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| **USE CASE NAME:** Request Tracking and Delivery | | **ID: RTD-9** | **Importance Level:** High |
| **Actor** | * Customer * Delivery Driver * System | | |
| **Description** | This use case describes the process of tracking and delivering customer orders, it focuses on the interactions between customers, delivery drivers and the system to ensure efficient and transparent order tracking and successful delivery. | | |
| **Preconditions** | * The customer must be registered and logged into their account. * Orders must be recorded in the system with the required information. | | |
| **Main Success Scenario (Main Flow)** | 1. Customer places an order:  * The customer logs into their account. * The customer specifies the item he/she want to order. * The customer creates a delivery request post, specifying the item for delivery and delivery details. * The system records the delivery request and sets the initial status to "Request Submitted."  1. Delivery drivers provide offers:  * Delivery drivers who are available to take delivery requests view the posted requests. * Each interested driver submits an offer, including the delivery fee and estimated delivery time. * The customer receives notifications of new delivery offers.  1. Customer selects a delivery offer:  * The customer reviews the delivery offers provided by drivers. * The customer selects a preferred delivery offer based on the driver's fee, estimated delivery time and the service provider's rating. * The system assigns the chosen delivery driver to the request, and the status is updated to "Driver Assigned."  1. Delivery in progress:  * The assigned delivery driver follows the navigation provided by the system to  reach the pickup location if it exists. * The driver collects the specified item for delivery. * The system continuously tracks the driver's location in real-time. * The customer can track the delivery progress in real-time through their account.  1. Delivery driver completes the delivery:  * The driver arrives at the customer's destination and delivers the specified item. * The system updates the request status to "Delivered." * The customer receives an instant notification confirming the successful  delivery of the requested item. * If the customer had chosen to pay in cash, payment is collected from them after the delivery. | | |
| **Postconditions** | * The request status is updated at each stage of the delivery process. * Customers receive real-time updates on their request's status and delivery progress. * The system records completed deliveries for future reference. * The final state of the request is "Delivered" upon successful delivery. | | |
| **Alternative Flow** | 1. Customer cancels the request:  * If the customer decides to cancel the request before a driver is assigned, the request is canceled, and no delivery is made. | | |
| **Exceptions** | 1. Driver Unavailability Exception:  * If there are no available drivers to provide delivery offers when the customer submits a delivery request, the system must notify the customer of the unavailability of drivers at the moment. * The customer can try resubmitting the request later.  1. Driver Offer Rejection Exception:  * If the customer decides to reject all delivery offers provided by drivers, the system must reassign the request and notify the customer that no offers were accepted. * The customer can try again.  1. Driver Assignment Delay:  * If unexpected delays occur in assigning a driver to the request (e.g., due to connectivity issues or driver availability problems) * The system should periodically update the customer about the delay and provide an estimated time for driver assignment.  1. Delivery Delay:  * If the delivery is significantly delayed beyond the expected time due to unforeseen circumstances (e.g., heavy traffic or adverse weather conditions). * The customer or system should update the customer with the delay information and provide a new estimated arrival time. | | |