Lab03

1. Identify system actors and goals

Initiating Actors:

Customer

* (Search UC-1) Search for available cars that match search criteria involving age, and preferred pickup and dropoff locations
* (Provide Personal Info UC-2) – Specify customer’s name and age, license number, rental period in days, option to purchase insurance, and email address
* (Provide Payment info UC-3) – Provide credit card details for payment to proceed with the booking.

AffordableRentals Staff

* (Log-In UC-4) With an authorized username and password, staff/managers are permitted to log in to the online system
* (Access System Data UC-5) Enter new car information into system

AffordableRentals Managers

* (UC-4) Log in to online system
* (Generate Reports UC-6/UC-5) Generate Weekly reports that show a log of cars rented during the week

Participating Actors:

QBEI Insurances

* (UC-2) If customer decides to purchase insurance, they are handled by QBEI Insurances

Credit Card System

* (UC-3) When the customer provides payment information, the credit card system handles they payment

System

* (UC-5) Holds car information including vehicle-type (s, m, l, p), make, model, year and registration

2. Draw a use-case diagram to model the behaviour of the online rental system.

Use Case Diagram: Online Rental System

Initiating Actors

Participating actor

UC-6 Generate Report

UC-4 Log in

System

Managers

Staff

Customer

Credit Card System

UC-1: Search

UC-2 Provide Personal Info

QBEI Insurances

UC-3 Provide Payment Info

UC-5 Access System Data

3. Define a detailed use-case specification for the main use-case of a customer renting a car.

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| Use Case UC-1: Customer Renting a Car |
| Related Requirements:   * Customer should be able to specify search criteria and find cars that match this criterion * Provide personal details and payment information * Confirm booking through receiving the email   Initiating Actors: Customer  Actor’s Goal: Rent a car that fulfills their criteria.  Participating Actors: QBEI Insurances, Credit Card System, System  Flow of Events for Main Success Scenario:   1. Customer specifies their search and selects a car 2. System prompts personal details form 3. Customer enters details and may optionally choose to include insurances   3a. System confirms insurance option and data is forwarded to QBEI Insurances   1. System calculates a net price and prompts payment details form 2. Customer enters payment details 3. Payment details are forwarded to Credit Card System which they will check to confirm 4. System verifies affirmation from Credit Card System confirms booking and sends an email to customer confirming booking |