

Online shop – Milestone 1

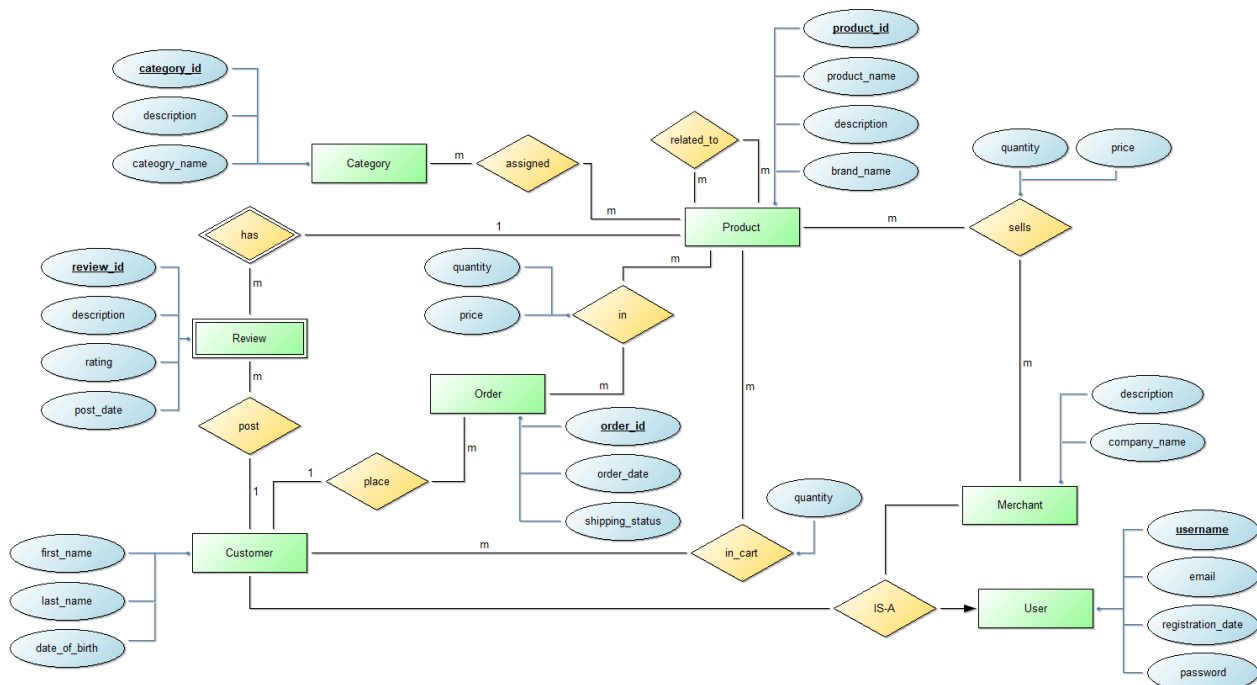
1. Model

The online shop can be used by users. A user has a username, email address, registration date and password. Users can be differentiated between customers and merchants. A customer additionally has a date of birth, first name and last name. A merchant has a company name and a description about their business.

Merchants can sell multiple products by setting a price and the quantity they want to sell. A product can be sold by different merchants. A product has an id, product name, description, and brand name. When a user is looking at a product, they can also see other related products. A product is also assigned one or more categories. A category has an id, description, and name.

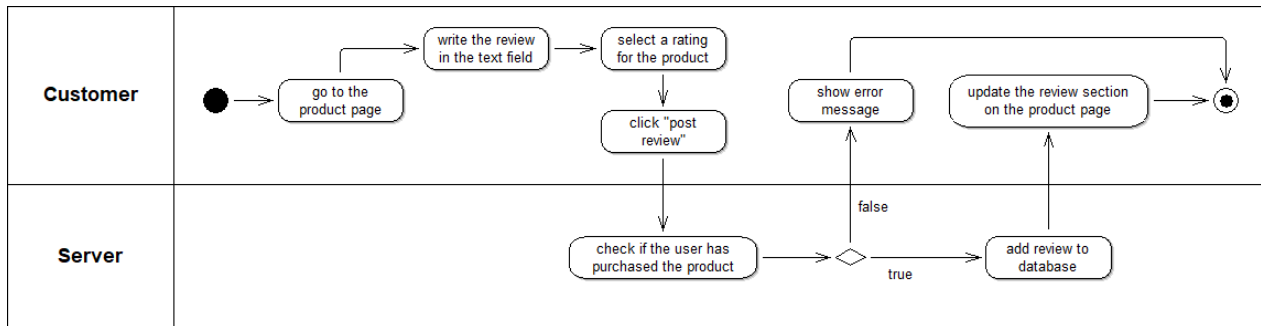
Customers can add products they are interested in into their cart with the desired quantity. A customer can also look at his placed orders. An order has an id, date, and shipping status. An order can include multiple different products. The price of the product at the time of the purchase and the quantity purchased is also recorded.

To share their opinion about the products they've bought, customers can post reviews about them. A review has an id, description, rating, and a post date. Reviews are tied to the product they were posted to; thus a deletion of a product would also lead to the removal of all its reviews.



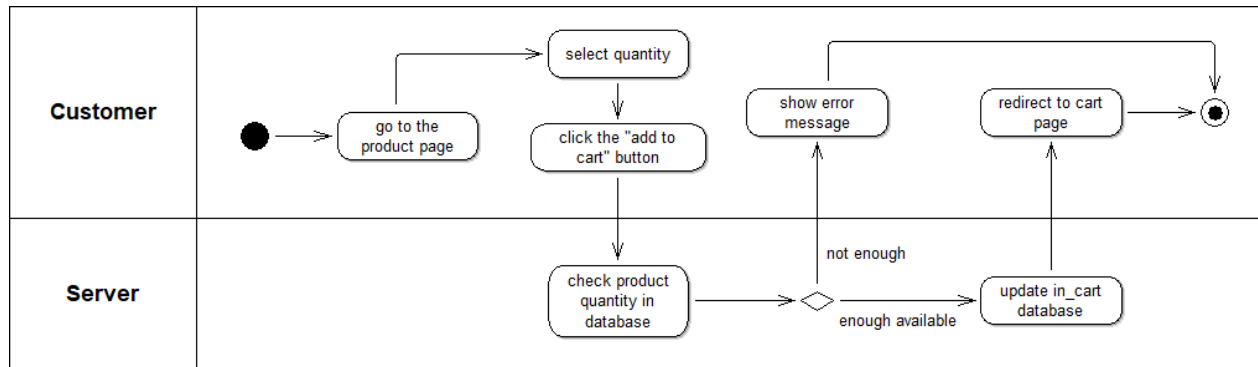
2. Use Case

Post a review (first main use case)



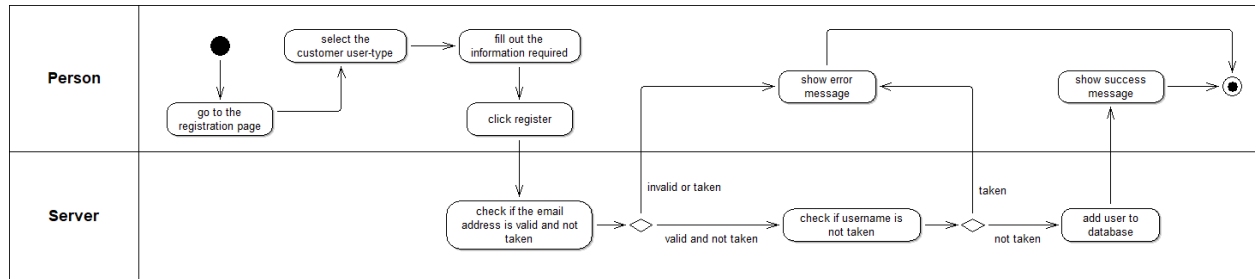
- **Description:**
The customer wants to post a review about a product.
- **Precondition:**
The customer is already logged into the website.
- **Excepted Execution:**
The customer navigates to the product they want to leave a review. In the review section they fill out the text field with their review. They select a rating for the product and click post.
- **Postcondition(success):**
The customer can see their newly posted review in the reviews section.
- **Postcondition(error):**
The customer receives an error message that their review couldn't be posted.

Add product to cart (second main use case)



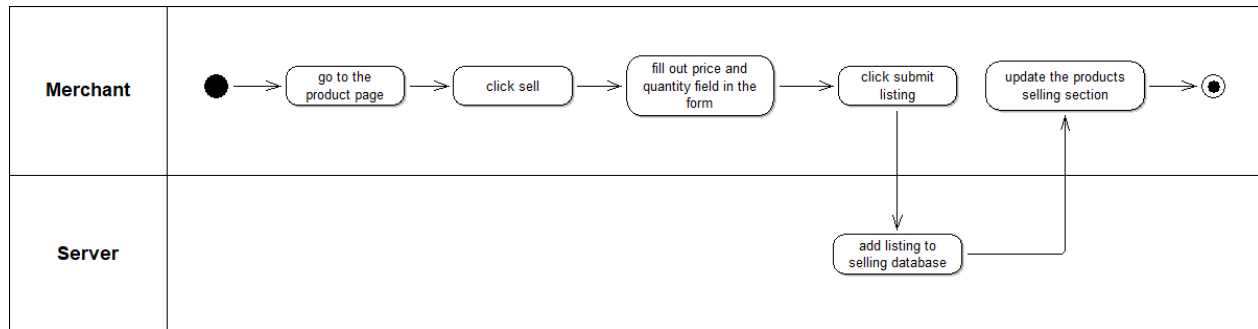
- **Description:**
The customer wants to add a product they are interested in buying to their shopping cart.
- **Precondition:**
The customer is already logged into the website.
- **Excepted Execution:**
The customer navigates to the product they are interested in. There they select the desired quantity and click on the “add to cart” button.
- **Postcondition(success):**
The product is added to their cart, and the customer can see the product in their cart page.
- **Postcondition(error):**
The customer receives an error message that the product couldn’t be added.

Customer registration (third use case)



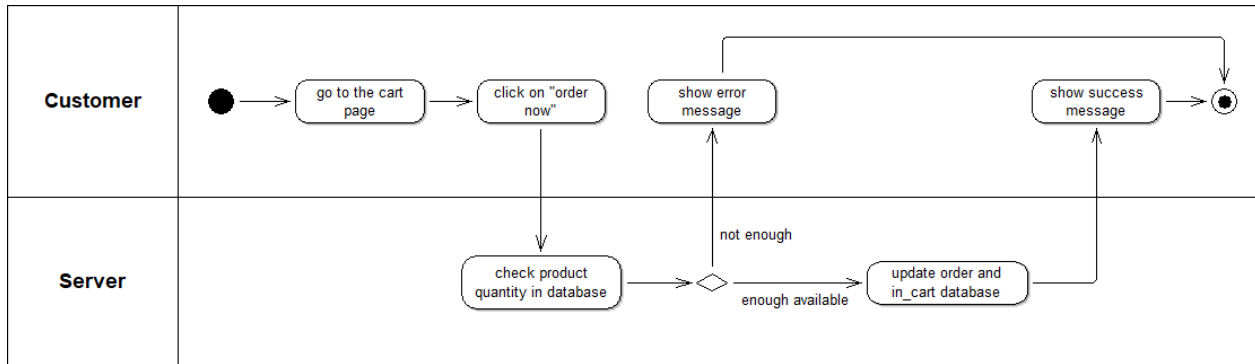
- **Description:**
A person wants to register to the website so they can buy the products.
- **Precondition:**
None
- **Expected Execution:**
The person navigates to the registration page. There select the customer option and fill out the text fields with their information. When they are done they press register button.
- **Postcondition(success):**
The person receives a message that the registration was successful and can now log into their new customer account.
- **Postcondition(error):**
The person receives an error message with which part of their information was invalid.

Sell product (fourth use case)



- **Description:**
A merchant has decided to list a product for sale.
- **Preconditions:**
The merchant is logged into the website. The product he wants to sell is in the database.
- **Excepted Execution:**
The merchant navigates to the product they want to sell. They click sell on the sell button and a form appears. There they put the quantity they want to sell and the price. Afterwards they press the submit button.
- **Postcondition(success):**
The merchant's product listing is added.
- **Postcondition(error):**
None

Purchase product (fifth use case)



- **Description:**
After browsing the website, the customer decides to purchase the products he placed in his cart.
- **Preconditions:**
The customer is already logged into the website. At least one product in the customer's cart.
- **Excepted Execution:**
The customer goes to their cart page where all his products can be seen. He presses the order button to confirm his purchase.
- **Postcondition(success):**
The customer receives a message that the order was successful. He can now view his new order in his orders page.
- **Postcondition(error):**
The customer receives an error message that he is unable to purchase the products.

3. Report

- What are the highest rated products? A report on the top 10 products rated highest by the customers in the last year.
 - Use Entities: Customer, User, Review, Product
 - Filtered by: post date (last year)
 - Sorted by: rating
- What products do customer's plan to buy? A report on the top 10 products (by quantity) over 25 € in customer's cart.
 - Use Entities: Customer, Product, User
 - Filtered by: product price (over 25 €)
 - Sorted by: product quantity in cart