Test Plan

Music Match

19/05/2022

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Version: 1.0

Created: 19/05/2022

Last Updated: 20/05/2022

Status: DRAFT

Revision and Sign-off Sheet

Document History-

Version	Date	Author	Description of Change
1	19/05/2022	Samara Diaz Hirashi	Draft

Approvers List-

Name	Role	Approver/Reviewer	Approval/Review Date

Reference Documents-

Version	Date	Document Name
1.0	19/05/2022	QA_InterviewExercise

1. Introduction

1.1 Purpose

This test plan describes the testing approach and overall framework that will drive
the testing of the Music Match 1.1 site and API. The document introduces:
- **Test Strategy:** rules the test will be based on, including the givens of the project (e.g.: start / end dates, objectives, assumptions); description of the process to set up a valid test (e.g.: entry/exit criteria, creation of test cases, specific tasks to perform, scheduling, data strategy).
- **Execution Strategy:** Describes how the test will be performed and process to identify and report defects, and to fix and implement fixes.
- **Test Management:** Process to handle the logistics of the test and all the events that come up during execution (e.g.: Communications, escalation procedures, risk and mitigation, team roster)

1.2 Project Overview

Music match is a powerful tool providing data, tools and services that allow the experience of music to be enriched across the whole world. The functionality of this tool spans through the internet, making information available anywhere, anytime. All information from the API is subject to the company's defined security policy, where he/she can only view the information with an authorized key. On the other hand, the contents of the website can be accessed by anyone and verified users are encouraged to contribute to the community.

1.3 Audience

- Project team members perform tasks specified in this document, and provide input and recommendations about this document.
- Project Manager plans for the testing activities in the overall project schedule, reviews the document, tracks the performance of the test according to the specified task, approved the document and is accountable for the results.
- Technical Team ensures that the test plan and deliverables are in line with the design, provides the environment for testing and follows the procedures related to the fixes of defects.

2. Test Strategy

2.1. Test Objectives

The objective of the test is to verify that the functionality of the Music Match website and API works according to the specifications.

The test will verify the following aspects of MusixMatch.

Website:

- Registration: Check that there's a register button on the main page so that the user can register if they don't already have an account.
- Login page: Check that the user is able to log in and access their profile.
- Music share: Check that the user has the option to like songs and have this information only seen by friends.
- Delete account: Check that the user is able to delete the account and personal records from the site.
- Check that the interface of the website such as UI is working as expected.
- Verify the usability of the website.

API:

Check that the Music Match API is working as expected without any error while retrieving information.

- Get the from the top 10 artists in Mexico.
- Get the artist information of the top 3 in Mexico
- Get the albums of the last 5 artists from the top 10

2.2. Test Assumptions

General

- The system will be treated as a black box, if the information shows correctly online and in the reports, it will be assumed that it's working properly.
- Unit testing, API testing and integration testing will be considered for this estimation.
- The test team will perform integration testing only on the artist section of the Music Match API.

2.3. Test Principles

- Testing will be focused on meeting the business objectives, cost efficiency, and quality.
- Testing processes will be well defined, yet flexible, with the ability to change as needed.
- Testing environment and data will emulate a production environment as much as possible.
- Testing will be divided into distinct phases, each with clearly defined objectives and goals.
- There will be entrance and exit criteria.

2.4. Data Approach

- During testing for the website, the tester will provide the data used for the testing activities.
- In integration features testing, the Music Match API will contain pre-loaded data which will be used for the testing activities.

2.5. Scope and Levels of Testing

Functional Test

Purpose: Functional testing will be performed to check the functionality of the application. Testing is carried out by feeding the input and validating the output from the application.

2.5.2. Features to be tested

Website

Module Name	Applicable Roles	Description
Registration	User	A user sees a register button on the main page and is be able to register if he/she doesn't have an account created.
Login Page	User	A user is be able to log into their account and access their profile.
Music share	User	A user has the option to like songs and this information will only be seen by friends.
Delete account	User	A user is be able to delete their account and delete their records from the site.

API

Module Name	Applicable Roles	Description
GET Artist	Authorized User	An authorized user is able to get the top 10 artists in Mexico.
GET Artist	Authorized User	An authorized user is able to get the artist information of the top 3 in Mexico.
GET Artist/Album	Authorized User	An authorized user is able to get the albums of the last 5 artists from the top 10.

2.5.3. Features not to be tested

These features are not to be tested because they are not included in the software requirement specs.

• Website Security and Performance

• Database structure

• Hardware Interfaces

2.6. Test Type

• In the testing for the website and API Music Match, 3 types of testing should be conducted.

• **Unit testing:** Small pieces of verifiable software in the application.

• **API Testing:** Tests the API created for the application.

• **Integration Test:** Individual software modules are combined and tested as a group.

2.7. Test Risks and Mitigation Factors

Risk	Probability	Impact	Mitigation Plan
Schedule Testing schedule is tight. If the start of the testing is delayed, it cannot be extended beyond the deadline.	High	High	The testing team can control the preparation tasks to start as soon as possible.
Defects Defects are found at a late stage of the cycle, defects discovered late are most likely to be time consuming to resolve.	Medium	High	Defect management plan is in place to ensure prompt communication and fixing of issues.

Risk	Probability	Impact	Mitigation Plan
Budget Wrong budget estimate and cost overruns.	Medium	High	Establish the scope before beginning to test.
Natural disasters	Low	Medium	Teams and responsibilities are spread between different geographic areas. In a catastrophic event in one of the areas, there will be team members available in the other areas to continue the testing activities.

2.8. 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 Information
1	Project Manager	Oscar Aguilar	oscar.aguilar@enroutesystems.com
2	Test Lead	Samara Diaz Hirashi	ligia.diaz@enroutesystems.com
3	Testing Team	Samara Diaz Hirashi	ligia.diaz@enroutesystems.com

2.8.1. Project Management
• Project Manager: Reviews the content of the test plan, test strategy and test estimates and signs off on it.

2.8.2. Test Planning (Test Lead)
• Develops a test plan and the guidelines to create test conditions, test cases, expected results and execution scripts.
• Provides guidelines on how to manage defects.
• Communicates to the test team any changes that need to be made.

2.8.3. Test Team
• Develops test conditions, test cases, expected results and execution scripts.
• Performs execution and validation.
• Identifies, documents and prioritizes defects according to the guidance provided by the test lead.

3. Test Logistics

The tester will start the test execution when all the following inputs are ready:

• Website is available for testing

• API is available for testing

• Test Specification is created

• Test environment is built

4. Test Criteria

4.1. Suspension Criteria

• If the team members report that there are 40% of test cases failed, testing will be suspended until the development team fixes the failed cases.

4.2. Entry Criteria

• The test environment, test tools and test data are available and ready to use.

4.3. Exit Criteria

• Specifies the criteria that denotes a successful completion of a test phase.

• Run rate is mandatory to be 100% unless a clear reason is given.

• Pass rate is 80%, achieving the pass rate is mandatory.

5. Resource Planning

5.1. System Resources

No.	Resources	Description
1	Network	A stable internet line with the speed at at least 5 Mb/s.
2	Computer	At least 1 computer running macOs Catalina or higher.

No.	Resources	Description
3	Test tool	The application Postman version 7 or higher installed for API testing, the Selenium extension version 4 or higher installed to generate an automated test execution.

6. Test Environment

- Music Match servers will be hosted at the company's site. (https://www.musixmatch.com)
- Music Match's API will be hosted at the company's site. (https://api.musixmatch.com/ws/1.1/)
- A macOS environment with at least Firefox version 100.0.1. should be available to each tester.

7. Schedule and Estimation

7.1. Project tasks and estimation

Task	Members	Estimate Effort
Create the test specification	Test Designer	7 hours
Perform test Execution	Tester	1.5 hours
Test Report	Tester	1 hour
Test Delivery	Tester	2 hours
Total		**11.5 hours**

7.2. Schedule to complete these tasks

Task Name	Start Date	End Date
Test Specification	19/05/2022	20/05/2022
Test Execution	19/05/2022	20/05/2022
Test Report	19/05/2022	20/05/2022
Test Delivery	19/05/2022	20/05/2022

8. Test Deliverables

Test deliverables are provided as below

8.1. Before testing phase

- Test plan document
- Test cases document
- Test specifications.

8.2. During the testing

- Test tool
- Simulators
- Test Data

8.3. After the testing

- Test result / reports
- Defect report
- Test procedure guidelines

9. Approvals

The names and titles of people who must approve this plan.

Signature:	
Name:	
Role:	
Date:	