TEST PLAN

for e-commerce website

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| **Date** | **Author** | **Description** | **Version** |
| 19 May 2022 | Alina Okhrimenko | Initial Draft | 0.1 |
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**Introduction**

*1.1 Objectives*

The purpose of this Software Test Plan (STP) is to assess all functionalities of the E-commerce Website for Investments Company.

Brief introduction of the test strategies, process, workflow and methodologies used for the project are presented in this document.

*1.2 Team Members*

|  |  |
| --- | --- |
| **Name** | **Role** |
| John | Java Developer |
| Andrew | QA Lead |
| Marie | QA |
| Susan | Front-end Developer |
| Shannon | Front-end Developer |
| Jesse | Architect |

*1.3 References*

Documents referenced include:

**1. Project Plan**

**2.** [**Requirements specifications**](https://docs.google.com/document/d/139AWPJcN7UKk_6XiPlPoWWKGIrqUSBiT/edit)

**3. High Level design document**

**4. Detail design document**

**5.** [**WBS**](https://docs.google.com/spreadsheets/d/166-h582u_VsF7pVMSEa4le-ouYPECacwHs7E0F4jo2Y/edit#gid=0)

**6. Corporate standards and guidelines**

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**2. Scope**

*2.1 Test Items*

E-commerce website will consist of five basic areas for testing. The first item assessed is how the information is stored within the system database tables. The second item includes the homepage and website structure. The third area for testing is catalog, product pages, shopping cart and checkout. The fourth item to be tested is integrations with credit card payment providers (Visa and MasterCard) and PayPal.

*2.2 Features to Be Tested*

**Main Page**

1) Header & Footer Navigation works fine and leads to the right pages

2) Search in Header Menu works and gives accurate results, error handling is implemented

3) All buttons are clickable and their behaviour corresponds to the design pattern (on hover, clicked statuses)

4) Featured Products Slider navigation works in all browsers and on all types of devices

5) Layout corresponds to the design provided and approved in **Detail design document** (on all devices: desktop, tablet, mobile)

6) List of Highlighted products is as approved by a stakeholder

7) All Texts correspond to approved Copy

**Category Page**

1) All Buttons and Navigation items are clickable and behave as expected

2) Layout corresponds to the approved design (desktop, tablet, mobile)

3) Search field behaves as expected when entering different data

4) Ability to Navigate to Cart or Homepage from Header

**Product Page**

1) Images in Gallery Are scalable and of a good quality (you can zoom them in and out)

2) Correct description for this product is displayed.

3) Similar Products are accuratly picked

4) User can see the reviews

5) User can Select Model and this field is accurately passed to the checkout. This field is mandatory. If product has only one model the field should be hidden.

6) User Can Add Item to a Cart

**Shopping Cart**

1) We can leave items in Cart and Continue Shopping

2) We can change the number of items in the cart (add or remove)

3) User cannot select more units of particular product than we have in stock

3) Total price is calculated right and is recalculated when we change the number of items to be purchased

4) When clicked on “Cancel” the confirmation Popup Should Be shown

5) Layout is as in Design

6) Info from Shipping details form is received and saved in full amount

7) Validation is added to each field of the Shipping form

8) When chosen “Next day delivery” its price accurately adds up to the total amount

9) Taxes are calculated right and add up to the total price

10) When accidentaly closing the webpage – the progress of checkout and items in cart are saved when opening the page again

11) When shop website is opened in another browser – the progress of checkout and items in cart are saved

12) Integration with Paypal

13) Integration with Visa/Mastercard

14) Card requisites can be added to the card form + validation

*2.3 Features Not to Be Tested*

1) Newsletter logic (will be tested by the other team)

2) Voucher application to purchases (will not be implemented in this scope)

3) Admin portal (TBD).

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**3. Assumptions/Risks**

3.1 Assumptions

1. Images to be uploaded into the gallery could be only of jpeg and png formats. Allowed dimensions and file size TBD.

2. When clicked on “Cancel” the confirmation Popup should have two options to choose: continue shopping and cancel checkout

3. User is not able to enter not Latin Latters into the Search field

4. The Results of Search should show only three the most accurate conccurances

3.2 Software Risk Issues

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Risk** | **Impact** | **Trigger** | **Mitigation Plan** |
| 1 | Manual testing takes more time to perform so we do not have time to cover all the functionality with autotests | High | Affects Quality. Bugs on production | Create Automation Schedule and take 1 task for automated tests development each week. Think about hiring separate Automation QA or make one QA in charge of writing autotests only. |
| 2 | Frequent changes to the functionality and design may lead to all the test cases and documentation already written be of no use due to their irrelevance | Medium | QA will spend more time on writing documentation | Create a list of main features that need to have relevant and updated documentation (payment process, shipping) and leave out the rest |
| 3 | Issues  With Card Payments on Checkouts will result in quality issues and overall delivery time | High | Delay in delivery, checkout will not work | Provide consultations by an expert experienced in working with card payments for team members before they start working on their tasks - facilitate the team work by providing video-lessons/courses on the matter |
| 4 | One of the QAs falls ill | High | Quality and delivery time | Try to complete harder and more valuable tasks in the first instance. Write appropriate test documentation for easy substitution of QA members. |

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**4. Test Approaches & Strategy**

4.0 Unit Testing

This process involves the testing of particular system components. These components are isolated from other portions and tested for their input, output, and module procedures. Unit tests should be created by developers they should create and maintain them. First of all, integration with payment systems should be covered.

4.1 System and Integration Testing

Integration testing procedures incorporate system components and how they perform together functionally between one another. System parts are built together forming new interfaces and these are tested to determine overall functionality of the program.

4.2 Performance and Stress Testing

Measure the longest amount of time it takes to fulfill a request. A peak response time that is significantly longer than average may indicate an anomaly that will create problems.

Measure  common measure of load — how many active users at any point.

Find out Memory Utilization and how many requests can be handled at a time.

4.3 User Acceptance Testing

User Acceptance Testing (UAT) are to be performed **by the user or client to determine whether it can be accepted or not**. This is the final testing performed once the functional, system and regression testing are completed.

4.4 Automated Regression Testing

Automated Tests are planned to cover integration with payment systems, UI and checkout workflow. Automated tests should be run every day.

**5. Item Pass/Fail Criteria**

* 100% test coverage
* All Manual & Automated Test cases successfully executed
* All open bugs are fixed or are documented and will be fixed in next release

**6. Resource & Environment Needs**

6.1 Testing Tools

* TestRail for scalable, customizable, web-based test case management.
* Selenium for auto-testing functional aspects of web-based applications.
* Jira as defect tracking tool.
* Postman for API testing (manual and automated tests).
* Visual Studio for opening project locally.
* Jmeter for performance testing.

6.2 Test Environment

1. Windows 7 and above.
2. Latest versions of Chrome, FF and Edge.

* macOS 10.11 or later, 100 MB of space.
* Safari 9.1 or higher.
* Different screen resolutions.
* Smartphones and tablets (iOS and Android).

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**7. Milestones**

7.1 Deliverables

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| --- | --- | --- |
| **Deliverable** | **For** | **Date / Milestone** |
| Test Plan | Project Manager; QA Director; Test Team | 25.05.2022 |
| Traceability Matrix | Project Manager; QA Director | 30.05.2022 |
| Test Results | Project Manager | 14.06.2022 |
| Test Status report | QA Manager, QA Director | 16.06.2022 |
|  |  |  |
| Metrics | All team members | 18.06.2022 |
|  |  |  |

7.2 Schedule

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task Name** | **Start** | **Finish** | **Effort** | **Comments** |
| Test Planning |  |  |  |  |
| Review Requirements documents |  |  | 2 d |  |
| Create initial test estimates |  |  | 1 d |  |
| Staff and train new test resources |  |  |  |  |
| First deploy to QA test environment |  |  |  |  |
| Functional testing – Iteration 1 |  |  |  |  |
| Iteration 2 deploy to QA test environment |  |  |  |  |
| Functional testing – Iteration 2 |  |  |  |  |
| System testing |  |  |  |  |
| Regression testing |  |  |  |  |
| UAT |  |  |  |  |
| Resolution of final defects and final build testing |  |  |  |  |
| Deploy to Staging environment |  |  |  |  |
| Performance testing |  |  |  |  |
| Release to Production |  |  |  |  |