**Use Case: “Place Rush Order”**

1. **Use Case Name**: Place Rush Order
2. **Use Case ID**: UC003
3. **Description**:
   * This use case describes how a customer places an order with a rush delivery option. The customer can select rush delivery for eligible products and provide additional rush order information, such as preferred delivery time and delivery instructions.
4. **Actors**:
   * **Customer**: The person placing the order with rush delivery.
   * **VNPay System**: Handles payment processing when the customer pays for the rush order.
5. **Preconditions**:
   * The customer has selected products eligible for rush delivery (the products must be eligible, and the delivery address must be within the supported inner city area of Hanoi).
6. **Basic Flow of Events**:
   * The customer adds products to the cart and selects the "Rush Delivery" option for eligible products.
   * The system checks whether the customer's delivery address is within the supported rush delivery area:
     + If yes, continue with the main flow.
     + If no, the system prompts the customer to update the delivery address or choose a different delivery method.
   * The customer enters rush delivery information, including the desired delivery time and any special delivery instructions.
   * The system recalculates the shipping fee, including the rush delivery fee (if applicable), and displays the total cost, including VAT, regular shipping fees (if any), and the rush delivery fee.
   * The customer confirms the order and selects a payment method (credit card via VNPay).
   * The system connects to VNPay to process the payment.
   * After successful payment, the system generates the invoice and sends an order confirmation email to the customer.
   * The system displays the order information and payment details to the customer, including the transaction ID and rush delivery details.
7. **Alternative Flows**:
   * **Product Not Eligible for Rush Delivery**:
     + If certain products are not eligible for rush delivery, the system notifies the customer and asks them to update the cart.
   * **Delivery Address Not in Rush Delivery Area**:
     + The system prompts the customer to provide a different delivery address or select regular delivery.
   * **Payment Failure**:
     + If payment fails, the system notifies the customer and asks them to retry the payment.
8. **Input Data**:
   * Product information (quantity, name).
   * Rush delivery information (delivery time, address).
   * Payment information (credit card details, VNPay transaction details).
9. **Output Data**:
   * Order confirmation, including total cost, transaction ID, rush delivery fee, and delivery details.
   * Invoice and transaction information sent to the customer's email.
10. **Postconditions**:
    * The order is successfully created, and the payment transaction is recorded.
    * The customer receives an order confirmation email, including rush delivery details.
    * The products will be delivered according to the requested rush delivery time.