

PROIECT FINAL

14 OCTOMBRIE 2023

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PARTEA I - Notiuni Teoretice

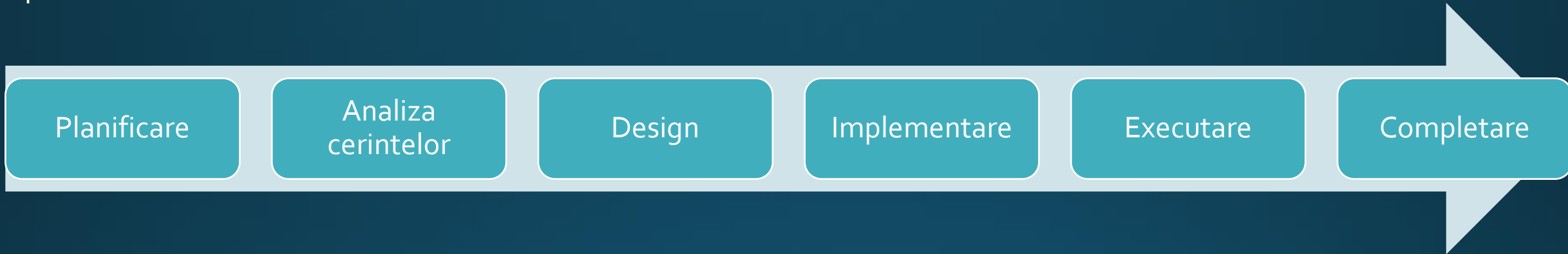
Informații teoretice pe care le-am dobândit în urma parcurgerii cursului de testare manuală

- **Cerintele de business:** Sunt cerinte esentiale specificate de către client, descrise in detaliu, ce trebuie implementate in dezvoltarea unui produs software.
- **Test Condition** – Este o descriere generala a ceea ce trebuie sa fie testat, dar nu furnizeaza detalii specifice despre cum sa se efectueze testul sau ce date de intrare sa fie folosite.
- **Test Case** - Un test case este o descriere detaliata a unui scenariu de test, care include toate informatiile necesare pentru a efectua testul.

Asadar, “test conditions” sunt utilizate pentru identificarea scenariilor de testare, in timp ce “Test Cases” sunt utilizate pentru a implementa si a executa aceste scenarii.

Etapele procesului de testare software:

Procesul de testare software este un aspect critic al dezvoltarii software si urmeaza de obicei mai multe etape bine definite pentru a asigura calitatea si fiabilitatea produsului final. Iata o descriere generala a etapelor comune ale procesului de testare software:



➤ Diferenta dintre Retesting si Regression testing:

- Retestarea verifica daca un bug/defect sau eroare a fost fixat
- Testarea de regresie: verifica daca in urma fixarii unui bug sau a modificarii unei parti din aplicatiei nu a afectat celalalte parti ale aplicatiei.

➤ Diferenta intre functional testing si non-functional testing:

- Testarea functionala verifica daca produsul software isi indeplineste functionalitatile si cerintele clientului.
- Testarea non-functionala verifica aspect non-functionale cum ar fi: testarea securitatii, testare de performanta, testare pe diverse dispozitive.

Tehnici de testare grupate pe categorii:



BLACK BOX:

- Partiționarea echivalenta;
- Analiza valorilor limita;
- Testarea tranzițiilor de stare;
- Tabel decisonal;
- Use case.

WHITE BOX:

- Statement coverage;
- Decision coverage.

EXPERIENCE BASED:

- Ghicirea erorilor
- Testarea exploratorie
- Checklist based testing

Black Box Testing vs White Box Testing in testarea software

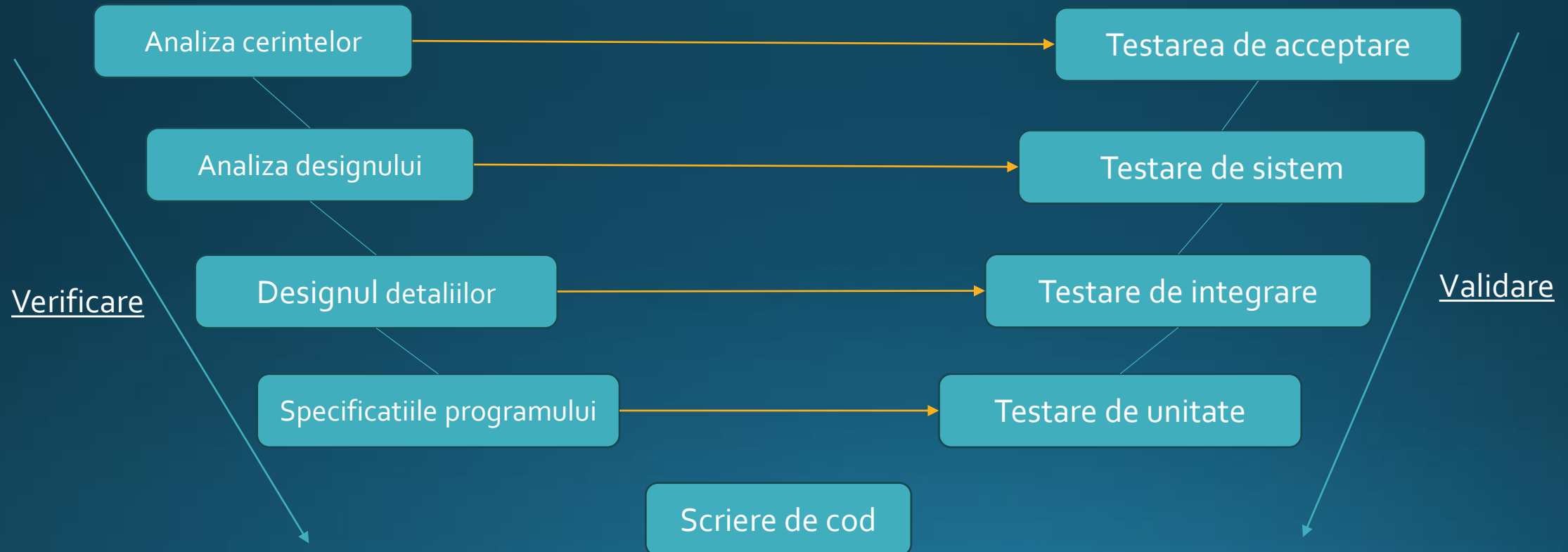
In testarea de tip "**Black Box Testing**" nu se ia in considerare structura interna a codului din spatele aplicatiei software.

In testarea de tipul "**White Box Testing**", testerul cunoaste codul sursa din spatele aplicatiei, arhitectura si logica sa. Acesta identifica defectele prin analiza codului

Diferentele dintre procesele de "Validare" si "Verificare" in testarea software

"**Verificarea**" este procesul prin care se asigura daca produsul dezvoltat indeplineste cerintele clientului. Verificarea face parte din "Testarea Statica"

"**Validarea**" este un proces mai complex de analiza tehnica a produsului software. Validarea face parte din "Testarea Dinamica"



Positive testing vs Negative testing

Testarea pozitiva si testarea negative sunt doua tehnici total diferite in testarea software, fiecare cu scopul ei.

Positive testing sau testarea pozitiva:

- Scop: Testarea pozitiva este o tehnica de testare in care se verifica daca software-ul functioneaza corect atunci cand se furnizeaza date de intrare valide si asteptate
- Exemplu: Atunci cand un utilizator al unui site web de e-commerce, doreste sa comande diverse produse, acesta introduce date corecte cum ar fi o adresa de email, o parola, adresa de livrare si se verifica daca sistemul permite plasarea comenzii.

Negative testing sau testarea negativa:

- Scop: Testarea negativa este o tehnica de testare in care se evalueaza comportamentul sistemului in cazul in care primeste de la utilizator date de intrare nepermise sau eronate.
- Exemplu: Continuand exemplul de mai sus, un test negativ ar implica introducerea unei parole gresite sau a unei adrese de email nevalide si observarea modului in care sistemul gestioneaza aceste situatii. Daca sistemul afiseaza un mesaj de eroare corespunzator sau previne inregistrarea comenzii, atunci testul negativ este reusit.

Nivelurile de testare software



- **Testarea unitara:** Se concentreaza pe testarea unor parti ale software-ului, cum ar fi functii, metode sau secvente de cod;
- **Testarea de integrare:** Se concentreaza pe testarea modului in care componente mai mari ale software-ului interactioneaza intre ele.
- **Testarea de sistem:** Scopul acesteia este de a asigura ca sistemul indeplineste cerintele functionale si non-functionale. Testele sunt efectuate pe intregul sistem si se verifica performanta, compatibilitatea, siguranta si altele
- **Testarea de acceptanta:** Scopul este de a verifica daca software-ul indeplineste cerintele si asteptarile utilizatorilor. Utilizatorii pot identifica probleme, sugera imbunatatiri si decide daca produsul este pregatit pentru implementare.

PARTEA II – Aspecte Practice

Punerea in practica a cunostintelor acumulate












1. Cerintele pentru aplicatia/website-ul ales

Am ales sa testez website-ul www.Autokarma.ro, un magazin online pe care eu il folosesc atunci cand am nevoie de piese auto. Proiectul de testare a fost realizat cu ajutorul unelei JIRA si contine patru cerinte de business (Story).

- AS-2 As a user, I want to be able to create account on website
- AS-26 As a user, I should be able to login with my account
- AS-27 As a user, I should be able to search auto parts
- AS-10 As a user, I should be able to buy auto parts from website

Cele patru story-uri acopera cele mai importante si esentiale cerinte pe care trebuie sa le indeplineasca un magazin online si anume, utilizatorul sa poata crea si accesa propriul cont, sa poata cauta cat si sa poata cumpara produsele dorite.

Conditii de testare

-  AS-35 Verify if the user is able to create a new account
-  AS-9 Verify if the user can login into his account
-  AS-22 Verify if the user can access his already created account
-  AS-15 Verify the "Forgot password" function
-  AS-20 Verify if the user can add products to cart
-  AS-28 Verify if an user can add products to wishlist
-  AS-25 Verify if the user is able to add his own car model into his account dashboard.
-  AS-18 Verify if the user can search by chasis code (VIN)
-  AS-19 Verify if the user can search products by universal name or product code
-  AS-21 Verify if the user can find parts for a specific car
-  AS-33 Verify the GUI elements from the website

Cazuri de testare



[AS-25] Verify if the user is able to add his own car model into his account dashboard.

Created: 11/Sep/23 3:39 PM - Updated: 15/Sep/23 12:39 AM

Status: In Progress
Project: Adrian Sandu

Description

The registered users should be able to save their own car models into the account, in order to search easier the auto parts from website www.autokarma.ro.

Preconditions:

Website www.autokarma.ro is online;

User have to a valid and unique user account;

User can login with his account;

www.autokarma.ro/masini page is available.

Test Step	Test Data	Expected Result
1. Assuming that user is already logged in, go to https://autokarma.ro	https://autokarma.ro	Website is online
2. Hover "Contul meu" button and click "Contul meu" link from the list		User is directed to the page: https://www.autokarma.ro/contul-meu
3. Click the "Masinile mele" link		https://www.autokarma.ro/masini page is opened
4. Click "Adauga masina button"		https://www.autokarma.ro/index.php?route=account/cars/add is openede
5. Select the: Class / Brand / Group / Model / Engine type	Clasa: Automobile Marca: Opel Grupa: Astra Model: Astra H Classic Motor: 1.7 CDTI, L48 74Kw	
6. Write the chasis code into the "Serie categorie" field	W0L0AHL4848130867	
7. Click "Salvare" button		user is redirected to the page: " https://www.autokarma.ro/masini " and the added car is properly displayed on the page.

Version	Test Cycle	Status	Defects	Executed By	Executed On
Unscheduled	Ad hoc	PASS		IT Factory	13/Sep/23 4:32 PM



[AS-35] Verify if the user is able to create a new account

Created: 15/Sep/23 1:52 PM - Updated: 15/Sep/23 2:52 PM

Status: To Do
Project: Adrian Sandu
Component/s: None
Fix Version/s: None

Type: Test
Reporter: IT Factory
Priority: High
Assignee: IT Factory

Description

The user should be able to acces autokarma.ro website

The user have a valid email account

The user have a valid adress

User agree with Terms and condition and also with processing of personal data.

Preconditions:

Internet connection;

Web browser;

The host page <https://www.autokarma.ro/create-cont> should be online.

The user should be able to create a new account

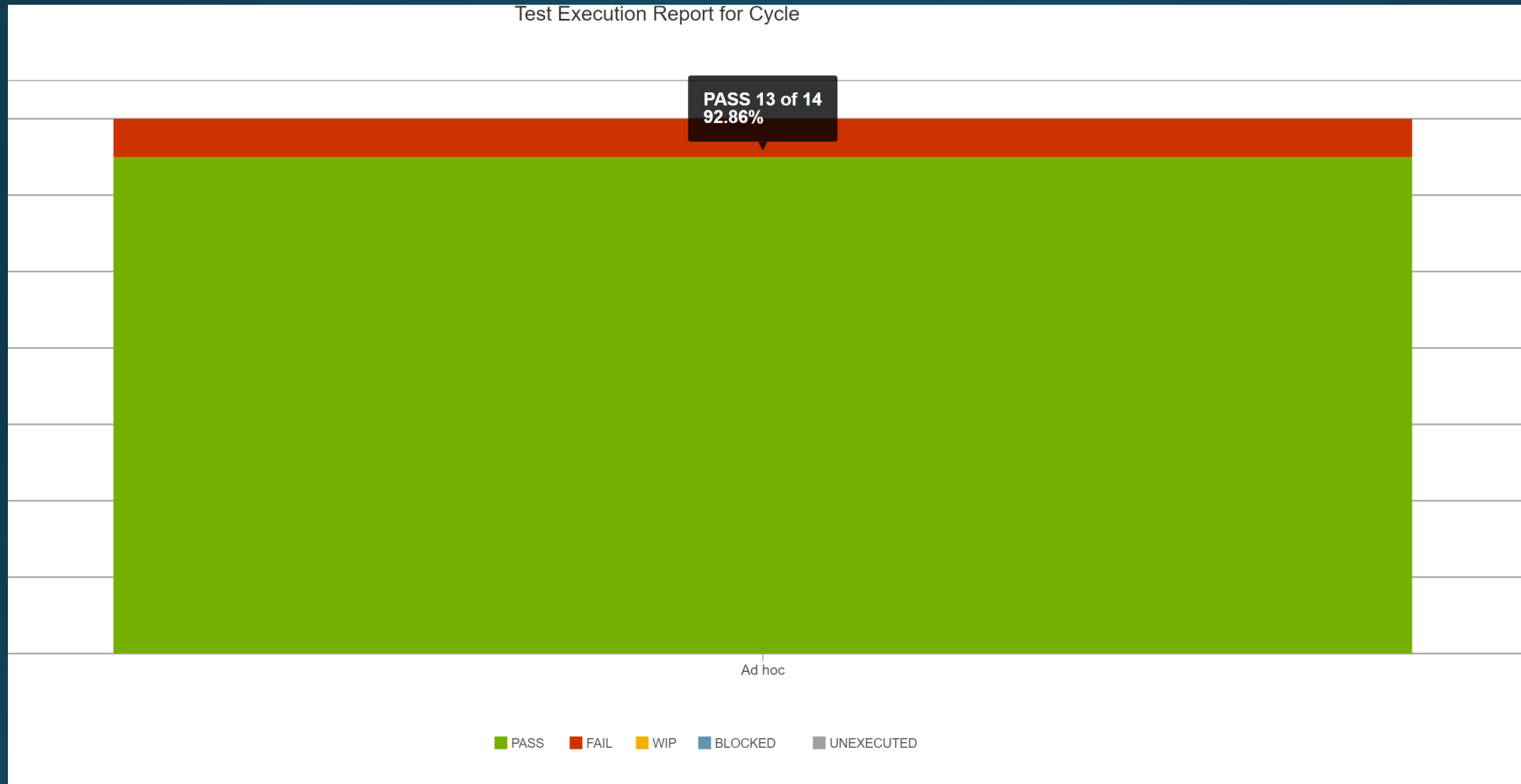
Test Step	Test Data	Expected Result
1. Open website: Autokarma.ro		Website is online
2. Hover "CONTUL MEU" button located in the top-right corner and click "Autentificare"		"CONTUL MEU" is displaying the drop-down list properly and user is redirected to account creating page
3. Fill all the mandatory fields: Nume / Prenume / Email / Telefon / Judet / Localitate / Adresa / Cod Postal / Magazin preferat / Parola	Adrian / Sandu / adriansandu@yahoo.com / 0730000123 / Piatra Olt / Strada Stadionul / 235500 / Craiova Brancoveanu 7A / 1234	All the fields are accepting inputs
4. Check all the check boxes that the user agree with Terms and condition and also with processing of personal data.		The check boxes are working properly
5. Click "Inregistreaza cont" button		The system is creating the new account

Version	Test Cycle	Status	Defects	Executed By	Executed On
Unscheduled	Ad hoc	PASS		IT Factory	22/Sep/23 12:35 AM

Matricea trasabilitatii pentru cele 2 story-uri ce contin si defecte

Requirement	Test	Execution	Defect
<p>AS-10</p> <p>As a user, I should be able to buy auto parts from website</p> <p>Status: In Progress</p> <p>Total defects: 2</p>	<p>AS-19</p> <p>Verify if the user can search products by universal name or product code</p>	<p>Cycle: Ad hoc</p> <p>Status: PASS</p>	
	<p>AS-20</p> <p>Verify if the user can add products to cart</p>	<p>Cycle: Ad hoc</p> <p>Status: PASS</p>	<p>AS-31</p> <p>The quantity field accept letters and special characters</p> <p>Status: To Do step level</p>
	<p>AS-21</p> <p>Verify if the user can find parts for a specific car</p>	<p>Cycle: Ad hoc</p> <p>Status: PASS</p>	
	<p>AS-28</p> <p>Verify if an user can add products to wishlist</p>	<p>Cycle: Ad hoc</p> <p>Status: PASS</p>	
	<p>AS-33</p> <p>Verify the GUI elements from the website</p>	<p>Cycle: Ad hoc</p> <p>Status: FAIL</p>	<p>AS-34</p> <p>Problems displaying header at different resolutions (Responsiveness bug)</p> <p>Status: To Do step level</p>
<p>AS-2</p> <p>As a user, I want to be able to create account on website</p> <p>Status: In Progress</p> <p>Total defects: 4</p>	<p>AS-3</p> <p>Verify the redirection from "Contul meu" to the "Create Account" page.</p>	<p>Cycle: Ad hoc</p> <p>Status: PASS</p>	
	<p>AS-4</p> <p>Verify the required field inputs on the "Creare cont" page</p>	<p>Cycle: Ad hoc</p> <p>Status: PASS</p>	
	<p>AS-15</p> <p>Verify the "Forgot password" function</p>	<p>Cycle: Ad hoc</p> <p>Status: PASS</p>	<p>AS-16</p> <p>Forgot password function is actually generate new password</p> <p>Status: To Do step level</p>
	<p>AS-35</p> <p>Verify if the user is able to create a new account</p>	<p>Cycle: Ad hoc</p> <p>Status: PASS</p>	<p>AS-6</p> <p>Users can create accounts with less than 8 characters on password field</p> <p>Status: To Do step level</p>
			<p>AS-30</p> <p>Email validation rules don't work</p> <p>Status: To Do step level</p>
			<p>AS-32</p> <p>The website no longer displays error details after generating verification code</p> <p>Status: To Do step level</p>

Test execution chart (Raport de executie din Jira)



Din acest raport reiese faptul ca din 14 teste valide, 1 a fost esuat.

Raportul de defecte



[AS-31] The quantity field accept letters and special characters

Created: 14/Sep/23 4:00 PM - Updated: 15/Sep/23 2:35 PM

Status:	To Do		
Project:	Adrian Sandu		
Component/s:	None		
Affects Version/s:	None		
Fix Version/s:	None		
Type:	Bug	Priority:	Low
Reporter:	IT Factory	Assignee:	IT Factory

Description

When attempting to add items to the cart, the quantity field does not enforce the maximum limit of 25 pieces. Instead, it allows the entry of letters and special characters.

Steps to Reproduce:

- Go to www.autokarma.ro
- Hover "Universale" and click any category
- In the quantity field, enter "abc" or special characters such as "!@#\$" and attempt to add the item to the cart.
- Click "Adauga in cos"

Expected Result:

The system should only accept numerical values for the quantity field and restrict entries to a maximum of 25 pieces.

Actual Result:

The system allows the entry of non-numeric characters and does not enforce the quantity limit of 25 pieces, also displaying the message: "Succes! Ai adaugat Product X in cosul de produse"

Environment:

- Browser: [Google Chrome]
- Operating System: [Windows 11 64 bit]

Attachments

Pret cu TVA

22 RON

Cantitate

!#@

-

+

Adauga in cos



[AS-34] Problems displaying header at different resolutions (Responsiveness bug)

Created: 15/Sep/23 1:08 PM - Updated: 15/Sep/23 1:42 PM

Status:	To Do		
Project:	Adrian Sandu		
Component/s:	None		
Affects Version/s:	None		
Fix Version/s:	None		
Type:	Bug	Priority:	Medium
Reporter:	IT Factory	Assignee:	IT Factory

Environment

Affected Browsers: [Google Chrome, Mozilla Firefox, Microsoft Edge]
Affected Resolutions: [1024x600, 912x1368] (The most of these resolutions are for Tabled devices)

Description

Issue Summary:

Website layout issues and lack of responsiveness at certain browser resolutions.

Steps to Reproduce:

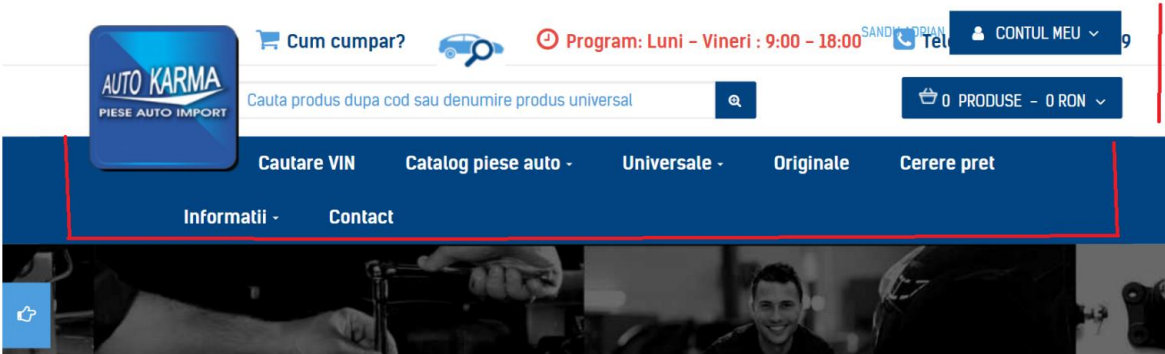
Open a web browser.
Visit the autokarma.ro website
Set the browser resolution to [1024x600, 912x1368].

Expected Behavior:

Navbar and header elements should be displayed properly.

Actual Behavior:

Header elements are not displayed properly - Attached screenshots



Concluzii generale in urma testarii website-ului www.Autokarma.ro

Toate cele 13 test case-uri planificate pentru executie au fost verificate in urma testarii.

Din cele 13 teste au fost gasite un numar de 6 bug-uri, iar prioritatea lor:

- 2 de prioritate mare;
- 2 de prioritate medie;
- 2 de prioritate mica.

Avand in fata website-ul unei companii aflata de 27 de ani pe piata magazinelor auto din Romania, nu am detectat erori grave care sa pericliteze functionarea site-ului sau sa impiedice utilizatorul sa comande piese auto. Dupa cum bine stim, nu exista un produs software perfect. Site-ul poate fi imbunatatit, erorile gasite de mine pot fi corectate, eu voi contacta webmasterul magazinului si ii voi trimite feedback-ul meu.

PCT.	SEVERITATE RISC	PROBABILITATE SA SE INTAMPLE	IMPACTUL PE CARE IL ARE
1	ACCEPTABIL R4 / P3	IMPROBABIL R1 / R3 / P2 / R5	REDUS R4 / P3
2	TOLERABIL R4 / P3	POSIBIL R2 / R4 / P3	MEDIU R5
3	INDEZIRABIL R2 / R3 / P2 / R5	PROBABIL P1	MARE R2 / R3 / P2
4	INTOLERABIL R1 / P1	FOARTE PROBABIL	EXTREM R1 / P1

Riscuri de Proiect (R)

Comunicarea cu furnizorii internationali – R1: $4+1+4=9$ pct

Riscul de a nu avea suficienti angajati calificati – R2: $3+2+3=8$ pct

Riscul de a nu avea suficienti clienti pentru vanzarea produselor auto – R3: $3+1+3=7$ pct

Inflatie, cresterea pretului produselor de la distribuitori – R4: $2+2+1=5$ pct

Probleme cu firmele de curierat – R5: $3+1+2=6$ pct

Riscuri de Produs (P)

Disfunctionalitate server / baza de date / magazin online – P1: $4+3+4=11$ pct

Riscuri de Securitate – P2: $3+1+3=7$ PCT

Buguri in aplicatie – P3: $2+2+1=5$ PCT

Va multumesc!