

QA-Fundamentals Exam (March 2017) – Sale All Products

After long and hard interviews with your employer you have finally got there! At the Quality Assurance Expert position in their biggest project for an international digital agency customer. An online store! The stakeholders have shaken hands long time ago, but unfortunately as times go by, both sides got lost in translation.

The product owner's specification is poor and unclear, but that's not everything – as there weren't anyone in between the management and the developers, the last ones have implemented the online store very technically rather than user-friendly as well as they may have introduced many bugs (no one really tested it till now), because of the miscommunication and the lack of skilled testing engineer.

The costumer got very angry on the first project demo, thus they have rejected the offer to your employer. The last one decided to get back in game and recruit a very good professional in the quality assurance field in order to find all the misconceptions in the requirements and bugs introduced by the developers.

That's how you've got there. You are given a web application which is an online store, also a rough specification regarding the requirements. Your task is to find the misconceptions in the specification, the broken functionalities, user experience problems, security issues and do some automation for the repetitive work.

As you are the QA Expert in the project and the very first QA in the company, you can pick tools by your choice for test automation, test planning, test execution and bug reporting. But it's very important to document all your work in corresponding issues in the issue tracker you have chosen and to give access to the issues tracker to your employer. In the next six hours you have to be the one to get that project out of the mud.

Project Team

The Development lead is **Coco Chanel**, the lead of Design and Art is **Donna Karan** and the Project Manager is **Giorgio Armani**. Communicate well with them in the issue tracker (JIRA, Trello, GitHub) and address issues to the relevant department.

Software Requirements

1.0. Introduction

1.1. Purpose

The purpose of this document is to present a detailed description of Online Web Store application (hereinafter called Online Store, Store or simply Project). It will explain some of the key features at very high level.

1.2. Scope

The document will cover the basic functionality on high level regarding the Online Store. The user-management system, the Orders creation and operation and its respective details (hereinafter called Pictures). The administrative part – what the special user (hereinafter called Administrator or Admin) can and cannot do as well as the normal user.

2.0. Overall description


2.1. System environment

The Store has two active actors and one cooperating system. All of them are accessing their parts from the internet. The Unregistered user can access the basic functionality of the project. One can view clothes, categories and pictures. The Registered user can access some of the basic CRUD operations over the orders. One can create order, edit its own orders, add and remove details from it, filter products and write product comments.

2.2. Vocabulary

- 2.2.1. **Product page** – A product page is the main information block regarding a product. It consists of the Product Name in the right side. The category it's created in. Share and Add to cart buttons. And a cover image on the very right side. Form for leaving product review comments (should be sent for approval by the store Moderator).

Women > Dresses > Printed Dress



View larger

Printed Dress

Model demo_3

Condition New

100% cotton double printed dress. Black and white striped top and orange high waisted skater skirt bottom.

Tweet

Share

Google+

Pinterest


Send to a friend

Print

\$26.00

Quantity
1

Size
S

Color


Add to cart

Add to wishlist

PayPal

VISA

MasterCard

SSL

DATA SHEET

Compositions	Cotton
Styles	Girly
Properties	Colorful Dress

MORE INFO

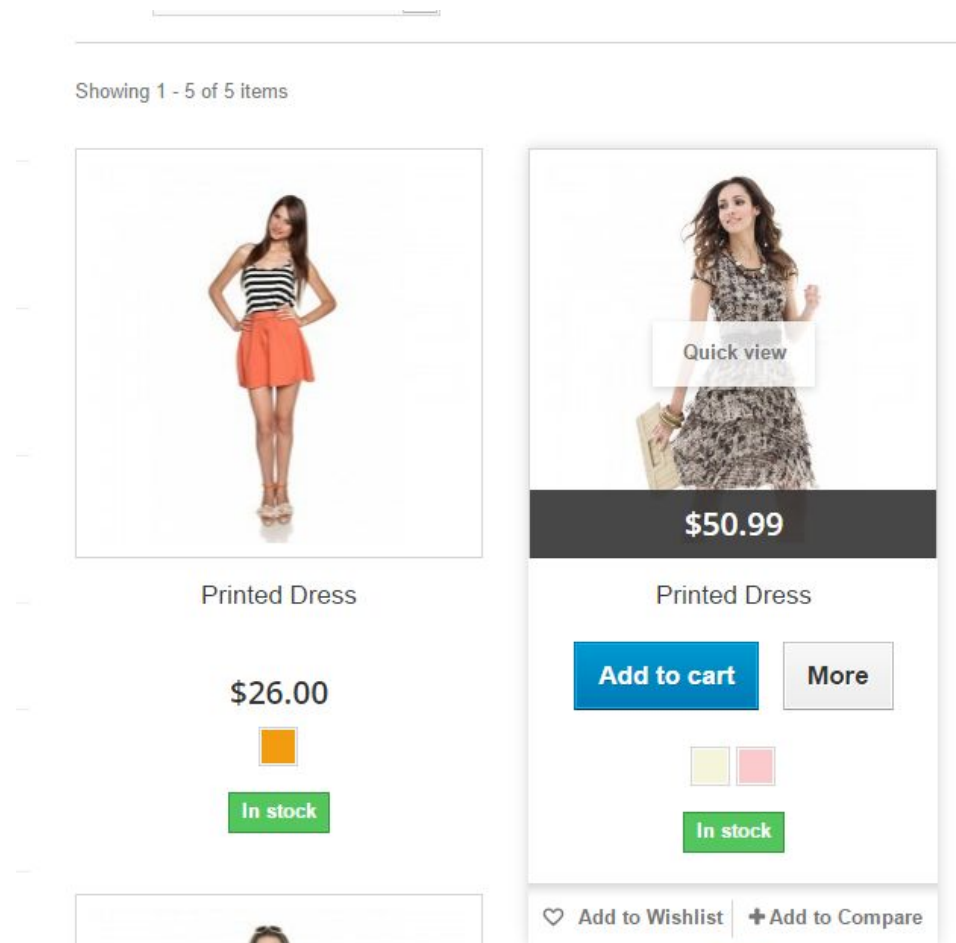
Fashion has been creating well-designed collections since 2010. The brand offers feminine designs delivering stylish separates and statement dresses which has since evolved into a full ready-to-wear collection in which every item is a vital part of a woman's wardrobe. The result? Cool, easy, chic looks with youthful elegance and unmistakable signature style. All the beautiful pieces are made in Italy and manufactured with the greatest attention. Now Fashion extends to a range of accessories including shoes, hats, belts and more!

REVIEWS

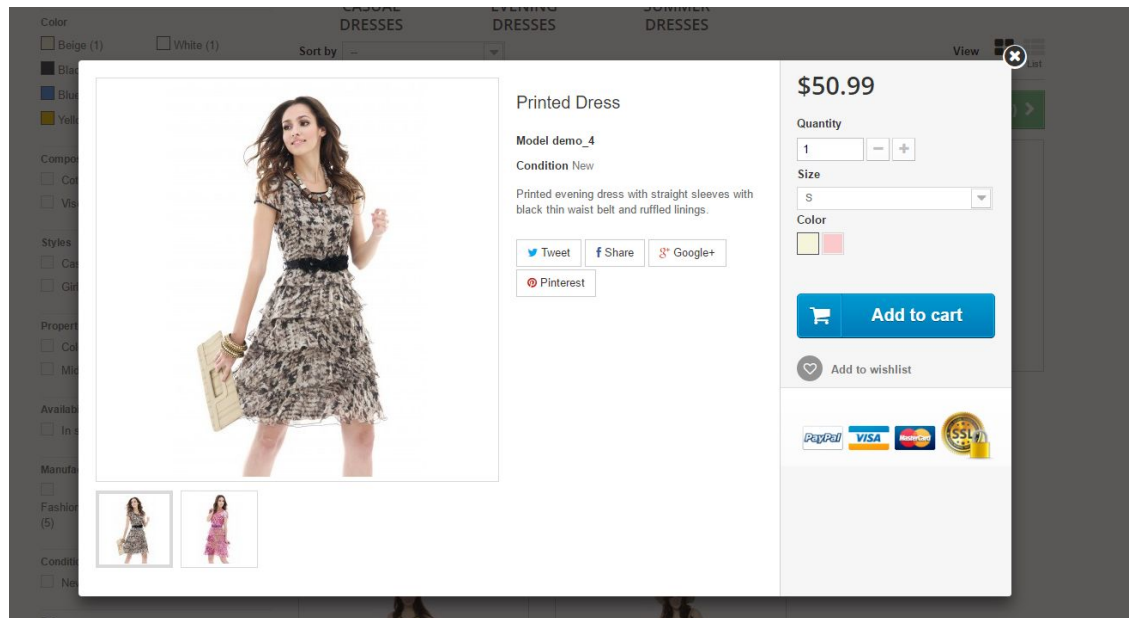
No customer comments for the moment.

- 2.2.2. **Simple view** – A simple view is the main short information block regarding a product. It consists of the Product name in the middle (should contain Product name and price in

USD). The picture itself under it. A description under it, if any. Available colors and information is it in Stock. Under it, on mouseover, the view should display “More”, “Add to wishlist” and “Add to compare” buttons.



- 2.2.3. **Quick view** – Quick view is short information regarding particular product. In the header is placed Product name and Condition details, alongside with short description. Below this block, Share buttons should be placed. At the right block a Product price in USD, Quantity, Size, Color of the Product should be shown. Under those, “Add to cart” and “Add to Wishlist” buttons. This block contains all product pictures in an album (in a grid with pictures in row). Each picture is a thumbnail and a hyperlink leading to the corresponding Product page.



2.3. Functional requirement specification

2.3.1. Use Case 1 (Accessing the system)

The system is accessed through the internet from its initial URL. It loads header, navigation bar and a home page

2.3.2. Use Case 2 (Navigation bar)

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The navigation bar has navigational hyperlinks to the Contact us and to the Sign in. As well as it should have navigation to the Product categories, Search and Cart.

2.3.2.1.1. Navigation bar – user management

When the visitor is unregistered, hyperlink navigating to the Sign in and Register page should be present. When the visitor is registered hyperlinks to the My account page and to Logout page should be present instead. When user is successfully logged out, there should be a redirect to the Sign in and Register page.

2.3.3. Use Case 3 (Home page)

The home page shows the Product blocks ordered by popularity rating and a header “Sale off” marketing section. Clicking on the Slider’s Arrow buttons on an album leads to the Next/Previous slide.

2.3.4. Use Case 4 (Products Category Page)

Information regarding the Main Category name (e.g. Women) is shown and a sub-category links (e.g. Tops, Dresses) where user can choose where to go next. Filter functionality offers the possibility to limit what products are shown, based on:

1. Categories
2. Price
3. Color
4. Compositions
5. Styles
6. Properties
7. Availability
8. Manufacturer
9. Condition
10. Size

The respective information regarding the products is shown on the page in a form of returned results by the given criteria. When the filter conditions and criteria are valid, the page should display the respective products found. If the input data is invalid, a respective error box is shown, indicating that “There are no products.”.

Comparison of products should be possible only when user has selected at least two products (but no more than three) and had Added those by clicking on each product’s “Add to Compare” button.

Sorting of the products should be available on:

1. Price: Lowest first
2. Price: Highest first
3. Product Name: A to Z
4. Product Name: Z to A
5. In stock
6. Reference: Lowest first
7. Reference: Highest first
8. Sale off: Highest %

2.3.5. Use Case 5 (Product Comparison Page)

Information regarding the added for comparison products is shown and share this with friends, box where user can compare the particular products. We only support the following comparisons criteria:

- Compositions
- Properties
- Styles

2.3.6. Use Case 6 (Add product to cart)

In order to add product to cart, one needs to login to the site. By clicking “Add to cart” from any product view, the user is navigated to a Place an Order/Proceed to

checkout page and prompted to follow 5 steps process in order to finish the process. First stage of the flow is “Summary” section, where user can check the Product information again and select Quantity. Total price (product, shipping, tax) is shown here. Clicking on “Proceed to checkout” button validates all the fields. If everything is validated, the user is taken to the next “Sign in” section, in case user is already logged in, the Order form should skip this section and move the user to the “Address” section. Here user can select from the provided by him/her addresses. Information about two addresses should be shown here: Delivery and Billing. Both can be updated. Next section is “Shipping”, where we provide the user with our supported service provider options. This screen should inform what is the current fee by each provider. It is required to get user agreement about terms of service, before proceeding to the final “Payment” section. On this screen we again provide short product description and payment options. When Payment option is selected, user is taken to the “Confirm order” screen. When user confirms order, we should inform him/her that the order is complete. User can cancel order at any section by clicking “Continue Shopping” arrow link.

2.3.7. Use Case 7 (Categories list)

Clicking on the Categories hyperlink from the header navigates to the categories page. For any regular user, a category name and the relevant products are shown. Each category is hyperlink, leading to category view, where all product blocks in that category are shown.

2.3.8. Use Case 8 (My account)

Clicking on the Username hyperlink from the header navigates to the My account page. Page lists a collection of all available sections:

- Order history and details
- My credit slips
- My addresses
- My personal information
- My wishlists

2.3.9. Use Case 9 (Search)

Clicking on Search from in the header allows for product finds by given keywords. If we have such products, we should show a list with the results. If no product is found, we should display error message stating that “No results were found for your search {“keyword/s”}”.

Tasks

1. The store’s developers and designer have been witnessing a discussion of some users regarding the bugs. Now they know you need to find **as many as possible! user-acceptance bugs, functional bugs, design**

bugs and security bugs all ordered by severity. Provide reproducing steps for each bug report. Consider using BDD.

2. Write automation scripts in any programming language by your choice, except raw Selenese (thus, Selenium IDE is not a choice) that tests the following functionalities
 - 2.1. Commenting an album
 - 2.2. Commenting a picture

Constraints:

- Use fresh data (create one when necessary) so tests will always be valid and will not depend on data which could disappear
- Assert as many times as you want in a test method but assert only things related to the scenario e.g. if you expect the test to provide error messages, assert the error message presence.
- Avoid code repetition. Extract in methods the repetitive code. If you have shared configuration of all your methods, extract it in a initialization method (constructor, test initializer, or whatever your test runner supports)
- Each tested component should be one class. Each tested condition should be one method.
- Naming convention for test method. Each test method should follow the pattern **testedConditions_ExpectedResult()** e.g. **(testValidUserNamePassword_expectSuccessLoginAndRedirect())**. Also use appropriate method naming for the language you have chosen (e.g. Java says methods should **be camelCase()**)
- Test should pass if everything works by specification. If there are conditions from the specification that are not met, the test should fail expecting the conditions to be those in the specification, rather than actual ones.

Resources

The project is located at: <http://automationpractice.com/index.php>

When you access the site, register a user. It will create an account that is shared with the other exam participants.

Reporting

Once you are ready, archive all your local work (without compiled binaries) and upload it as a Homework for the respective exam row in the course instance. Add a file to the archive that is named "IssueTracker.txt" which contains an URL to the respective issue tracker and credentials if needed in order to visit it.

IT IS PROHIBITED TO DO ANY ACTIVITIES TO THE ISSUE TRACKER AFTER THE EXAM IS FINISHED. VIOLATING THE CONSTRAINT WILL RESULT IN ZERO POINTS RECEIVED.

Exam Information

You are allowed to use any resources you have like Internet, software, existing code.

You are not allowed to get help from other people: Skype, ICQ, FB, email, talks, phone calls, etc. are forbidden.

Exam time: **3 hours**.