Ceibal

Testing Executive Report

Group 5
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Executive Summary

This report summarizes the conclusions and results of the testing process carried out throughout the eMercado project. The main objective of the testing was to evaluate the quality, functionality, security and performance as general aspects of the system. Throughout the various phases of the project, the testing team has worked diligently to identify and address any issues that could impact the integrity and usability of the system.

General conclusions

Software Quality

The software has demonstrated average quality in terms of stability and reliability. Regression testing performed on each iteration confirmed that the new implementations and fixes made, introduced new problems into existing areas of the system.

Functionality

The key functions of the system, including Complete Item Information, Item Listing, Category Listing, Sales Process, Purchase Process, Shipping Method, Payment Method, User Profile, User Registration, have been thoroughly tested and It has been determined that there is a wide variety of errors within them. Throughout the project and thanks to the updates that were made to the system, some of the incidents that occurred in the first version of the system have been resolved, but at the same time a wide variety of new incidents have been presented, including incidents that completely block essential functionalities within the system, leaving said system in a worse state than it was in the first instance.

Security

The system initially presented security problems due to not having good data validation on the site, some of which were treated in the implementation of the second version, failing and blocking some other function such as payment method by credit card.
On the other hand, the site's Database initially 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.

<u>Performance</u>

Performance tests were blocked because the system does not have an API, therefore it became almost impossible to perform load tests on the system. Despite this, after normal navigation within the system, it can be mentioned that it, in general measures, maintains acceptable response times. It was tested in different browsers, obtaining response times similar to each other, therefore it can be concluded that it works adequately regardless of the type of browser.

Key Results

1. Test Coverage Percentage: The team achieved 100% test coverage, covering functional, security, performance, and regression testing.

2. Number of Errors Corrected: A total of 31 errors were identified during the testing process and 24 during the retesting process, of which, as a whole, only a few have been corrected.

3. Response Time Statistics: The average response time becomes 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%.

Concluding Observations and Recommendations:

During the course of the project, various situations and challenges were observed and addressed. Some final observations and recommendations include:

- **Interdepartmental Collaboration:** Effective communication between the development and testing teams was essential to the success of the project. It is recommended to maintain this collaboration in future projects.

- **Documentation:** Detailed documentation of test cases and testing processes facilitated quick identification and resolution of issues. It is suggested to maintain and improve the documentation for future projects.

- **Usability Testing:** Although the main focus was functionality and security, it is suggested to include more detailed usability tests in future projects to ensure an even more refined user experience.

- **Improvements Hackathon:**

- Put an indicator on it "And much more!" with the purpose that users can know that it is a button and that it redirects you to the other categories.

- Do not show those categories that have 0 articles.

- Require that the profile photo requires an image that meets certain dimensions so that it fits correctly into the profile image box.

- Allow clicking on the profile image to change it.

- Remove the "Back to Top" button from places where it has no function due to the layout of the content, such as in the profile section.

- Adjust the location of "This site is part of Young People to Program – 2023" in the profile. It's very high up.

- Indicate those fields that are mandatory with a distinctive plus sign or increase the size of the existing one, since it is hardly noticeable.

- Implement the shopping cart so that users can buy products more easily and without much effort

- Implement 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.

- Work on optimizing the site for mobile devices, since it is not responsive and today many people use their mobile devices to make purchases.

- Implement password recovery function (there is not one)

- Implement integration with social networks to make it easier for customers to share products and access their site, creating greater dissemination.

- Implement the available quantity field specified in the ESRE to avoid customer disappointment when viewing inaccurate information about product availability.

- The cellular field could be implemented on the website and the use of a digital key on the site could be implemented to improve user security on the site.

Evidences

Version 1

- Test Cases
- Equivalence Partitions
- Issues Reports
- Evidence of faults detected by use cases
- Test Cases for Equivalence Partitions
- Collected from DDBB
- Regression tests
- Tests Cases for API
- Issues ScreenShots

Version 2

- Tests Cases
- Equivalence Partitions
- Issues Reports
- DDBB Report
- Improvements Hackathon
- Tests Cases for Equivalence Partitions
- Issues Reports with MantisBT

Acknowledgments

We want to express our gratitude to all members of the development and testing team and all parties involved in the project. Collaboration, communication and joint effort have been fundamental to the success of the same.

Final Conclusion

The final testing project has been successfully completed, and the resulting software has gone through a rigorous testing process. The website has several critical deficiencies, such as lack of data validation, lack of a functional shopping cart, security issues, a faulty payment system, the site being responsive, and correctly managing the order of items to be purchased. provision. It is recommended to implement robust security measures, improve the user experience with an efficient shopping cart, correct data validation issues, and ensure a reliable payment system. Additionally, it is crucial to keep the site up to date, perform testing, continuous monitoring, and provide customer support that works effectively. Attention to these aspects will contribute to functionality, security and general user satisfaction.
Regarding the website database, the restrictions corresponding to each sector of the page were tested, all working correctly and adding suggestions for its improvement.

We trust that the product will be delivered in its final version taking into account the improvements suggested by the team to establish its proper functioning. We are available for any additional questions or future collaboration.

Sincerely,

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