TEST REPORT

on

www.monamiagro.ro webpage

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Contents

Product descriptions:

Monamiagro.ro is a web application which gathers phytosanitary products, fertilizers, seeds, equipment for solariums and irrigation systems.

It is a Romanian e-commerce website with national distribution, specialized in the trade of pesticides, fertilizers and seeds, tools and equipment for green spaces and gardening, foil for solariums, sprinkled pumps.

The website can be accessed via https://www.monamiagro.ro/

Objective

The main objective of this testing session was to validate that the website can meet customer expectations and can be used properly, efficiently and safe by customers in order to purchase the products they desire. With this scope, main functionalities such as user account, registration, product pages, shopping cart, checkout, payment process were tested

using different testing types.

Testing Period

The website was tested between 1.11.2023 – 22.11.2023

Testing Environment

The testing process was performed in an environment that replicated the end-user environment, including the use of same devices and internet connection. The testing process was conducted on the latest version of the website, using mainly Google Chrome browser, under Windows 10 operating system.

The testing session was performed on:

Device: Laptop-PR34E5N ASUS R501VB-S3116D
Operating System: Windows 10 Enterprise 22H2
Web Browsers: Google Chrome Version 119.0.6045.124
            Mozilla Firefox Version 120.0.0.8720
            Microsoft Edge Version 119.0.2151.72

Device: Mobile HUAWEI nova 5T, Android 12, Google Chrome V118.0.5993.111

Device: Mobile HUAWEI nova 9 SE, Android 13, Petal search V13.0.3.301

Features / Functionalities Tested

Features/Functionalities tested	
Inregistrare	Catalog produse
Autentificare	Cos
Logout	Contact
Ai uitat parola	Ajutor
Contul meu	Finalizare comanda
Cautare	

Table 1. Total functionalities tested

Testing tools used for testing

- TestLink

- Mantis Bug Tracker
- Windows snipping tool / Screenpresso
- Microsoft 365 (Office)
- Fake Filler Chrome extension

Testing types used

- Exploratory Testing
- Smoke Testing
- Functional Testing/ Non-Functional Testing
- Black Box Testing
- Positive / Negative Testing
- Dynamic Testing
- Usability Testing
- Compatibility Testing
- Security Testing
- UI Testing

The test executed can be included into **Functional** and **Non-Functional** types of testing. A number of **73 test cases are checking the functionalities** of the software system; the remaining **7 test cases** are testing the **non-functional** aspects: compatibility, usability, security.

The repartition of the functional and nonfunctional test, based on the number of test cases are shown in table 2 and represented in figure 1.

Testing types	Number of test case	Percent %
Functional	73	91 %
Non-Functional	7	9 %
Total	80	100 %

Table 2. The number of test cases divided into functional and non-functional test types
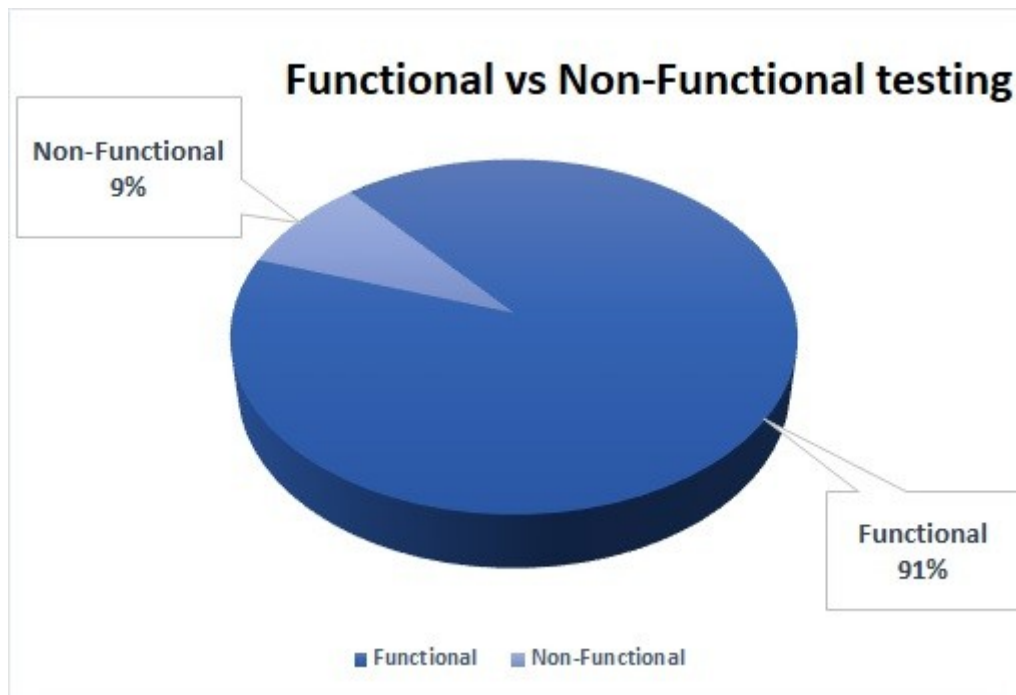(Smoke tests not included)

Figure 1: The repartition of the functional and non-functional tests

The repartition of tests divided into positive and negative tests is represented in Table 3 and Figure 2

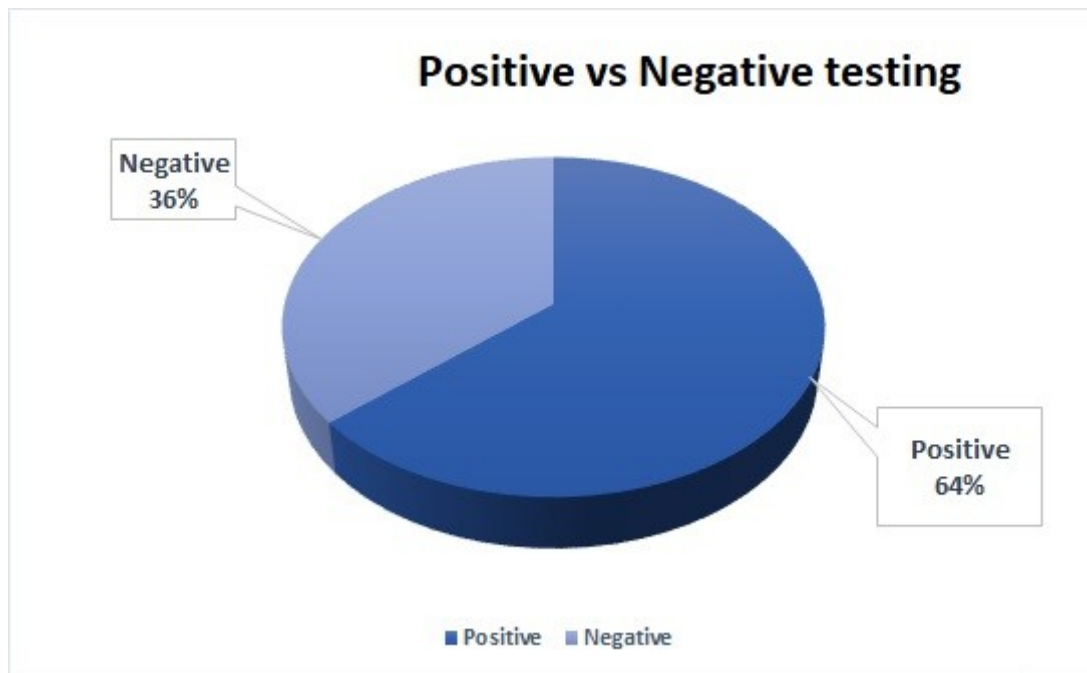| Testing types	Number of test case	Percent %
Positive	51	64 %
Negative	29	36 %
Total tests	80	100 %

Table 3. The repartition of positive and negative tests

Figure 2. The repartition of positive and negative tests

The **non-functional** test cases include **compatibility, security** and **usability** test cases. The number of functional and non-functional test cases is presented in Table 4.

Testing types	Number of test cases	Percent %
Functional	73	91 %
Compatibility	2	2.5 %
Security	1	1.5 %
Usability	4	5%
Total	80	100 %

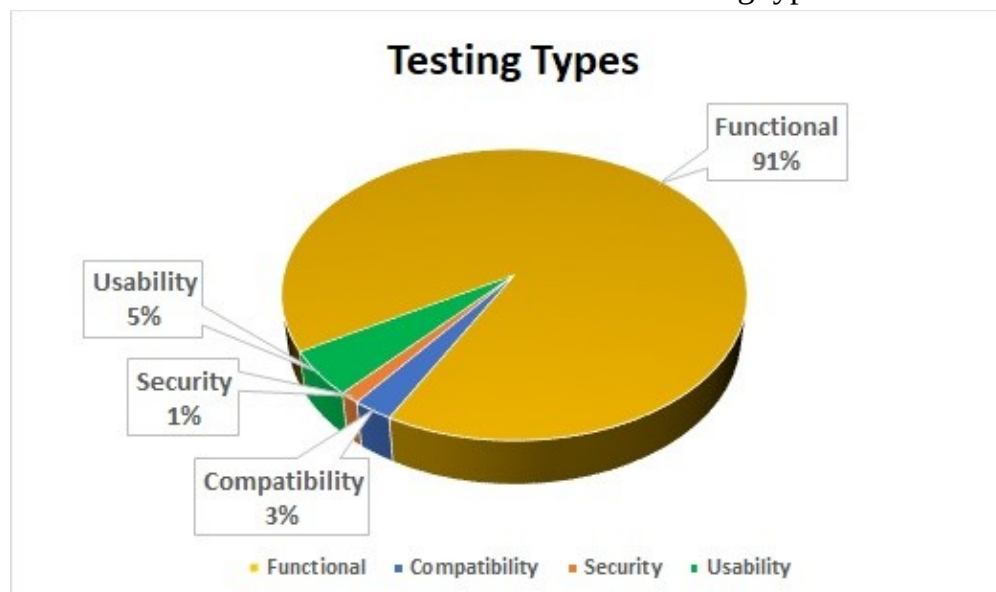Table 4: Functional and non-functional testing types

Figure 3: Testing Types

Smoke test

Smoke tests were an important part of the testing process, providing a quick and effective way to ensure the basic functionalities of the application are working as intended.

Smoke suite includes **8** test cases which were executed, representing **10 %** of the total number of test cases and having a **pass rate of 100 %.** The major functionalities tested and the numbers of test cases are presented in Table 5.

Functionality	Number of test case	Percent %
Inregistrare	1	11 %
Autentificare	1	11 %
Contul meu	1	11 %
Catalog produse	1	11 %
Cos	3	45 %
Finalizare comanda	1	11 %

Table 5: The major functionalities tested in Smoke test

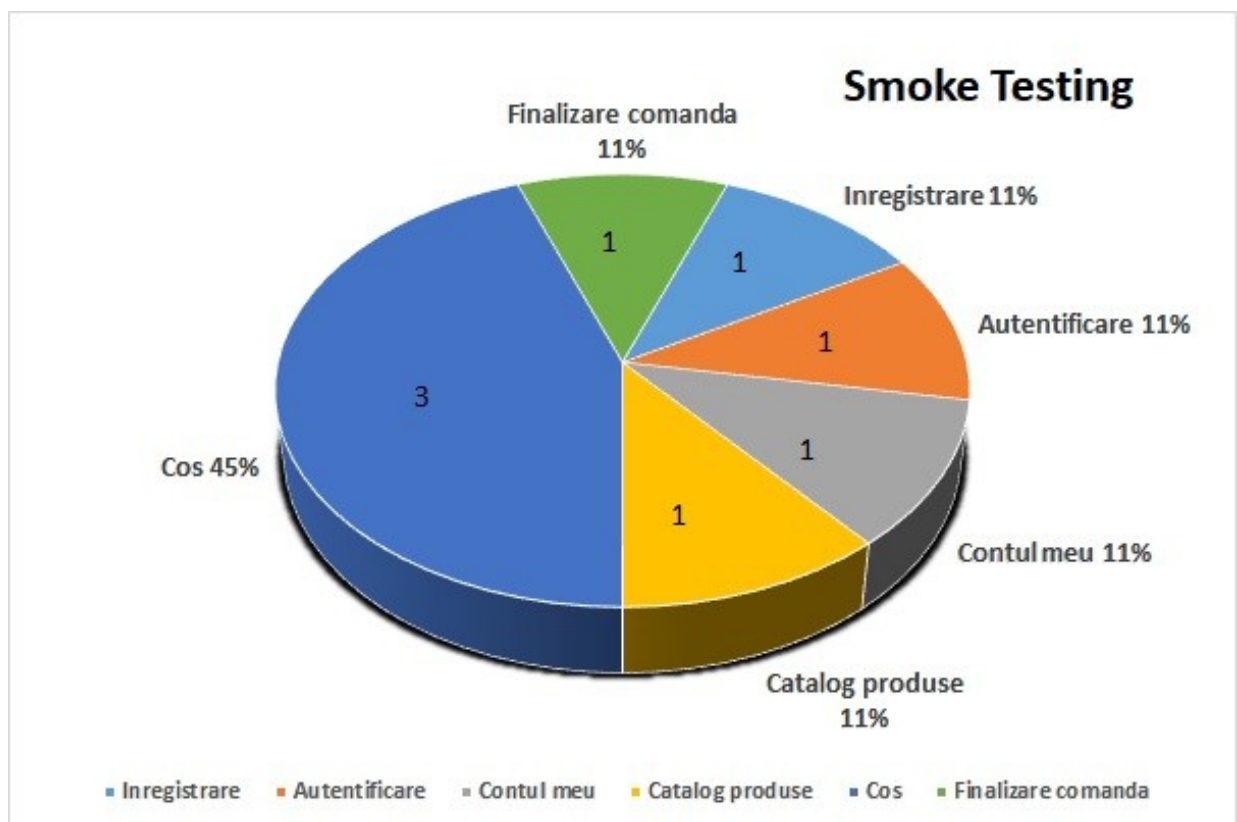

Figure 4: The repartition of functionalities tested in Smoke test

Testing levels

Testing levels	Number of test case	Percent %
Component testing	47 (inregistrare, autentificare, ai uitat parola, contul meu, cautare, catalog produse, contact, ajutor)	59 %
Integration testing	19 (cos, logout)	24 %
System testing	13 (compatibility, security, usability, finalizare comanda)	16 %
System integration testing	1 (compatibility – card payment)	1 %

Table 6: Testing levels

The largest share was "Component testing" and the main tested components were: registration, authentication, my account, product search, contact.
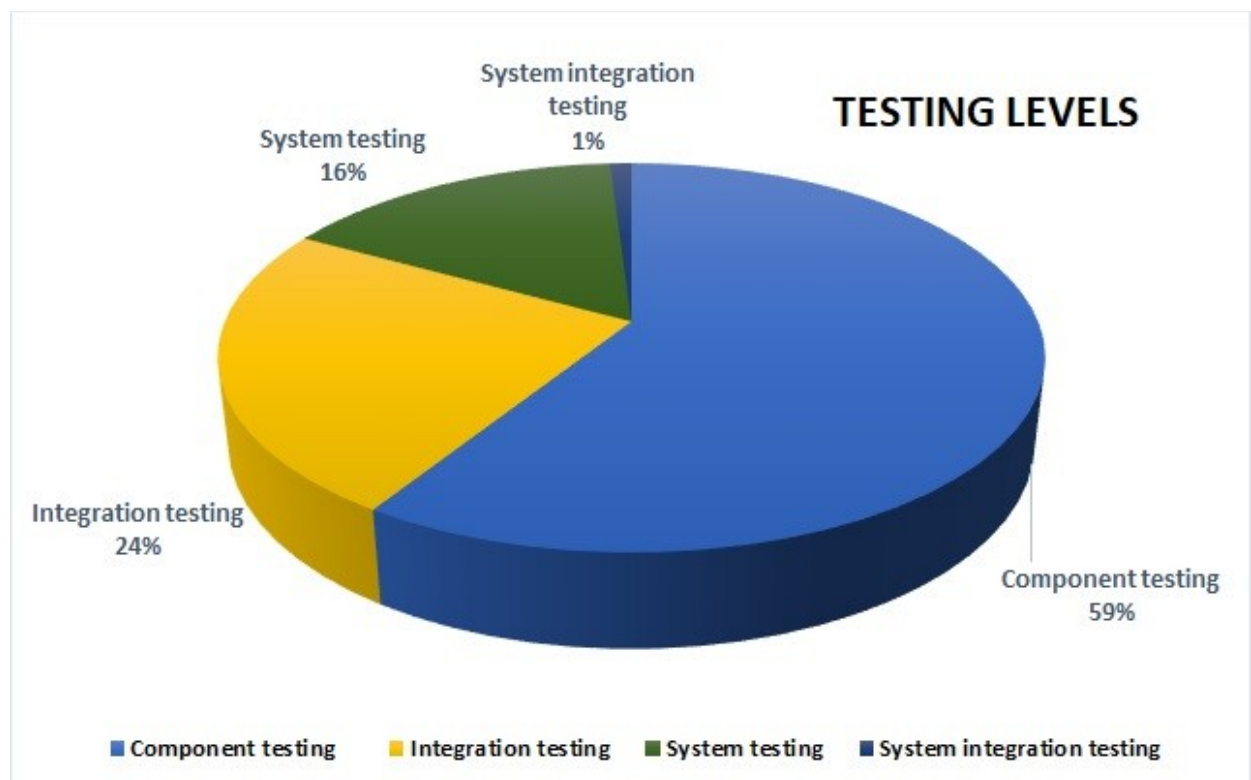

Figure 5: Testing levels

Test Results

A total of **88 test cases** have been designed for this session and **88 (100%)** - all of them were executed: **62** test cases **passed** and **26** test cases **failed**.

The average of passed and failed test cases is presented in Table nr 7. and Figure 6.

Test cases	Number	Rate %
Designed	88	100 %
Executed	88	100 %
Passed	62	70 %
Failed	26	30 %

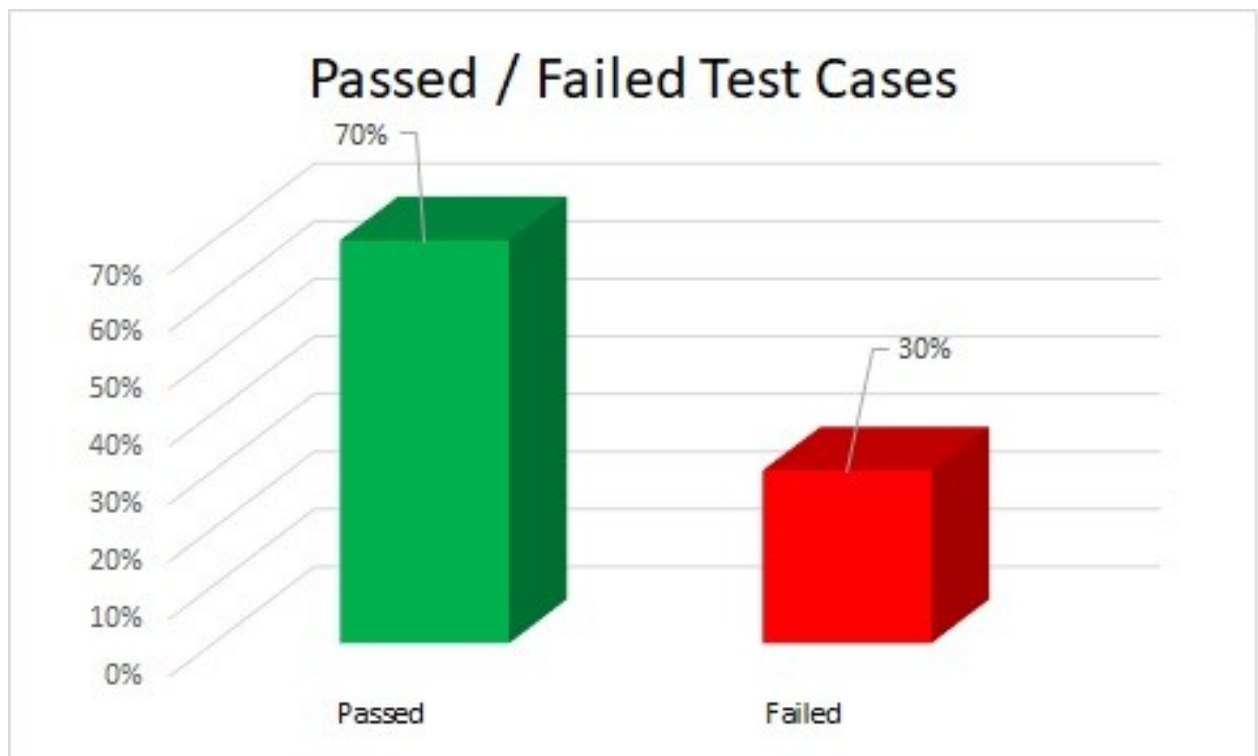Table 7: The general status of test cases

Figure 6: The average of passed and failed test cases

Test Metrics per Feature / Functionality

The numbers of test cases per features or functionalities tested are presented in Table 8 and Figure 7.

Test overview	Status				
	Total tests	Passed	Failed	Blocked	Not run
Inregistrare	13	10	3	0	0
Autentificare	8	8	0	0	0
Logout	1	0	1	0	0
Ai uitat parola	4	4	0	0	0
Contul meu	6	1	5	0	0
Cautare	4	1	3	0	0
Catalog produse	4	3	1	0	0
Cos	18	12	6	0	0
Contact	4	2	2	0	0
Ajutor	4	3	1	0	0
Finalizare comanda	7	6	1	0	0

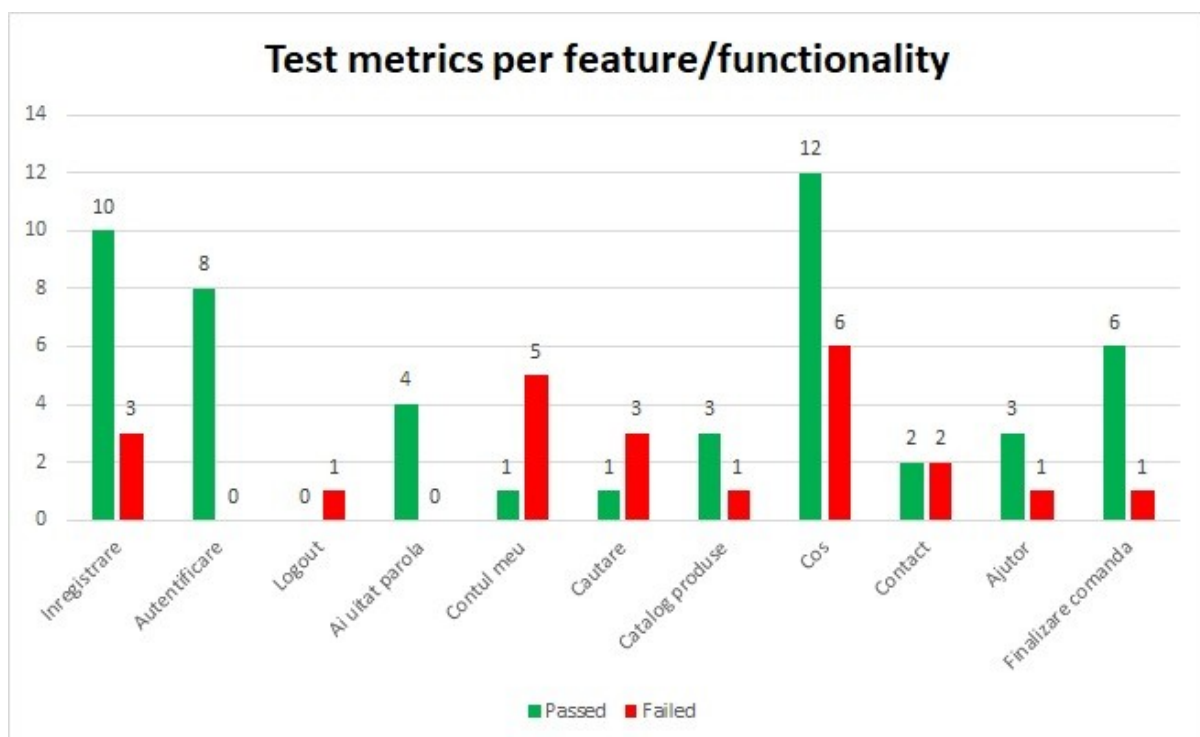Table 8: Test metrics per feature / functionality

Figure 7 : Test metrics per feature / functionality

"Cos" feature has been identified as the section with the highest number of bugs identified during testing (6). The severity of these bugs is from major to minor.

Test Rate per Feature / Functionality

A pass rate of functionalities/features is represented in Table 9 and Figure 8.

"Contul meu" feature has been identified as the section with the highest fail rate identified during testing (84 %). The severity of these bugs is from major to minor.

Test overview	Pass rate (%)	Passed	Fail rate (%)	Failed	Total tests
Inregistrare	77 %	10	23 %	3	13
Autentificare	100 %	8	0 %	0	8
Logout	0 %	0	100 %	1	1
Ai uitat parola	100 %	4	0 %	0	4
Contul meu	16 %	1	84 %	5	6
Cautare	25 %	1	75 %	3	4
Catalog produse	75 %	3	25 %	1	4
Cos	66 %	12	34 %	6	18
Contact	50 %	2	50 %	2	4
Ajutor	75 %	3	25 %	1	4
Finalizare comanda	85 %	6	15 %	1	7

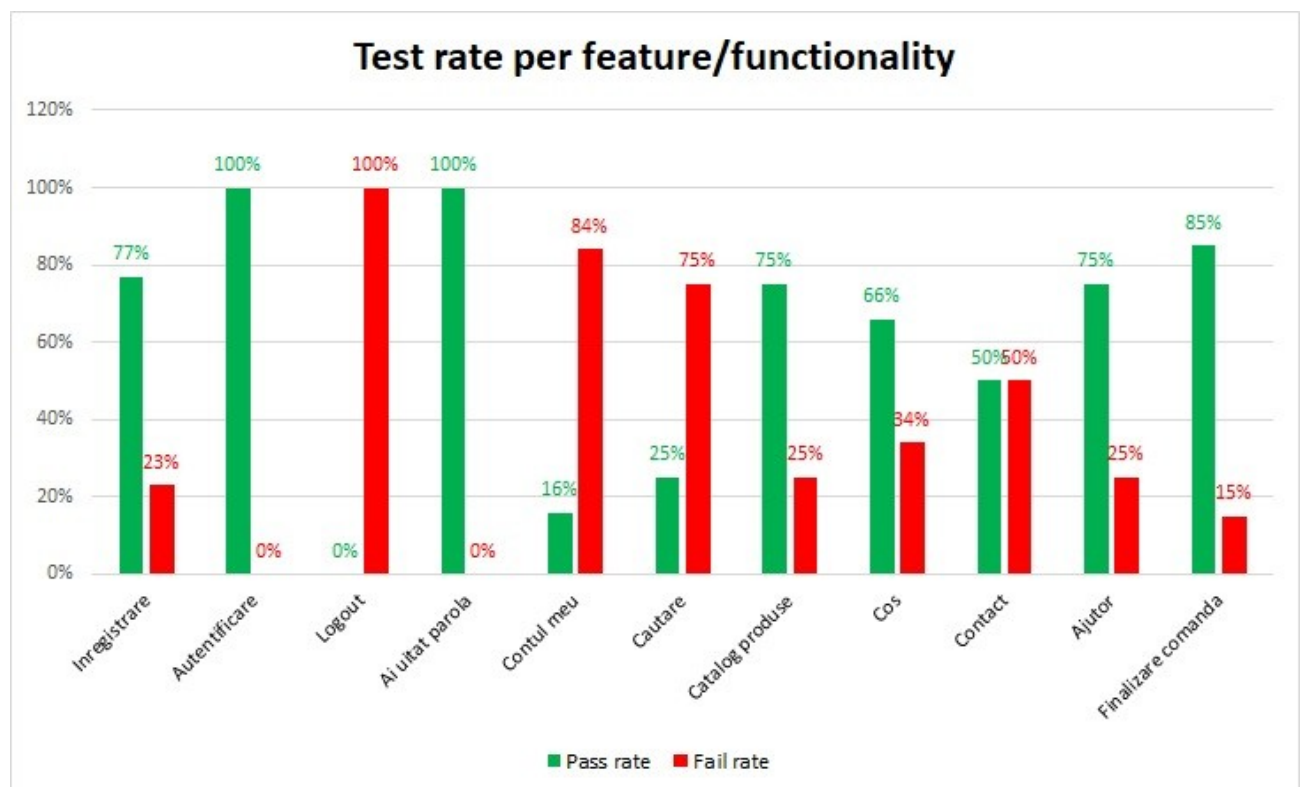Table 9: Test rate per feature / functionality

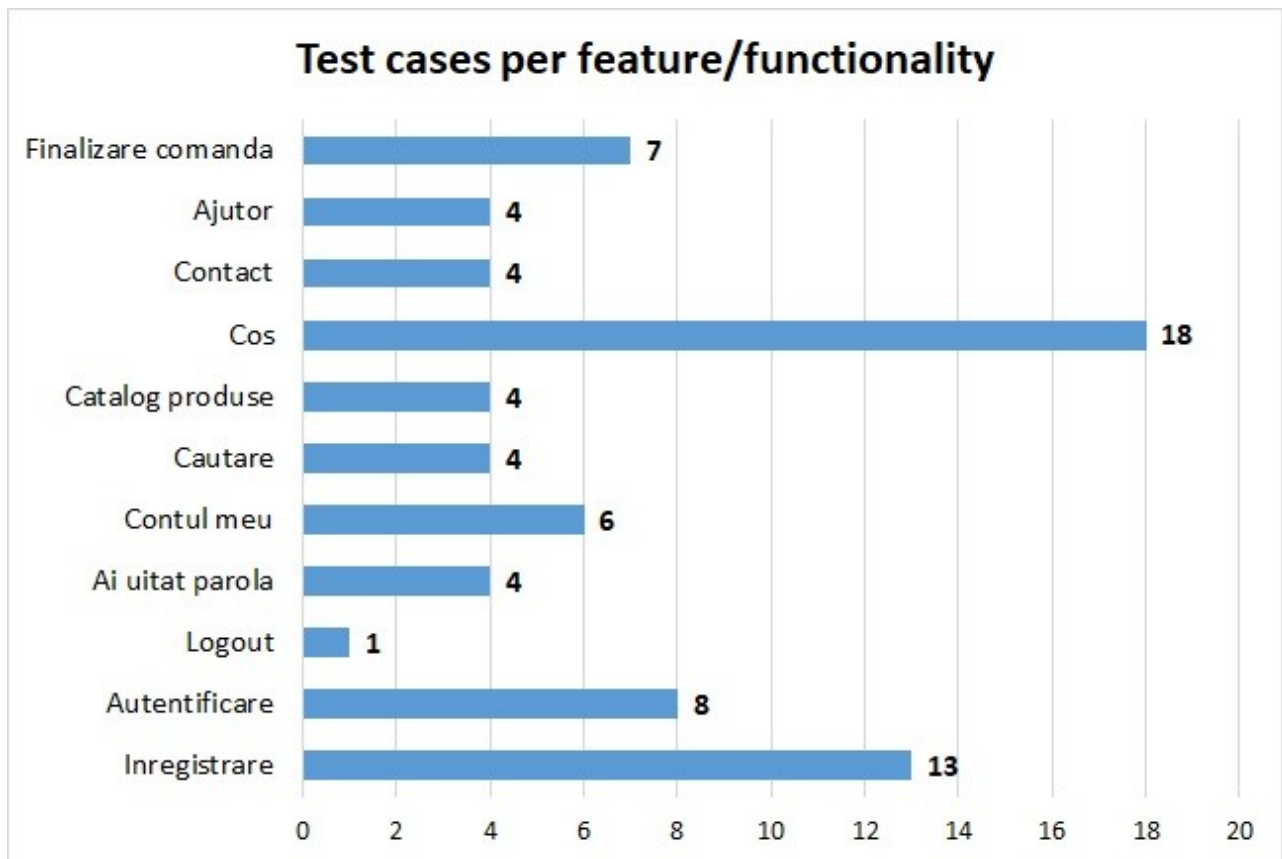Figure 8 : Test rate per feature / functionality

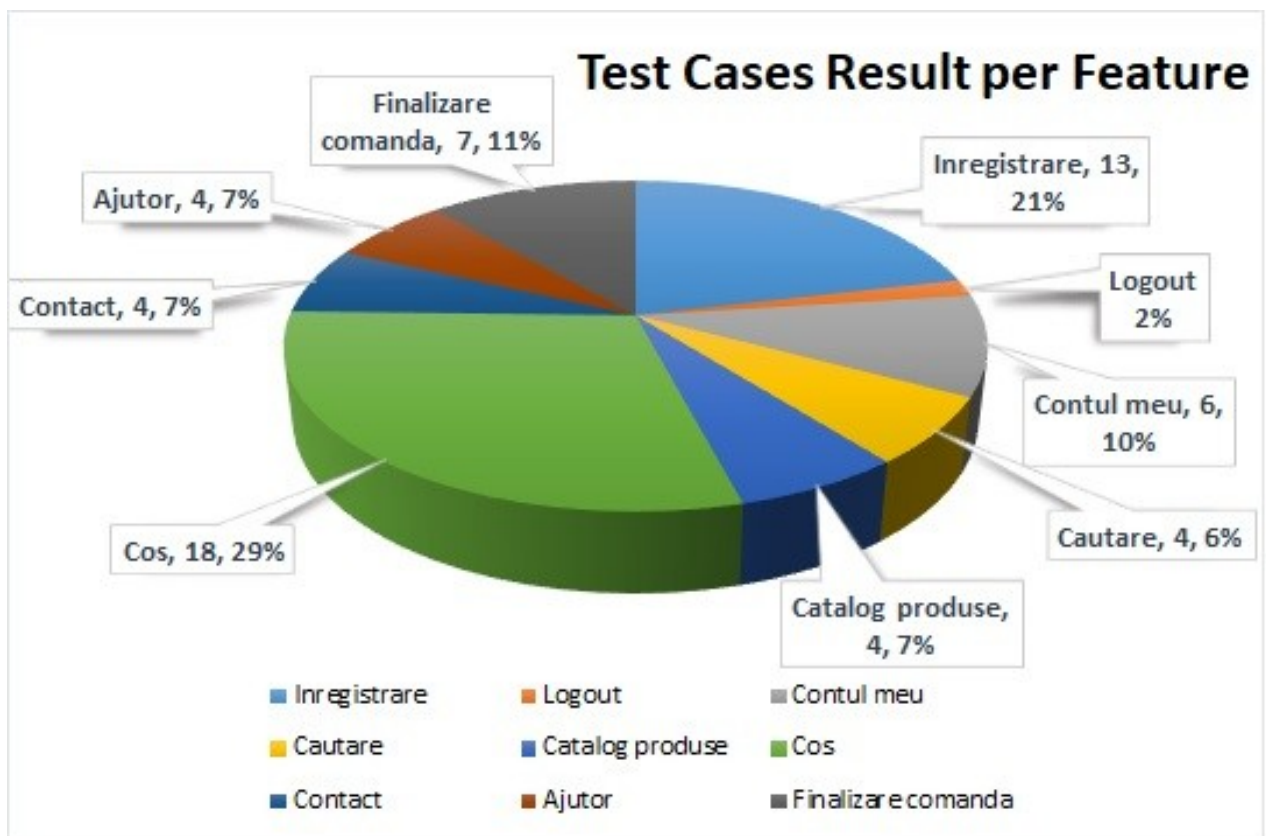Figure 9. Number of test cases per feature/functionality

Figure 10. Number and rate of test cases per feature

Exploratory sessions results

Exploratory testing

Nr. of exploratory sessions: 2

Duration: 1h /session

During the exploratory testing the tester made real-time decisions about what to test, how to test, and what areas require deeper investigation. Exploratory testing helped tester to better understand how the website functions, including its behavior and limitations. This understanding was valuable for establishing the testing efforts and test case prioritization.

Three minor severity bugs were identified and logged in Mantis Bug tracker application.

Functionalities Explored:

➢ Autentificare;
➢ Cautare produse;
➢ Catalog produse
➢ Cos
➢ Contact

Exploratory testing results by functionalities

There were 3 bugs identified on exploratory session on the following functionalities:

FEATURE	No of bugs
Cautare	1
Contact	1
Catalog produse	1

Defect Metrics

A total number of **18 defect** and **3 Improvements** were logged into Mantis Bug Tracker. Taking into consideration the severity classes, the bugs are listed in the following Table nr. 10:

➢ Major
➢ Normal
➢ Minor

The 21 bugs found affected 26 test cases.

BUG ID	SEVERITY	SUMMARY	TEST CASE ID
0055416	Major	[Inregistrare] User is not able to see an error message regarding password security conditions, when attempts to register an account with a weak password	ORG-1297, ORG-1314, ORG-1315
0055417	Major	[Inregistrare] User is able to see a SMTP error mail in his inbox regarding the availability of the website's email address	ORG-1298
0055418	Major	[Logout] User is not able to see the "Logout" option from the "Contul meu" section when he accesses the app on mobile devices	ORG-1307, ORG-1368
0055419	Major	[Contul meu] User is able to see a "500 Internal Server Error" message displayed when trying to access "Contul meu" section	ORG-1312
0055431	Normal	[Cos] User can see that "Cantitate" input field from shopping cart accepts negative and non integer values	ORG-1328
0055432	Normal	[Cos] User cannot see the "Cos" icon updated with the correct total quantity of added products	ORG-1329
0055433	Normal	[Cos] User can't find "Goleste cos" button in shopping cart page	ORG-1333
0055434	Normal	[Cos] User can't find "Actualizeaza cos" button in shopping cart page	ORG-1334
0055435	Normal	[Cos] User doesn't receive an error message when tries to add to cart an excessively amount of products	ORG-1337
0055436	Normal	[Cos] User doesn't receive an error message when tries to add to cart a quantity that exceeds the available stock limit	ORG-1338
0055439	Normal	[Ajutor] User is not able to access the "Politica de confidentialitate" page	ORG-1357
0055470	Normal	[Cautare] User is not able to see all relevant search results for his search query	ORG-1502
0055474	Minor	[Usability] On resizing, user sees the webpage elements exceeding the screen dimensions	ORG-1509
0055415	Minor	[Inregistrare] User is able to see an error message misspelled when enters a mismatch password in the registration form password fields	ORG-1285
0055420	Minor	[Contul meu] [Date personale] User is not able to see correct data validation for "Adresa" and "Telefon" fields	ORG-1316, ORG-1317, ORG-1345
0055429	Minor	[Cautare] User is not able to see correct price information for his desired product search result, due to text overlapping	ORG-1320
0055430	Minor	[Catalog produse] User can see large blank spaces appear between products listed when selects a main product category from the product menu	ORG-1323
0055461	Minor	[Finalizare comanda] User doesn't receive an error message for data validation in the checkout page	ORG-1432

Improvements

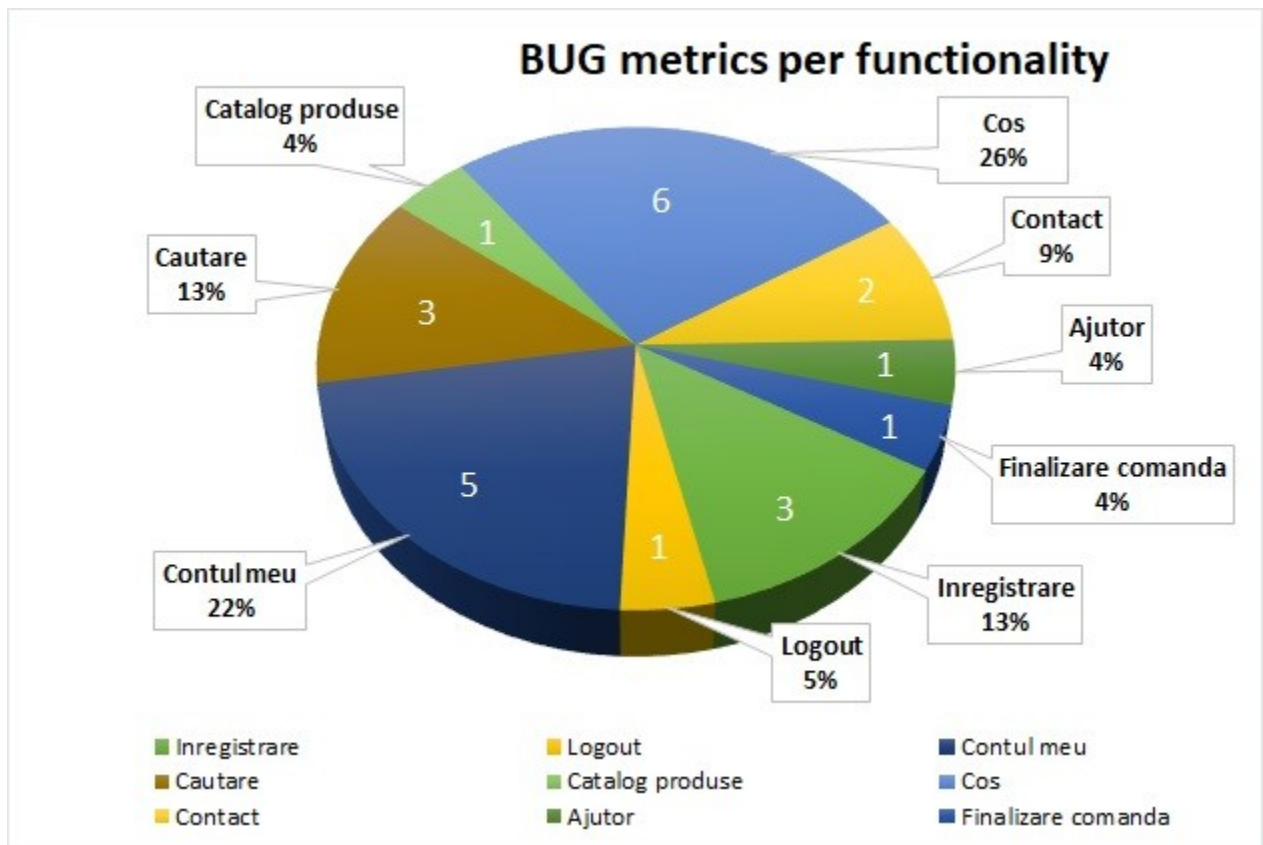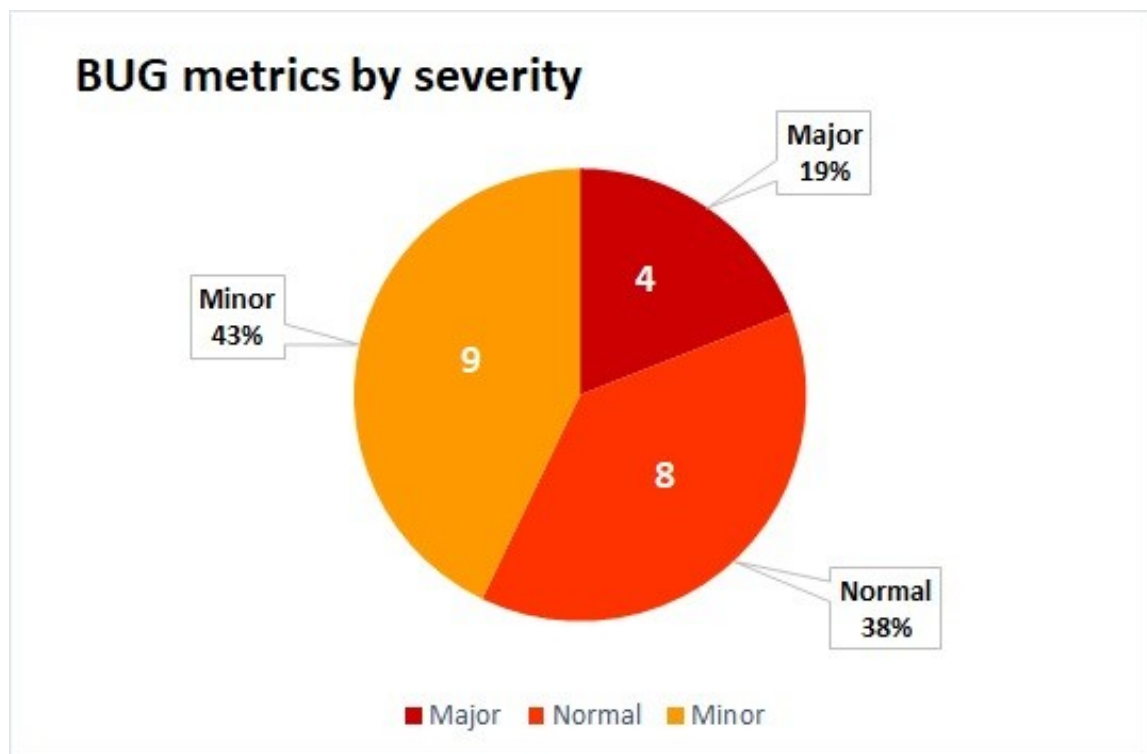| 0055469	Minor	[Cautare] User is not able to see available filters for search results	ORG-1318
0055437	Minor	[Contact] User is not able to access the website's social media listed pages	ORG-1348
0055475	Minor	[Usability] "Home" button should be available and visible on the website's header section	ORG-1513

Figure 11. BUG number and rates per functionality

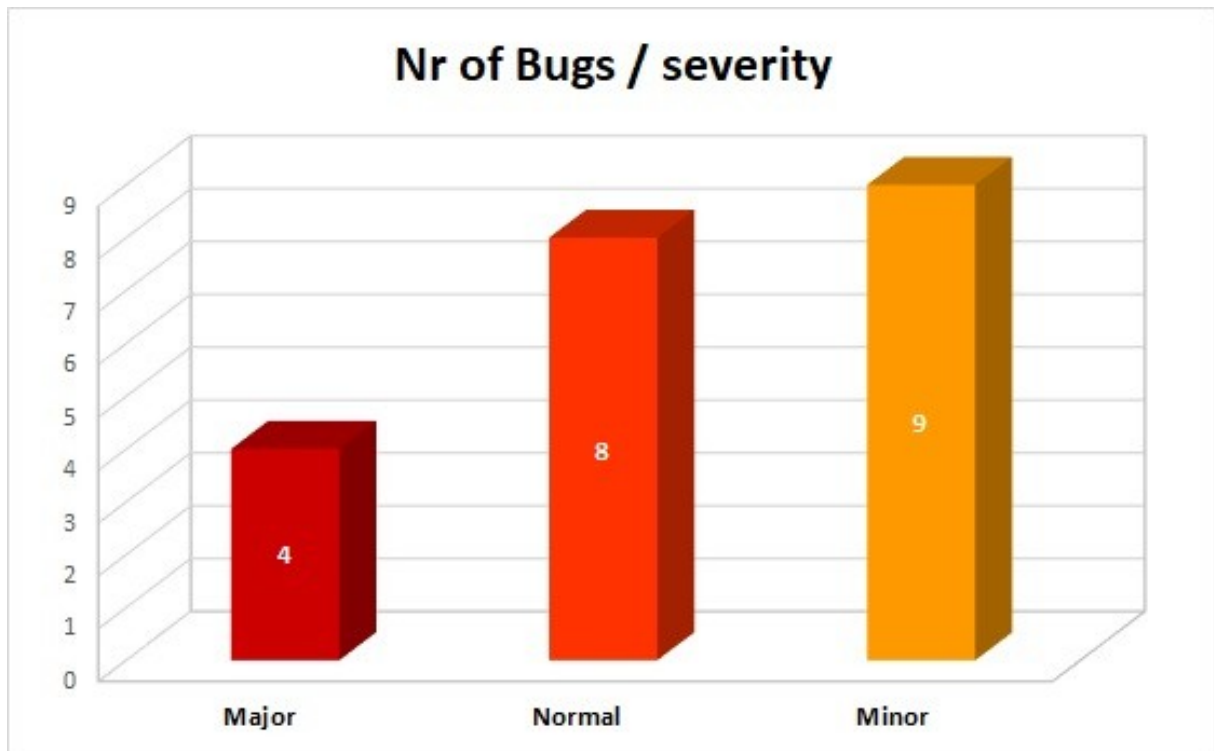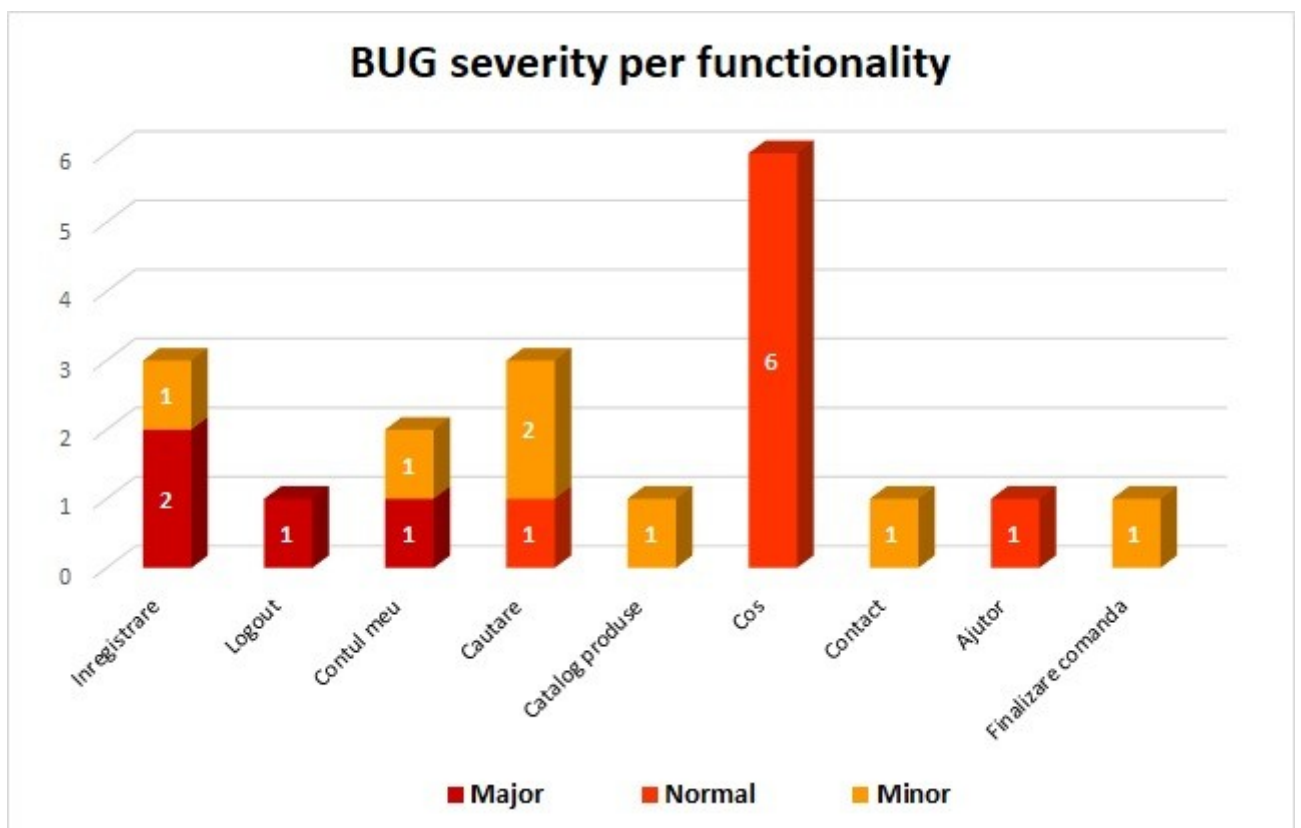Figure

12. BUG number and rate by severity

Figure 13. The distribution of bugs by severity classes

Test Coverage

Due to the fact that the complexity of the website is relatively low the test coverage is 85% indicating that a significant portion of functional testing has been completed. However to achieve 100% test coverage there are non-functional aspects that require further testing, including security testing, scalability testing, performance testing, recoverability testing.

Conclusions

The www.monamiagro.ro can be used for its purpose.

A total of 88 test cases were executed: 70 % passes and 30 % failed.

Smoke testing session included 10 test cases which all have the status passed.

During total test execution 21 bugs were identified that affected 26 test cases.

A significant number of bugs were identified in "Cos", "Cautare" and "Inregistrare" functionalities. However, most of them are not major defects, therefore do not interfere with the correct functionality of the website. The 4 major bugs found are due to the lack of validation of the password input fields or to the impossibility of the user to logout from his account..

The normal severity bugs are mainly due, also, to the lack of validation for a wide range of input fields: maximum quantity validation, positive/negative inputs, total quantity updated to cart. The two repetitive defects (0055416 and 0055420) can also be put on the lack of validation - Form Validation Errors.

A significant percent of bugs, but with minor severity, were found during the UI or Usability testing. These bugs are related to the spelling errors or poor contrast between text and background, messages misspelled, large blank spaces, text overlapping, resizing pages, "Home" button not available.

The system has a significant number of issues, as outlined above. These issues affect various areas of the system, including registration, shopping cart, my account and search option. The issues could lead to incorrect data being inputted into the system or the system not working as intended.

From the list of bugs, we can conclude that there are both functional and non-functional issues with the website.

From the user's perspective, the website can be used for its intended purpose – user is able to create account, login, navigate the website, search for products, add them to cart and place an order, however these bugs can significantly impact the user experience on the website.

User experience is on a medium to low level because the UI/UX elements are not properly developed, there are problems related to the content on certain pages or products display, the lack of some information, pages or buttons and warning messages misspelled.

Furthermore, the lack of a session timeout feature or the user's impossibility to logout from mobile device can pose a security risk for users who forget to log out from their accounts after use.

Issues with the shopping cart, such as incorrect item quantities, pricing discrepancies, the cart not updating correctly when items are added or removed or inability to empty or update shopping cart, can discourage users from completing purchases.

Overall, these bugs demonstrate that the website needs significant improvements to make it more accessible and user-friendly.

Recommendations

For eCommerce websites selling physical products, accurate inventory and stock management are vital. Errors in inventory tracking can lead to overselling, backorders, or the sale of out-of-stock items. The recommendation is to implement a strong inventory management system that integrate with the website.

The shopping cart is a critical component of any eCommerce website. Issues in this area can result in frustrated customers and abandoned carts. Rigorous testing and monitoring are necessary to identify and resolve shopping cart issues promptly.

As a website owner or developer, it's crucial to pay close attention to every aspect of the website, including its functionalities and user experience – improve accessibility, website color scheme, responsive design.

Fixing bugs and issues promptly can help build trust and loyalty among website users and improve the overall user experience.