# Software Analysis & Design Part 2 CA submission

Team 12

Group members:

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Stephanie Cheng
Thant Htet Myet
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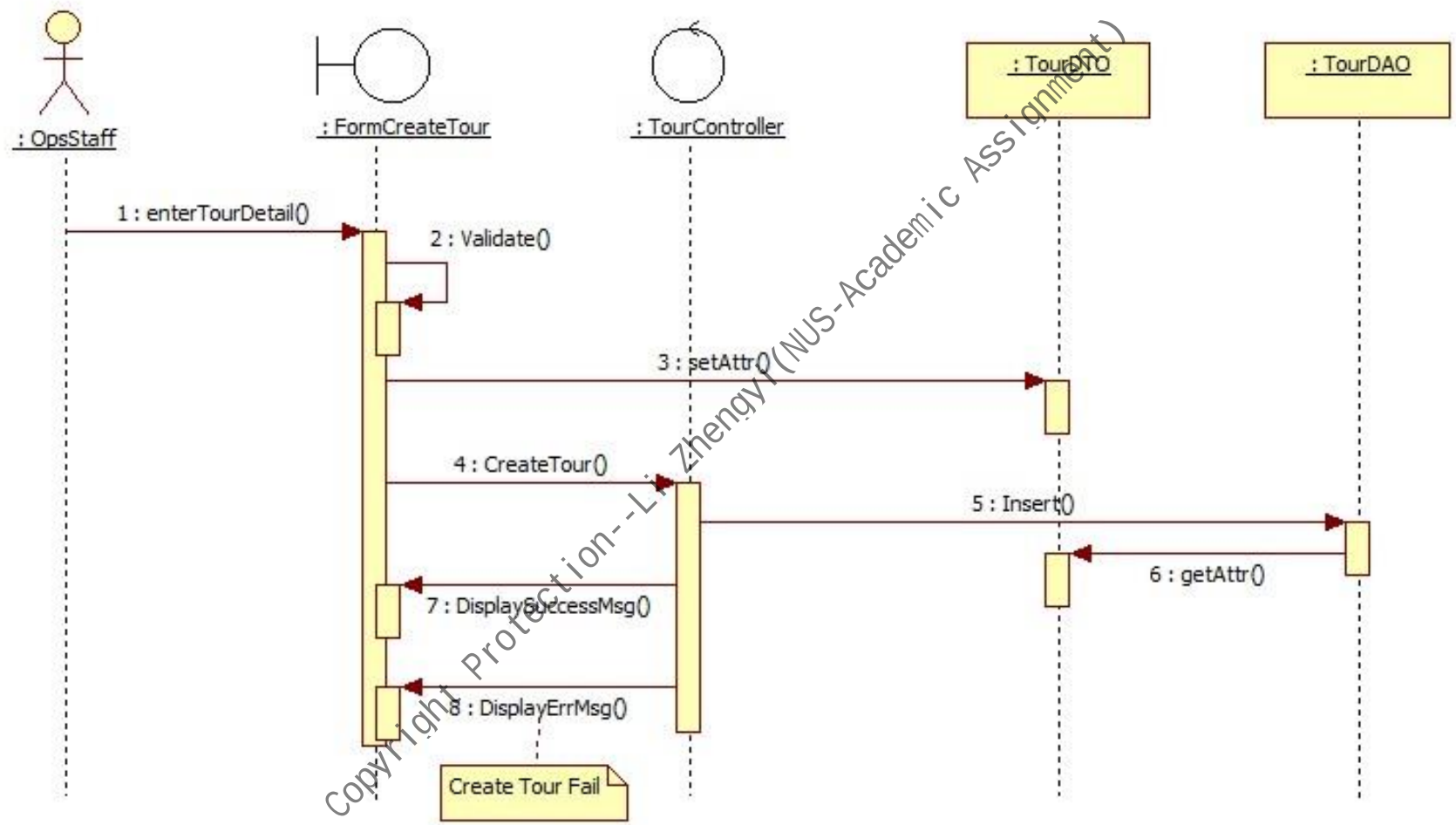
# Sequence diagram – Create Tour

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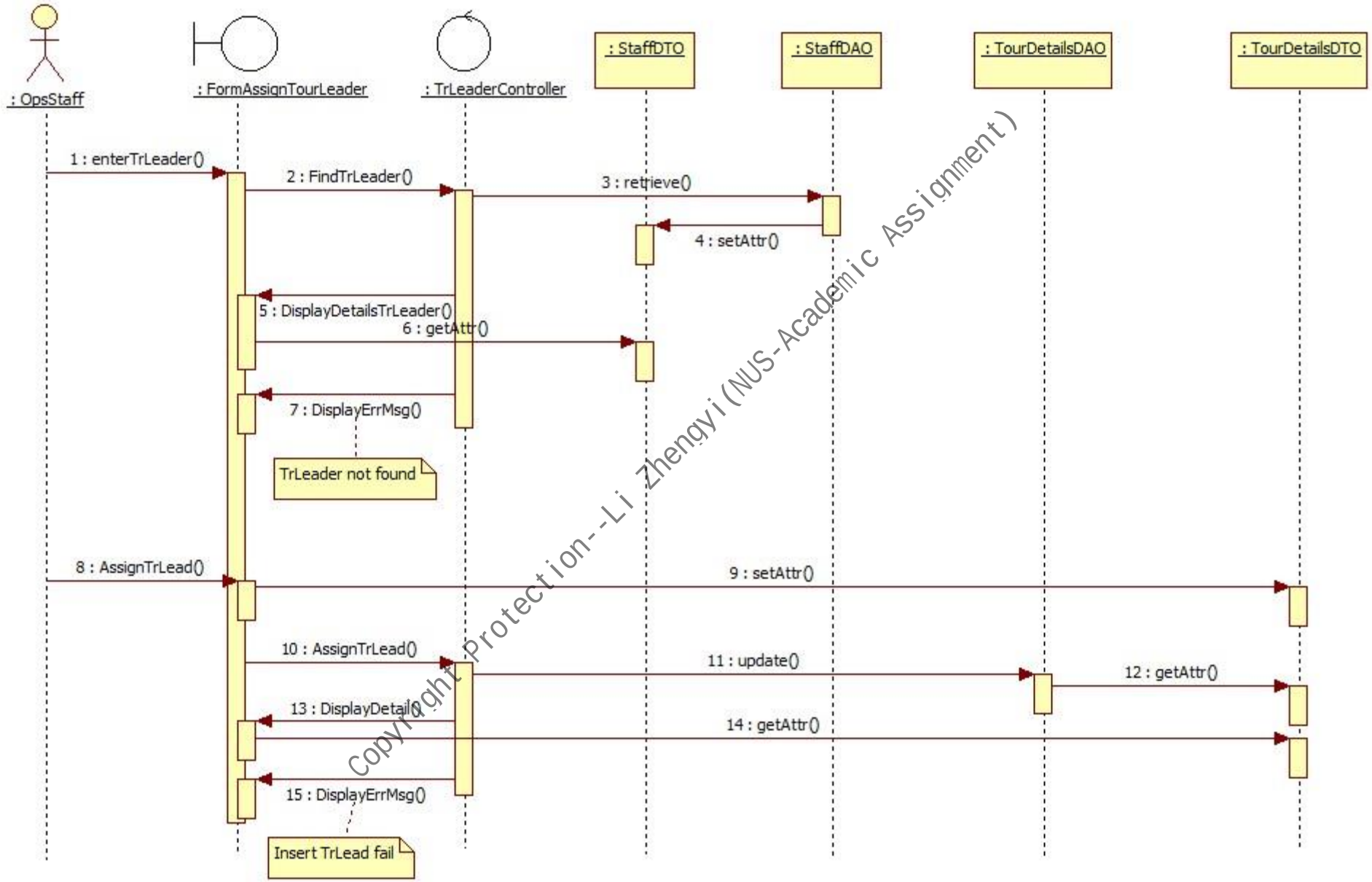
# Sequence diagram – Assign Tour Leader

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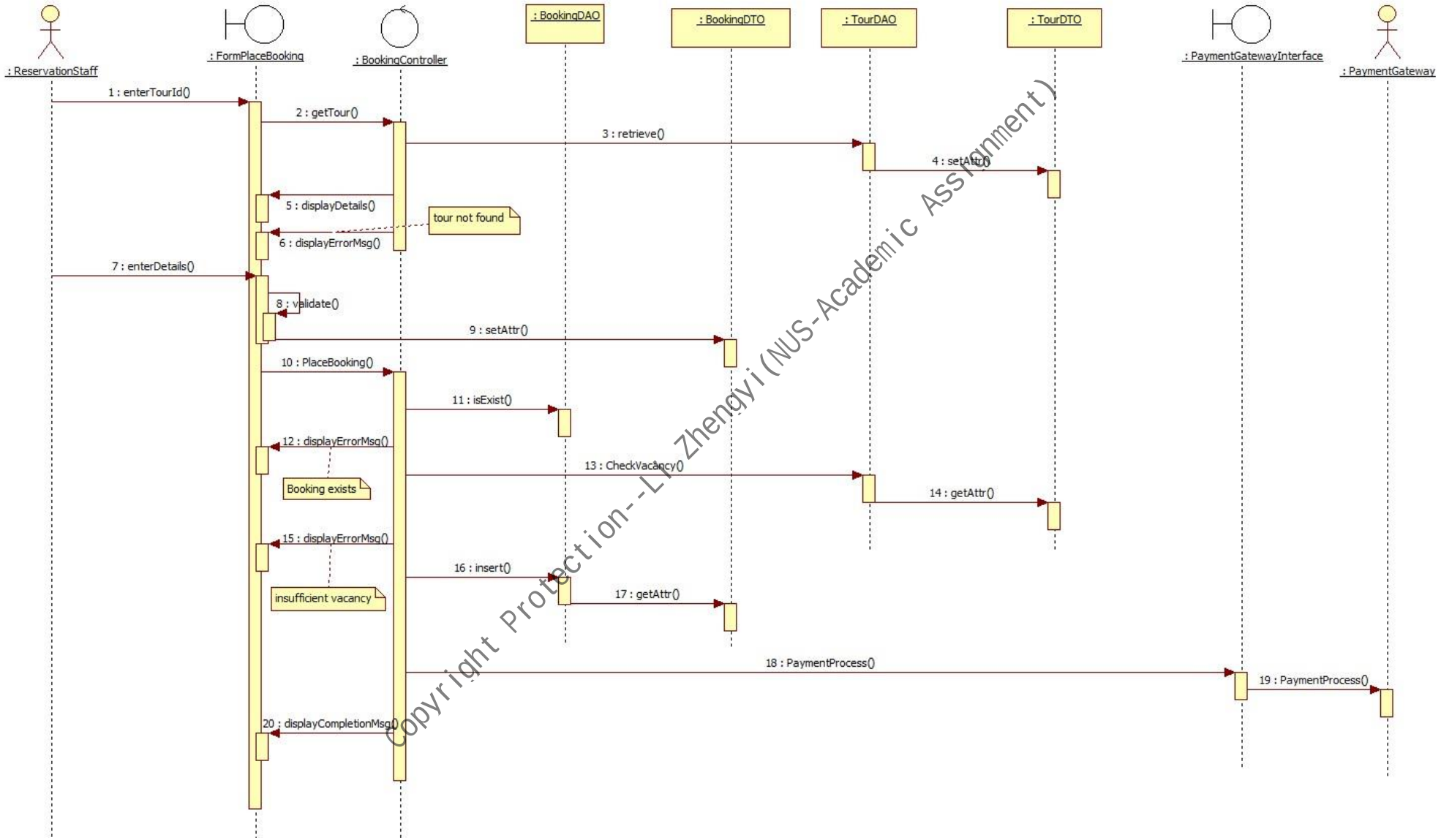
# Sequence diagram – Place Booking

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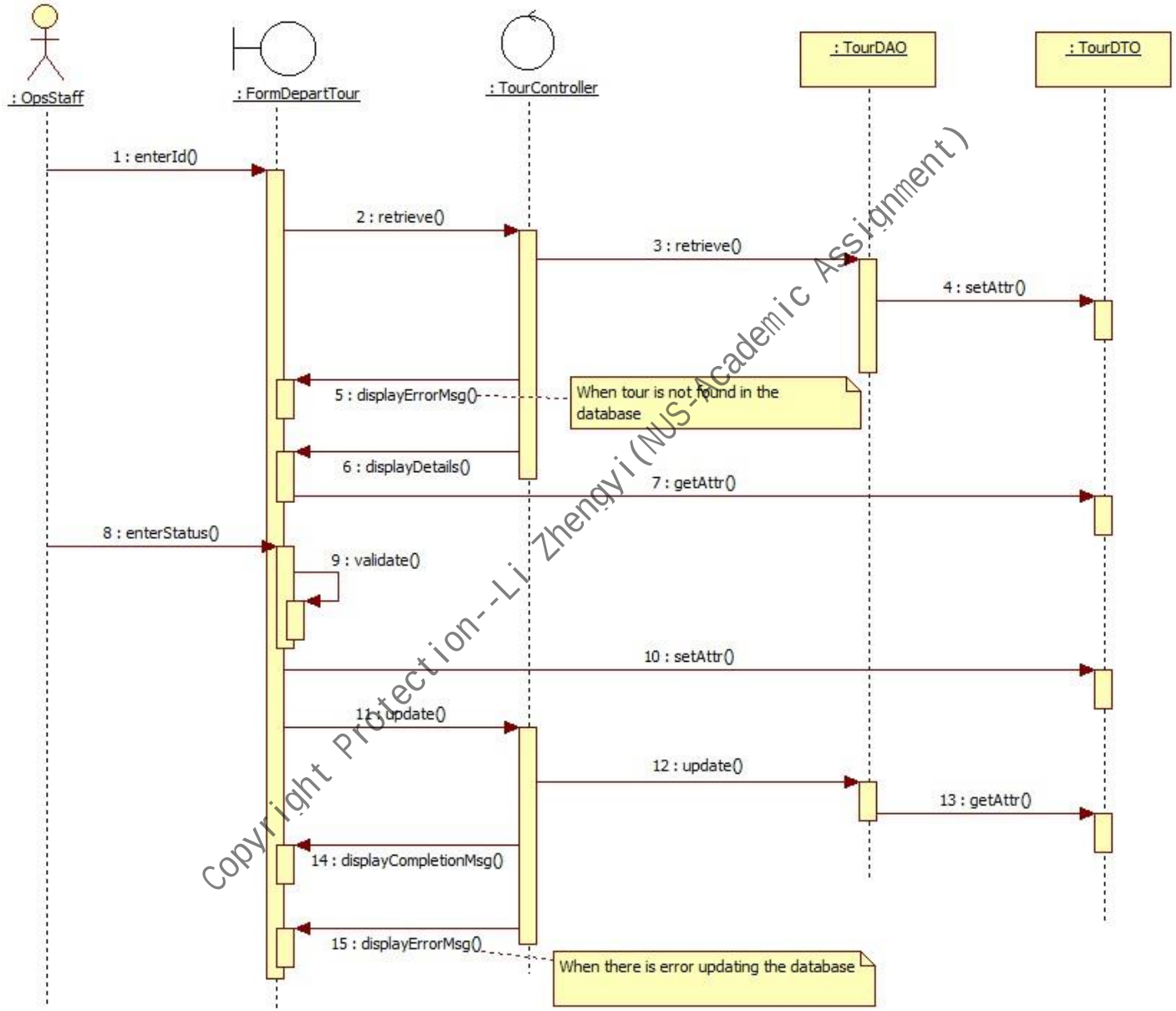
# Sequence diagram – Depart Tour

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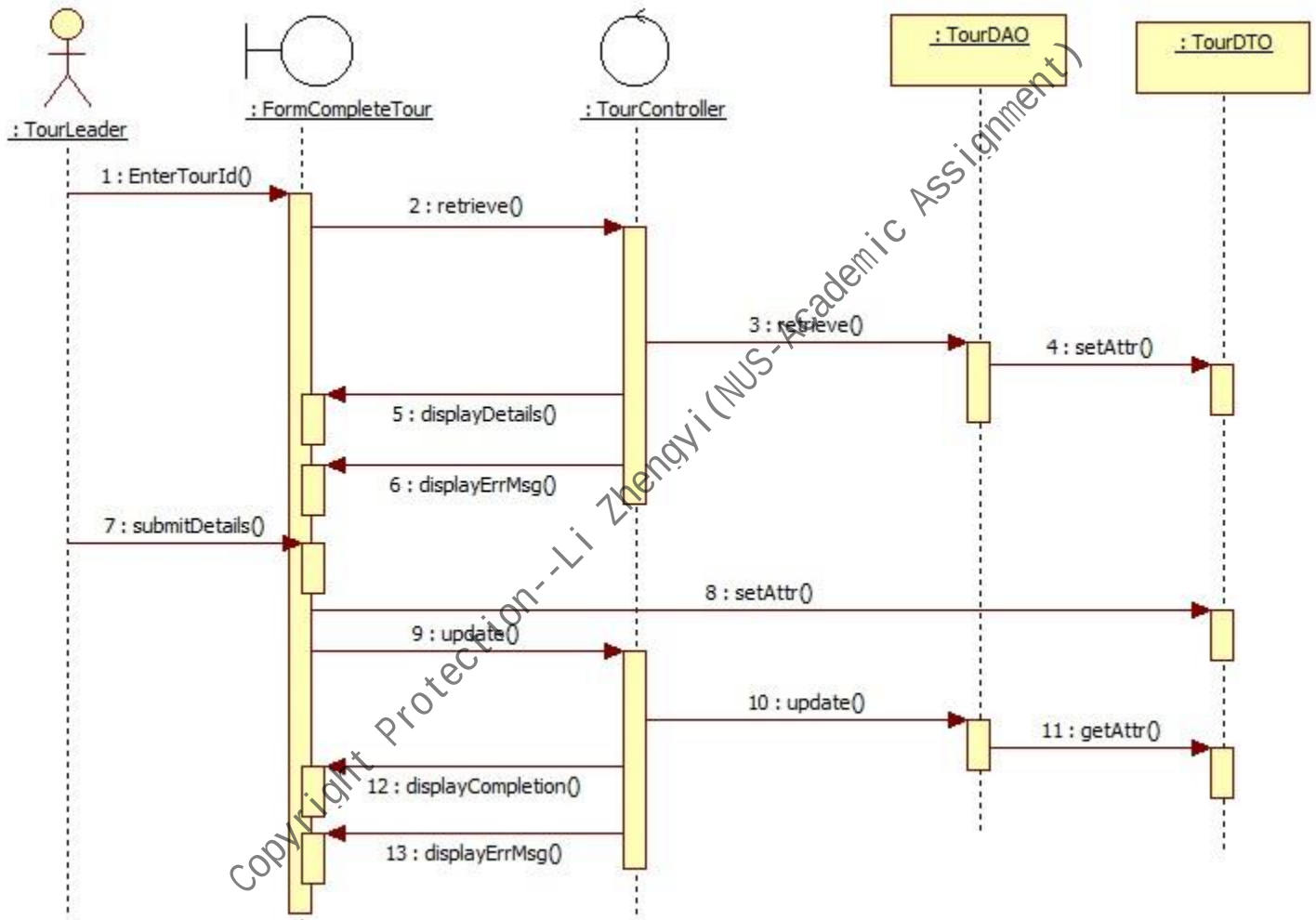
# Sequence diagram – Complete Tour

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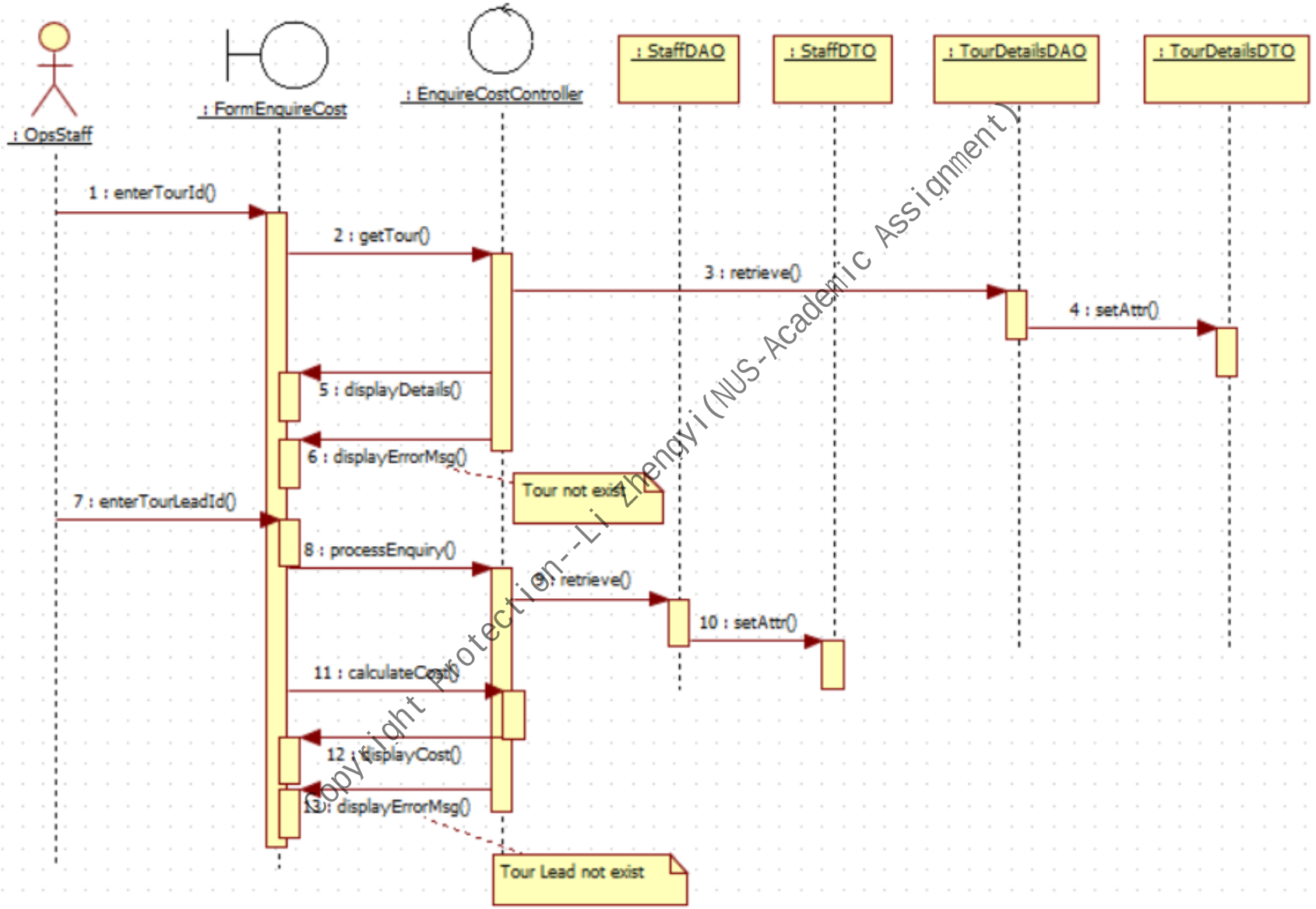
# Sequence diagram – Enquire Tour Lead Cost

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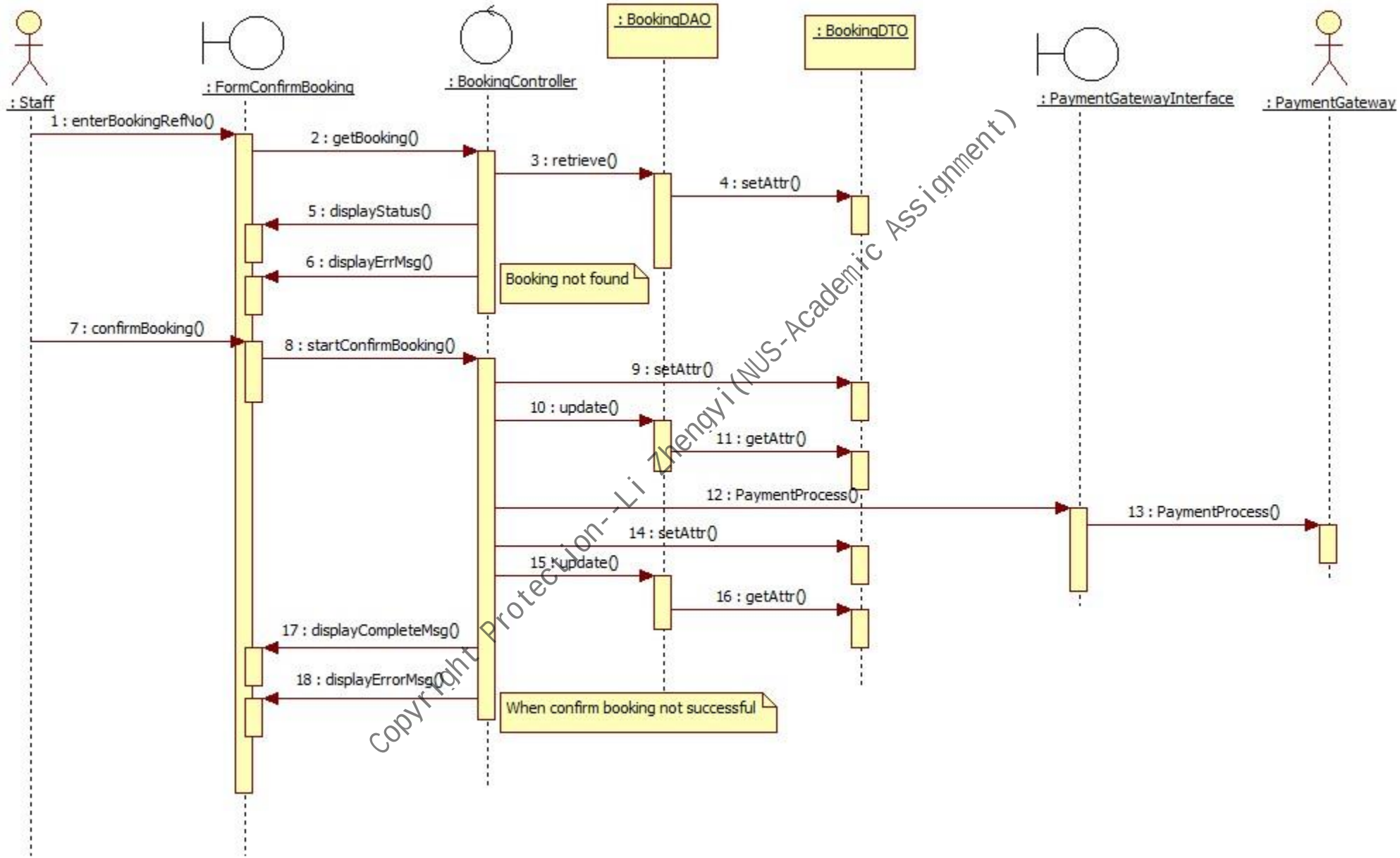
# Sequence diagram – Confirm Booking

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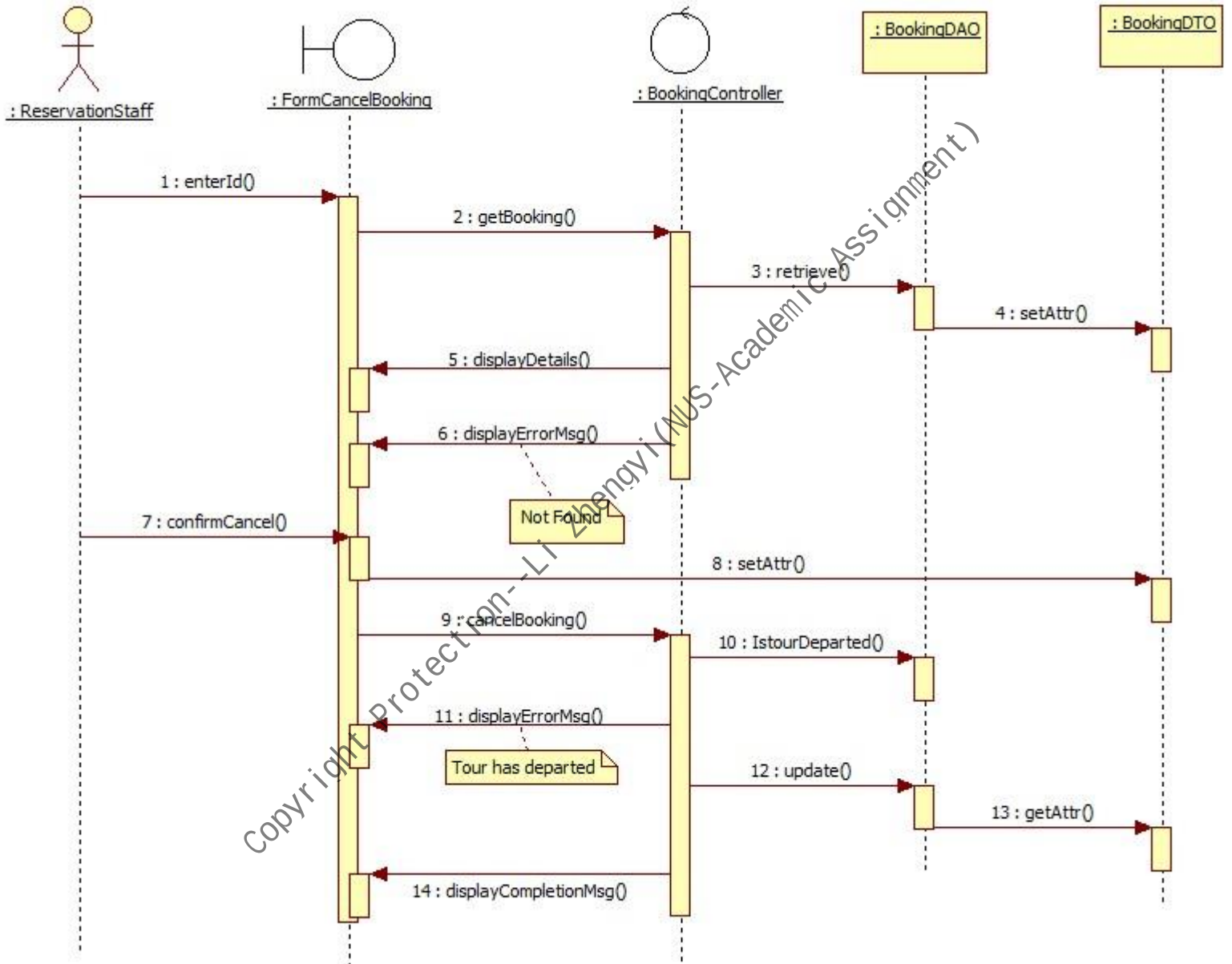
# Sequence diagram – Cancel Booking

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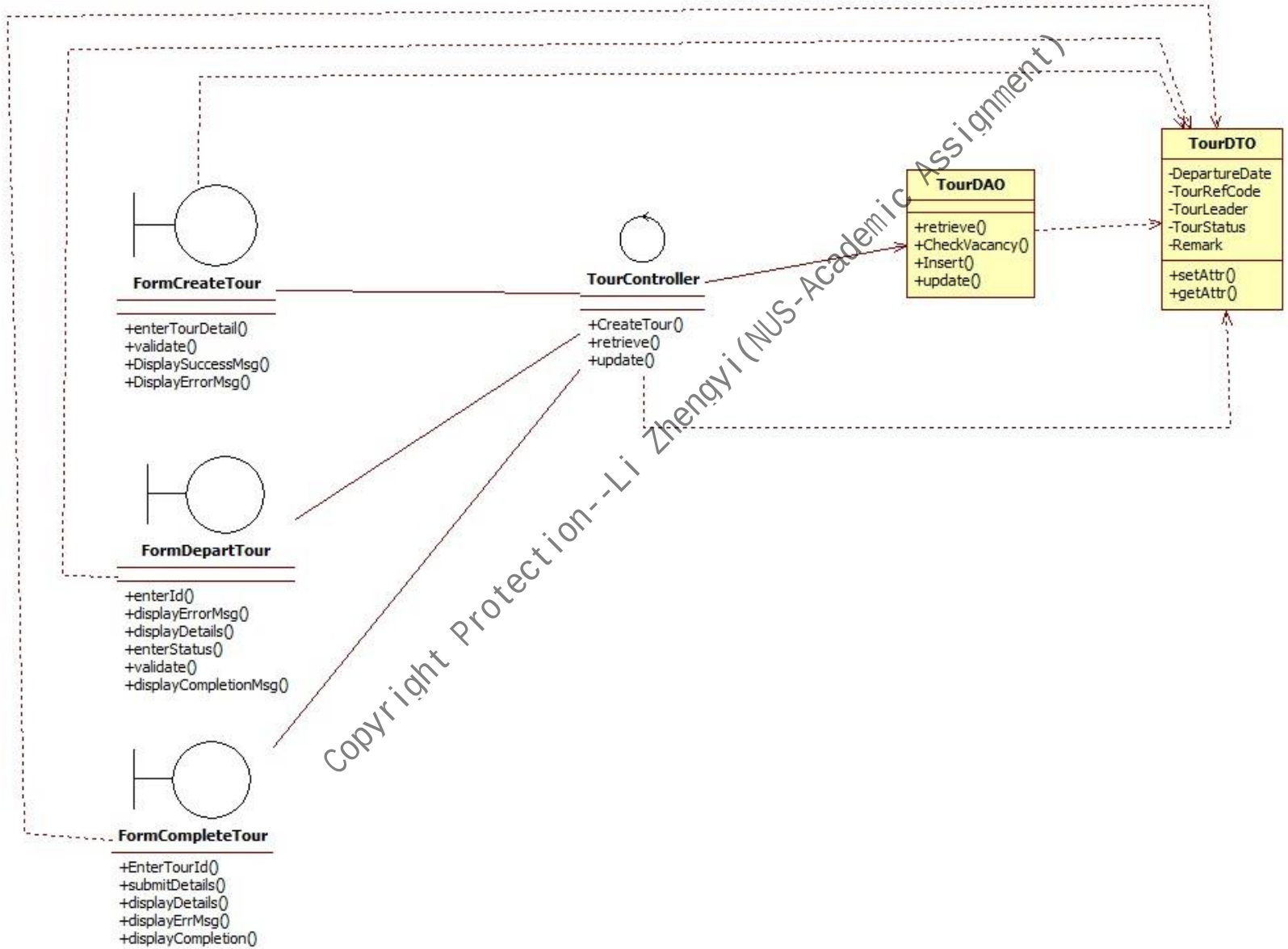
# Class diagram (Create Tour, Depart Tour & Complete Tour)

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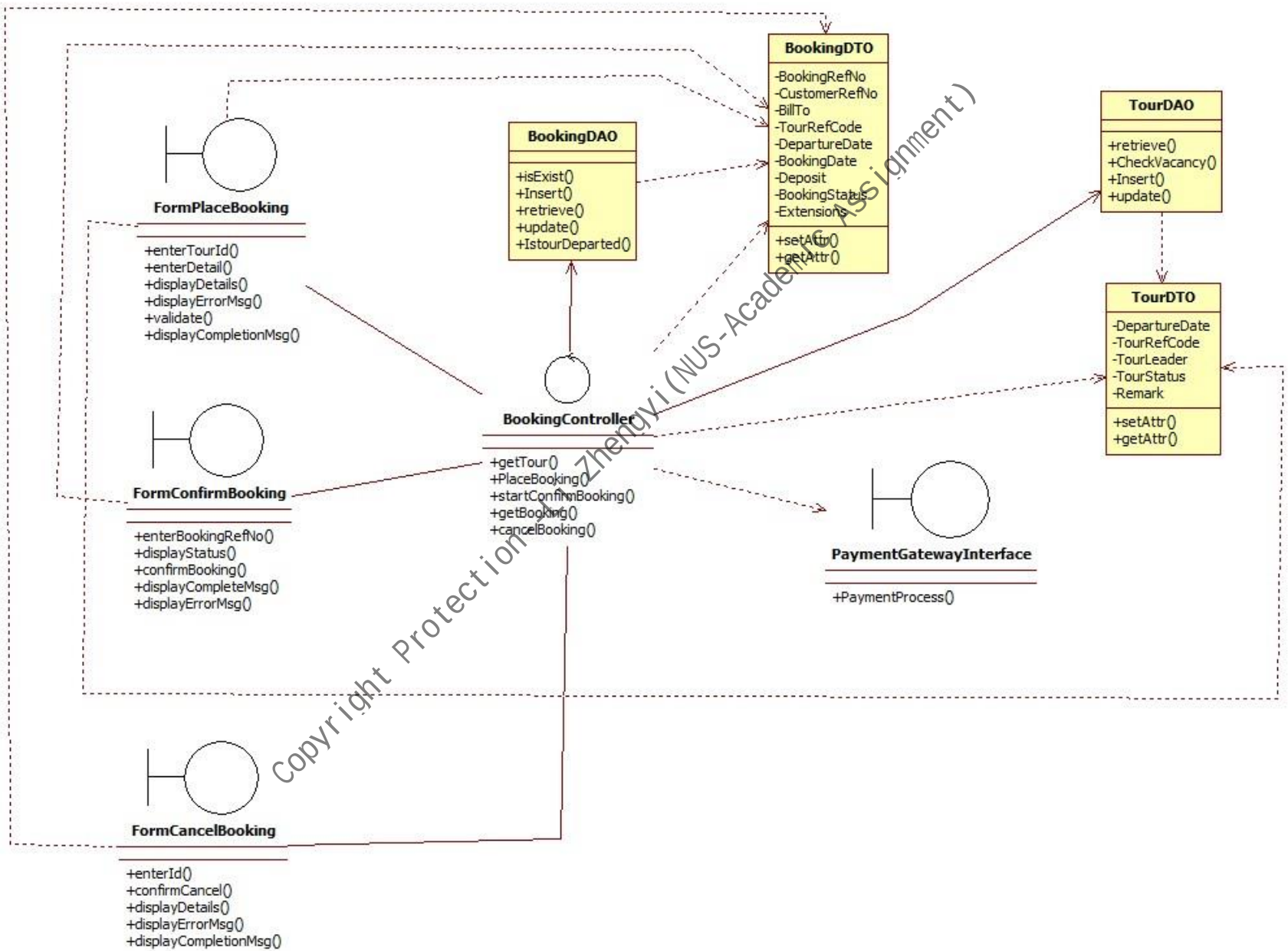
# Class diagram (Place Booking, Confirm Booking & Cancel Booking)

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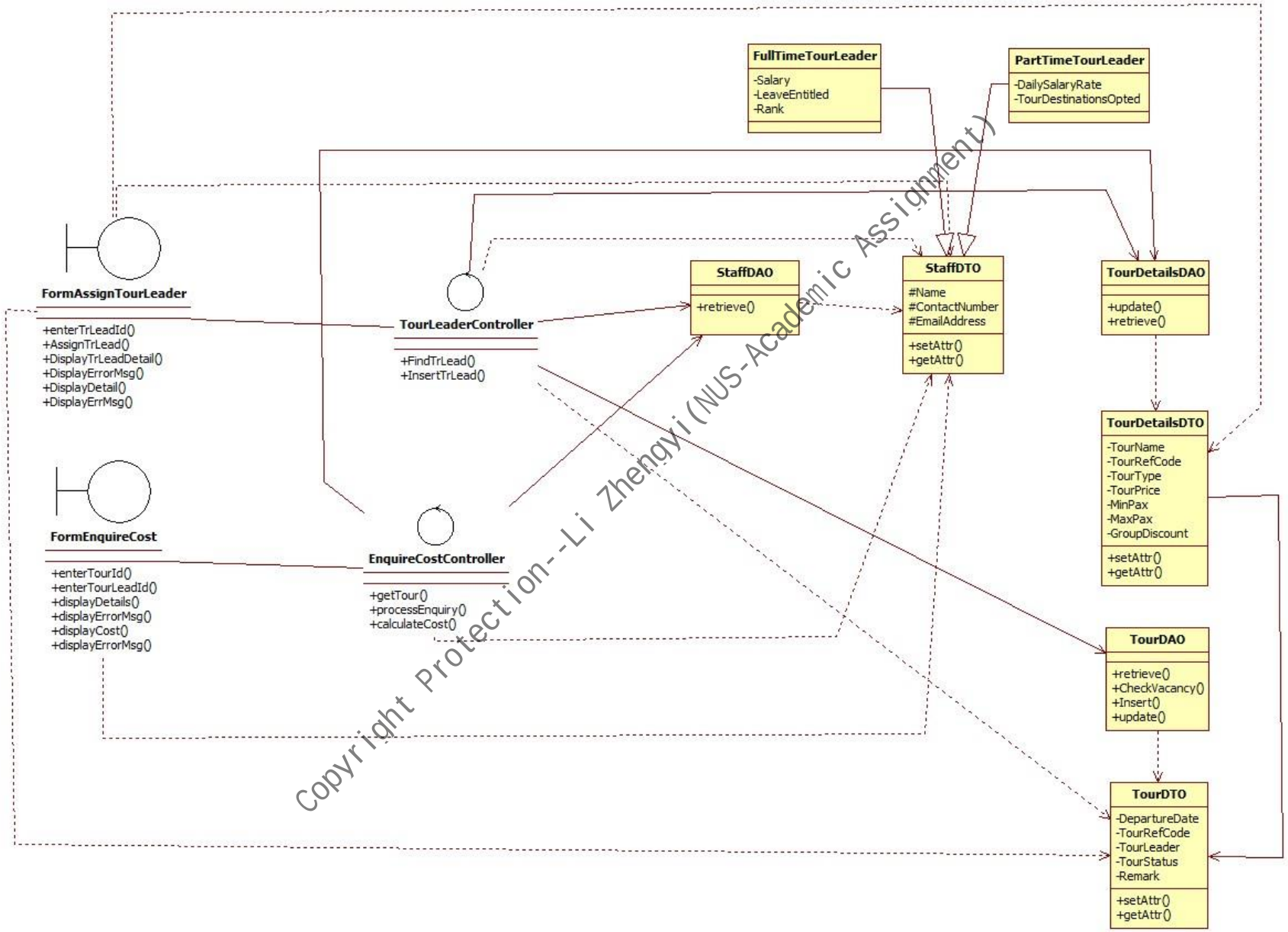
# Class diagram (Assign Tour Leader & Enquire Tour Lead Cost)

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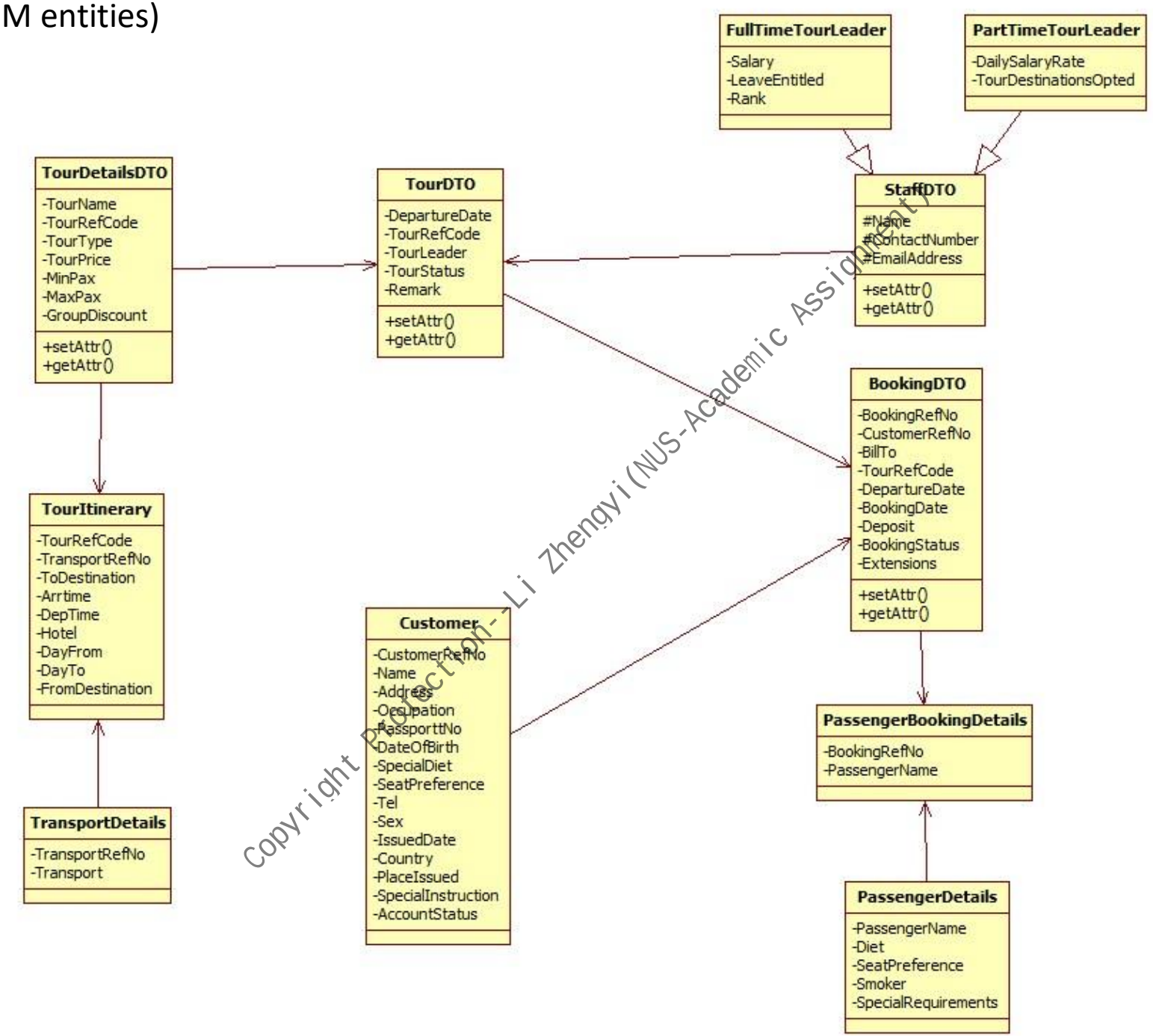
# Class diagram (DTO & LDM entities)

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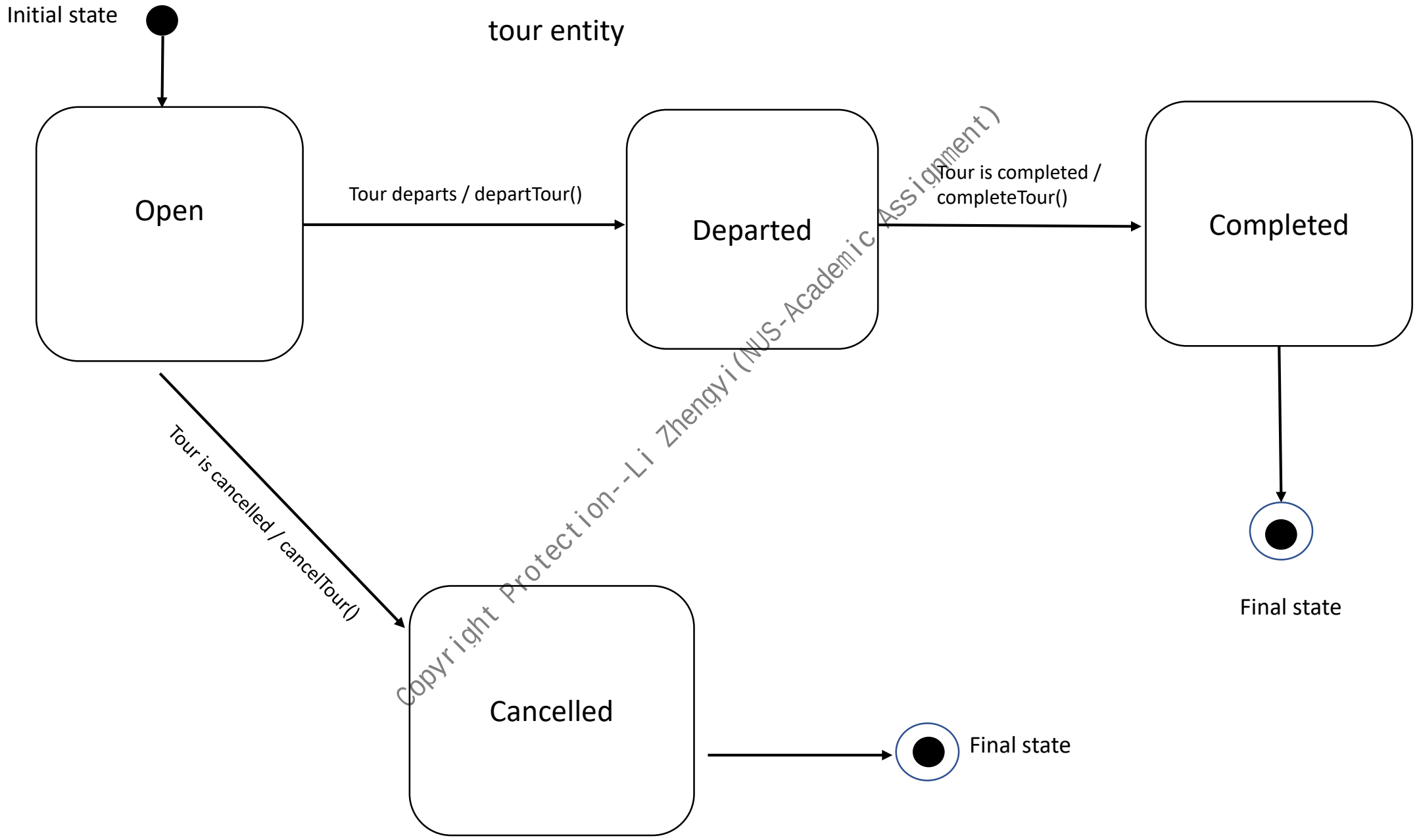
StateChart diagram (Tour object)

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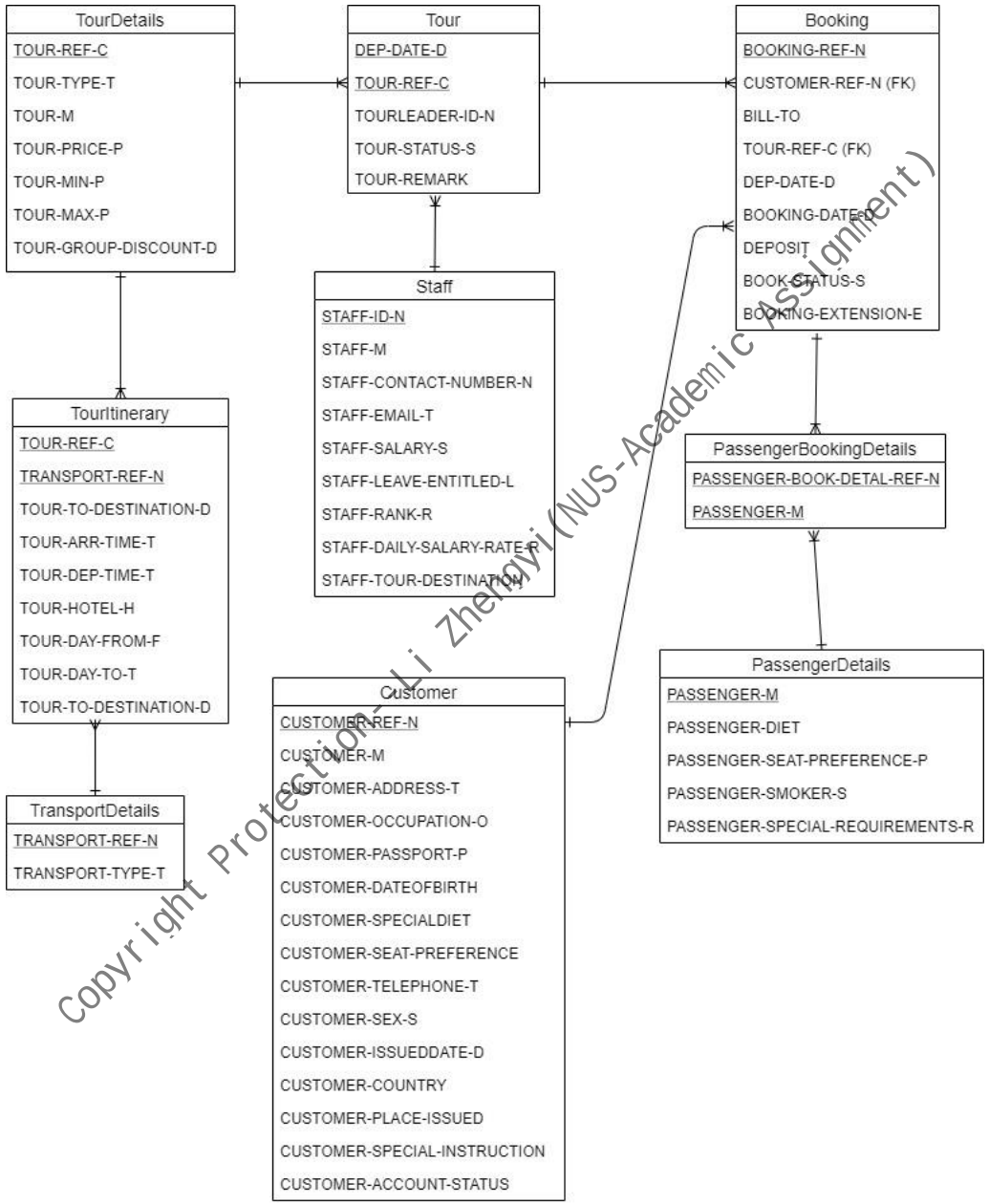
# Logical Data Model

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# Data Dictionary

| Entity | Attribute | Attribute Name | Type | Length | Definitions and Business Rules |
|---|---|---|---|---|---|
| TOURDETAILS | TourName | TOUR-M | A | 30 | Name of tour, including number of days and location. |
| | TourRefCode | TOUR-REF-C | A | 4 | Reference code for tour detail. Unique for each tour detail. |
| | TourType | TOUR-TYPE-T | A | 10 | Tour type (First Class, Business, Economy) |
| | TourPrice | TOUR-PRICE-P | N | 5.2 | Price of the tour for each person (in the form of 99999.99) |
| | MinPax | TOUR-MIN-P | N | 2 | Minimum pax required for tour to be confirmed (in the form of 99) |
| | MaxPax | TOUR-MAX-P | N | 2 | Maximum pax allowed for tour (in the form of 99) |
| | GroupDiscount | TOUR-GROUP-DISCOUNT-D | N | 2 | Group discount percentage for this tour (in the form of 99%) |
| | | | | | |
| TOURITIENERARY | TourRefCode | TOUR-REF-C | A | 4 | Reference code for tour detail. Unique for each tour detail. |
| | FromDestination | TOUR-FROM-DESTINATION-D | A | 15 | Country that the tour will be leaving from. |
| | ToDestination | TOUR-TO-DESTINATION-D | A | 15 | Country that the tour will arrive in. |
| | TransportRefNo | TRANSPORT-REF-N | A | 10 | Reference code for the transport taken. Unique for each flight, or coach or train. |
| | Arrtime | TOUR-ARR-TIME-T | N | 4 | Time the tour will arrive at their destination (in the form of 9999) |
| | DepTime | TOUR-DEP-TIME-T | N | 4 | Time the tour will depart from their location (in the form of 9999) |
| | Hotel | TOUR-HOTEL-H | A | 30 | Name of the hotel the tour will be staying in. |
| | DayFrom | TOUR-DAY-FROM-F | N | 2 | The xth number of day in the tour that the tour will be departing from (in the form of 99) |
| | DayTo | TOUR-DAY-TO-T | N | 2 | The xth number of day in the tour that the tour will be arriving in (in the form of 99) |

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A – Alphanumeric, N – Numeric, D – Date

# Data Dictionary

| Entity | Attribute | Attribute Name | Type | Length | Definitions and Business Rules |
|---|---|---|---|---|---|
| TOUR | TourRefCode | TOUR-REF-C | A | 4 | Reference code for tour detail. Unique for each tour detail. |
| | DepartureDate | DEP-DATE-D | D | 8 | Date that tour will depart on (DDMMYYYY) |
| | TourLeader-id | TOURLEADER-ID-N | N | 6 | Tour Leader ID in the company. Unique for each tour leader. |
| | TourStatus | TOUR-STATUS-S | A | 10 | Status of tour (Open, Departed, Completed) |
| | Remark | TOUR-REMARK | A | 100 | Short remark that tour leader enter after completing tour. |
| | | | | | |
| PASSENGERBOOKINGDETAILS | RefNo | PASSENGER-BOOK-DETAL-REF-N | A | 8 | Reference code for a booking.Unique for each booking |
| | PassengerName | PASSENGER-M | A | 50 | Passenger Name (Full name, start with surname) |
| | | | | | |
| CUSTOMER | Customer Ref No: | CUSTOMER-REF-N | A | 6 | Customer Reference number. Unique for each cutomer |
| | Name | CUSTOMER-M | A | 50 | Customer Name (Full name, start with surname) |
| | Address | CUSTOMER-ADDRESS-T | A | 60 | Address of each customer |
| | Occupation | CUSTOMER-OCCUPATION-O | A | 30 | Occupation of each customer |
| | PassportNo | CUSTOMER-PASSPORT-P | A | 9 | Passport Number of each customer. Unique for each customer |
| | DateOfBirth | CUSTOMER-DATEOFBIRTH | D | 8 | Customer Date of Birth (DDMMYYY) |
| | SpecialDiet | CUSTOMER-SPECIALDIET | A | 50 | Short description of special diet request |
| | SeatPreference | CUSTOMER-SEAT-PREFERENCE | A | 8 | The seat that the customer prefers (Aisle, Window, Bassinet) |
| | Tel | CUSTOMER-TELEPHONE-T | N | 8 | Customer contact phone number (in the form of 99999999) |
| | Sex | CUSTOMER-SEX-S | A | 1 | Customer gender (M, F) |
| | IssuedDate | CUSTOMER-ISSUEDDATE-D | D | 8 | Date that the passport was issued (DDMMYYYY) |
| | Country | CUSTOMER-COUNTRY | A | 15 | Country of the passport. |
| | PlaceIssued | CUSTOMER-PLACE-ISSUED | A | 15 | Country the passport was issued in. |
| | SpecialInstruction | CUSTOMER-SPECIAL-INSTRUCTION | A | 50 | Any special instructions from the customer regarding the flight or hotel. |
| | AccountStatus | CUSTOMER-ACCOUNT-STATUS | A | 1 | Customer's ranking (A, B, C) |

A – Alphanumeric, N – Numeric, D – Date

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# Data Dictionary

| Entity | Attribute | Attribute Name | Type | Length | Definitions and Business Rules |
|---|---|---|---|---|---|
| PASSENGERDETAILS | PassengerName | PASSENGER-M | A | 30 | Passenger Name (Full name, start with surname) |
| | Diet | PASSENGER-DIET | A | 10 | Any diet requirements (Vegetarian, Vegan, Halal) |
| | SeatPreference | PASSENGER-SEAT-PREFERENCE-P | A | 8 | The seat that the passenger prefers (Aisle, Window, Bassinet) |
| | Smoker | PASSENGER-SMOKER-S | A | 1 | Indicate whether passenger a smoker. (Y, N) |
| | SpecialRequirements | PASSENGER-SPECIAL-REQUIREMENTS-R | A | 60 | Short description of passenger's special requirements. |
| | | | | | |
| STAFF | StaffID | STAFF-ID-N | A | 6 | Tour Leader ID in the company. Unique for each tour leader. |
| | StaffType | STAFF-TYPE-T | A | 10 | The employment type of staff (Full time or part time) |
| | Name | STAFF-M | A | 20 | Staff name of the tour company |
| | ContactNumber | STAFF-CONTACT-NUMBER-N | N | 8 | Contact number of staff (in the form of 99999999) |
| | EmailAddress | STAFF-EMAIL-T | A | 20 | Email address of staff |
| | Salary | STAFF-SALARY-S | N | 10 | The salary of full time staff |
| | LeaveEntitled | STAFF-LEAVE-ENTITLED-L | N | 2 | Number of leave days the staff is entitled to (in the form of 99) |
| | Rank | STAFF-RANK-R | A | 2 | The rank of the staff (M1, M2, M3) |
| | DailySalaryRate | STAFF-DAILY-SALARY-RATE-R | N | 3.2 | Daily Salary Rate of part time tour leaders (in the form of 999.99) |
| | TourDestinationsOpted | STAFF-TOUR-DESTINATION | A | 30 | Countries that the part time staff are willing to lead the tour in. |

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