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Introduction to App Features and Test Cases to Automate for Ecommerce Apps

Ecommerce applications have become essential tools for businesses to reach a broader audience and for customers to shop conveniently. These apps include a range of features designed to facilitate the entire shopping process, from browsing products to making purchases and managing orders. Ensuring the reliability and efficiency of these features through automated testing is crucial for delivering a seamless user experience.

Overview of Common Ecommerce App Features

Ecommerce apps typically include the following core features:

1. User Authentication and Profile Management

- User Registration: Sign up using email, social media, or mobile number.
- Login/Logout: Secure access to user accounts.
- Password Recovery: Recover or reset forgotten passwords.
- Profile Management: Update personal information, addresses, and payment methods.

2. Product Catalogue

- Product Listing: Display products with images, prices, and short descriptions.
- Product Details: Provide detailed information about products, including specifications, images, and reviews.

- Search Functionality: Search for products using keywords.
- Filters and Sorting: Filter and sort products based on various criteria.

3. Shopping Cart

- Add to Cart: Add products to the shopping cart.
- View Cart: View items in the cart.
- Update Cart Items: Change quantities or remove items.
- Save for Later: Save items for future purchase.

4. Checkout Process

- Address Selection/Entry: Enter or select a shipping address.
- Payment Options: Choose from various payment methods (credit/debit cards, PayPal, etc.).
- Order Summary and Confirmation: Review and confirm the order.
- Apply Discount Codes/Coupons: Apply promotional codes.

5. Payment Gateway Integration

- Secure Payment Processing: Handle payment transactions securely.
- Payment Confirmation: Confirm successful payments.
- Handling Payment Failures: Manage failed payment attempts.

6. Order Management

- View Order History: Display past orders.
- Order Details and Status Tracking: Track the status of current orders.
- Cancel Order: Cancel an order if needed.

7. Notifications

- Order Confirmation: Notify users of order confirmation.
- Shipment and Delivery Updates: Inform users of shipping status.
- Promotional Messages: Send marketing notifications.

8. Customer Support

- Contact Forms: Provide forms for user inquiries.
- Live Chat Support: Offer real-time customer support.
- FAQ Section: Address common questions and issues.

9. Reviews and Ratings

- Submit Reviews: Allow users to leave reviews and ratings.
- View Reviews: Display reviews and ratings for products.

10. Wishlist

- Add to Wishlist: Save products for future reference.
- View and Manage Wishlist: Access and manage wishlist items.

Identifying Key Test Scenarios and Cases for Ecommerce Apps

To ensure the reliability and functionality of an ecommerce application, it's crucial to identify key test scenarios and automate the corresponding test cases.

Below are some key test scenarios categorized by feature:

1. User Authentication and Profile Management

- Verify user registration with valid and invalid data.
- Test login functionality with valid and invalid credentials.
- Check password recovery process.
- Test profile update functionality.

2. Product Catalogue

- Validate the display of products in different categories.
- Test the search functionality with various keywords.
- Verify filtering and sorting options.
- Ensure the correct display of product details.

3. Shopping Cart

- Add products to the cart and verify the cart's content.
- Update item quantities and verify the changes.
- Remove items from the cart and verify the cart's content.
- Save items for later and verify the functionality.

4. Checkout Process

- Test the entire checkout process with valid and invalid data.
- Verify address selection and entry.
- Test payment options and ensure successful transactions.
- Validate order summary and confirmation.

5. Payment Gateway Integration

- Ensure secure payment processing.
- Validate payment confirmation messages.
- Test the handling of payment failures.

6. Order Management

- Verify the display of order history.
- Test the detailed view of individual orders.
- Validate the order cancellation process.

7. Notifications

- Verify the receipt of order confirmation emails and messages.
- Ensure shipment and delivery updates are sent correctly.
- Validate promotional messages.

8. Customer Support

- Test the functionality of contact forms.
- Validate live chat support interactions.
- Verify the accuracy of the FAQ section.

9. Reviews and Ratings

- Submit reviews and ratings for products and verify the display.
- Validate the display of existing reviews and ratings.

10. Wishlist

- Add items to the wishlist and verify their presence.
- Remove items from the wishlist and verify the changes.

Planning End-to-End Test Flows

End-to-end test flows encompass the entire user journey through the application, ensuring that all components work seamlessly together.

Below are some common end-to-end test flows for an ecommerce application:

1. User Registration and First Purchase Flow

- Register a new user.
- Browse products and add items to the cart.
- Proceed to checkout and complete the purchase.

- Verify order confirmation and payment processing.
- Track the order status until delivery.

2. Guest Checkout Flow

- Add items to the cart as a guest user.
- Proceed to checkout without creating an account.
- Enter shipping and payment information.
- Complete the purchase and verify order confirmation.

3. Returning User Purchase Flow

- Login with an existing user account.
- Browse products and add items to the cart.
- Use saved addresses and payment methods to complete the purchase.
- Verify order confirmation and track the order status.

4. Order Cancellation and Refund Flow

- Login with an existing user account.
- Place a new order.
- Navigate to order history and cancel the order.
- Verify the cancellation confirmation and initiate a refund.
- Check the refund status and confirmation.

5. Product Review and Wishlist Management Flow

- Login with an existing user account.
- Add items to the wishlist and verify their presence.
- Remove items from the wishlist.
- Purchase a product and submit a review.
- Verify the display of the submitted review.

Conclusion

Automating the identified test scenarios and end-to-end flows ensures that the ecommerce application functions correctly and provides a seamless user experience. By covering core features and user journeys, we can detect and resolve issues efficiently, leading to a reliable and robust ecommerce platform.

THANK YOU