

Project: Octavia E-Commerce Web Site

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■ Use Cases

Use Case UC1: Browse Wines

Scope: Octavia E-Commerce Web Site

Level: User goal

Primary Actor: Customer

Stakeholders and Interests:

- **Customer:** wants to browse the list of available wines and the details of wines.
- **Owner:** The owner of Octavia, Samantha, wants to sell wines online and satisfy customers' needs.

Preconditions: The customer opens a browser on his/her machine which can connect to the Internet.

Postconditions:

- The customer successfully browses the catalog for available wines in Octavia, and the results can be sorted by price and be filtered by wine, grape variety, and price range.
- The customer can view item details.

Basic Flow:

- 1 The customer opens the web browser and enters the URL for the "Octavia" website.
- 2 The system presents the homepage and has an option to browse the catalog of wines.
- 3 The customer clicks the "catalog" link.
- 4 The system presents a list of all available wines. The list includes summary details for each wine. The customer sorts the list by price and filters it by wine (red, white), grape variety (Malbec, Merlot, Syrah), and price range.
- 5 While the customer clicks the link of the title of a wine, the system displays full details of the wine including its price, brand, type, grape variety, and vintage year.

Alternative Flows:

- 1a The customer is unable to enter the website.
 - 1a.1 The web browser shows an error so that the customer can't enter the "Octavia" website.
- 5a The wine the customer wants is not available to view or buy.
 - 5a.1 While the customer clicks the link of the title of a wine, the system shows

an error to accessing the page of the full details of the wine, or it shows it's out of stock.

Use Case UC2: Search Wines

Scope: Octavia E-Commerce Web Site

Level: User goal

Primary Actor: Customer

Stakeholders and Interests:

- **Customer:** wants to find some specific wine by searching by its brand, wine type, grape variety, vintage year or substring in description.
- **Owner:** The owner of Octavia, Samantha, wants to sell wines online and satisfy customers' needs.

Preconditions: The customer opens a browser on his/her machine which can connect to the internet.

Postconditions: The system shows the list of the wines which meet the given search conditions to the customer.

Basic Flow:

- 1 The customer opens the web browser and enters the URL for the "Octavia" website.
- 2 The customer types a keyword, such as the brand, wine type, grape variety, vintage year or substring in description, in the search box and presses the search button.
- 3 The system presents the list of the wines which meet the search conditions to the customer.

Alternative Flows:

3a No search results

3a.1 Search returns no results, the system displays the message "No match found for your search."

3b Refine search results

3b.1 The customer refines the result by typing new keywords into the search box.

3b.2 The system presents the new list of the wines which meet with the search conditions to the customer.

Use Case UC3: Manage Shopping Cart

Scope: Octavia E-Commerce Web Site

Level: User goal

Primary Actor: Customer

Stakeholders and Interests:

- **Customer:** wants to purchase wines and therefore modify items in the shopping cart.
- **Owner:** The owner of Octavia, Samantha, wants to sell wines online and satisfy customers' needs.

Preconditions: The customer browses or searches wines.

Postconditions:

- The customer can add multiple quantities of a wine to the shopping cart.
- The customer successfully removes or adds items in the shopping cart .
- The customer is able to view the shopping cart details for review.

Basic Flow:

- 1 The customer selects one or more desired wines from the list.
- 2 The customer clicks on the "Add to Cart" button from the pages which show the full details of the wines.
- 3 The customer clicks the "Shopping Cart" button to view the content and subtotal price of his/her shopping cart.
- 4 The system presents the page of the shopping cart.
- 5 The customer adds/removes items or changes the amounts of the wines from the shopping cart.
- 6 The system updates the modified content and price to the customer.

Alternative Flows:

- 2a The desired wine is currently out of stock until the specific date.
 - 2a.1 The system shows the message that item is currently not available.
 - 2a.2 The system asks the customer if he/she wants to preorder it.
 - 2a.2.1 If yes, the item is added to the shopping cart.
 - 2a.2.2 If no, the system goes back to the previous page.
- 3a The customer leaves the e-commerce website after placing items in the shopping cart .
 - 3a.1 The shopping cart is stored in the system for a few days if the customer doesn't clean his/her browser's cookies so that the customer can return to the cart in few days.

Use Case UC4: Manage Account

Scope: Octavia E-Commerce Web Site

Level: User goal

Primary Actor: Customer

Stakeholders and Interests:

- **Customer:** wants to register a new account, login and edit the account information easily and efficiently.

- **Owner:** The owner of Octavia, Samantha, wants to sell wines online and satisfy customers' needs.

Preconditions: The main page of Octavia is loaded and operational.

Postconditions:

- The customer's new account is created.
- The customer successfully signs in his/her account.
- The customer is able to edit his/her account information such as his/her payment details and shipping info.

Basic Flow:

1 Create a new account

- 1.1 The customer clicks on the "Sign Up" button on the page of the website.
- 1.2 The system asks the customer to enter the username, email and password.
- 1.3 The customer enters the requested information and then presses "create your account."
- 1.4 The system confirms that the customer's basic account information is available and valid.
- 1.5 The system sends an authorization email with a link to the customer.
- 1.6 The customer enters his/her email page to check the email and then clicks on the link in the content of the email.
- 1.7 The system notifies the customer that the account has successfully created and then goes back to the main page of Octavia.

2 Sign in to the account

- 2.1 The customer clicks on the "Sign in" button on the page of the website.
- 2.2 The system asks the customer for his/her username and password.
- 2.3 The customer enters his/her username and password and then presses the "Sign in" button.
- 2.4 The system checks the entered information, making sure it's valid for one specific user account in the system.
- 2.5 The customer is signed in. The system goes to the customer's account page.

3 Edit the account information

- 3.1 While the customer is logged into the system, he/she clicks on the "Your account" button .
- 3.2 The system displays the account information page.
- 3.3 The customer clicks on "change account settings" link.
- 3.4 The customer is at the editable account information page.
- 3.5 The customer edits the account information such as payment details and shipping info, and clicks on the "Done" button.
- 3.6 The system displays the message "You have successfully modified your

account!”

Alternative Flows:

- 1.4a The requested information is not available or invalid.
 - 1.4a.1 The system asks for a new username, password, and/or email.
- 1.6a The customer doesn't get the email from Octavia.
 - 1.6a.1 The customer asks for the system to resend the email.
 - 1.6a.2 The system resends the email.
- 2.2a The customer enters the wrong username or password.
 - 2.2a.1 The system shows the message “Your username or password was incorrect. Please try again.”
 - 2.2a.2 The customer enters the correct username and password .
- 2.3a The customer forgot his/her username or password.
 - 2.3a.1 The customer clicks “forgot your username/password?” button.
 - 2.3a.2 The system asks the customer to enter the registered email address.
 - 2.3a.3 The customer enters his/her email address and then presses the “Continue” button.
 - 2.3a.4 The system displays the message “Check your email” for the customer to get his/her username or reset his/her password.
 - 2.3a.4.1 If the customer can't successfully get the email, he/she contacts the customer service for help.
 - 2.3a.4.2 If the customer got the email, he/she checks his/her email to get the username or reset his/her password.
- 3.6a The customer enters invalid account information.
 - 3.6a.1 The system shows which entered data was invalid and suggests the customer to enter valid data.
 - 3.6a.2 The customer re-enters the information and the system reconfirms it.
 - 3.6a.3 If valid information is entered, the account information has successfully modified.

Use Case UC5: Checkout

Scope: Octavia E-Commerce Web Site

Level: User goal

Primary Actor: Customer

Stakeholders and Interests:

- **Customer:** wants to order certain wines from Octavia.
- **Owner:** The owner of Octavia, Samantha, wants to sell wines online and satisfy customers' needs.

Preconditions:

- The customer is logged into the system.
- The customer's shopping cart must not be empty.

Postconditions:

- The customer completes purchase and receives the digital receipt.
- The system has accepted the order and performs the further process of the order.

Basic Flow:

- 1 The customer goes to the shopping cart page to confirm what items he/she wants to purchase.
- 2 The customer clicks on "Proceed to checkout".
- 3 The system displays the checkout page and asks the customer to
 - 3.1 fill in the required data such as name, phone number, shipping address, billing address, etc.
 - 3.2 select a payment method from two options: "Pay by Credit/Debit Card" and "Pay by PayPal."
 - 3.2.1 If the customer selects the "Pay by Credit/Debit Card" option, he/she enters the credit card number, the expiration date, the name on card, etc.
 - 3.2.2 If the customer selects the "Pay by PayPal" option, he/she enters his/her valid PayPal account login details and confirms the payment.
 - 3.3 select a shipping method such as Standard Shipping, Two-Day Shipping, etc.
- 4 After the customer completes the requirement of the step 3, the system displays the total price of the order including tax and shipping charges.
- 5 The customer clicks on "Place your order."
- 6 The system displays the message "Thank you, your order has been placed" and sends an email confirmation to the customer.

Alternative Flows:

- 3a The customer can add a gift receipt if he/she wants.
 - 3a.1 The customer clicks on "Add a gift receipt" next to the title of the item on the checkout page.
 - 3a.2 The system pops up a window to let the customer edit the gift options. The customer can get the gift wrap by checking "Gift Wrap" and gives a short message to the receiver by entering text in the gift message field.
 - 3a.3 The customer clicks "Save gift options and continue" or "Cancel."
 - 3a.4 The system goes back to the checkout page.
- 3.2.1a The customer's credit card information is incorrect or rejected by the credit verification company.
 - 3.2.1a.1 The system shows the error message while the customer tries to add a new card on his/her account or while the customer clicks on "Place Your Order."

3.2.1a.2 The system asks the customer to re-enter the credit/debit card information.

3.2.1a.3 The user enters the correct credit/debit information.

3.2.1a.4 The customer clicks on "Place Your Order."

3.2.1a.5 The order has been accepted by the system.

Use Case UC6: Manage Catalog

Scope: Octavia E-Commerce Web Site

Level: User goal

Primary Actor: Administrator

Stakeholders and Interests:

- **Customer:** wants to browse the updated product catalog.
- **Administrator:** wants to modify items in the product catalog.
- **Owner:** The owner of Octavia, Samantha, wants to sell wines online and satisfy customers' needs.

Preconditions:

- The main page of Octavia is loaded and operational.
- The administrator is logged into the system.

Postconditions:

- The administrator is able to add/delete items to/from the product catalog.
- The administrator can change the price, add/edit the description, add/edit the image of the item.

Basic Flow:

1 The system presents the option for the administrator to manage the catalog.

2 The administrator clicks on the "Manage Catalog" button.

3 The system presents the two options "Add New Item" and "Modify Existing Item" for the administrator to select.

3.1 If the administrator selects the "Add New Item" option,

3.1.1 The user adds the information for the new item, including its price, its description and its image and then presses "submit."

3.1.2 The system updates the item in the selected product catalog.

3.2 If the administrator selects the "Modify Existing Item" option,

3.1.1 The system displays the list of existing items for the Octavia e-commerce website.

3.1.2 The administrator selects the item he/she wants to modify.

3.1.3 The administrator either deletes the item from the catalog by clicking on "Delete Item" or modifies the item name, price, description and image and clicks "Update."

3.1.4 The system updates the item in the selected product catalog.

Alternative Flows:

3.1.1a The administrator didn't complete entering the item information or entered the invalid item information.

3.1.1a.1 The administrator fails to enter any of the necessary item information such as the item name and price, and then presses "submit."

3.1.1a.2 The system displays an appropriate error message to the administrator.

3.1.1a.3 The system asks the administrator re-enters the valid item information.

3.1.1a.4 The administrator completes entering the correct item information.

3.1.1a.5 The system updates the item in the selected product catalog.

■ Glossary

1. Introduction

The glossary contains the definitions for all terms which have specific meanings in the e-commerce system “Octavia”. Actors are not listed here as they are described more fully in the use case definitions.

2. Definitions

Administrator: An employee or the owner who is responsible for managing the e-commerce website.

Billing Address: The address that the credit/debit card company sends your bill to. It is used to help verify that the customer is the actual owner of the credit/debit card.

Catalog: A listing of all of the wines that Octavia currently offers for sale online.

Checkout: The place where customers can complete the purchase of products in their shopping cart on the e-commerce website.

Credit Card: A payment card such as VISA or MasterCard that be used for paying for products.

Customer: The primary actor who wants to view or purchase wines online from Octavia.

Debit Card: A payment card that deducts money directly from a customer’s checking account to pay for a purchase.

Digital Receipt: An electronic (email) acknowledgement of an order placed from an e-commerce web site sent to the customer placing the order.

E-commerce: Buying and selling products over electronic networks, including the Internet or mobile applications.

Item: A wine offered for sale online by Octavia.

Order: A record of purchase for products initiated by a customer. The order specifies the quantity of each wine, tax and shipping charges.

Owner: The owner of Octavia, Samantha, wants to sell wines online and satisfy customers’ needs.

Payment Method: The way that a customer chooses to pay money to the seller.

PayPal: PayPal is a leading and worldwide company in online payments. They provide a fast and secure way for customers to pay online.

Product: A wine offered for sale online by Octavia.

Shipping: The process of transporting products from Octavia to a customer’s home.

Shopping Cart: The place where the customer can store their items prior to purchase.

Web browser: A program such as IE, Google Chrome, or Firefox which allows customers to browse the World Wide Web.

■ Supplementary Specification

1. Introduction

The purpose of this document is to define the requirements of the e-commerce website "Octavia". The system is an application that is available on the World Wide Web. The supplementary specification lists the requirements which are not listed in the use cases. The supplementary specification and the use case model together capture a complete set of requirements of the system.

2. Functionality

One or more customers may use it at a time

3. Usability

- The system must be easy and friendly to use.
- The user interface is designed to have the same nice-looking standards for each page

4. Reliability

- The system has to be available 24 hours per day, 7 days per week.
- The system has to be able to run on a computer and a small phone

5. Performance

- The system has to be able to respond to the customer with the search results in less than 5 seconds.
- No error of billing.
- The system should be able to serve 50 percent of registered customers.

6. Supportability

None

7. Design Constraints

- The System should run on the operating systems such as Windows and Linux.
- The system should be developed using the Microsoft SQL Server database.