

Case Study 1: Online Shopping Application

You are a QA engineer at a software development company that has been contracted to build a web-based application for an online shopping store. The application is designed to allow customers to browse the store's inventory, add items to their cart, and place orders.

Your team has identified the following requirements for the application:

- Customers should be able to select different payment methods, such as credit card, debit card.
- Customers should be able to apply discounts and promo codes to their orders.
- Customers should be able to save items to a wish list for later purchase.
- Customers should be able to receive email notifications about the status of their orders, such as when the order is confirmed, shipped, or delivered.
- Customers should be able to leave ratings and reviews for products they have purchased.
- Customers should be able to filter their search results by various criteria, such as price, brand, or product features.

As the QA engineer, it is your responsibility to ensure that the application meets these requirements and functions correctly. You will need to design and execute test cases, analyse and report on test results, and collaborate with the development team to identify and resolve any issues that are found.

1. Write test cases for functionality of customers to be able to browse the store's inventory, add items to their cart, and place orders.
2. How would you design and execute test cases to validate the different payment methods offered, such as credit card, debit card.
3. How would you test the wish list functionality to ensure that customers can save items for later purchase and that the wish list is properly maintained across sessions?
4. How would you test the email notifications and order tracking functionality, and how would you verify that the correct emails are sent at the appropriate times and with the correct information
5. Write Test cases for the ratings and reviews functionality to ensure that customers can leave ratings and reviews for products, and that the reviews are displayed correctly on the product page?
6. Write Test cases for the search filtering functionality, and how would you ensure that the results displayed to the customer are accurate and correctly filtered based on the selected criteria?

Case Study 2: web-based application for a healthcare provider. The application allows patients to schedule appointments, view their medical records, and communicate with their healthcare providers. The application has the following requirements:

- Patients should be able to view their medical records, including test results, diagnoses, and treatment plans.
- Patients should be able to schedule appointments with their healthcare providers and view the details of their appointments.

- Patients should be able to communicate with their healthcare providers through secure messaging, and healthcare providers should be able to respond to messages in a timely manner.
- Patients should be able to view their medical history, including a list of medications they are taking and any allergies they have.
- The application should be able to handle multiple patients and healthcare providers simultaneously without experiencing performance issues.

1. Can you explain your approach to testing the appointment scheduling functionality, including the ability to view appointment details and schedule appointments with healthcare providers?
2. How would you test the secure messaging functionality between patients and healthcare providers, including the ability of healthcare providers to respond in a timely manner?
3. Can you describe your process for testing the medical history feature, including the ability to view a list of medications and allergies?
4. How would you test the performance of the application to ensure it can handle multiple patients and healthcare providers simultaneously?
5. What is the process for testing the user authentication and authorization features of the application to ensure patient data is protected?
6. How would you test the functionality for uploading and viewing documents, such as test results and treatment plans?
7. Write test cases for the search functionality within the medical records to ensure patients can easily locate information they need?