



Testing Executive Report

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Introduction

This report presents the results of the overall testing and retesting process, performed on the validation of data and functionalities of user registration, Category Management, the database and payment form of the eMercado website.

This testing period was carried out from 10/16/2023 to 11/12/2023. The objective of the tests was to evaluate the quality of these essential functions within the system and its database, after the relevant updates and modifications applied on the site in question.

Scope

The entire testing process conducted on the system encompassed a wide variety of approaches and techniques, including:

Specification Based Testing: Extensive testing was performed following the system specifications to verify that all functions behaved as intended.

Exploratory Testing: Testers explored the application to identify potential problems and undocumented scenarios. This helped uncover areas for improvement and address unexpected situations.

Positive Focus Testing: The Item Listing and Category Listing functions were verified to work correctly under normal conditions, validating that users could perform the actions associated with these functionalities without any problems.

Negative Focus Testing: The application was subjected to negative test scenarios to ensure that the system responds appropriately to unusual requests or requests that should not be considered correct.

Testing Based on Equivalence Partitions and Boundary Values: Extensive testing was performed using equivalence partitions and boundary values to verify that all functions behave as expected.

API Testing: Test cases were generated for the site API, but could not be carried out because the API itself is not activated.

Regression Testing: Regression tests were performed to ensure that new updates or modifications made to the system have not introduced new errors.

General Conclusions

Software Quality:

As for the quality of the site in terms of reliability and stability, it lacks several aspects to improve. Regression tests performed in each iteration confirmed that some implementations introduced problems in some existing areas.

Functionality:

The key functions of the system, including Payment Form, User Registration and database have been extensively tested and it has been determined that there are a wide variety of errors within them. Throughout the project and thanks to the updates that have been made to the system, some of the issues that were present in the first version of the system have been resolved, but a variety of new issues have arisen, including issues that completely block essential functionalities within the system, leaving the system in a worse state than it was in the first instance.

Security:

The system initially presented security problems due to the lack of good data validation on the site, some of which were addressed in the implementation of the second version, failing and blocking some other functions such as the credit card payment method.

On the other hand, the site's Database in the first instance presented some errors that compromised the security of users in the system.

The team must continue to implement additional security measures to further strengthen and improve the software.

Performance:

The performance tests were blocked because the system does not have an API, so it was almost impossible to perform load tests on the system. In spite of this, after a normal navigation within the system, it can be mentioned that the system, in general measures, maintains acceptable response times. The system was tested in different browsers obtaining similar response times, therefore it can be concluded that it works properly regardless of the type of browser.

Key Results

1. Percentage of Test Coverage: The team achieved 100% test coverage, covering functional, security, performance and regression testing.
2. Number of Bugs Fixed: [6] bugs were identified during the testing process, and none have been successfully fixed so far.
3. Response Time Statistics: The average response time is impossible to calculate due to the lack of system API.
4. Security Evolution: During the course of the project, the number of critical vulnerabilities increased by 100%

Additional Findings

Exploratory testing was used to cover these additional findings. During the testing process of the site, errors were identified in some of the fields that are requested within certain sections such as user registration, payment method. Which do not perform the action for which they were designed. For example, the last name field appears as mandatory and you can register without filling this field. On the other hand, in the retesting process, errors were identified that are within the classification of functionality and errors related to the data that can be entered in certain fields, highlighting that the system allows you to enter characters in fields where this does not correspond as in the form of payment.

Recommendations

Based on the test results, the following recommendations are made:

- Solve the problems presented within the tested functionalities.
- Solve the problems regarding the retested functionalities, with the main emphasis on solving the problem related to payment methods, since the credit card payment option was blocked in version 2.
- Solve the problems presented in the data validation.
- Revise the point mentioned regarding the Database that refers to the new restriction added to the E-MAIL field.
- Pay attention to those recommendations regarding the database that arise during the database re-testing process.
- Solve and continue to monitor the database, talking about how it stores its data and how it is organized and/or defined.
- Maintain continuous tracking of bug reports and user issues to quickly address any emerging problems.



Improvement hackathon

- Implementing a return or warranty process to improve customer confidence
- Implement a more varied payment process to adapt to customer preferences, such as Mercado Pago, PayPal, etc.
- Prioritize the security of payment methods to protect customer information and credit and debit card data.
- Implement password recovery function(There is no existing one)

Evidence Annex

Versión 1

- [Casos de Prueba.](#)
- [Particiones de Equivalencia.](#)
- [Reportes de incidencia](#)
- [Evidencia de fallos detectados por caso de uso.](#)
- [Casos de prueba para las Particiones de Equivalencia](#)
- [Recopilado de Base de Datos](#)
- [Capturas de incidencia](#)

Versión 2

- [CASOS DE PRUEBA ETAPA 3](#)
- [Particiones de equivalencia Retesting](#)
- [Reportes de Incidencia en Mantis](#)
- [Hackaton de mejoras](#)
- [Base de datos ETAPA 3](#)

Acknowledgements

We would like to express our gratitude to all the members of the development and testing team and to all the parties involved in the project. The collaboration and joint effort have been fundamental for the success of the project.

Conclusions

Overall, the entire testing and retesting process carried out on the user registration, Category Management, database and payment functionality of the eMercado site, shows that there is still a lot of work to be done regarding the aforementioned functionalities. Therefore, there is an urgent need to address these issues to ensure the integrity, security and functionality of the site. Specific actions are suggested, such as security audits, correction of registration and login issues. Continue to work on the implementation of security measures and ongoing monitoring. Collaboration with a competent development and security team is essential to achieve an effective solution and maintain user confidence.

This report summarizes the key results of the testing and retesting process of various functionalities within the eMercado site. If you have any questions or need additional information, feel free to contact me.

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