TEST STRATEGY FOR DM.RO

https://www.dm.ro/

PROJECT NAME: DM.RO

DOCUMENT CONTROL

Version	**1**
Date	12.12.2022
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DOCUMENT SIGN-OFF

Version	Status	Date	Approved by	Job Title
1.0	Final		Raul Riti	Product Owner

CONTENTS

1 INTRODUCTION

The objective of the DM.RO project is to test an online shop, profile of health&beauty, for functionalities of some buttons & widget from the Homepage; will be tested and checked also their design.

As help applications in this testing process, will be used Jira and TestCaselab, developing 6 US, 10 TC.

The testing process will be manual.

2 PURPOSE

This Test Strategy will provide a high-level view of how testing will be completed for the DM.RO project. There are many sections to this document, but the focus is on the overall approach to testing for the different test phases that are to be completed.

3 SYSTEM OVERVIEW

The System Under Test (SUT) consists of the following components:

- test an online shop, https://www.dm.ro/; health and beauty field
- will test some functionalities of few buttons from the Homepage;
- will be tested and checked also their design
- will be used Jira and TestCaselab, developing 6 US, 10 TC

4 SCOPE OF TESTING

As the diagram in section 3 shows the scope of the DM.RO testing is to test some functionalities of buttons from the Homepage and also their design (UX).

4.1 IN SCOPE

The types of testing that are in-scope are:

1. Unit Testing
2. Functional Testing
3. Non-functional Testing
    - Browser compatibility
    - Mobile compatibility
4. User Acceptance Testing

4.2 OUT OF SCOPE

The types of testing that are out of scope are:

1. Static Testing
    - Code Reviews
    - Requirements
    - Architecture
2. Non-functional Testing
    - Performance (Load, Stress)
    - Security testing
    - Accessibility
3. User Acceptance Testing
    - UAT support
    - UAT defect validation
4. Operational Acceptance Testing
    - Deployment
5. Regression testing (where required)

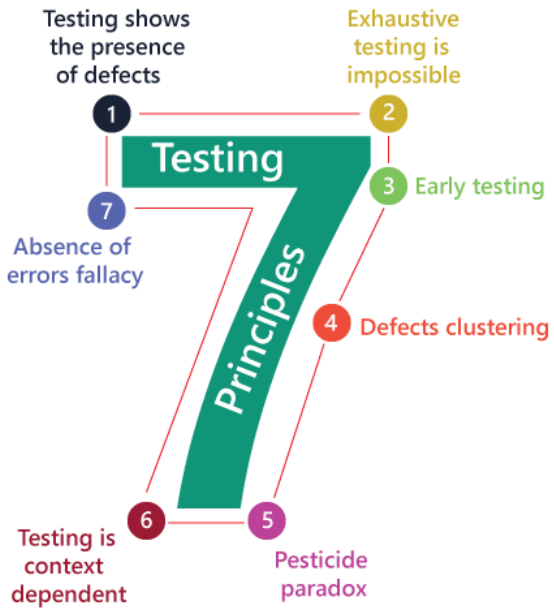
5 APPROACH TO TESTING

The following section describes the high-level approach to testing.

5.1 PRINCIPLES & APPLICATION

5.1.1.1 Principle

It is important to understand the risks to the business with regards to any system that is developed. Some parts of the system will be critical to the running of the business and some will not. By understanding the risk profile, we can tune the amount & types of testing we complete. This can then give a realistic scale of testing for the project and therefore we can support the estimates we put forward.



- **Testing shows the presence of defects, not their absence**

Starting to check and test the Homepage of DM.RO, defects were found; For example, opening another page with a link from the homepage, the defect was found with the presence of a button that normally had nothing to search for on a desktop page but on the mobile page.

- **Exhaustive testing is impossible**

Exhaustive testing means to tests and verifies all functionality of the software application while using both valid and invalid inputs and pre-conditions The inputs and outputs alone have an infinite number of combinations, so it is 100% not possible to test my application/project from every angle.

- **Early Testing**

Saves time and money; early testing means incorporating testing as early as possible in the development process. It is less expensive to fix the incorrect requirement than fully developed functionality that isn't working the way it should.

- **Defect Clustering**

Defect clustering refers to a small module or feature that has the most bugs or operation issues. Pareto Principle (80-20 Rule) states that 80% of issues originate from 20% of modules, while the remaining 20% originate from the remaining 80% of modules.
In my project all bugs are from the butons "IMPREUNA" and activeBEAUTY" from Homepage. It could be due to multiple factors, such as the modules might be complicated or the coding related to such modules.

- **Pesticide Paradox**

Refers to the practice of repeating the exact same test cases over and over again. it is imperative to regularly review and update the test cases so that more defects can be found. However, if this process is not followed, and the same tests are repeated over and over again, then eventually there will be no new bugs found, but it doesn't mean the system is 100 % bug free.

- **Testing is Context-Dependent**

Every application has its own unique set of requirements. Various methodologies, techniques, and types of testing are used depending on the nature of an application.
The site DM.RO require more testing than a company presentation website.

- **Absence of Error – Fallacy**

For software systems to be usable, it must not only be 99% bug-free software but also fulfill the business needs and user requirements.

5.2 TEAM – PLANNED ITERATIVE

Testing is a core discipline within Development Company's development framework (TEAM – The Development Company Adaptive Model), with engagement at each of the key stages of development.

TEAM defines six dimensions, the core dimensions of: Process, Team and Tools and the supporting dimensions of: Communication, Culture and People. Each of these is addressed specifically in the testing discipline within the methodology.

There are two distinct software development approaches described by TEAM:

- Agile
- Planned Iterative

This project will be delivered using the Planned Iterative methodology

Planned Iterative Principles impacting testing include:

- Testing is completed by an Independent Testing Group
- Test throughout the Project
- Focus on finding defects early in the SDLC.
- Formal Testing Scope within each iteration (Continuously verifying quality)
- Focus on testing the Architecture first.
- Test Cases derived from Use Cases.
- Tailor process and documentation for the size and complexity of the project

5.3 [TEST PHASE 1] - FIRST SPRINT

5.3.1 Objective

The objective of [Test Phase 1] is to

- Ensure the Application Under Test conforms to functional and nonfunctional requirements
- Ensure the AUT meets the quality specifications defined by the client
- Low priority bugs

5.3.2 Scope

The scope of testing for [Test Phase 1] is Functional and Non Functional Testing.

Functional and non functional requirements of the software will be tested, like: Buttons from homepage, Logo display, My account.

5.3.3 Test Preparation

Analyzing https://www.dm.ro/, was decided to test the Homepage page, using the following

types of testing that needs to be completed:

1. Unit Testing
2. Functional Testing
3. Non-functional Testing
    - o Browser compatibility
    - o Mobile compatibility
4. User Acceptance Testing

The following **acceptance criteria** are taken into account:

Top Menu

- The page is responsive
- The page load succesfully on https://www.dm.ro
- The widget of the buttons are functionals
- The design of the buttons is consistent
- When moving the mouse over the widget, the text should correspond to the image

Logo Display

- The widget is displayed on the home page
- The widged is displayed on all pages
- The widget logo helps the user reach the home page

My Account

- The widget of the button “my account” is present and is functional when click on it
- My account have two options: authentication and registration
- The design of the buttons is consistent

The defects found will be fixed and resolved.

The environment for testing will be Production.

Applications used by the whole team will be Jira, for testing will be TestCaseLab.

The team responsible for the testing process is formed:

Name	Roles
Nitu Ana-Maria	QA Analyst
Cotan Madalina	QA Lead
Avram Stefania	Test Manager
Duta Mihnea	Business analyst
Ganea Alexandra	Project manager
Ardelean Ciprian	Configuration Manager
Eduard Buruiana	Developer
Topala Carla	Installation Team

5.3.3.1 Entry Criteria

- Test environment is ready
- Requirements are defined and approved
- Acceptance criteria is defined
- The Test Plan Document should be ready

5.3.3.2 Exit Criteria

- Test Cases should be written and reviewed
- Environment setup is working as per the plan and checklist
- Test Data should be identified and ready
- All tests planned are executed
- Defects logged and tracked to closure

5.3.4 Test Execution

Run test cases on the local machine -> Generate test results-> Defect tracking

5.4 [TEST PHASE 2] - SECOND SPRINT

5.4.1 Objective

The objective of [Test Phase 2] is to

- Ensure the Application Under Test conforms to functional and nonfunctional requirements
- Ensure the AUT meets the quality specifications defined by the client
- Low priority bugs

5.4.2 Scope

The scope of testing for [Test Phase 2] is Functional and Non Functional Testing.

Functional and non functional requirements of the software will be tested, like: Functionality Middle Menu, Shopping Cart, Cookies

5.4.3 Test Preparation

Analyzing https://www.dm.ro/, was decided to test the Homepage page, using the following

types of testing that needs to be completed:

1. Unit Testing
2. Functional Testing
3. Non-functional Testing

o Browser compatibility

o Mobile compatibility

4. User Acceptance Testing

The following **acceptance criteria** are taken into account:

Homepage - Functionality Middle Menu

- The page is responsive
- The page load succesfully on https://www.dm.ro

- All the 13 buttons are present
- There are no grammatical errors in the text related to each category
- Each button redirects to the related page

Shopping Cart

- The widget for shopping cart is present on the right side
- When a product is added, it display the message "1 item added to the shopping cart", in the bottom of the right part
- The cart displays the number of products added
- The number of products added to the basket is highlighted by a red circle, located on the right side, slightly above the basket

Cookies

- The box for cookie is present on every page : MEREUAVANTAJOS, IMPREUNA, activeBEAUTY
- There are 2 button options namely "agree" or "No, thank you".

The defects found will be fixed and resolved.

The **environment** for testing will be Production.

Applications used by the whole team will be Jira, for testing will be TestCaseLab.

The team responsible for the testing process is formed:

Name	Roles
Nitu Ana-Maria	QA Analyst
Cotan Madalina	QA Lead
Avram Stefania	Test Manager
Duta Mihnea	Business analyst
Ganea Alexandra	Project manager
Ardelean Ciprian	Configuration Manager
Eduard Buruiana	Developer
Topala Carla	Installation Team

5.4.3.1 Entry Criteria

- Test environment is ready
- Requirements are defined and approved
- Acceptance criteria is defined
- The Test Plan Document should be ready

5.4.3.2 Exit Criteria

- Test Cases should be written and reviewed
- Environment setup is working as per the plan and checklist
- Test Data should be identified and ready
- All tests planned are executed
- Defects logged and tracked to closure

5.4.4 Test Execution

Run test cases on the local machine -> Generate test results-> Defect tracking

1.

6 TEST ENVIRONMENTS REQUIREMENTS

The Test environment(s) will be configured as shown below:

- Overview of System Infrastructure Components; hardware and network configuration.

- People involved in in test environment setup: Developer & Testers

- Production Test Environment

7 TEST DATA REQUIREMENTS

8 TESTING TOOLS & TECHNIQUES

The tools inside the testing discipline are in a permanent process of evaluation and customization so that they can offer the best solution in the right context; however the tools described in the following sections are proposed for use in this project.

8.1 REQUIREMENTS & USE CASE MANAGEMENT

Test Case Lab

8.2 TEST MANAGEMENT & DEFECT TRACKING

Jira Atlassian

9 TESTING ROLES & RESPONSIBILITIES

The following table shows the testing roles for the project, together with the individuals involved in the testing effort.

Activity	Responsibility/Ownership	Name
Test Plan Creation	Test Manager	Avram Stefania
Test Phase Plan Creation	Test Lead	Nitu Ana-Maria
Test Management	Development Company Test Manager & System Test Lead	Ardelean Ciprian
Test Analysis and Design	Development Company Test Engineers	Nitu Ana-Maria
Test Preparation, Execution & Results	Development Company Test Engineers	Nitu Ana-Maria
Test Defect Submission	Development Company Test Engineers	Nitu Ana-Maria
Test Summary Reporting	Development Company Test Manager & Test Lead	Ardelean Ciprian
Test Completion Reporting	Development Company Test Manager & Test Lead	Ardelean Ciprian
Test Environment Deployment	Test Manager	Cotan Madalina

10 TEST MANAGEMENT

Overall responsibility for the Testing Project will be with the Development Company Test Manager Avram Stefania. Day-to-day Test Management will be the responsibility of the Development Company Test Lead Cotan Madalina.

One of the key roles for the Test Management Team is to work closely with the Project Manager, Technical Lead & Lead Business Analyst to ensure that testing is integrated and executed efficiently. On that basis the Test Management Team will attend the weekly Project Managers meeting with the Technical Team Lead and the Lead Business Analyst where all actions, issues and risks are reviewed and progressed.

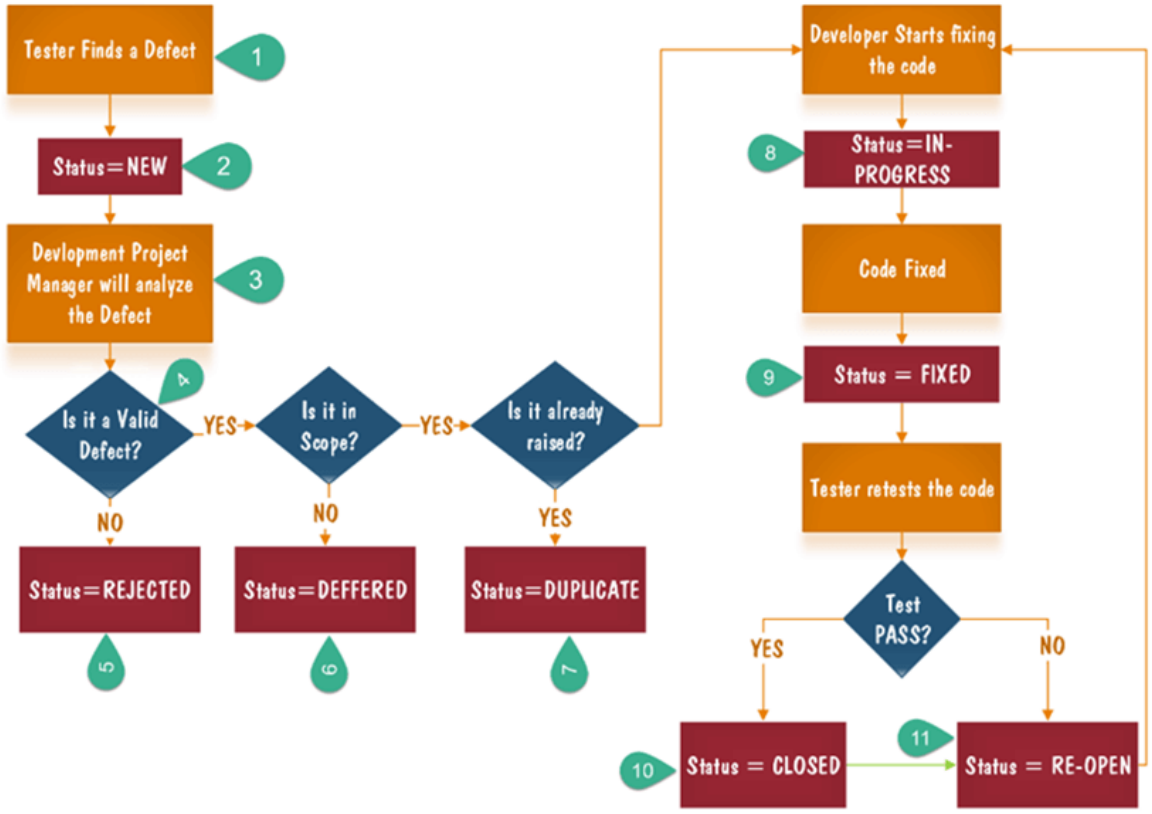
In addition, daily testing update meetings will be undertaken each morning, whereby each tester will be required to state their progress (what they did yesterday, what they intend to do today and any issues they have preventing them from progressing)

At the end of every Testing Phase, a Testing Review Board Meeting will be arranged. The Testing Review Board (TRB) is a review board working within a project environment assembled from the key stakeholders and decision makers for the Project. It is designed as a mechanism to review readiness for testing, testing status, and make formal strategic project decisions on testing and portfolio management.

The Project Team (Test Management, Project Management, Business Analysis and Development) will also attend a daily Defect Review Board Meeting. This is going to be held at the end of each day, while Test Execution is in progress. The Defect Review Board (DRB) will assess errors and issues that arise during testing. The key purpose of the DRB is to prevent the testing becoming distracted by low priority issues that take them off the critical path. The DRB will carefully assess functional, technical and data implications, as well as business impact.

11 DEFECT MANAGEMENT

The Diagram for Defect Life Cycle



11.1 DEFECT MANAGEMENT PROCESS

- For this Project, after the testing was done and a bug was found, it was given the status of "new".
- This was redirected to Project manager, who decided if it was valid.
- Due to the fact that the bug was valide, he verified if is in scope. Because it was in scope, and was not duplicated -- >
- The defect was assigned to the developer who starts fixing the code. During this stage, the defect is assigned a status in- progress.
- Once the code has been fixed, the defect was assigned with fixed.

- The retest was done, the Test Case passes and the defect was closed.

12 TEST SCHEDULE

12.1.1 Test Phase 1

The following table shows the high level testing milestones for this phase of the project.

Ref No	Stage	Project Milestone	Due date
TM101	Test Preparation Stage	Phase Test Plan document completed.	11/21/2022
TM102	Test Preparation Stage	Test analysis completed on the detailed requirements and technical documentation.	11/23/2022
TM103	Test Preparation Stage	Test Conditions/Cases/Scripts completed and signed off.	11/28/2022
TM104	Test Execution Stage	Execution of Test scripts completed.	11/30/2022

12.1.2 Test Phase 2

The following table shows the high-level testing milestones for this phase of the project.

Ref No	Stage	Project Milestone	Due date
TM201	Test Preparation Stage	Phase Test Plan document completed.	12/05/2022
TM202	Test Preparation Stage	Test analysis completed on the detailed requirements and technical documentation.	12/07/2022
TM203	Test Preparation Stage	Test Conditions/Cases/Scripts completed and signed off.	12/09/2022
TM204	Test Execution Stage	Execution of Test scripts completed.	12/12/2022

13 REFERENCED DOCUMENTS

The following table identifies the documentation used for developing this Test Plan:

#	Document	Author	Description
1	Test Plan	[Test Manager]	This document provides information regarding what specific testing will be completed on the Project.
4	Project Documentations	[Project Manager]	This provides information with regards to the Project as a whole.