

# Testing Project for web application



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# APP Description

- ❑ [www.elefant.ro](http://www.elefant.ro)
- ❑ web & mobile application
- ❑ E-commerce
- ❑ released on June 17, 2010
- ❑ 110.000 products
- ❑ categories: books, toys, watches, parfums, clothing, shoes, accessories, make-up and personal care, electronics and appliances

# Testing Approach

- ❑ Create a Mind map
- ❑ Set a time to make sure that testing process is completed in agreed time
- ❑ Exploratory testing: search bar; sign up
- ❑ Manual test using Smoke for main functionalities
- ❑ Compatibility and cross-browser testing: desktop, mobile, browsers
- ❑ API tests with Postman: response time, status code, body correct/matches string
- ❑ Automated tests using Cypress with Visual Studio Code
- ❑ Document and validate all identified bugs
- ❑ Analyze results and provide recommendations
- ❑ Write Test Report for stakeholders

# Tools Used

- ❑ X Mind
- ❑ Microsoft Office
- ❑ Snipping tool for screenshots
- ❑ Mantis – bug tracker
- ❑ TestLink – test case management
- ❑ Visual Studio Code – source-code editor
- ❑ Cypress – automation testing tool
- ❑ Postman – automation testing tool
- ❑ Fake filler – form filler to fill input fields with randomly generated fake data

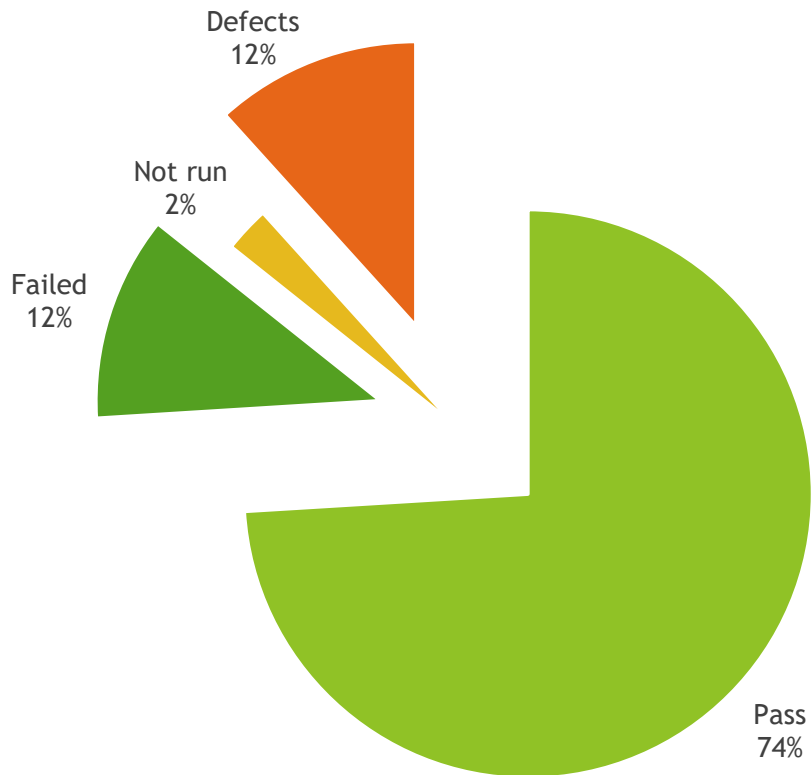
# Testing Types

- ❑ Manual testing
- ❑ Exploratory testing
- ❑ Smoke testing
- ❑ Positive testing
- ❑ Negative testing
- ❑ Compatibility and performance testing
- ❑ API testing
- ❑ UI Testing

# Test Cases Overview

- ▲ Maria Manuela Iordache (71)(2, 60, 9, 0)
  - ▲ Final Project - elefant.ro (71)(2, 60, 9, 0)
    - ▲ Functional Requirements (68)(2, 57, 9, 0)
      - ▲ Functional Tests (53)(0, 47, 6, 0)
        - ▲ Home page (8)(0, 6, 2, 0)
          - naqa6-403: Logo - Home page
          - naqa6-404: Check "Conectare" button
          - naqa6-409: Check "Cos" button
          - naqa6-405: Check "Creeaza cont" button
          - naqa6-406: Check "go back" button
          - naqa6-407: Check "Ti-ai uitat parola" button
          - naqa6-408: Delete an account
          - naqa6-541: Deactivate an account
        - ▲ Search bar (4)(0, 3, 1, 0)
          - naqa6-410: Search a product
          - naqa6-411: Search using blank space
          - naqa6-412: Search using a barcode
          - naqa6-413: Search with a key word
        - ▲ Sign up (5)(0, 3, 2, 0)
          - naqa6-414: Create an account - valid email
          - naqa6-415: Create an account - invalid email
          - naqa6-416: Create a new account - email already registered
          - naqa6-500: Create a new account - a welcome email
          - naqa6-501: Create a new account - a validation email
        - ▲ Shopping cart (11)(0, 11, 0, 0)
          - naqa6-417: Add a product
          - naqa6-418: Delete a product
          - naqa6-419: Reduce the quantity of a product
          - naqa6-420: Increase the quantity of a product
          - naqa6-421: Maximum number of products
          - naqa6-422: Log off after adding a product
          - naqa6-423: Add a product which it's sold out
          - naqa6-424: Sumar cos is correct
          - naqa6-425: Valid voucher/promotion code
          - naqa6-426: Invalid voucher/promotion code
          - naqa6-1255: Transfer a product from the shopping cart to Favorites
      - ▲ Log in (3)(0, 2, 1, 0)
        - naqa6-502: Authenticate with Yahoo
        - naqa6-503: Authenticate with Google+
        - naqa6-504: Authenticate with Facebook
      - ▲ Account (11)(0, 11, 0, 0)
        - naqa6-637: Last name and first name fields
        - naqa6-638: Birth date information
        - naqa6-639: Check "Editare Preferinte E-mail"
        - naqa6-640: Check "Editare Parola"
        - naqa6-1256: Transfer a product from Favorites to shopping cart
        - naqa6-1257: Delivery address
        - naqa6-1258: Billing address
        - naqa6-507: Last name and first name with special symbols
        - naqa6-508: Birth date in a leap year
        - naqa6-510: Check add product to Favorites
        - naqa6-512: Check remove product from Favorites
      - ▲ Footer (8)(0, 8, 0, 0)
        - naqa6-527: Check "Despre noi" link
        - naqa6-528: Check "Blog" link
        - naqa6-529: Check "Contact" link
        - naqa6-1259: Check "Masuri de preventie" link
        - naqa6-1260: Check "Program de recomandari" link
        - naqa6-1261: Check "Marketplace" link
        - naqa6-1262: Check "Instagram" icon
        - naqa6-1263: Check "Facebook" icon
      - ▲ Products (3)(0, 3, 0, 0)
        - naqa6-1264: Check category
        - naqa6-1265: Filtering by three criteria
        - naqa6-1266: Ordering by decreasing price
    - ▲ Non-Functional Tests (15)(2, 10, 3, 0)
      - ▲ Compatibility (12)(0, 9, 3, 0)
        - naqa6-428: Simultaneous login in different browsers
        - naqa6-430: Simultaneous login in browser and on mobile
        - naqa6-431: Log out at once from all devices
        - naqa6-432: Simultaneous do shopping using two devices
        - naqa6-433: Check how the mobile synchronized with the browser for Favorites
        - naqa6-434: Main page navigation on Google Chrome
        - naqa6-435: Main page navigation using Internet Explorer
        - naqa6-436: Main page navigation with Microsoft Edge
        - naqa6-437: Main page navigation using Opera
        - naqa6-438: Main page navigation using Windows 10
        - naqa6-439: Test that the application is functional on IOS 14.4
        - naqa6-440: Test that the application is functional on Android 10
      - ▲ Performance (3)(2, 1, 0, 0)
        - naqa6-1249: Response time for an API test
        - naqa6-1250: Load Test
        - naqa6-1251: Stress Test
      - ▲ Non-Functional Requirements (3)(0, 3, 0, 0)
        - naqa6-1252: Check "EXPLORE IT ON AppGallery"
        - naqa6-1253: Check "Descarcati de pe App Store"
        - naqa6-1254: Check "ACUM PE Google Play"

# Test Cases Results



## Functional

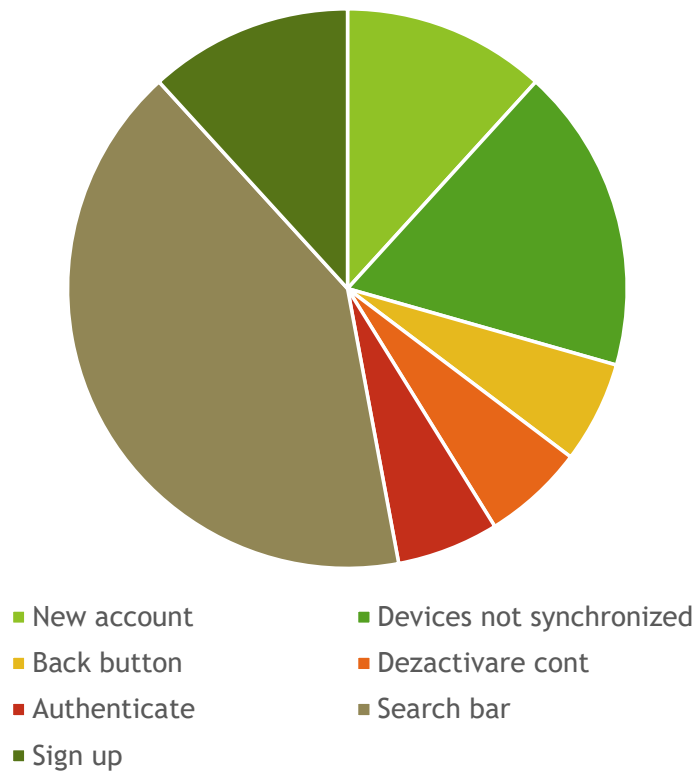
Functionality	Total	Pass	Failed	Blocked	Not Run	Defects
Home page	8	6	2	0	0	0031676, 0031675
Search bar	4	3	1	0	0	0031951
Sign up	5	3	2	0	0	0031668, 0031667
Shopping cart	11	11	0	0	0	
Log in	3	2	1	0	0	0031677
Account	11	11	0	0	0	
Footer	8	8	0	0	0	
Products	3	3	0	0	0	
Overall Results	53	47	6	0	0	6

## Non-Functional

Product/Feature	Total	Pass	Failed	Blocked	Not Run	Defects
Compatibility	12	9	3	0	0	0031670, 0031671, 0031672
Response Time for Home page	1	1	0	0	0	
Load Test for Main Page	0	0	0	0	1	
Stress Test for Shopping Cart	0	0	0	0	1	
Overall Results	12	10	3	0	2	



# Bugs overview



Defect ID	Defect summary	Severity
0031667	New account: create an account with an invalid email	normal
0031668	New account: the user is not receiving a validation email	normal
0031670	Log out at once from all devices is not happening	normal
0031671	Shop using two devices in the same time is not possible	normal
0031672	The Favorites section on two devices is not synchronized	normal
0031675	Back button: The user is not redirected to login page	normal
0031676	Dezactivare cont is inactive	normal
0031677	Authenticate with Yahoo is not available	normal
0031951	Search bar: Click without typing and then press enter	normal
0031952	Search bar: Type one letter and press enter	normal
0031953	Search bar: Type a number and press enter	normal
0031954	Search bar: Type special chars and press enter	normal
0031955	Search bar: Type alphanumeric characters and press enter	normal
0031956	Search bar: Type a piece of script and press enter	normal
0031957	Search bar: Type an URL and press enter	normal
0031958	Sign up with special chars	normal
0031959	Sign up: insert email address as a password	normal



# API Tests

Elefant.ro-API Testing No Environment, 21 hrs ago

View Summary

Run Again

New

Export Results

All Tests Passed (8) Failed (1)

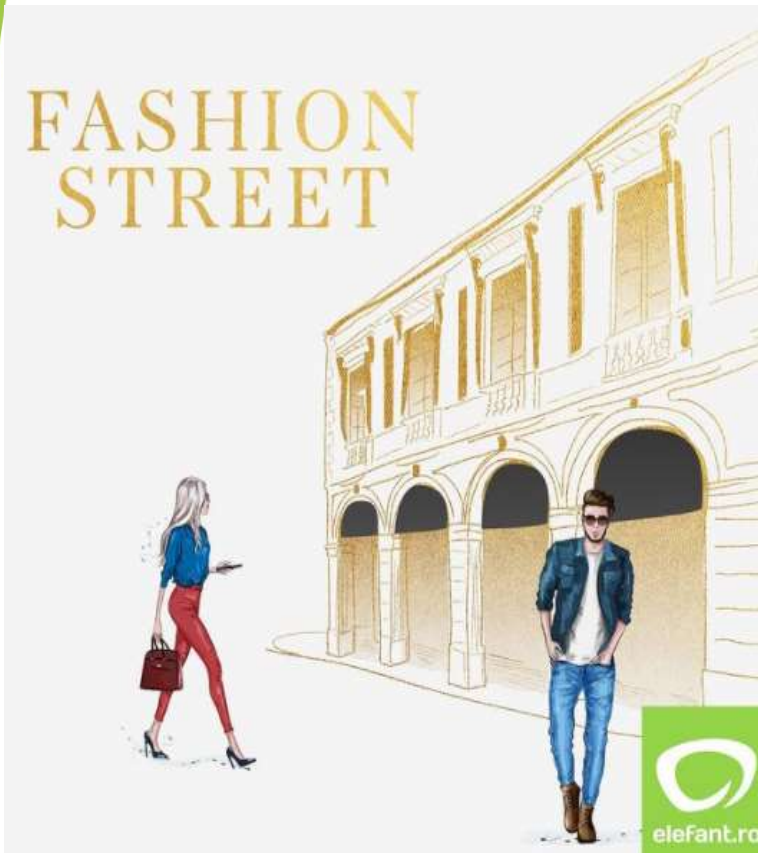
GET	Elefant Main page	https://www.elefant.ro/ / Elefant Main page	200 OK	641 ms	196.894 KB	1
	Pass	Status code is 200				
	Fail	Response time is less than 600ms   AssertionError: expected 641 to be below 600				
	Pass	Body is correct				
	Pass	Body matches string				
POST	Elefant L...	https://www.elefant.ro/INTERSHOP/web/WFS/elefant-elefantRO-Site/ro_RO/-/RON/ViewUserA... / Elefant ...	200 OK	205 ms	181.411 KB	
	Pass	Status code is 200				
	Pass	Response time is less than 600ms				
GET	Elefant Search bar	https://www.elefant.ro/search?SearchTerm=harry+potter / Elefant Search bar	200 OK	140 ms	328.635 KB	
	Pass	Status code is 200				
	Pass	Response time is less than 200ms				
	Pass	Body matches string				

# UI Tests

```
///references types="Cypress"/>
describe("Elefant home page teste",()=>{
  beforeEach(()=>{
    Cypress.on('uncaught:exception',(err, runnable)=>{
      // returning false here prevents Cypress from
      // failing the test
      return false;
    })
  })
  it.only("Test navigation",()=>{
    cy.visit("https://www.elefant.ro/");
    cy.get('.footer-mid-support-
top > h3').should("be.visible");
  })
})
```

< Tests	✓ 1	✗ --	○ --	04.21	🔍 ↻
cypress\integration\Test Data\Proiect final_elefant.ro.json\Elefant.ro.spec.js					
▼ Elephant home page teste					
✓ Test navigation					
▼ TEST BODY					
1	visit	https://www.elefant.ro/			
▶	(xhr)	● GET 200	/INTERSHOP/web/WFS/elefant-elefantRO-Site/...	2	
	(xhr)	● POST 204	/cdn-cgi/bm/cv/result?req_id=638c31a248e6d...		
	(xhr)	● GET 200	//get/key/v1.json?count=2		
	(xhr)	● POST 200	/j/collect?v=1&v=j89&a=2083555170&t=event&nl=1&s=1...		
	(xhr)	● POST 200	/j/collect?t=dc&rip=1&r=3&v=1&v=j89&tid-UA-2064126...		
	(xhr)	● POST 202	/capture?token=63db4950b56847eb8fc56d8b238...		
	(xhr)	● GET 200	/watch/60742186?wmode=7&page-url=https://www.elefant...		
	(xhr)	● POST 202	/capture?token=63db4950b56847eb8fc56d8b238...		
	(xhr)	● POST 200	/exponea/subscription/push?apiKey=732d8f2b...		
2	get	.footer-mid-support-top > h3			
3	- assert	expected <h3> to be visible			
	(xhr)	● POST 200	//add/events/v1.json?apiKey=732d8f2b-6c40-...		
	(xhr)	● GET 200	/img/beacon.gif?id=57055e93abe53df8651a8f52&szAW=1366&...		
	(xhr)	● POST 200	//add/events/v1.json?apiKey=732d8f2b-6c40-...		
	(xhr)	● POST 200	/events/1/050e93a23d?a=950602650&sa=1&v=1184.ab39b52...		
	(xhr)	● POST 200	//add/events/v1.json?apiKey=732d8f2b-6c40-...		
	(xhr)	● POST 200	/events/1/050e93a23d?a=950602650&sa=1&v=1184.ab39b52...		
	(xhr)	● POST 200	/events/1/050e93a23d?a=950602650&sa=1&v=1184.ab39b52...		

# Conclusions



- ❑ 69 test cases were executed - 9 failed
- ❑ Exploratory testing – 8 bugs
- ❑ 2 automated tests were executed with Cypress – all passed
- ❑ 9 automated tests were executed with Postman – 1 failed
- ❑ Total results: 17 bugs were found & 3 improvements
- ❑ Good coverage: 74%

# Lessons Learned

- ☐ Be in Time
- ☐ Think Outside the Box
- ☐ Attention to Details
- ☐ Transparent Communication
- ☐ Be Organized
- ☐ Understand your Product
- ☐ Write Clear and Complete Test Cases



**Thank you!**