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1. INTRODUCTION

Customer wants a perfect website that passes the full cycle of manual and automotive testing. Given the specificity of the site it is important to have the same quality of the site as per requirements.

The Test Plan has been created to facilitate communication within the team members. This document describes approaches and methodologies that will apply to the testing process of https://qasvus.wixsite.com/ca-marketing site. The Test Plan includes but not limited to: objectives, testing types, principles, metrics, responsibilities, entry and exit criteria, schedule. This document has clearly identified what the test deliverables will be, and what is deemed in and out of scope.

2. TEST STRATEGY

2.1. Test Objectives

The objective of the test is to verify that the functionality of https://qasvus.wixsite.com/ca-marketing works according to the specifications.

The testers will execute and verify the test scripts, identify, report and retest all high and medium severity defects per the entrance criteria, prioritize lower severity defects for future fixing.

The final product of the test is twofold:

- A production-ready software;
- A set of stable test scripts that can be reused for Functional test execution.

2.2. Test Assumptions

- Exploratory Testing would be carried out once the build is ready for testing
- All the defects would come along with snapshot JPEG format
- The Test Team assumes all necessary inputs required during Test design and execution will be supported by Development/BUSINESS ANALYSTs appropriately
- Test case design activities will be performed by QA Group
- Test environment and preparation activities will be owned by Dev Team
- Dev team will provide Defect fix plans based on the Defect meetings during each cycle to plan. The same will be informed to Test team prior to start of Defect fix cycles
- BUSINESS ANALYST will review and sign-off all Test cases prepared by Test Team prior to start of Test execution
- The defects will be tracked through Jira. Any defect fixes planned will be shared with Test Team prior to applying the fixes on the Test environment
- Project Manager/BUSINESS ANALYST will review and sign-off all test deliverables
- The project will provide test planning, test design and test execution support
- Test team will manage the testing effort with close coordination with Project PM/BUSINESS ANALYST
- Project team has the knowledge and experience necessary, or has received adequate training in the system, the project and the testing processes
- The system will be treated as a black box; if the information shows correctly online and in the reports, it will be assumed that the database is working properly

2.3. Test Principles

- Testing will be focused on meeting the business objectives, cost efficiency, and quality.
- There will be common, consistent procedures for all teams supporting testing activities.
- Testing processes will be well defined, yet flexible, with the ability to change as needed.
- Testing activities will build upon previous stages to avoid redundancy or duplication of effort.
- Testing environment and data will emulate a production environment as much as possible.
- Testing will be a repeatable, quantifiable, and measurable activity.
- Testing will be divided into distinct phases, each with clearly defined objectives and goals.
- There will be entrance and exit criteria.

2.4. Scope

2.4.1. In Scope

Functions to be tested:

- Functional testing of the first screen
- Smoke testing of modules: cart, video, online chat, subscribe form, event reservation
- Performance
- Security
- API

2.4.2. Out of Scope

Not other than mentioned above in section 2.4.1

2.5. Testing types

2.5.1. Manual Exploratory Testing

PURPOSE: The purpose of this test is to make sure critical defects are removed before the next levels of testing can start

SCOPE: First screen, cart module, online chat, event booking, video selection, subscribe form

TESTERS: Testing team

METHOD: This exploratory testing is carried out in the application without any test scripts and documentation

TIMING: At the beginning of each cycle

2.5.2. Manual Functional Testing

PURPOSE: Functional testing will be performed to check the functions of application. The functional testing is carried out by feeding the input and validates the output from the application

SCOPE: The below table details about the scope of Functional test

Module	Scenarios
First Screen	Validate all header social network icons are clickable
	Validate all social network links lead to the right pages
	Validate all header menu links lead to the right pages
	Verify the first screen text is correct
Online chat	Validate the user can send a message to "Let's chat!" widget
Video selection	Validate videos are filtered correctly
Cart	Smoke testing of cart check out
Event reservation	Smoke testing of "Event Reservation" process
Subscribe form	Validate the "Subscribe form" form submits after putting valid data

TESTERS: Testing Team

METHOD: The test will be performed according to Functional scripts

ENVIRONMENT: OS: Windows 10/64, Browsers: Chrome 100.0.4896.127, Mozilla Firefox 99.0.1, Microsoft Edge 100.0.1185.50

TIMING: after Exploratory test is completed

2.5.3. Automation Testing

PURPOSE: This test focuses on creating automation scripts based on manual test cases

TESTERS: Testing Team

SCOPE: The same as in Manual Functional Testing

TOOLS: The testing team should use PyCharm as a main IDE, Python as a main language, Selenium WebDriver as a main framework for test scripts automation, and BrowserStack to run tests in various environments

TIMING: After manual testing is done and all critical issues are resolved

2.5.4. Performance Testing

PURPOSE: This test is performed to measure the speed, responsiveness, stability of the site and also how well the page is built for optimal performance

TESTERS: Testing Team

SCOPE: https://qasvus.wixsite.com/ca-marketing

TOOLS: The testing team should use Google Lighthouse, GTMetrix, SpeedLab

BASIC METRICS: Page Load, Speed Index, FCP (first content paint), LCP (largest content paint), TBT (total blocking time), CLS (cumulative layout shift)

TIMING: After manual testing is done and all critical issues are resolved

2.5.5. Security Testing

PURPOSE: This test is performed to reveal current or potential security vulnerabilities

TESTERS: Testing Team

SCOPE: https://qasvus.wixsite.com/ca-marketing

TOOLS: The testing team should use Snyk and Mozilla Observatory

TIMING: After manual testing is done and all critical issues are resolved

2.5.6. API Testing

PURPOSE: API tests are performed to determine if the developed APIs meet the expectations when it comes to the functionality, performance, reliability and security of the website

TESTERS: Testing Team

SCOPE: https://qasvus.wixsite.com/ca-marketing

TOOLS: The testing team should use Postman API as a platform for building and using APIs and JavaScript as a language for test scripts

TIMING: After manual testing is done and all critical issues are resolved

2.6. Test Effort Estimate

Testing Type	Estimate (hours)	Start	Finish
Manual	65	04/08/2022	
Automation	50		
Performance	5		
Security	5		
API	30		04/29/2022

3. EXECUTION STRATEGY

3.1. Entry and Exit Criteria

The entry criteria refer to the desirable conditions in order to start test execution; only the migration of the code and fixes need to be assessed at the end of each cycle.

Entry conditions:

- All test hardware platforms should be successfully installed, configured, and functioning properly
- All the necessary documentation, design, and requirements information should be available that will allow testers to operate the system and judge the correct behavior
- All the standard software tools including the testing tools should be successfully installed and functioning properly
- Proper test data is available

- The test environment such as, lab, hardware, software, and system administration support should be ready
- QA resources have complete understanding of the requirements
- QA resources have sound knowledge of functionality
- Reviewed test scenarios, test cases and RTM

The exit criteria are the desirable conditions that need to be met in order proceed with the implementation.

Exit conditions:

- 100% Test Scripts executed
- 95% pass rate of Test Scripts
- No open Critical and High severity defects
- 95% of Medium severity defects have been closed
- All remaining defects are either cancelled or documented as Change Requests for a future release
- All expected and actual results are captured and documented with the test script
- All defects logged in Jira
- Test Closure Memo completed and signed off

Entry and exit criteria are flexible benchmarks. If they are not met, the test team will assess the risk, identify mitigation actions and provide a recommendation. All this is input to the project manager for a final “go-no go” decision.

3.2. Test Cycles

- There will be two cycles for functional testing. Each cycle will execute all the scripts
- The objective of the first cycle is to identify any blocking, critical defects, and most of the high defects. It is expected to use some work-around in order to get to all the scripts
- The objective of the second cycle is to identify remaining high and medium defects, remove the work-around from the first cycle, correct gaps in the scripts and obtain performance results
- Performance, Security and API tests will consist of one cycle

3.3. Validation and Defect Management

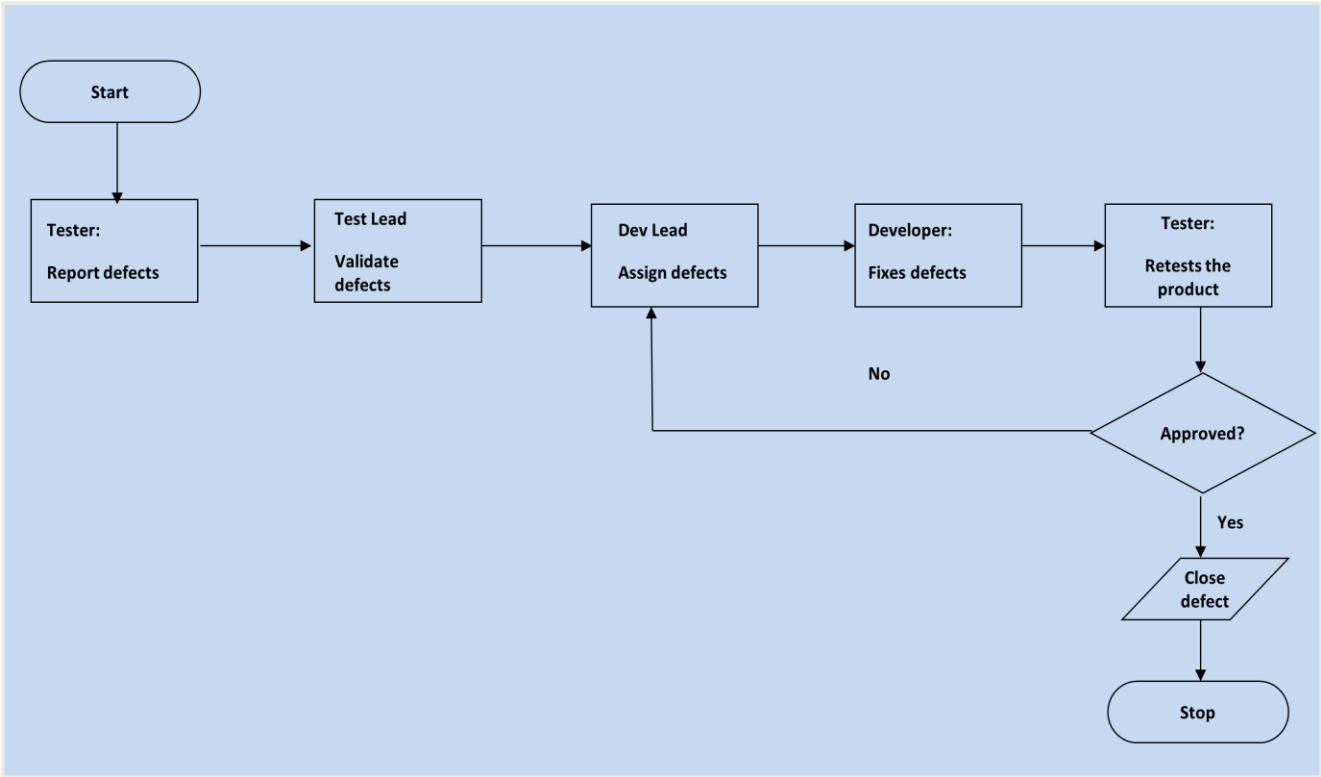
- The defects will be tracked through Jira. The technical team will gather information on a daily basis from Jira, and request additional details from the Defect Coordinator. The technical team will work on fixes.
- It is the responsibility of the tester to open the defects, link them to the corresponding scripts, assign an initial severity and status, retest and close the defects; it is the responsibility of the technical team to review Jira on a daily basis, ask for details if necessary and fix the defects.

Defects found during the Testing will be categorized according to the bug-reporting tool “Jira” and the categories are:

Severity	Impact
Highest	▪ This bug is critical enough to crash the system, cause file corruption, or cause potential data loss ▪ It causes an abnormal return to the operating system (crash or a system failure message appears) ▪ It causes the application to hang and requires re-booting the system
High	▪ Major system component unusable due to failure or incorrect functionality ▪ High severity bugs cause serious problems such as a lack of functionality, or insufficient or unclear error messages that can have a major impact to the user, prevents other areas of the app from being tested, etc ▪ High severity bugs can have a work around, but the work around is inconvenient or difficult
Medium	▪ This Bug will degrade the quality of the System. However there is an intelligent workaround for achieving the desired functionality - for example through another screen ▪ This bug prevents other areas of the product from being tested. However other areas can be independently tested
Low	▪ There is an insufficient or unclear error message, which has minimum impact on product use

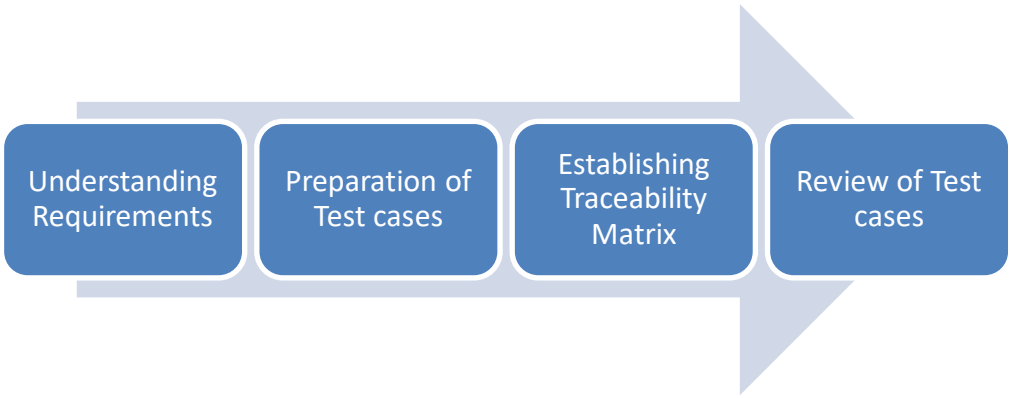
3.4. Defect tracking & Reporting

Following flowchart depicts Defect Tracking Process:



4. TEST MANAGEMENT PROCESS

4.1. Test Design Process



- The tester will understand each requirement and prepare corresponding test case to ensure all requirements are covered
- The tester will write test cases with detailed steps
- Each Test case will be mapped in Traceability matrix
- Each of the Test cases will undergo review by the BUSINESS ANALYST and the review defects are captured and shared to the Test team. The testers will rework on the review defects and finally obtain approval and sign-off

4.2. Test Execution Process

- Once all Test cases are approved and the test environment is ready for testing, tester will start an exploratory test of the application to ensure the application is stable for testing
- Testers should be provided with access to the testing environment and bug tracking tool
- If any showstopper occurs during exploratory testing it will be escalated to the respective developer for fixes
- Each tester performs step by step execution and updates the executions status. The tester enters Pass or Fail Status for each test case
- Tester will prepare a Run chart with day-wise execution details
- If any failures, defect will be raised as per severity guidelines in Jira tool detailing steps to simulate along with screenshots if appropriate
- Daily Test execution status as well as Defect status will be reported to all stakeholders
- Testing team will participate in defect triage meetings in order to ensure all test cases are executed with either pass/fail category

- During the subsequent cycle, any defects fixed applied will be tested and results will be updated in Jira during the cycle

4.3. Suspension Criteria and Resumption Requirements

Suspension criteria:

- The build contains many serious defects which seriously or limit testing progress
- Significant change in requirements suggested by client
- Software/Hardware problems
- Assigned resources are not available when needed by test team

Resumption criteria:
Resumption will only occur when the issues that caused the suspension are resolved.

4.4. Role Expectations

The following list defines in general terms the expectations related to the roles directly involved in the management, planning or execution of the test for the project.

	Roles	Name	Contact Info
1.	Project Manager		
2.	Test Lead		
3.	Business Analyst		
4.	Development Lead		
5.	Testing Team		
6.	Development Team		
7.	Technical Lead		

4.4.1. Project Management

- Project Manager: reviews the content of the Test Plan, Test Strategy and Test Estimates signs off on it.

4.4.2. Test Planning (Test Lead)

- Ensure entrance criteria are used as input before start the execution
- Develop test plan and the guidelines to create test conditions, test cases, expected results and execution scripts
- Provide guidelines on how to manage defects
- Attend status meetings in person or via the conference call line
- Communicate to the test team any changes that need to be made to the test deliverables or application and when they will be completed
- Provide on premise or telecommute support

- Provide functional (Business Analysts) and technical team to test team personnel (if needed)

4.4.3. Test Team

- Develop test conditions, test cases, expected results, and execution scripts
- Perform execution and validation
- Identify, document and prioritize defects according to the guidance provided by the Test lead
- Re-test after software modifications have been made according to the schedule
- Prepare testing metrics and provide regular status

4.4.4. Test Lead

- Acknowledge the completion of a section within a cycle
- Give the OK to start next level of testing
- Facilitate defect communications between testing team and technical / development team

4.4.5. Development Team

- Review testing deliverables (test plan, cases, scripts, expected results, etc.) and provide timely feedback
- Assist in the validation of results (if requested)
- Support the development and testing processes being used to support the project
- Certify correct components have been delivered to the test environment at the points specified in the testing schedule
- Keep project team and leadership informed of potential software delivery date slips based on the current schedule
- Define processes/tools to facilitate the initial and ongoing migration of components.
- Conduct first line investigation into execution discrepancies and assist test executors in creation of accurate defects
- Implement fixes to defects according to schedule

5. TEST ENVIRONMENT

Environment x Support level 1 (browsers):

- Windows 10 : Edge, Chrome (latest), Firefox (latest), Safari (latest)
- Mac OS : Chrome (latest), Firefox (latest), Safari (latest)
- Android: Chrome (latest), Firefox (latest)

6. APPROVALS

The Names and Titles of all persons who must approve this plan.

Signature:	
Name:	
Role:	
Date:	

Signature:	
Name:	
Role:	
Date:	