on Generate report option
2.	The system asks you to select the duration
3.	The admin gives time period
4.	On clicking generate option system displays the report
5.	Redirects to Account page

Alternate Scenario

1.	no

Exceptions

1.	User might have poor network connection

Noun:

User, Admin, report

Conceptual Class List:

User, Admin, report

Attributes:

User class

1. User_id
2. Password
3. User_ph
4. User_email

5. Address

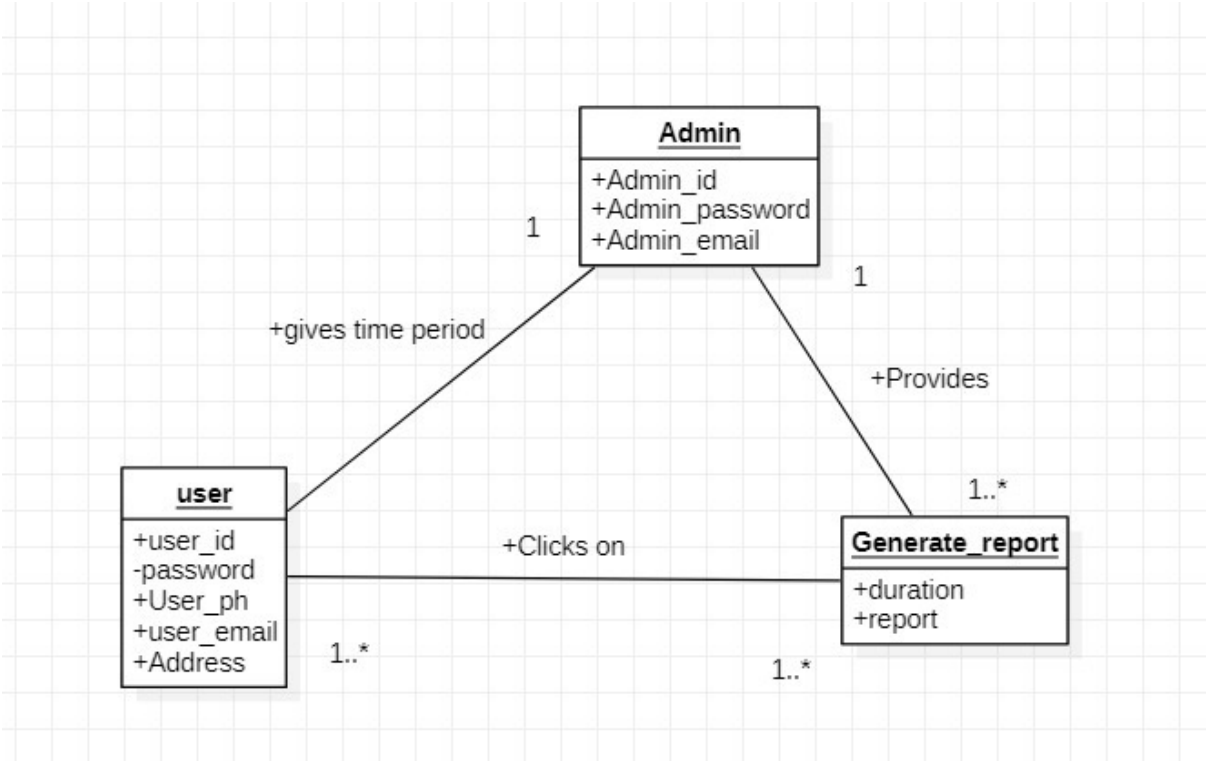
Admin class

1. Admin_id
2. Admin_password
3. Admin_email

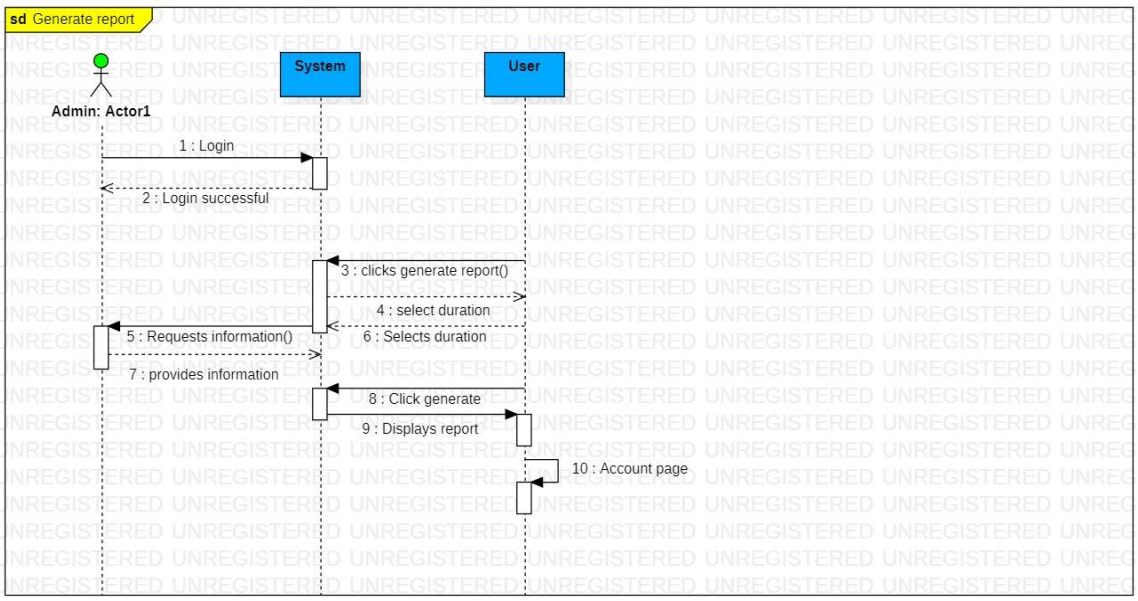
Generate report class

1. Duration
2. report

Object Model:



Time sequence diagram:



ABSTRACT CLASS LIST:

1. User details
2. System

INTERFACE LIST:

1. Amount
2. Complaint
3. Customer support
4. Generate report

INHERITANCE RELATIONSHIP:

1. User
2. Admin
3. Agent

STATIC VARIABLES:

1. Admin_Id

AGGREGATION:

1. Customer support

COMPOSITION:

1. Package
2. Complaint
3. Order

DEPENDENCY:

1. Feedback

CLASS DIAGRAM: