

CS6110 - OBJECTED ORIENTED ANALYSIS AND DESIGN

MINI CASE STUDY

CUSTOMIZED TOURISM PACKAGE SELECTION SYSTEM

MITHUN RAAM M - 2018103562

NAREN T P – 2018103568

USE CASE DIAGRAM

CASE STUDY:

CUSTOMIZED TOURISM PACKAGE SELECTION SYSTEM

ACTORS:

ACTORS	DESCRIPTION
Tourist	One who select packages
Tourist Guide	One who guides the tourist
Coordinator	One who coordinates the tour
Admin	One who maintain the database

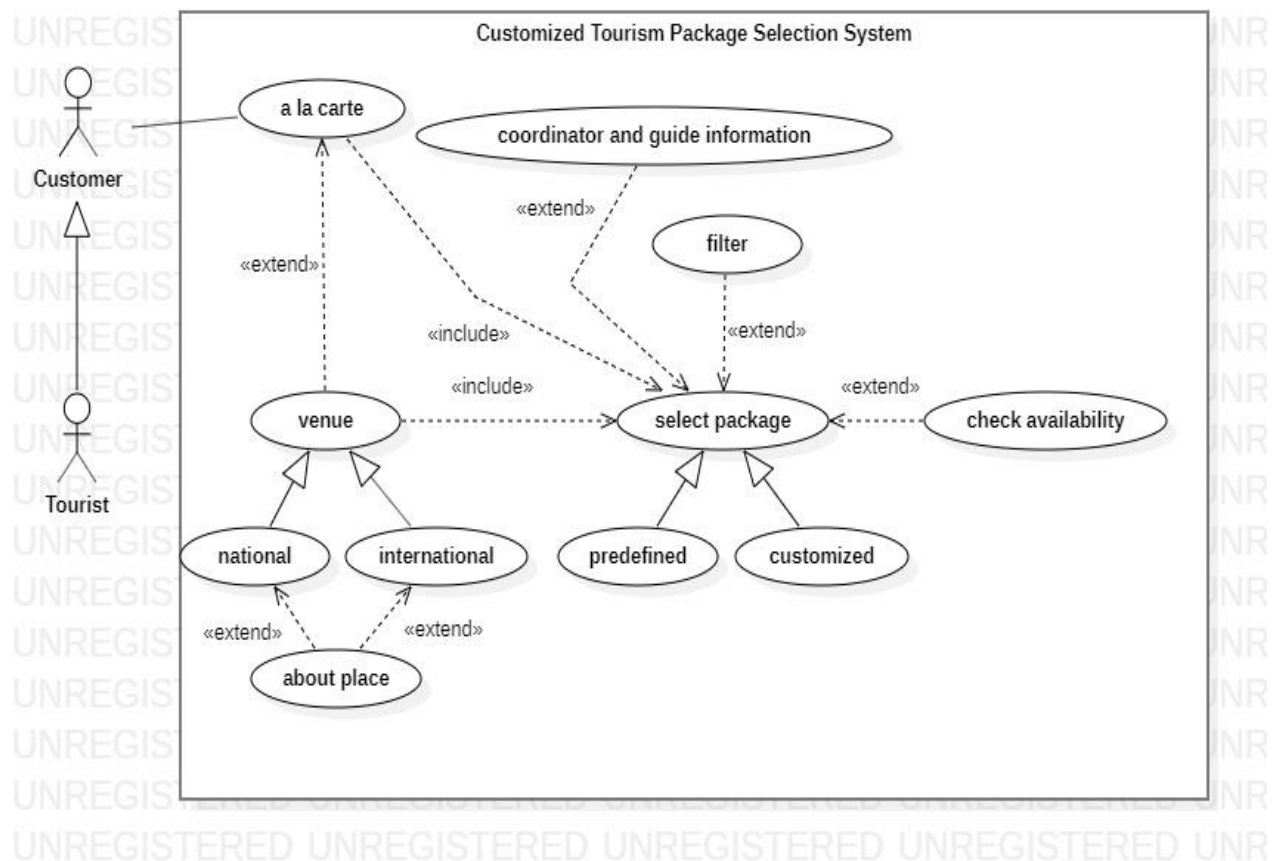
GOALS:

ACTORS	GOALS
Tourist	<ul style="list-style-type: none">• Selects a package• Reserve the tours• Cancels the tour• Makes payment• Gives feedback
Tourist Guide	<ul style="list-style-type: none">• Views tourist information• Gives the feedback
Coordinator	<ul style="list-style-type: none">• Views tourist information• Gives the feedback
Admin	<ul style="list-style-type: none">• Manages the refund process• Manages the tourism database

USE CASES:

1)

USE CASE DIAGRAM:



BRIEF DESCRIPTION:

Tourists can choose a venue and then select or customize a package in that venue or tourists can directly select or customize packages. While choosing a venue, they can view the details of that venue. Tourists can use filter option which is based on cost, rating, class, duration while selecting a package. Before selecting a package, they can check its availability. Tourists can view the details about the coordinator and guide who will be accompanying them.

EXPLANATION OF USE CASES:

- **a la carte:**
 - **Scope:** Customized tourism package selection system
 - **Primary Actor:** Customer -> Tourists
 - **Stakeholders and Interests:**
 - Tourists – want to select a package.
 - **Preconditions:**
 - Tourists must be logged in.
 - **Success Scenario:**
 - Tourists successfully customize their desired packages.
 - **Alternate Flow:**
 - If tourist is not happy with the selected package, then the tourist can either make an alternate selection or request for refund.
- **Venue:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - Tourists successfully select the desired venue.
- **International:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - Tourists successfully select the desired country.
- **National:**
 - **Scope:** Customized tourism package selection system.
 - **Success Scenario:**
 - Tourists successfully select the states in a particular country.
- **About Place:**
 - **Scope:** Customized tourism package selection system.
 - **Success Scenario:**
 - Tourist can view the details of the particular place and famous tourist spots in that place.
- **Select Package:**
 - **Scope:** Customized tourism package selection system.

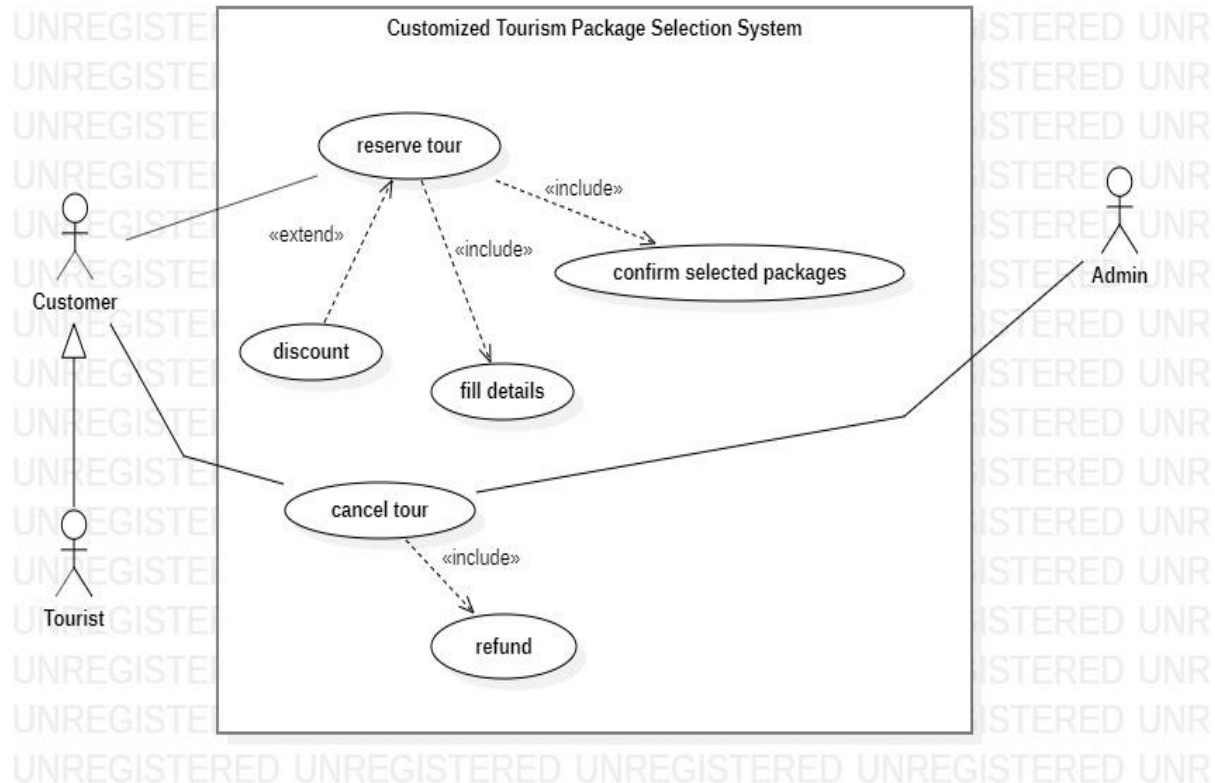
- **Success Scenario:**
 - After selecting the required venue, tourists can select the package.
- **Predefined:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - For a particular venue, tourists can select a package from one of listed packages
- **Customized:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - For a particular venue, tourists can create their own packages with their desired tourist spots.
- **Filter:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - Tourists can also select the packages by using filter option which is based on duration, cost, rating, and class.
- **Check Availability:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - Before selecting a package, tourists can check its availability.
- **Coordinator and Guide Information:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - While selecting a package, tourists can view the details of the coordinator and guide who will be assisting them.

EXPLANATION OF LEVEL OF ABSTRACTION:

We have used the include relationship to simplify the large **a la carte** use case. That is, we have split the large use case into several use cases. The purpose of this action is modularization of behaviours, making them more manageable.

2)

USE CASE DIAGRAM:



BRIEF DESCRIPTION:

Tourist reserves the tour by confirming the selected package and he/she fills the necessary details. Tourist may avail a coupon if available. The tourist can cancel the tour and tourist can request for the refund if the payment is made already for the reserved tour.

EXPLANATION OF USE CASES:

- **Reverse Tour:**
 - **Scope:** Customized tourism package selection system
 - **Primary Actor:** Customer->Tourists
 - **Stakeholders and Interests:**

- Tourist – wants to book a tour
- **Preconditions:**
 - Tourists must be logged in.
- **Success Scenario:**
 - Tourists can successfully reserve a desired tour.
- **Confirm Selected Package:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - Tourists can successfully confirm a selected package.
- **Discount:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - Tourists can avail a discount if it is available.
- **Fill Details:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - Tourists will have to fill their details for verification
- **Cancel Tour:**
 - **Scope:** Customized tourism package selection system
 - **Preconditions:**
 - Tourists must be logged in.
 - **Success Scenario:**
 - Tourists can cancel the selected tour.
- **Refund:**
 - **Scope:** Customized tourism package selection system
 - **Success Scenario:**
 - Tourists can request refund for the cancelled tour.

EXPLANATION OF LEVEL OF ABSTRACTION:

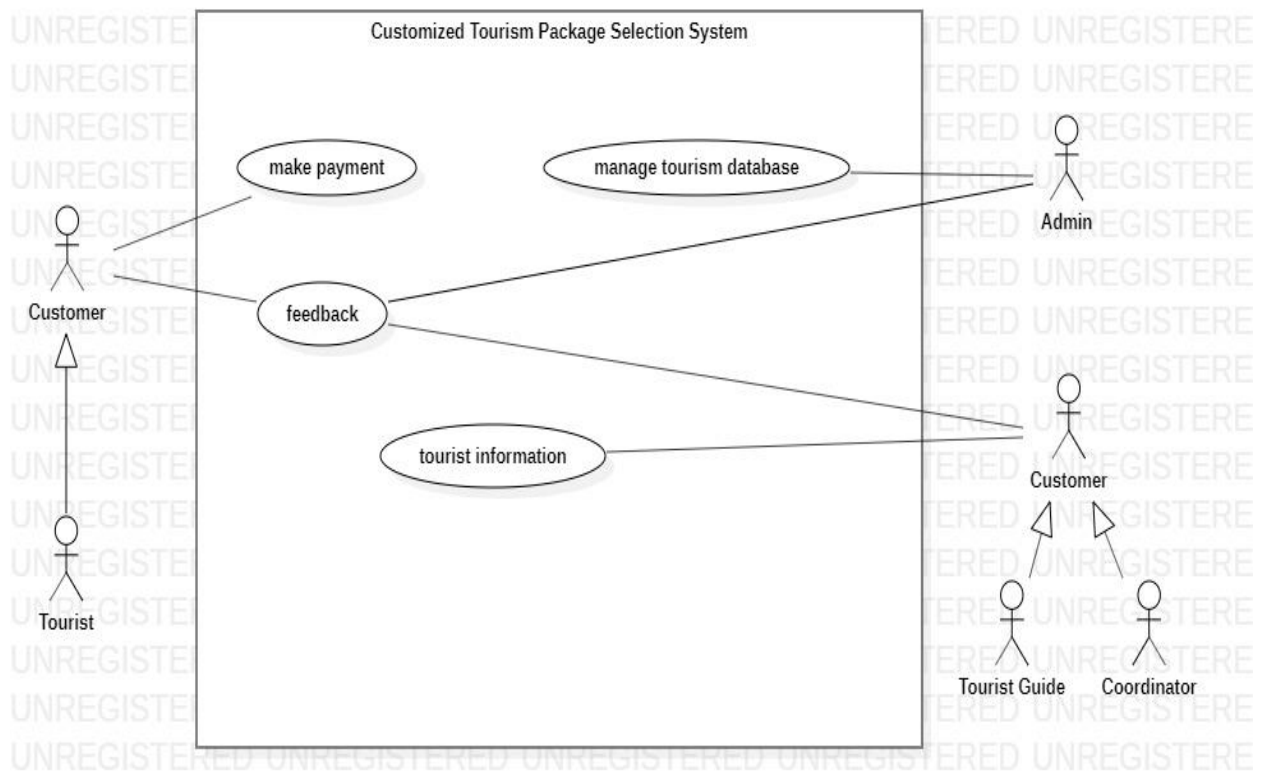
- ❖ **RESERVE TOUR:** Tourist successfully reserves a tour.
 - Tourist logs into the system.
 - Then he/she fills the necessary details.
 - Then he/she confirms the selected package.
 - And then reserves the tour.

❖ **Cancel Tour:** Tourist successfully cancels a tour.

- Tourist logs into the system.
- Then he/she cancels the tour.
- Then he/she requests for refund.
- Admin gives refund.

3)

USE CASE DIAGRAM:



DESCRIPTION:

The tourists can make the payment for their reserved tour. The customers (coordinator, tourist, tourist guide) can give their feedback regarding the journey. Coordinator and tourist guide can view the information about the tourists whom they will be accompanying. Admin manages the entire database.

EXPLANATION OF USE CASES:

- **Make Payment:**

- **Scope:** Customized tourism package selection system
- **Preconditions:**
 - Tourists must be logged in.
- **Success Scenario:**
 - Tourists can make payment for the selected packages using any payment mode like credit, debit card.

- **Tourist Information:**

- **Scope:** Customized tourism package selection system.
- **Secondary Actor:**
 - Customer-> Tourist Guide
 - Customer-> Coordinator
- **Preconditions:**
 - Tourist Guides and Coordinators must be logged in.
- **Success Scenario:**
 - Tourist Guide and Coordinator can view information about the tourists assigned to them.

- **Manage tourism database:**

- **Scope:** Customized tourism package selection system
- **Secondary Actor:**
 - Admin
- **Preconditions:**
 - Admin must be logged in.
- **Success Scenario:**
 - Admin manages the tourism database.

- **Feedback:**

- **Scope:** Customized tourism package selection system.
- **Primary Actor**
 - Customer-> Tourist
- **Secondary Actor:**
 - Customer-> Tourist Guide
 - Customer -> Coordinator
- **Preconditions:**

- Customers must be logged in.
- **Success Scenario:**
 - Customers can give their feedback about their journey.

EXPLANATION OF LEVEL OF ABSTRACTION:

❖ **Make Payment:** Tourists can successfully make payment.

- Tourist logs into the system.
- And then makes the payment for the selected tour.

❖ **Feedback:** Customers can give feedback about the journey.

- Customers log into the system.
- And then give feedback about the journey

❖ **Tourist Information:** Tourist Guides and Coordinators can view tourist information


- Tourist Guides and Coordinators log into the system.
- And then they can view the tourist information

❖ **Manage Tourism Database:** Admin manages the tourism database

- Admin logs into the system
- And then can manage the tourism database

CLASS DIAGRAM

CASE STUDY:

 Customized tourism package selection system

FINDING CLASSES:

- Tourist
- Individual
- Group
- Package Selection
- Admin
- Mode of payment
- Customer- Guide and Agent
- Verification
- Discount
- Travel
- Reservation
- Hotel
- Rating
- Transport
- Food
- Cancellation
- Payment
- Transaction
- Feedback
- Enquiry
- Issues
- Location

REFINING CLASSES:

GOOD CLASSES:

- Tourist
- Individual
- Group
- Package Selection
- Admin
- Customer- Guide and Agent
- Verification
- Travel
- Reservation
- Hotel
- Cancellation
- Payment
- Transaction
- Feedback
- Enquiry
- Issues

BAD CLASSES:

- Transport
- Food

ATTRIBUTES:

- Location
- Discount
- Rating
- Mode of payment

DATA DICTIONARY:

- **Tourist**
 - One who selects and reserves the packages.
- **Package Selection**
 - Here packages selection can be made by the tourist.
- **Admin**
 - One who maintains the tourist's database.
- **Customer- Guide and Coordinator**
 - The one who coordinates the travel – coordinator
 - The one who guides the tourist - Guide
- **Verification**
 - Here the customer details and payments made by the tourist are verified.
- **Reservation**
 - Here the tour reservations are made.
- **Cancellation**
 - Here a tourist can cancel a reserved package and request for refund.
- **Payment**
 - Payment can be made for the selected package.
- **Feedback**
 - Here customer can give feedback.
- **Enquiry**
 - Here tourist can enquire about the travel.

ATTRIBUTES OF CLASSES:

- **Tourist**
 - Name
 - Email
 - Password
 - Age
 - Phone Number
 - User Id

- **Individual**
 - Tourist Id
 - Phone Number
 - Address
 - No of people
 - Premium
- **Group**
 - ID
 - Phone number
 - Address
 - No of people
 - Premium
 - Organization name
 - Organization Type
- **Package Selection**
 - ID
 - Name
 - Location
 - Price
 - Availability
 - Type
- **Admin**
 - ID
 - Name
 - Password
- **Customer- Guide and Coordinator**
 - ID
 - Name
 - Availability
 - Location
 - Phone number
- **Verification**
 - ID
 - Status
- **Travel**
 - ID

- Agency Name
 - No of vehicles
 - Availability
 - Location
 - Contact
- **Reservation**
 - ID
 - Status
 - Schedule
 - Premium discount
 - Reservation travel
 - Reservation hotel
 - Reservation package
- **Hotel**
 - ID
 - Name
 - Location
 - Address
 - Accommodation
 - Contact
- **Cancellation**
 - Refund ID
 - Refund account ID
 - Refund Description
 - Eligibility
 - Applied Date
- **Payment**
 - ID
 - Date
 - Type
 - Description
 - Account ID
- **Transaction**
 - ID
 - Date
 - Amount

- Status
- **Feedback**
 - Feedback Customer ID
 - Rating
 - Description
- **Enquiry**
 - ID
 - Description
 - Subject
- **Issues**
 - Description
 - Posting Date

OPERATIONS IN CLASSES:

CLASS	OPERATIONS
Verification	checkVerification()
Travel	getTravelAgencyName() checkAvailability() getAgencyLocation()
Customer - Guide and Coordinator	getName() checkAvailability() getContact()
Reservation	getReservationStatus() getSchedule() getPremiumDiscount() makeReservation() cancelReservation()

Package Selection	getPackageID() getPackageName() getPackageLocation() getPackagePrice() changePackageContents() getPackageAvailability()
Hotel	getHotelID() getHotelName() getHotelLocation() checkHotelAccommodation() getHotelContact()
Admin	addUser() deleteUser() updateDatabase()
Tourist	viewTouristDetails() getName() setPassword(in String Password) getPhoneNumber() setName() getAge() deleteAccount()
Individual	getTouristID() getPhoneNumber() setPhoneNumber(in int PhoneNumber) getAddress()

	setAddress(in String Address) setNoofpeople(in int Noofpeople) getNoofpeople()
Group	getGroupID() getPhoneNumber() setPhoneNumber(in int PhoneNumber) getAddress() setAddress(in String Address) setNoofpeople(in int Noofpeople) getNoofpeople() setInstitutionName(in String Name) getInstitutionName() setInstitutionType(in String Type) getInstitutionType()
Feedback	addFeedback() addRating()
Payment	makePayment() searchPayment() getPaymentID() getPaymentDate()
Transaction	getTransactionDetails() getAmount() getStatus()
Enquiry	addEnquiry() deleteEnquiry()

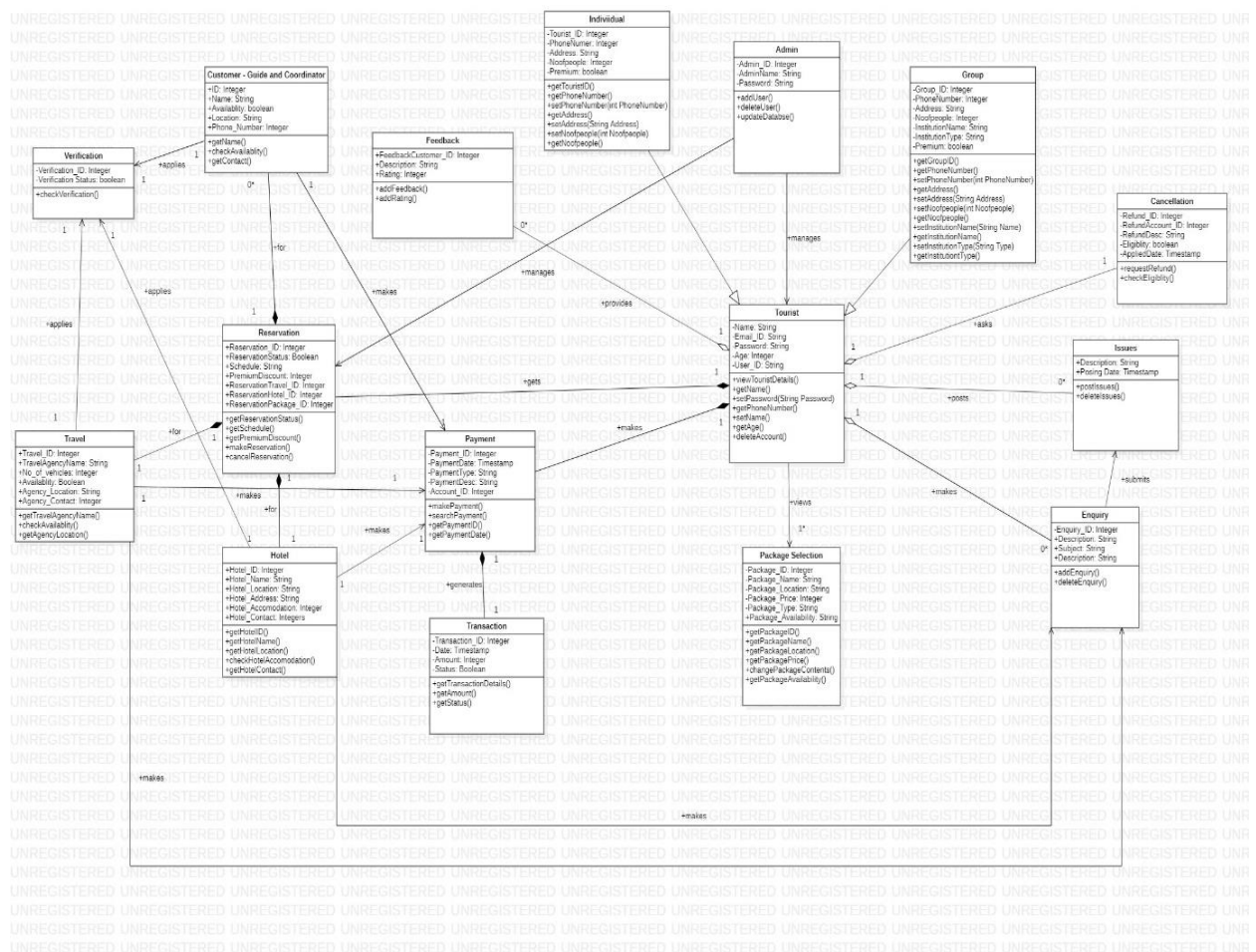
Issues	postIssues() deleteIssues()
Cancellation	requestRefund() checkEligibility()

ASSOCIATION AND MULTIPLICITY:

CLASS A	ASSOCIATION	CLASS B	MULTIPLICITY
Travel	Applies	Verification	1-1
Travel	For (composition)	Reservation	-
Travel	Makes	Payment	1-1
Hotel	Applies	Verification	1-1
Hotel	For (composition)	Reservation	1-1
Transaction	Generates	Payment	1-1
Customer - Guide and Coordinator	For (composition)	Reservation	0..*-1
Customer - Guide and Coordinator	Makes	Payment	1-1
Customer - Guide and Coordinator	Applies	Verification	1-1
Tourist	views	Package selection	1-1..*
Admin	Manages	Reservation	1-1..*
Payment	Makes (composition)	Tourist	1-1
Reservation	Gets	Tourist	1-1

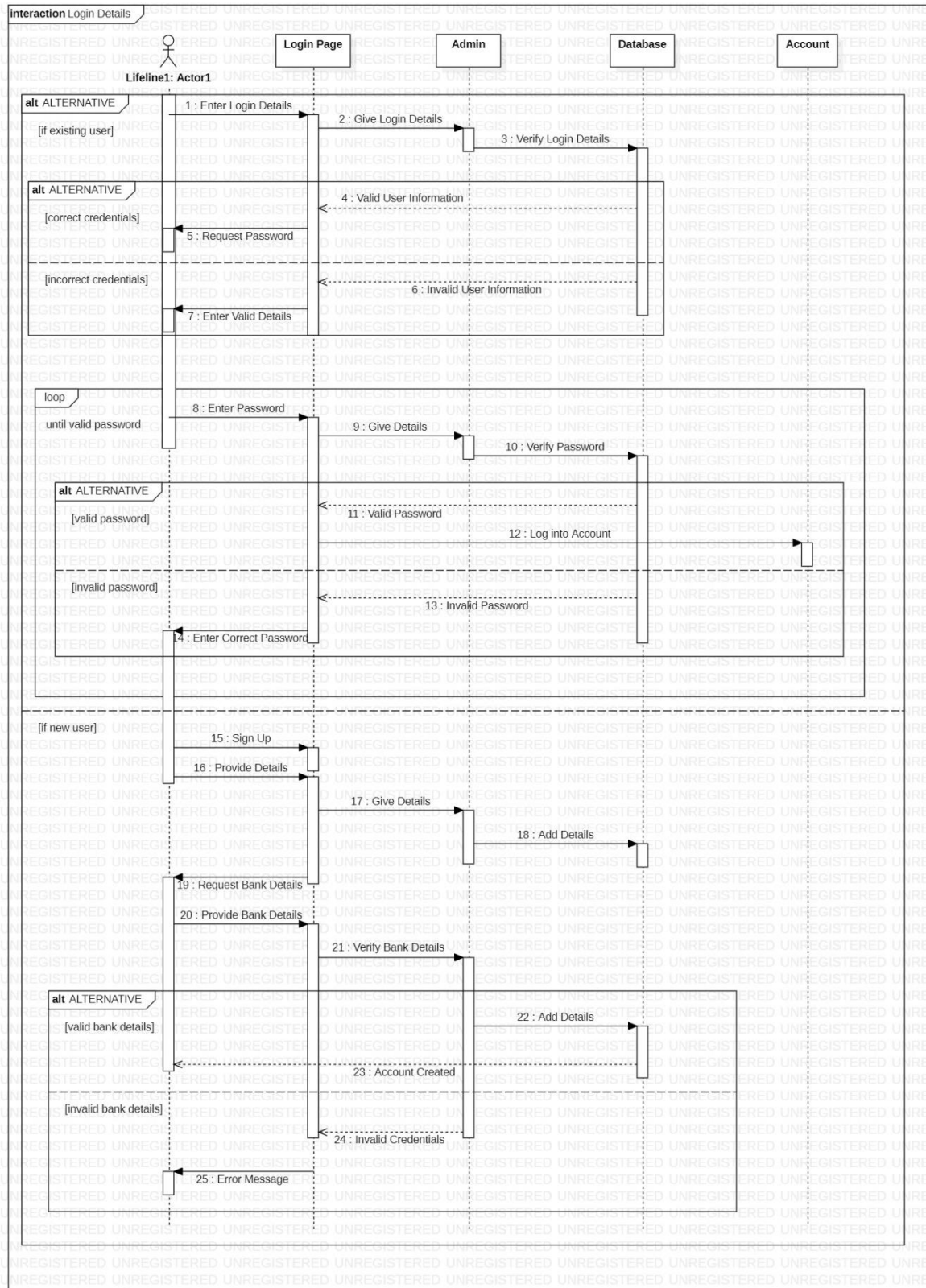
Feedback	Provides (aggregation)	Tourist	0..*-1
Cancellation	Asks (aggregation)	Tourist	1-1
Issues	Posts	Tourist	0..*-1
Enquiry	Makes (aggregation)	Tourist	0..*-1
Travel	Makes	Enquiry	1-1
Hotel	Makes	Enquiry	1-1
Individual	Generalization	Tourist	-
Group	Generalization	Tourist	-

CLASS DIAGRAM:



SYSTEM SEQUENCE DIAGRAM (SSD)

LOGIN



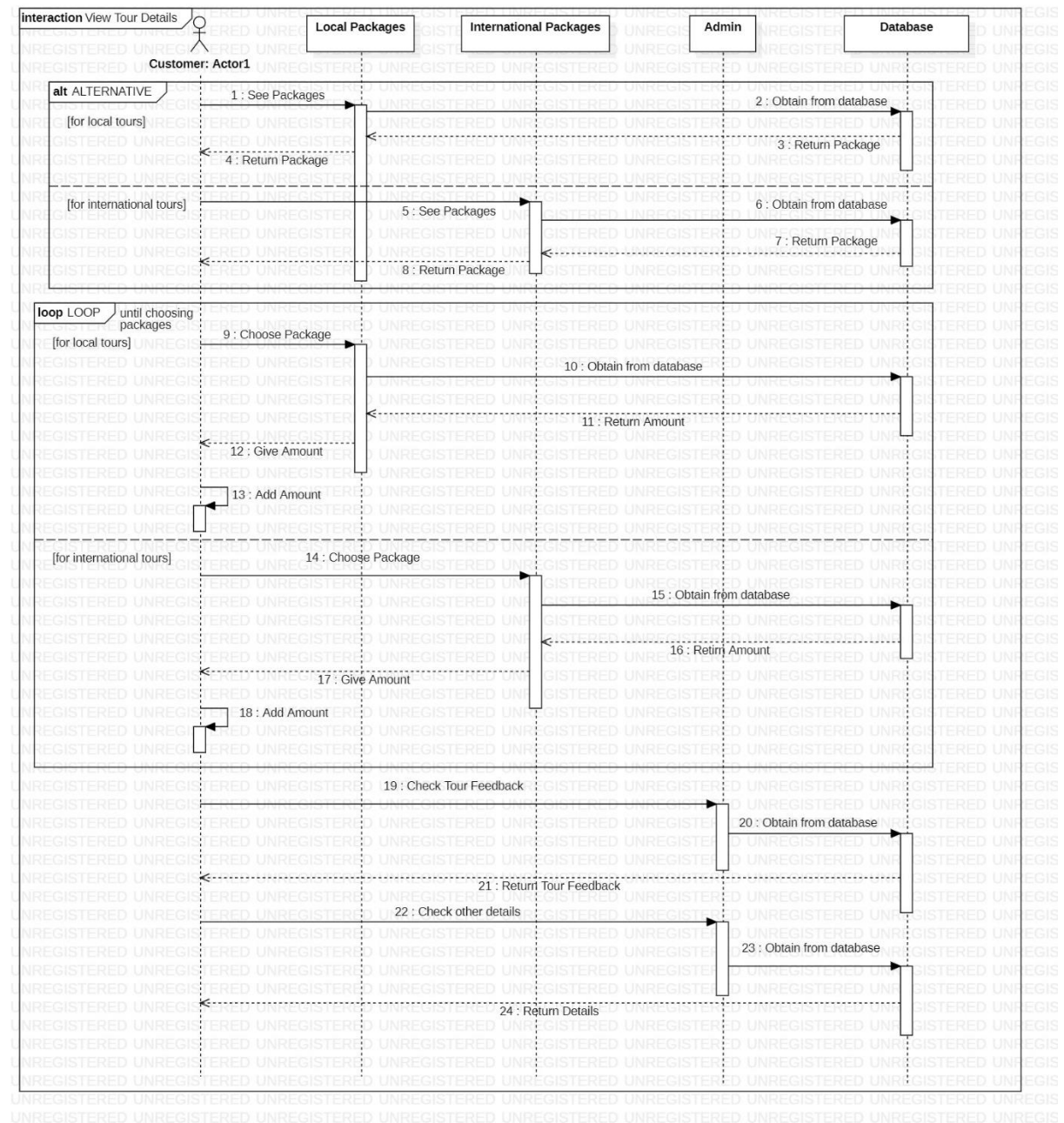
SCENARIOS:

- + Customer logs into the account if he/she already has an account.
- + If not he/she creates an account.


BRIEF DESCRIPTION:

An existing user enters login details and it is verified by admin. If the user has given correct credentials, the password will be requested, if not valid details are asked. A loop frame is used to get the valid password from the user. If he/she is a new user, then they have to sign up and provide bank details and it is verified.

VIEW TOUR DETAILS



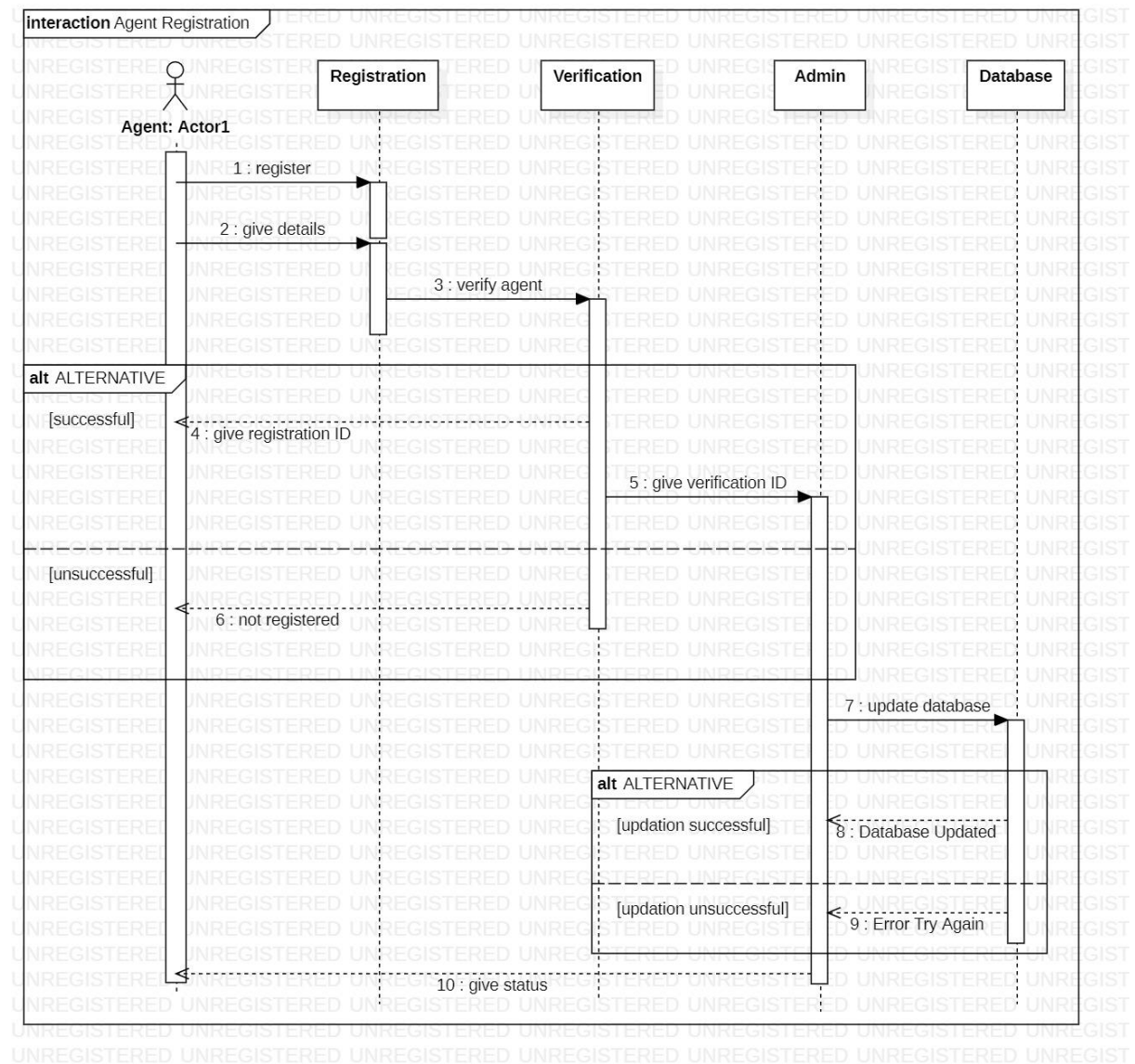
SCENARIO:

 Customers can view and select the tour packages.

BRIEF DESCRIPTION:

A user can view local and international packages. A loop frame is used until the user chooses the packages. A user can also give feedback and check other details

AGENT REGISTRATION



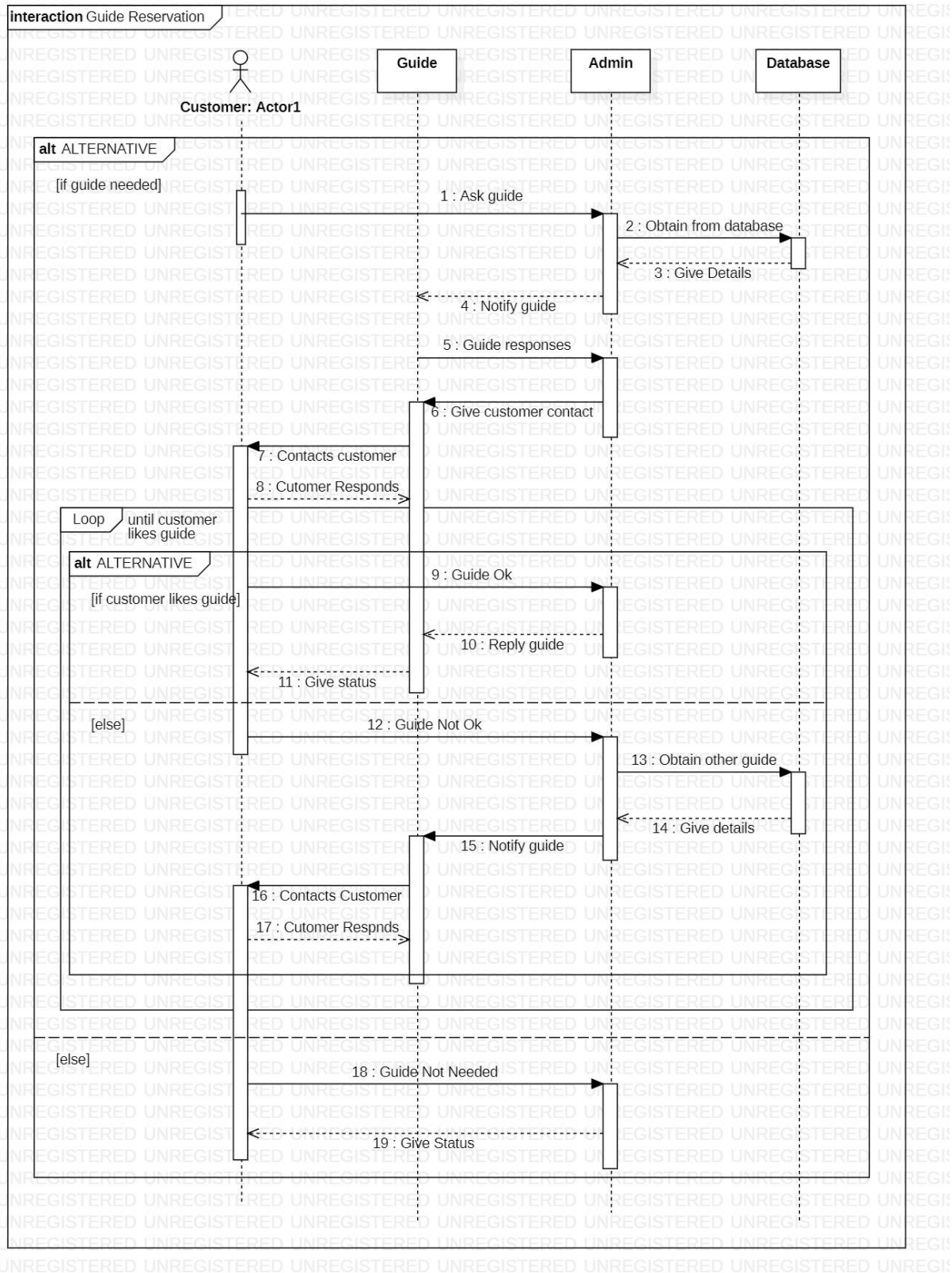
SCENARIO:

 Agent registers the account.

BRIEF DESCRIPTION:

An agent (Coordinator) registers his/her account by giving their details which is verified by the system. On successful registration, the agent is given an id and if unsuccessful the account will not be registered.

GUIDE RESERVATION



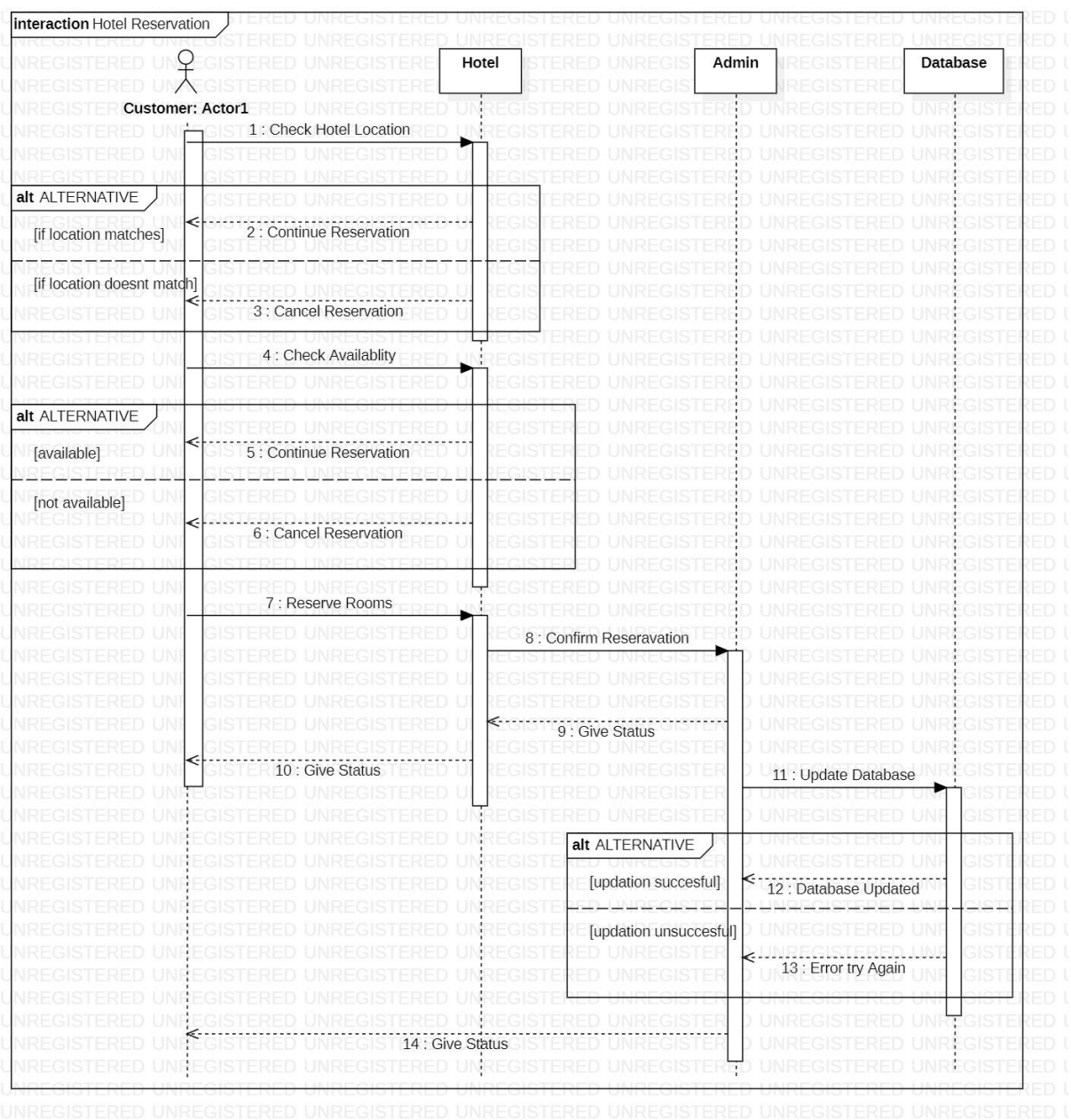
SCENARIOS:

- ✚ Customer can reserve a guide if he/she wishes for one.
- ✚ If the customer doesn't like the guide, they can change them.


DESCRIPTION:

If a tourist (Customer) wants a guide, he/she requests for a guide. The admin sends this customer's detail as notification to the available guide. The guide contacts the customer. A loop frame is used until the customer likes the given guide. If the tourist doesn't want a guide he/she will tell the admin that they don't need a guide.

HOTEL RESERVATION



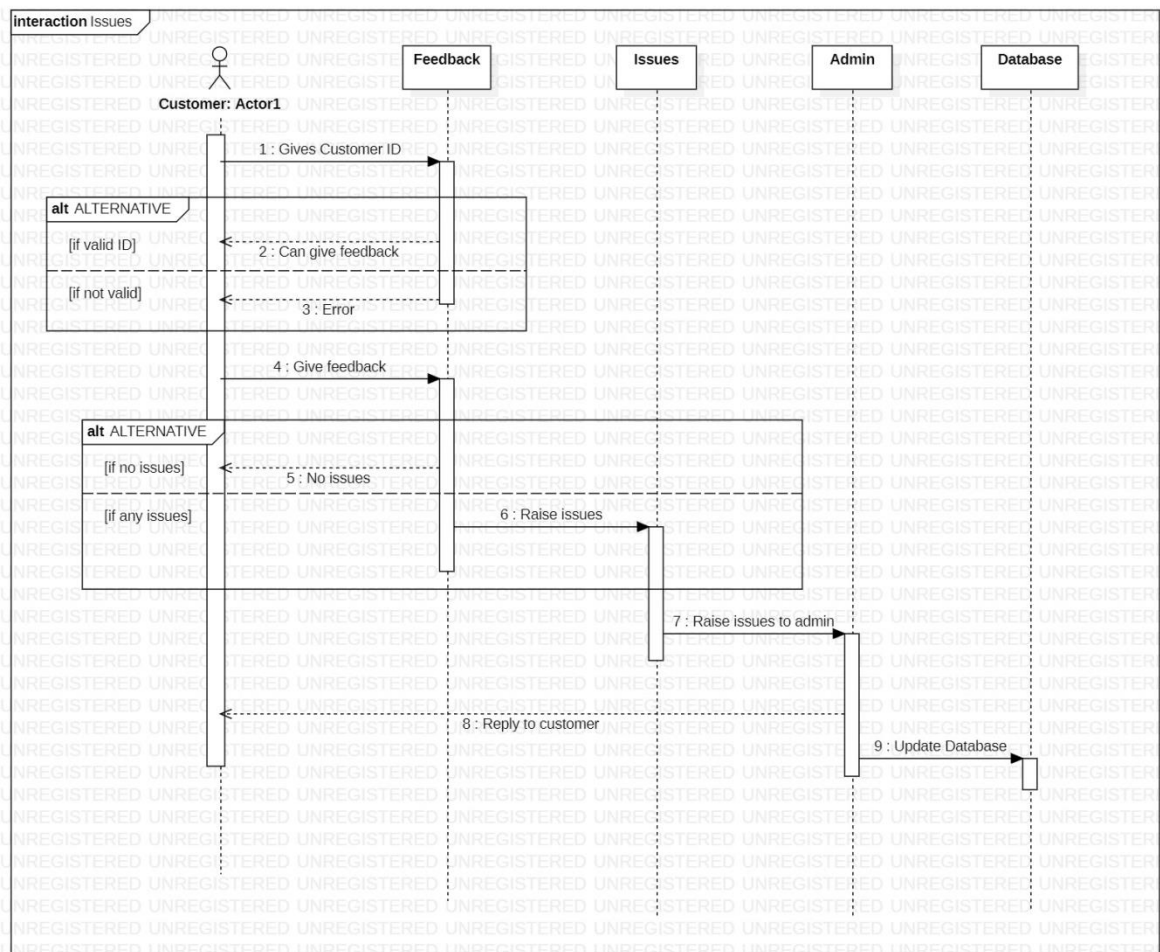
SCENARIO:

 Customer can reserve a hotel at the touring destination.


BRIEF DESCRIPTION:

The customer checks the available hotels in the touring destination and reserves a room if there is vacancy. The reservation is confirmed and the status is given to the required tourist.

ISSUES



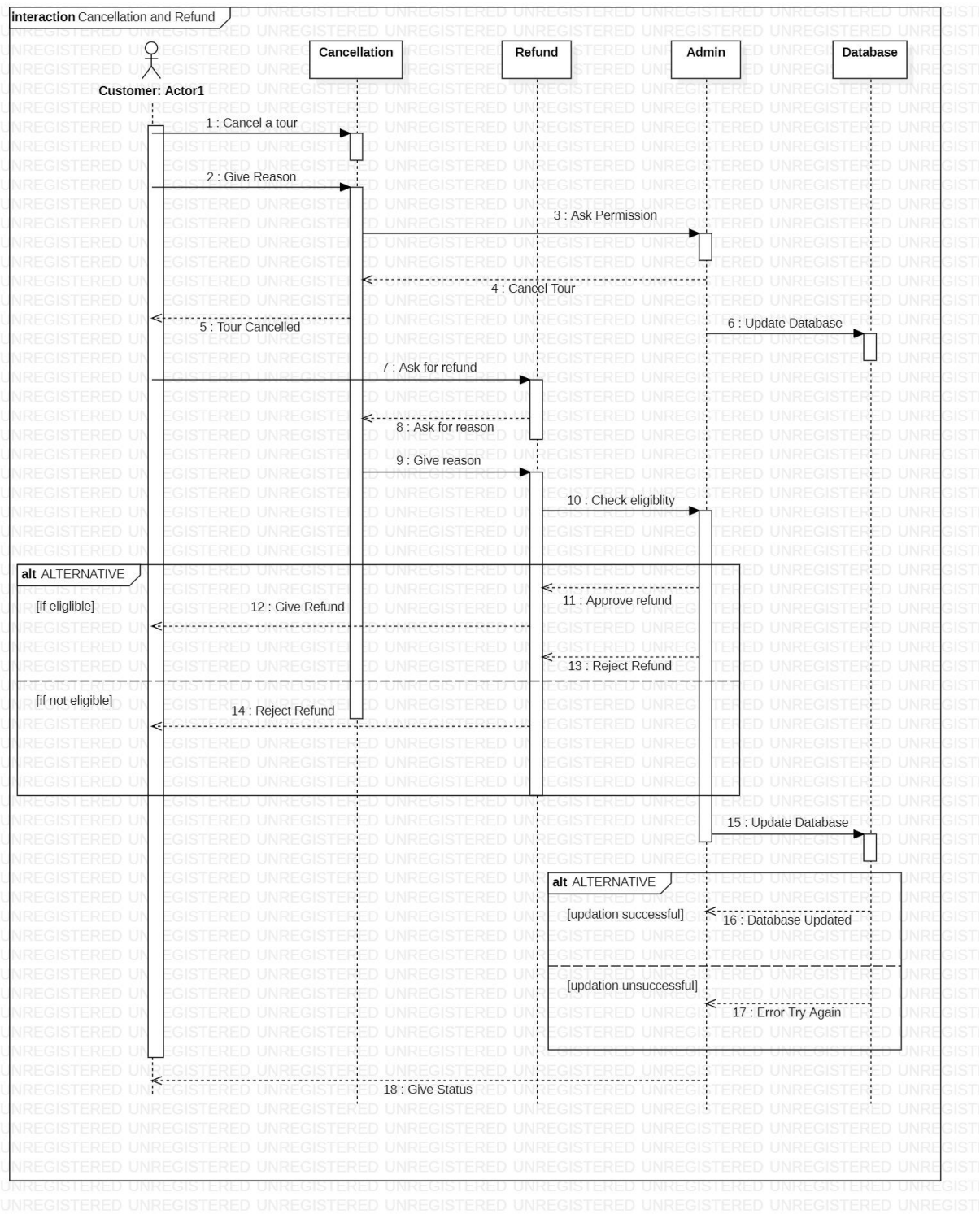
SCENARIO:

 Customer can share any issues they might be having with the journey.

BRIEF DESCRIPTION:

The customer enters his/her id and gives the feedback. If there are any issues in the given feedback it is taken to the admin. The admin will reply to customer and resolves their issues.

CANCELLATION AND REFUND



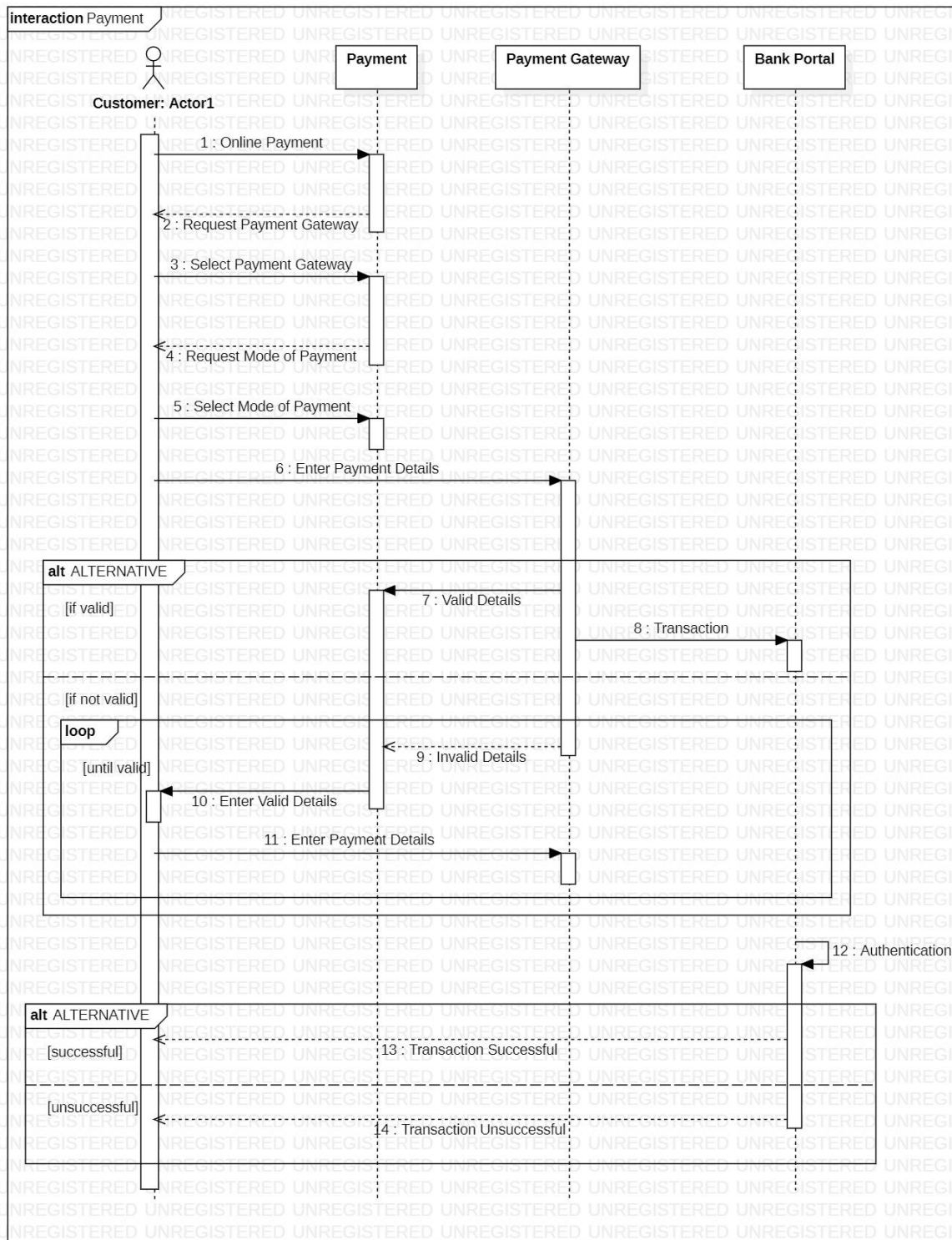
SCENARIOS:

- ✚ Customer can cancel the tour citing any unavoidable reasons.
- ✚ Customer can also ask for refund citing eligibility.


BRIEF DESCRIPTION:

The customer can cancel the tour by giving a reason. The admin permits the cancellation only when the given reason is valid. The customer requests for a refund and the admin initiates the refund, if the reason is eligible.

PAYMENT



SCENARIO:

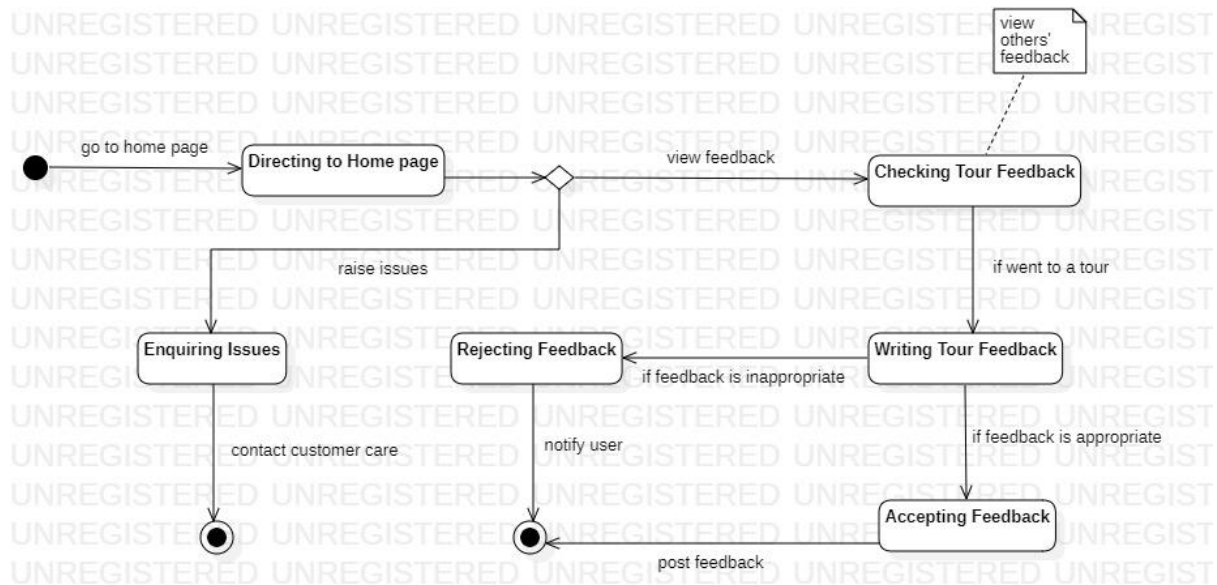
 Customers can pay online.

BRIEF DESCRIPTION:

The customer first selects one of the payment gateways and then selects one of the payment modes. The customer enters the payment details and transaction happens if the given details are valid. If the given details are invalid, a loop frame is used until the customer enters the valid details. After the transaction gets over, the transaction status is sent to the customer.

STATE DIAGRAM

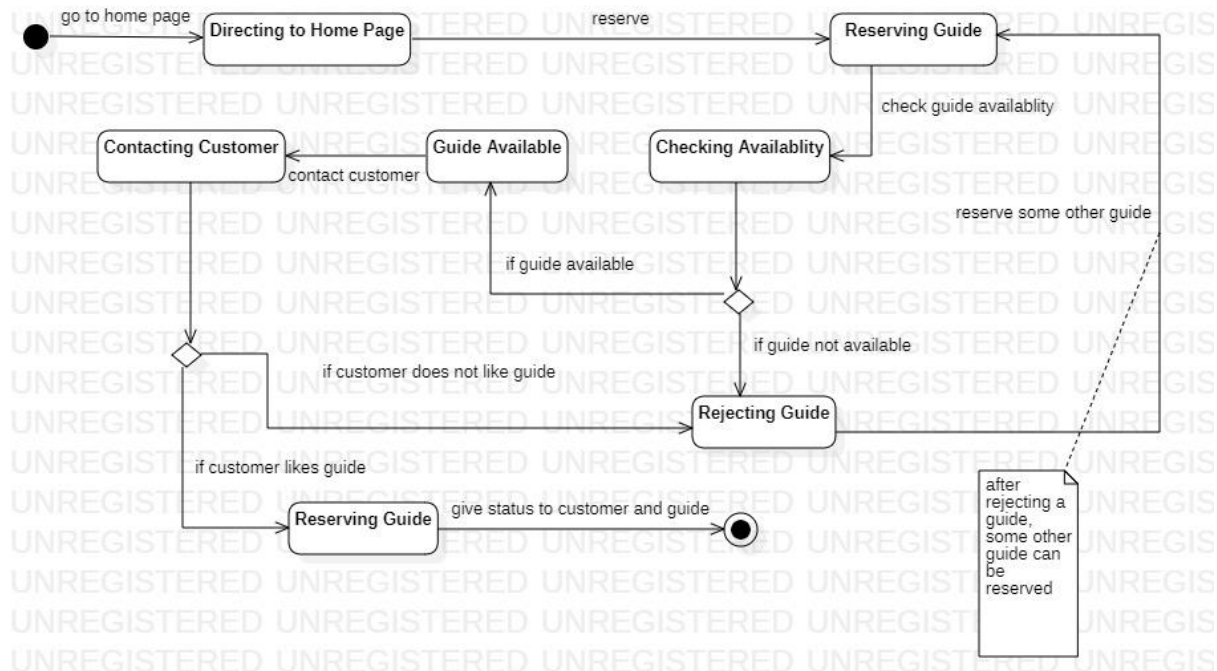
FEEDBACK AND ISSUES:



BRIEF DESCRIPTION:

The customer navigates to home page and decides to view others' feedback and raise issues if he/she has any. To solve the issue, the customer can contact customer care. After viewing others' feedback, customer can give his/her feedback if they have gone to any tour. If the feedback is inappropriate, it will be rejected and if it is appropriate, it will be accepted. On rejection, it will notify the customer.

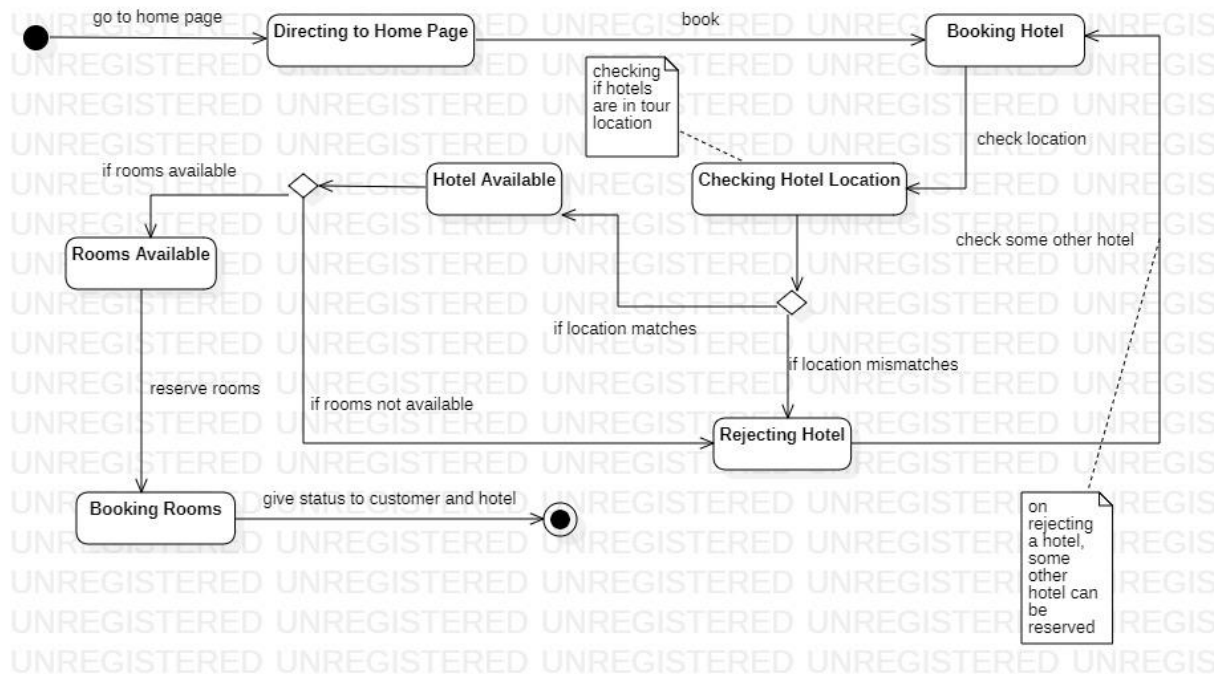
GUIDE RESERVATION



BRIEF DESCRIPTION:

The customer navigates to home page and starts reserving the guide for the tour. Firstly, the customer checks the availability of the guide and if the guide is available, he selects the guide and in return the guide contacts the customer. If the customer likes the guide, the guide is reserved. If the guide is not available or if the customer doesn't like the guide, the guide is rejected and the reservation process is done again.

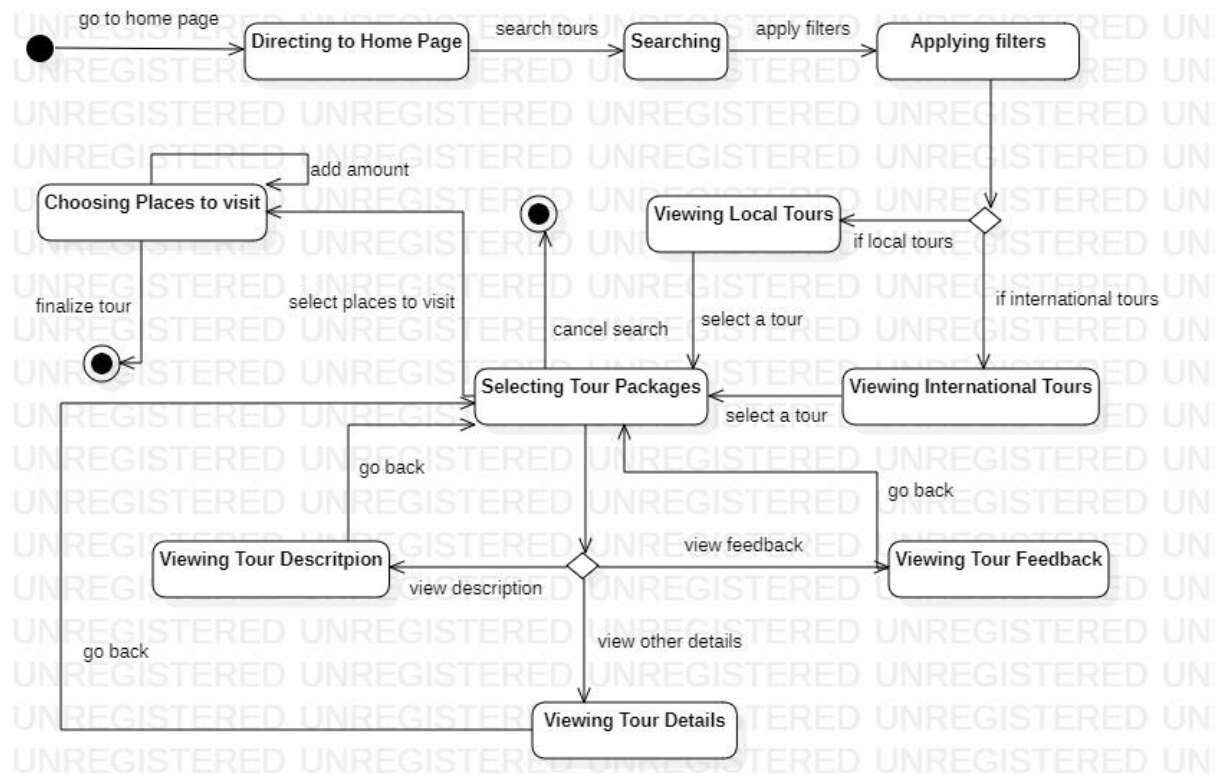
HOTEL BOOKING



BRIEF DESCRIPTION:

The customer navigates to home page and starts booking the rooms in a hotel. Firstly, the customer checks the available hotel in the tour location and if it is available and if the rooms are also available, the customer books the room. If the particular hotel is not available in the tour location or if the rooms are not available in that hotel, the hotel is not selected. The booking of hotel rooms is done again.

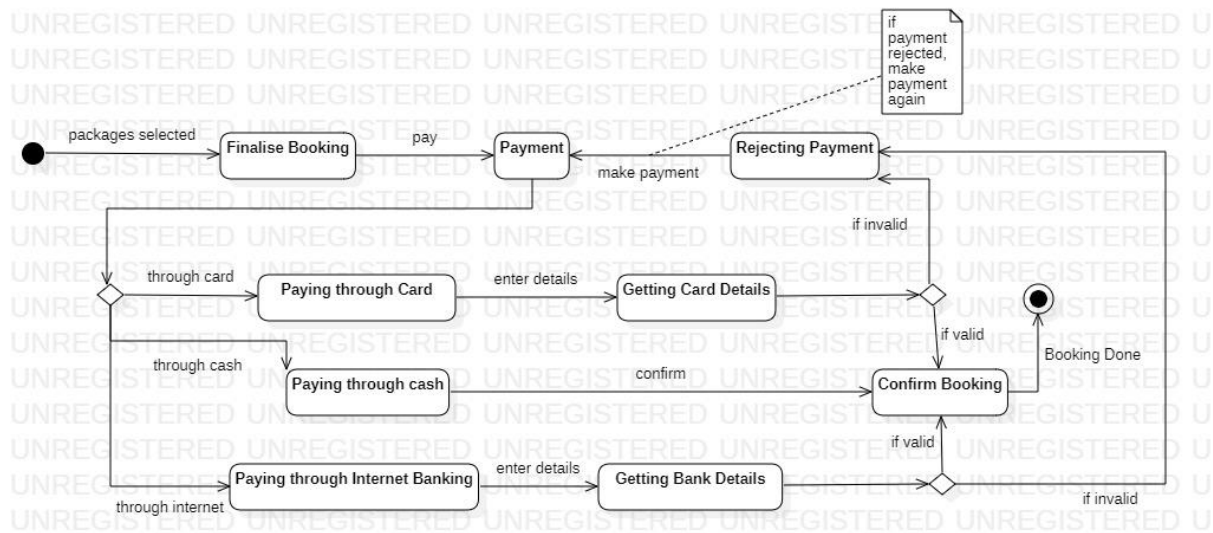
VIEW TOUR DETAILS:



BRIEF DESCRIPTION:

The customer navigates to the home page and starts searching the tour by applying few filter options. The customer views local or international tour packages and selects any one and then selects the places to visit from the selected packages and amount for the selected places is added. The customer can cancel the search once the places are selected. While selecting the places, the customer can view the description about that place, the feedback given to that place and any other tour details.

PAYMENT:

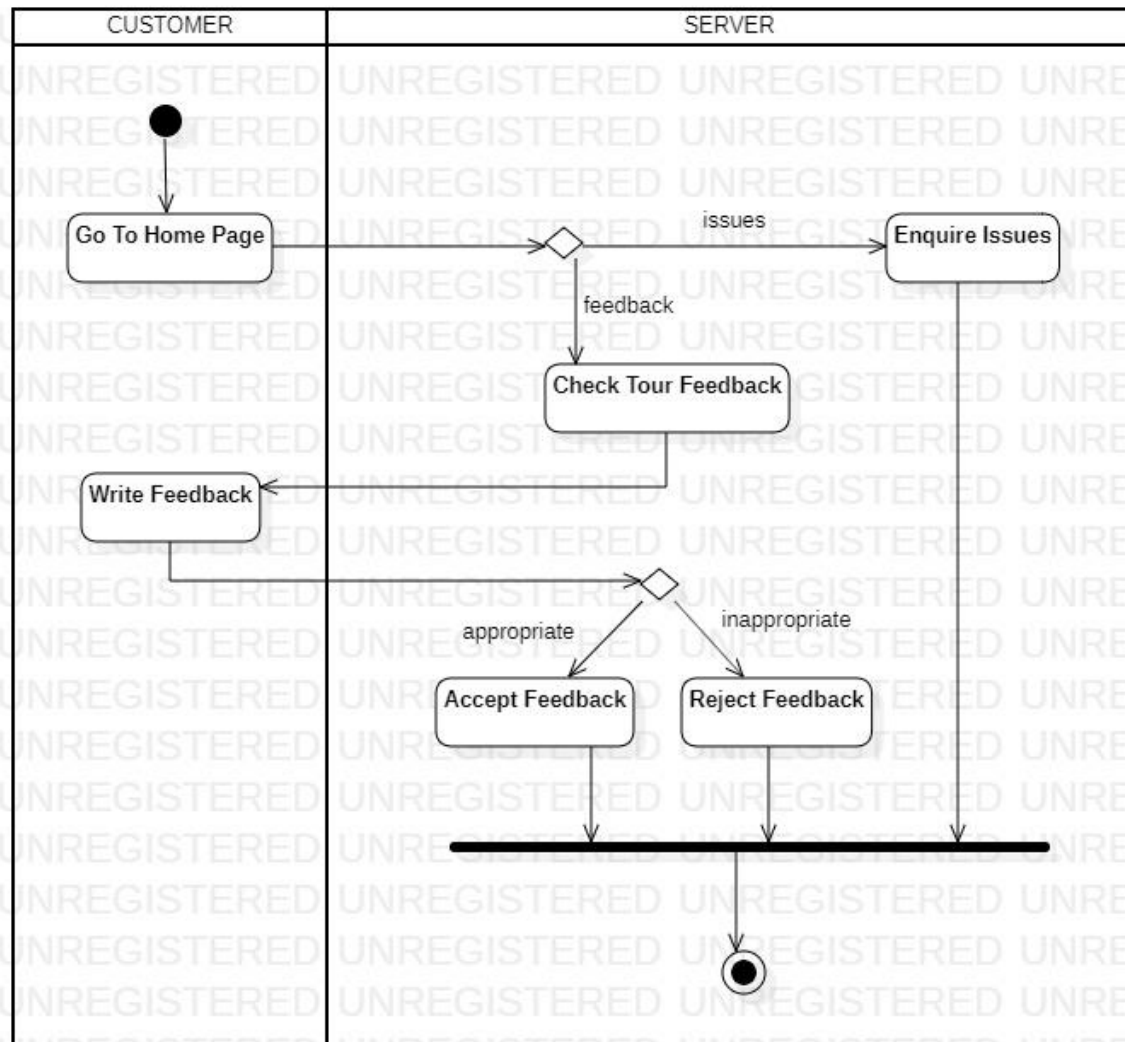


BRIEF DESCRIPTION:

Once the tour packages are selected and the booking is finalised, the customer pays for the selected packages. The payment can be made through card, cash, internet banking and if the details given are valid, the booking is confirmed and process is completed. If the given details are invalid, the customer has to make payment again.

ACTIVITY DIAGRAM

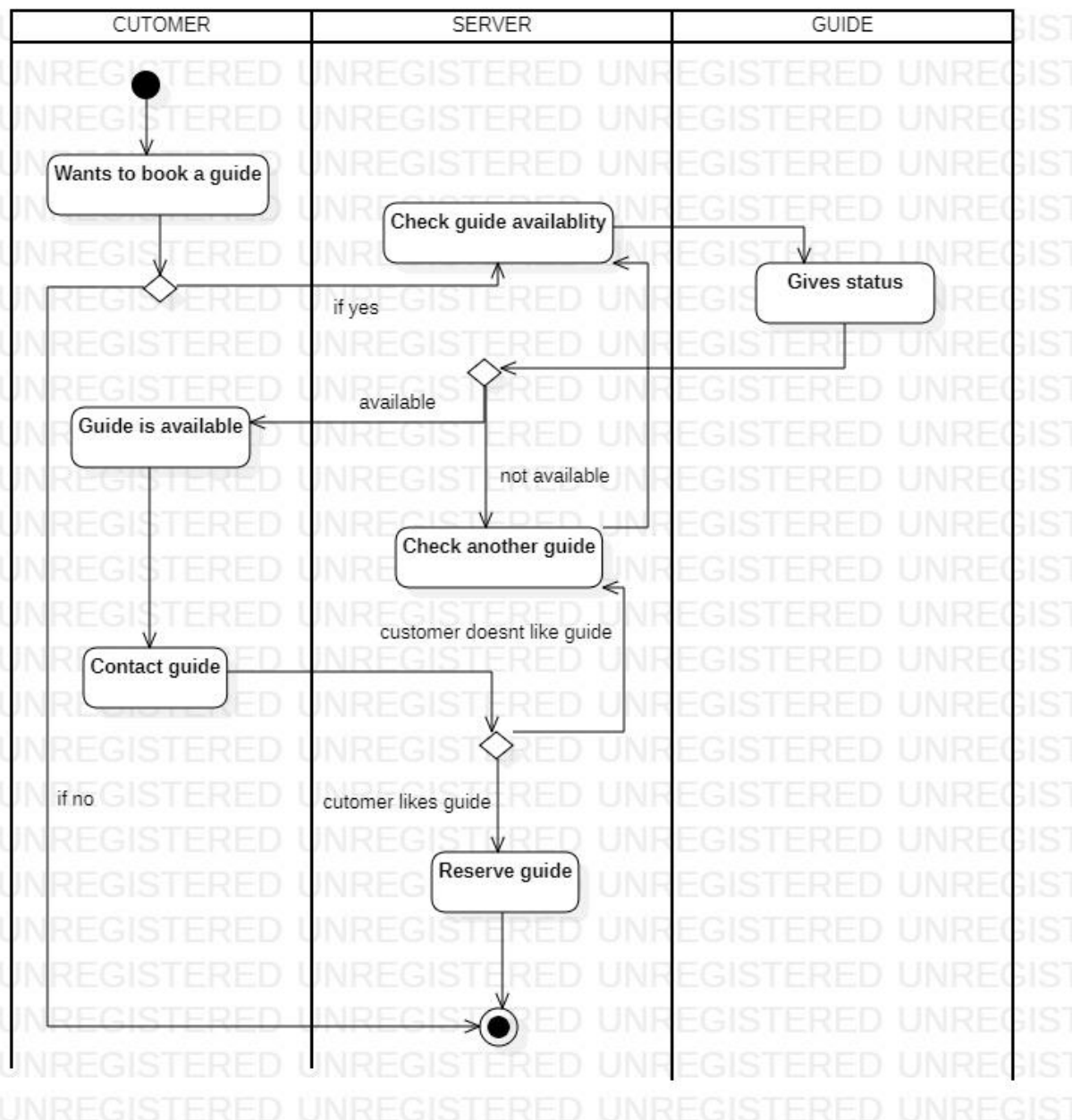
FEEDBACK AND ISSUES:



BRIEF DESCRIPTION:

The customer navigates to home page and decides to view tour feedback or raise issues if he/she has any. After viewing tour feedback, customer can write his/her feedback if they have gone to any tour. If the feedback is inappropriate, it will be rejected and if it is appropriate, it will be accepted.

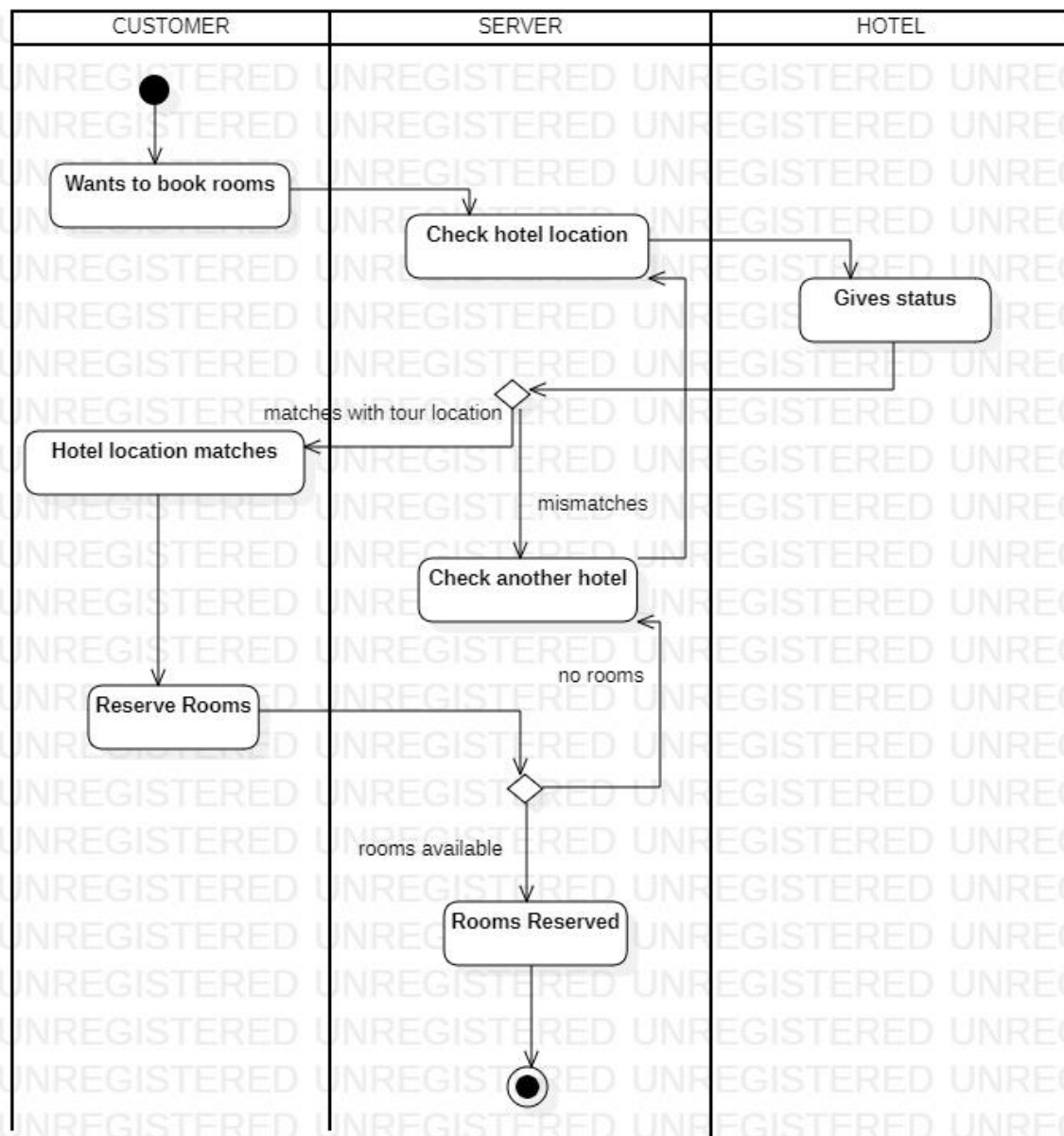
GUIDE RESERVATION:



BRIEF DESCRIPTION:

The customer wants to book a guide for a tour. Firstly, the customer checks the availability of the guide and if the guide is available, he selects the guide and contacts the guide. If the customer likes the guide, the guide is reserved. If the guide is not available or if the customer doesn't like the guide, the guide is rejected and the reservation process is done again.

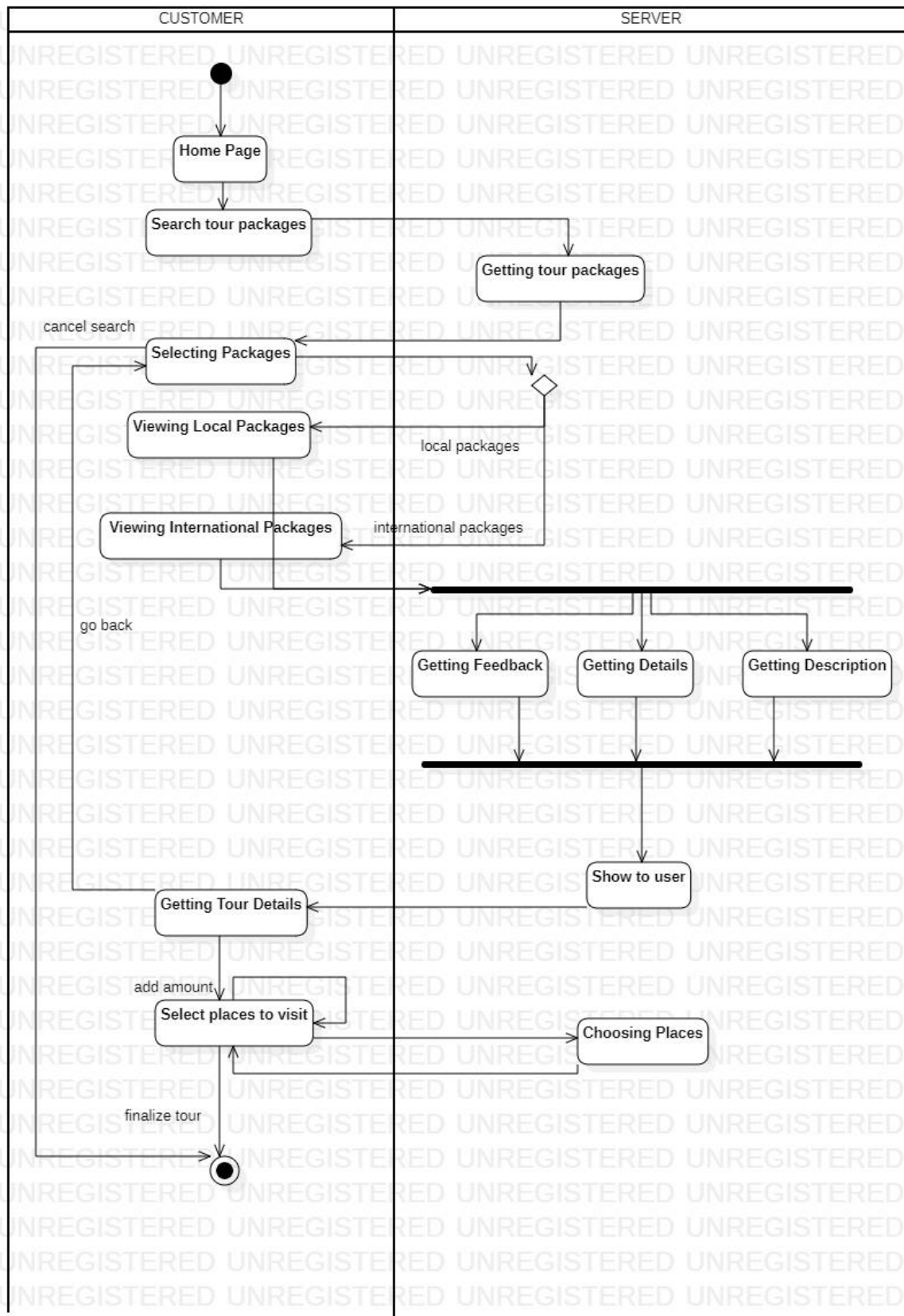
HOTEL RESERVATION:



BRIEF DESCRIPTION:

The customer wants book the rooms in a hotel. Firstly, the customer checks the available hotel in the tour location and if it is available and if the rooms are also available, the customer books the room. If the particular hotel is not available in the tour location or if the rooms are not available in that hotel, the hotel is not selected. The booking of hotel rooms is done again.

VIEW TOUR DETAILS:



BRIEF DESCRIPTION:

The customer navigates to the home page and starts searching the tour. The customer views local or international tour packages and selects any one and then the customer views the description about that place, the feedback given to that place and any other tour details and selects the places to visit from the selected package and amount for the selected places is added and then the customer finalizes the tour. The customer can cancel the search if he/she wants.