Final Executive Report of Testing

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Executive summary

The purpose of this report is to present the results and conclusions of the work carried out by the team at the different stages of the project.
The main task was to analyze the eMercado page, evaluate the quality of the system, thinking about improvements that help to provide the end user with an optimal experience while using the product.
Throughout the different stages of the project, the testing team has worked diligently to identify and address any possible issue that could affect the integrity and usability of the system.

General Conclusions

Software Quality

The software has demonstrated a low quality in general terms. Regression tests carried out in each iteration confirmed that the new implementations have introduced new problems in the previous existent areas.

Functionality

The key functions of the system, including User Registration, User Authentication, User Management, Shopping Cart and Item Purchases, Search and Display of Items, and User Profile have been thoroughly tested and have not been working in the way that is required in the documentation. Just very few incidents have been corrected.

Security

Critical failures and major vulnerabilities have been found based on security tests, where we consider that key security features are still missing.
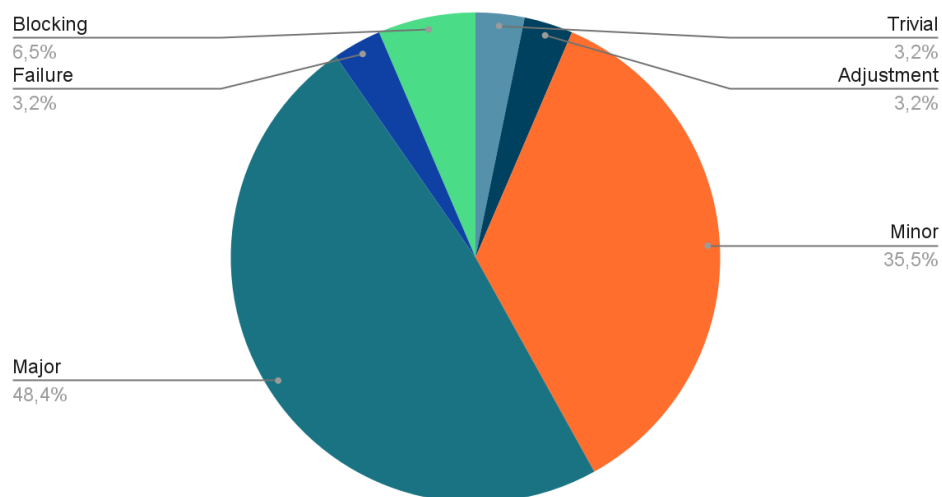
Database

Regarding the presented databases, we consider that some changes could be made in terms of data relationships, unnecessary fields, and other fields that should be added for better functioning. An improvement in the development of the database would provide a high-security level and would preserve the integrity of the data.
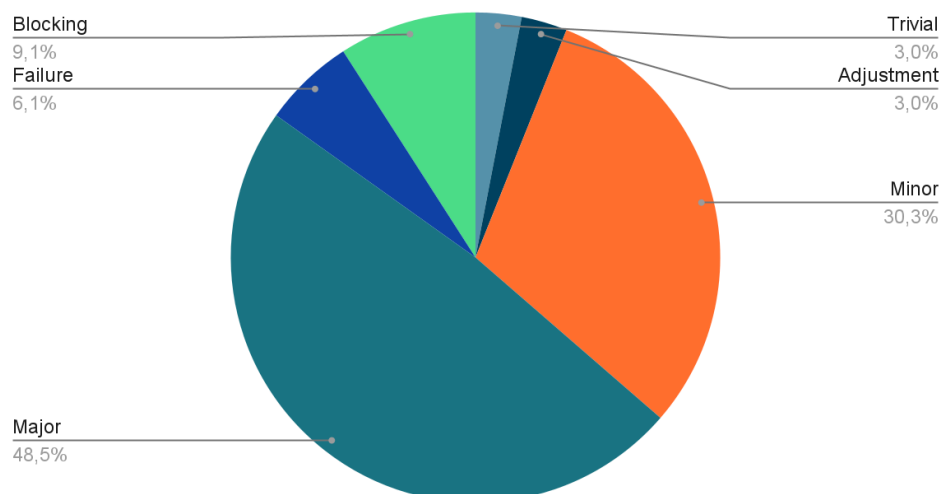
Key Results

1. **Test Coverage Percentage**: The team achieved 92.8% test coverage, covering functional and security tests, as well as confirmation and regression tests.
2. **Fixed Bugs**: We have identified 28 bugs during the process of testing, where only 3 of them were corrected and satisfactorily verified. This caused a regression in the system, where 5 errors appeared in some key areas.
3. **Security Evolution**: The number of critical vulnerabilities has not been reduced since the beginning of the project.
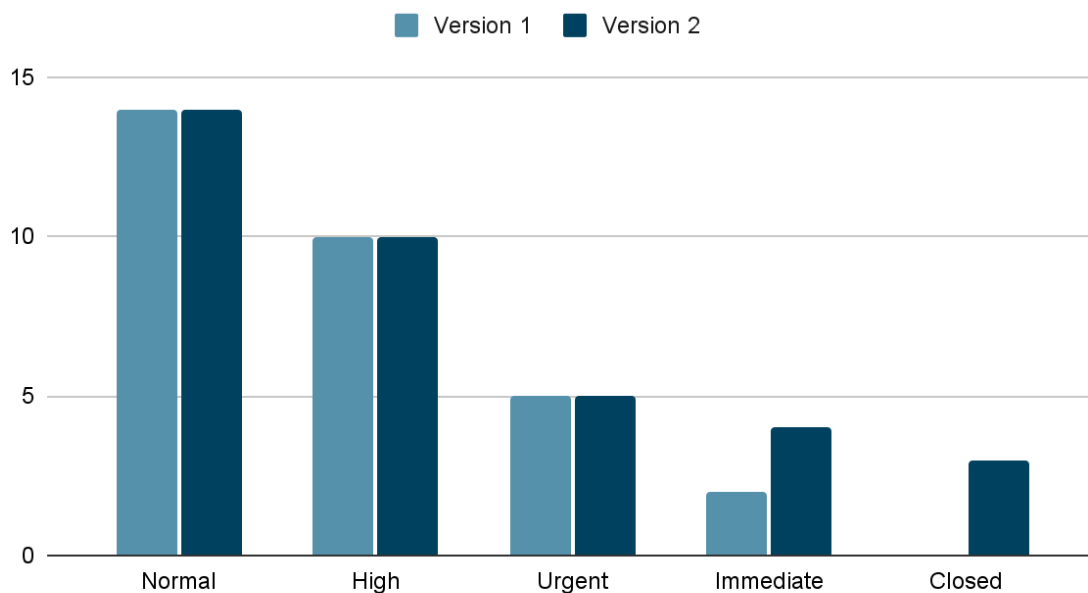
Data and Metrics

Severity incidents Version 1

Label	Percentage
Blocking	6,5%
Failure	3,2%
Trivial	3,2%
Adjustment	3,2%
Minor	35,5%
Major	48,4%

Severity incidents Version 2

Label	Percentage
Blocking	9,1%
Failure	6,1%
Trivial	3,0%
Adjustment	3,0%
Minor	30,3%
Major	48,5%

Incidents priority / Closed incidents in each version

Final Observations and Recommendations

During the course of the project, some situations and challenges were observed. Some of them include:

- **Interdepartmental collaboration:** Effective communication between the development and testing team is essential for the success of the project. No communication was established between these teams, so we hardly recommend to applying this collaboration in future projects.
- **Documentation:** The documentation given about the system and its functionalities (specifications of requirements) contains ambiguities and a lack of data, which is related to the lack of communication. The detailed documentation of test cases and testing processes facilitated the identification and quick resolution of problems. It is suggested to keep and improve the documentation in future projects.
- **Usability testing:** Although the main focus was functionality and security, it is suggested to include detailed usability tests in future projects to guarantee a successful user experience.
- **Setting priorities:** Throughout the project, it has been considered that the modifications made to the system were not part of the priority incidents when it

comes to providing a better user experience. It is urged to make arrangements and modifications based on the priority of incidents presented by the group.

Acknowledgments

We want to express our gratitude to all the members of the testing team and to all the parties that have been involved in the project. The collaboration and the effort have been fundamental to the successful course of the project.

Final Conclusion

The eMercado project has not been successfully concluded, and the final software result has undergone a severe testing process. We conclude that the delivered product does NOT comply with the quality and safety standards.

The results of the tests done at the different stages of the project evidenced that the system must improve, as it contains flaws that cause the user's trajectory can not be carried out satisfactorily. It is recommended, in the first place, to prioritize the functionalities and other aspects of the system that allow the user to use the product the way it was intended.

Sincerely,
Bugbusters.