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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://open.spotify.com 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://open.spotify.com works according to the specifications.

The testers will execute and verify the test scripts, identify, report and retest all high and medium severitydefects 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 besupported 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. Thesame 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 Testexecution
- The defects will be tracked through Jira. Any defect fixes planned will be shared with Test Team priorto 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 thesystem, 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 main page
- Smoke testing of modules: “Main page”, “Sign Up”, “Log In”, “Playlist”
- 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 nextlevels of testing can start

SCOPE: “Main page”, “Sign Up”, “Log In”, “Search”, “Playlists”

TESTERS: Testing team

METHOD: This exploratory testing is carried out in the application without any test scripts anddocumentation
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. Thefunctional 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
Main page	The site must be accessible at the following URL: https://open.spotify.com/
	Verify that the modules in menu are clickable ("Home", "Search", "Sign up", "Log In") and when clicked go to the correct page
Sign Up	Verify that the user can sign up into the site using mail and password
	Verify that the modules "Sign up" has correct link of social media "Sign up with Facebook" and "Sign up with Google"
Log In	Verify that the user can log into the site using an existing mail and password
Main page with user's login	Verify that the modules in menu are clickable ("Home", "Search", "Your Library", "Create Playlist", "Liked Songs", "Upgrade", "Account"
Search	Verify that the user can find a specific query (artist, song, playlist)
Your Library	Verify that the user can add in "Your Library" (artist, song, playlist)
Playlists	Check that the user can create new "Playlist"
	Check that the user can change name of "Playlist"
	Check that the user can add one or more items to a user's playlist
	Check that the user can remove one or more items from a user's playlist.
	Check that the user can follow an existing playlist
	Check that the user can unfollow an existing playlist

TESTERS: Testing Team

METHOD: The test will be performed according to Functional scripts

ENVIRONMENT: OS: Windows 11/64, Browsers: Chrome 106.0.5249.103, Mozilla Firefox 105.0.2 , Microsoft Edge 106.0.1370.34

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, SeleniumWebDriver 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 andalso how well the page is built for optimal performance

TESTERS: Testing Team

SCOPE: https://open.spotify.com

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://open.spotify.com

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

expectationswhen it comes to the functionality, performance, reliability and security of the website

TESTERS: Testing Team

SCOPE: https://open.spotify.com

TOOLS: The testing team should use Postman API as a platform for building and using APIs andJavaScript 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			
Automation			
Performance			
Security			
API			

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 ofthe 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 willallow testers to operate the system and judge the correct behavior
- All the standard software tools including the testing tools should be successfully installed andfunctioning properly
- Proper test data is available

- The test environment such as, lab, hardware, software, and system administration support should beready
- 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 highdefects. 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 thework-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 onfixes.
- 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, orcause potential data loss ▪ It causes an abnormal return to the operating system (crash or asystem failure message appears) ▪ It causes the application to hang and requires re-booting the system
High	▪ Major system component unusable due to failure or incorrectfunctionality ▪ High severity bugs cause serious problems such as a lack of functionality, or insufficient or unclear error messages that can have amajor 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 isinconvenient or difficult
Medium	▪ This Bug will degrade the quality of the System. However there is anintelligent 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 minimumimpact on product use

4. TEST ENVIRONMENT

Environment x Support level 1 (browsers):

- Windows 11 : Edge, Chrome (latest), Firefox (latest), Safari (latest)
- Mac OS : Safari (latest)

5. APPROVALS

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

Signature:	
Name:	
Role:	
Date:	

Signature:	
Name:	
Role:	
Date:	