

*Proiect final*  
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*10.04.2024*



# I. Notiuni teoretice

- *Ce e reprezintă cerințele de business, la ce ne folosesc și cine le creează?*

Cerintele de business reprezinta un set de specificatii care se bazeaza pe nevoile clientului. Ele ajuta la stabilirea asteptarilor privind proiectul in dezvoltare, definesc importanta si beneficiile acestuia.

- *Test Condition vs Test Case*

Test Condition – definește o condiție ce trebuie verificată în timpul testării pentru a verifica funcționalitatea sau/si comportamentul unui sistem sau a unei anumite funcționalități. •

Test Case –este un set detaliat de instrucțiuni ce trebuie facute pentru a verifica daca anumite conditii de testare sunt îndeplinite sau nu.

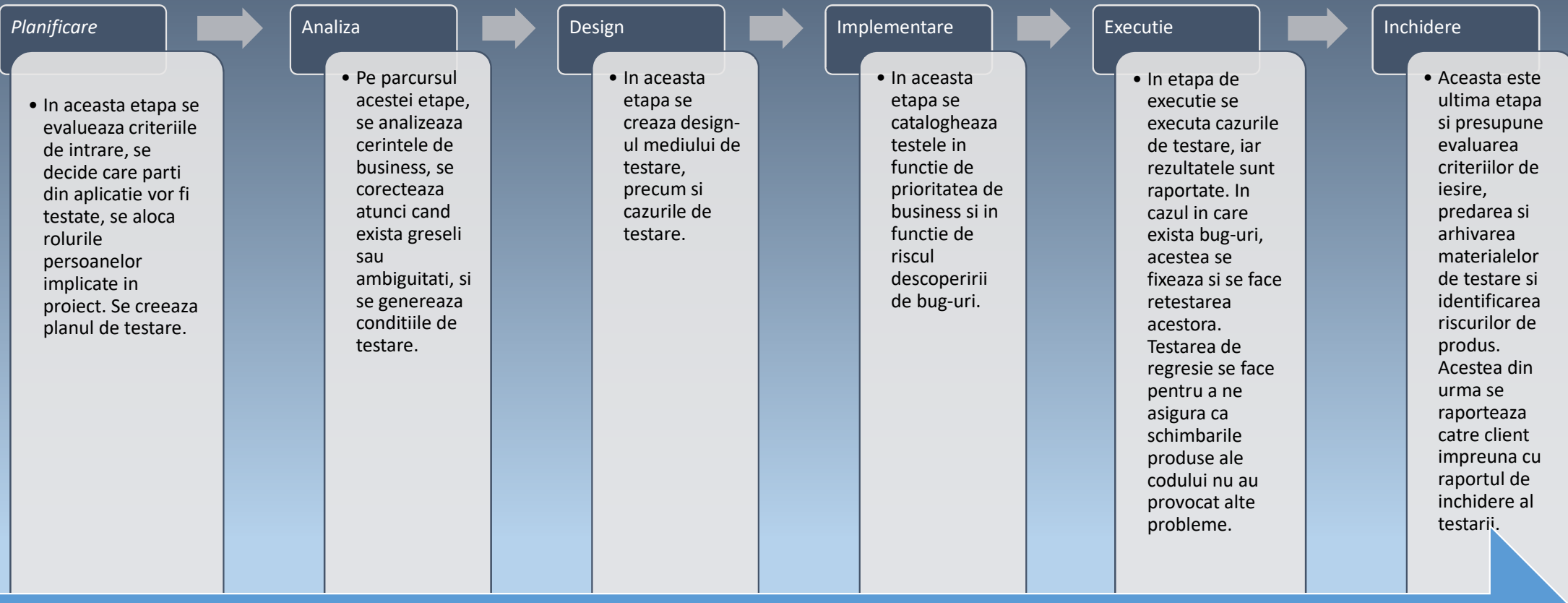
- *Retestare vs Testare de Regresie*

Retestarea verifică dacă defectele găsite în sistem au fost remediate.

Testarea de regresie verifica daca prin rezolvarea defectelor descoperite anterior, nu s-au produs alte defecte in intreg sistemul.



# Etapele procesului de testare



## Monitorizare si control

Aceasta etapa monitorizeaza progresul actual si il compara cu planul initial de testare, incepe o data cu prima etapa si se termina cu ultima. Se iau masuri de control atunci cand exista devieri de la plan sau se observa riscul de a nu indeplini cerintele.

# Functional Testing vs Non-functional Testing

## *Functional Testing*

- Testarea functionala este un tip de testare black-box. Testele functionale sunt teste create pe baza specificatiilor, functionalitatile pot fi testate fara a sti partea interna a produsului.

## *Non-functional Testing*

- Testarea non-functională verifică performanța, eficiența, mentenabilitatea sistemului și se concentrează pe cum trebuie să se comporte produsul software.

# Black-box Testing vs White-box Testing

## *Black-box Testing*

- Testarea Black-box este o metoda de testare bazata pe specificatii, ea examineaza functionalitatile aplicatiei, fara a cunoaste structura codului sursa pe baza caruia actioneaza programul.

## *White-box Testing*

- Testarea White-box denumita si testare structural, este o metoda de testare care se concentreaza pe verificarea codului, design-ului, precum si a structurii interne a unei aplicatii software.

## Verificare vs validare

### Verificare

Verificarea este procesul prin care ne asiguram ca produsul este construit conform documentatiei.

### Validare

Validarea este procesul prin care ne asiguram ca produsul finit se comporta conform asteptarilor utilizatorului.

## Testare pozitiva vs testare negativa

### Testare pozitiva

Testarea pozitiva implica testarea unui system prin introducerea unor date valide si corecte, pentru a ne asigura ca acesta functioneaza conform asteptarilor.

### Testare negativa

Testarea negativa este modalitatea de testare a unui system prin introducerea unor date incorecte, neasteptate, pentru a ne asigura ca acestea sunt respinse si ca nu cauzeaza defecte ale sistemului.

### Tehnicile de testare

#### Whitebox

- *Statement coverage*
- *Decision coverage*

#### Blackbox

- *Boundary Value Analysis*
- *Equivalence Partitioning*
- *State Transitioning*
- *Decisional Table*

#### Experience testing

- *Ad-hoc Testing*
- *Exploratory Testing*
- *Error guessing*

## Nivelurile de testare

```
graph TD; A[Nivelurile de testare] --> B[Testarea unitara<br/>consta in testarea<br/>individuala a<br/>unitatilor separate<br/>din sistemul software]; A --> C[Testarea de integrare<br/>consta in<br/>testarea interactiunii<br/>dintre componente<br/>si/sau sisteme]; A --> D[Testarea de sistem<br/>evalueaza intreaga<br/>functionalitate si<br/>performanta a<br/>intregului sistem]; A --> E[Testarea de acceptanta<br/>-verifica<br/>indeplinirea nevoilor<br/>utilizatorului]; C --> F[Testarea de componente<br/>-presupune<br/>verificarea fiecarui<br/>component in parte]; C --> G[Testarea de integrare<br/>a sistemului<br/>-presupune testarea<br/>componentelor<br/>individuale combinate];
```

**Testarea unitara-**  
consta in testarea  
individuala a  
unitatilor separate  
din sistemul software

**Testarea de  
integrare-**consta in  
testarea interactiunii  
dintre componente  
si/sau sisteme

**Testarea de sistem-**  
evalueaza intreaga  
functionalitate si  
performanta a  
intregului sistem

**Testarea de  
acceptanta-**verifica  
indeplinirea nevoilor  
utilizatorului

**Testarea de  
componente-**  
presupune  
verificarea fiecarui  
component in parte

**Testarea de integrare  
a sistemului-**  
presupune testarea  
componentelor  
individuale combinate

# CERINTE DE BUSSINESS

Projects / Simona Catrinoliu TM-... / Add epic / SCTT-8

As an existing user of the site elefant.ro I want to be able to add a product to my cart

Attach Create subtask Link issue

## Description

- **Description:** This user story describes the process of adding a product in the cart, when already registered with a customer account on the website [www.elefant.ro](http://www.elefant.ro). The user should be able to add a product in the cart, using 'Adauga in cos' button found on the right side of the product.

- **Business Requirements:**

The "Adauga in cos" button should be available on the right side of the product.

Clicking the "Adauga in cos" button should successfully add the selected product to the user's cart.

After adding an item to the cart, the user should see a summary that displays the total number of items currently in their cart.

The user should have the option to continue shopping and add more items to their cart, or proceed to checkout directly from the cart summary.

- **Preconditions:**

The user must have an existing account on the site.

The user must be logged in to their account.

The user must go to 'Categorii', then select a 'Subcategorie', press any 'Colectie' button and then select the product.

- **Acceptance Criteria:**

When browsing a product, I should see an "Adauga in cos" button.

Clicking the button should add the product to my cart

The cart summary should display the total number of items added.

I can continue shopping or proceed to checkout from the cart.

## Attachments (1)



As a user, I want an option to stay logged in, so that I don't have to enter my credentials every time.

Attach Create subtask Link issue

## Description

- **Description:** This user story describes the process of staying logged in as a user, when already registered with a customer account on the website [www.elefant.ro](http://www.elefant.ro). The user should be able to stay logged in, by selecting 'Tine-ma minte' button when logging in.

- **Business requirements:**

The user must be able to remain logged in for a specified period of time.

The user must be able to log out of the platform at any time and be able to log in back.

The user must be able to reset their password if they forget it.

The user must be able to view and manage their login sessions.

The user must be able to revoke access to their account from other devices.

- **Preconditions**

The user must have an account on the platform.

The user must have the option to log in to and log out of the platform.

The user must have the option to remain logged in after closing the application or browser.

The user must have the option to reset their password if they forget it.

- **Acceptance Criteria:**

When I log in successfully, there should be an option to keep my session active across multiple visits or browser sessions.

During login, I should see a "Tine-ma minte" checkbox. If I check it, my login session remains active even after closing the browser or app.

When I return to the website or app, I should be automatically logged in without having to re-enter my credentials.

Despite staying logged in, I should have the ability to log out manually if needed.

The "Tine-ma minte" feature should not compromise security. It should use secure tokens or cookies to maintain the session.

## Attachments (1)



# CONDITIILE DE TESTARE

Condițiile de testare de mai jos sunt create în Zephyr Squad. Se testează funcționalitățile de logare, precum și funcționalitățile de adăugare, ștergere sau sortare a produselor aflate în cosul user-ului deja logat.

IssueKey	Summary	Issue Type	Status
SCTT-19	Verify if the user is automatically logged out when the session expires due to inactivity.	Test	Done
SCTT-18	Verify that the "Stay Logged In" functionality works consistently across different browsers (Chrome, Firefox, Edge, etc.)	Test	Done
SCTT-17	After successful login, verify that the user remains logged in even after closing the application or browser.	Test	Done
SCTT-16	Verify that incorrect credentials (invalid username or password) result in a failed login.	Test	Done
SCTT-15	Verify that a user can log in successfully using valid credentials (username and password).	Test	Done
SCTT-14	Verify that clicking the "-" button multiple times does not allow the user to proceed to a negative quantity (e.g., -1, -2, -3, etc.).	Test	Done
SCTT-13	Verify whether the user can increase the quantity of the product in the cart.	Test	Done
SCTT-12	Verify that the cart displays as empty when the user removes all items.	Test	Done
SCTT-11	Verify that the quantity of the product increases by one when adding an item to the cart.	Test	Done
SCTT-10	Verify that clicking the "Add to Cart" button successfully adds the selected product to the cart.	Test	Done



# CAZURILE DE TESTARE

SCTT-15

Created at 27/Feb/24 2:03 PM by IT Factory with [Better PDF Exporter for Jira Cloud](#)



## [SCTT-15] Verify that a user can log in successfully using valid credentials (username and password).

Created: 26/Feb/24 10:29 PM - Updated: 27/Feb/24 1:52 PM - Resolved: 27/Feb/24 1:13 PM

Status:	Done		
Project:	Simona Catrinolui TM-TA10		
Component/s:	None		
Fix Version/s:	None		
Type:	Test	Priority:	High
Reporter:	IT Factory	Assignee:	Unassigned
Resolution:	Done	Votes:	0
Labels:	None		
Original Estimate:	Not Specified		
Remaining Estimate:	Not Specified		
Time Spent:	Not Specified		

### Description

The user is able to log in successfully using a valid username and a valid password.

#### Preconditions:

- The user must had previously signed up.
- Valid URL
- Valid credentials

Test Step	Test Data	Expected Result
1. Navigate to www.elefant.ro	www.elefant.ro	User can access the website
2. Go to 'Sign-up' page, on the right side of the screen		User can access 'Sign-up' page
3. Enter valid username and password and press 'Sign in'	Valid username and valid password	User is able to enter a valid username and password and is able to log in successfully

Version	Test Cycle	Status	Defects	Executed By	Executed On
Unscheduled	Ad hoc	PASS		IT Factory	27/Feb/24 1:54 PM

SCTT-13

Created at 28/Feb/24 10:09 AM by IT Factory with [Better PDF Exporter for Jira Cloud](#)



## [SCTT-13] Verify whether the user can increase the quantity of the product in the cart.

Created: 26/Feb/24 10:24 PM - Updated: 28/Feb/24 9:52 AM - Resolved: 27/Feb/24 1:13 PM

Status:	Done		
Project:	Simona Catrinolui TM-TA10		
Component/s:	None		
Fix Version/s:	None		
Type:	Test	Priority:	Medium
Reporter:	IT Factory	Assignee:	Unassigned
Resolution:	Done	Votes:	0
Labels:	None		
Original Estimate:	Not Specified		
Remaining Estimate:	Not Specified		
Time Spent:	Not Specified		

### Description

The user is able to add a product to cart and then increase the quantity of the product by pressing '+' sign

#### Preconditions:

- The user must have internet connection and go to website www.elefant.ro
- The user must be logged in with a valid username and password
- The user must already have at least a product in the cart

Test Step	Test Data	Expected Result
1. Navigate to www.elefant.ro	www.elefant.ro	User is able to access the website
2. Go to Log in page and log in using valid credentials	Valid username and password	User is able to log in
3. On the new page, from the dropdown 'Categories', choose 'Books', scroll down and add a book to your cart		User is able to add a product to cart
4. On the new page, on the right side of the screen, select 'cart' dropdown and then press 'see your cart' in order to access the cart		User is able to access the cart
5. On the new page, below the product, press '+' button in order to increase the quantity of the product		User is able to increase the quantity of the product

Version	Test Cycle	Status	Defects	Executed By	Executed On
Unscheduled	Ad hoc	PASS		IT Factory	28/Feb/24 10:06 AM

# MATRICEA DE TRASABILITATE

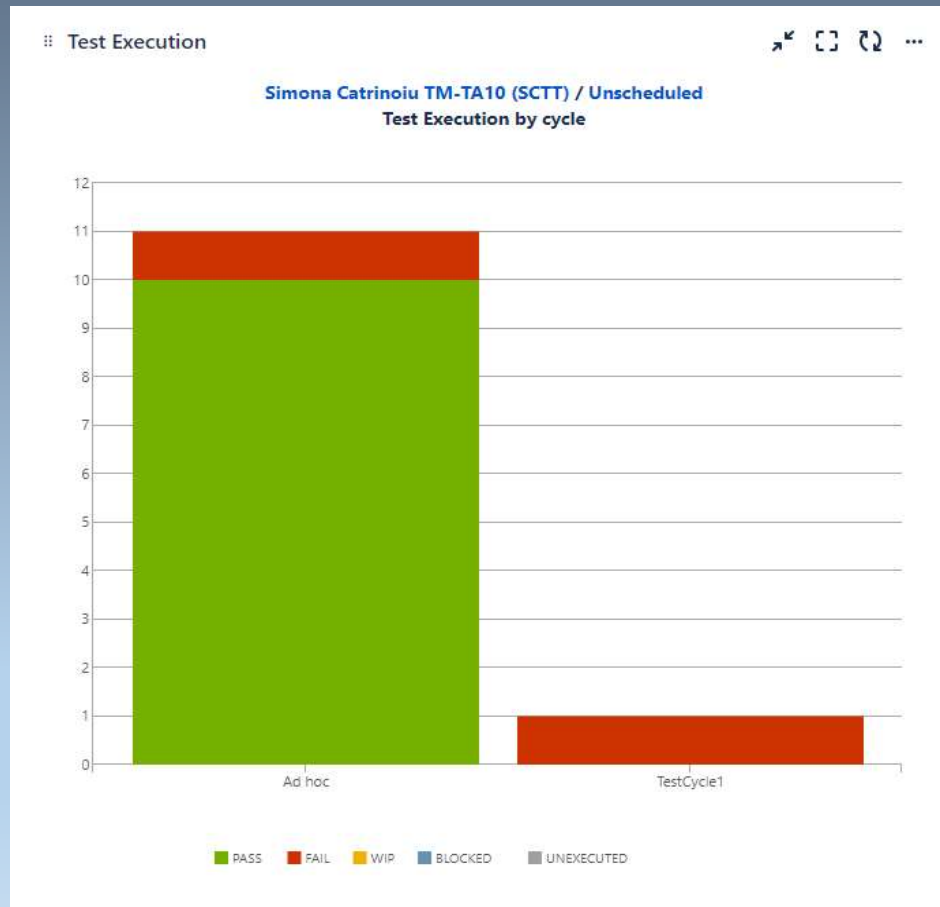
Requirements	Tests	Executions	Defects
	SCTT-23 - Verify that the products stay in the cart after logging in	TestCycle1 - FAIL	SCTT-22 - The products do not stay in the cart after logging in
SCTT-9 - As a user, I want an option to stay logged in, so that I don't have to enter my credentials every time.	SCTT-15 - Verify that a user can log in successfully using valid credentials (username and password).		
		Ad hoc - PASS	None
	SCTT-16 - Verify that incorrect credentials (invalid username or password) result in a failed login.	Ad hoc - PASS	None
	SCTT-17 - After successful login, verify that the user remains logged in even after closing the application or browser.	Ad hoc - PASS	None
	SCTT-18 - Verify that the "Stay Logged In" functionality works consistently across different browsers (Chrome, Firefox, Edge, etc.)	Ad hoc - PASS	None
	SCTT-19 - Verify if the user is automatically logged out when the session expires due to inactivity.	Ad hoc - PASS	None
			SCTT-21 - When logging in, the 'remember me' checkbox is automatically selected and the username and password are filled in
	SCTT-20 - Verify if when unselected, the 'remember me' option does not work	Ad hoc - FAIL	
SCTT-8 - As an existing user of the site elephant.ro I want to be able to add a product to my cart	SCTT-10 - Verify that clicking the "Add to Cart" button successfully adds the selected product to the cart.		
		Ad hoc - PASS	None
	SCTT-11 - Verify that the quantity of the product increases by one when adding an item to the cart.	Ad hoc - PASS	None
	SCTT-12 - Verify that the cart displays as empty when the user removes all items.	Ad hoc - PASS	None
	SCTT-13 - Verify whether the user can increase the quantity of the product in the cart	Ad hoc - PASS	None
	SCTT-14 - Verify that clicking the "-" button multiple times does not allow the user to proceed to a negative quantity (e.g., -1, -2, -3, etc.).	Ad hoc - PASS	None

Forward Traceability



Matricea de trasabilitate a fost generata din aplicatia Jira si contine doua dintre cerintele de business, doisprezece teste executate, precum si rezultatul acestora si defectele gasite. Au fost descoperite doua bug-uri, care urmeaza a fi fixate, ca mai apoi sa se faca retestarea si testarea de regresie.

# RAPORTUL GENERAT DIN APLICATIA JIRA DIN SECTIUNEA DASHBOARD



Raportul alaturat a fost generat din aplicatia Jira din sectiunea Dashboard si face un rezumat al activitatilor de testare, al rezultatelor testelor executate si ne arata calitatea produsului software testat. Dupa cum se poate observa, zece dintre testele executate au statusul “pass”, si numai doua dintre ele au statusul “fail”, ceea ce arata ca aplicatia testata are o calitate crescuta.

# ANALIZA DE RISC-MATRICE SAU GRAFIC PRISMA

ID Risc	Risc	Probabilitate	Impact	Nivel de risc=Impact x Probabilitate
Riscuri de proiect				
R1	Probleme cu cerintele neclare de de bussiness sau care se schimba frecvent	3	4	12
R2	Calitatea scazuta a codului	2	4	8
R3	Lipsa competentei echipei	3	4	12
R4	Dedline restrans	3	3	9
R5	Probleme cu instrumentele de testare	3	3	9
R6	Intarzieri in inceperea procesului de testare	4	4	16

ID Risc	Risc	Probabilitate	Impact	Nivel de risc=Impact x Probabilitate
Riscuri de produs				
R7	Performanta scazuta a produsului software	3	4	12
R8	Aplicatia nu este usor de utilizat	3	3	9
R9	Pierdere clientilor din cauza erorilor aplicatiei	3	4	12
R10	Compatibilitate scazuta a software-ului cu alte extensii	2	4	8
R11	Cerere scazuta a pietei	2	4	8
R12	Aplicatia nu poate fi utilizata si de catre persoanele vulnerabile	3	3	9

	Insignifiant	Minor	Moderate	Major	Catastrophic
Probabilitate	1	2	3	4	5
Almost Certain					
Likely				R6	
Possible			R4,R5,R8,R12	R1,R3,R7,R9	
Unlikely				R2,R10,R11	
Rarely					



# Raport de defect (Bug Ticket)

SCTT-8 / SCTT-22

## The products do not stay in the cart after logging in

[Attach](#) [Create subtask](#) [Link issue](#) [▼](#)

### Description

**Description:** The products in the cart disappear after logging in

### Steps to reproduce:

1. Go to [www.elefant.ro](http://www.elefant.ro)
2. Select a product and add it to card using 'Add to cart' button
3. On the right side of the screen, select 'My account', go to log in window and log in using username ([simonaa.voiculescu@gmail.com](mailto:simonaa.voiculescu@gmail.com)) and password (Abecedar12)

### Expected result:

The products previously added to cart should remain in the cart

### Actual result:

The products are automatically deleted from the cart

### Environment

Chrome 1.2

CONECTARE



Cont



Favorite



Cos

CONTUL MEU



SIMONA CATRINOIU



Cont



Favorite



Cos

CONECTARE

SCTT-9 / SCTT-21

## When logging in, the 'remember me' checkbox is automatically selected and the username and password are filled in

[Attach](#) [Create subtask](#) [Link issue](#) [▼](#)

### Description

**Description:** Remember me' checkbox is automatically selected when trying to sign in

### Steps to reproduce:

1. Navigate to [www.elefant.ro](http://www.elefant.ro)
2. Go to log in window and fill in username ([simonaa.voiculescu@gmail.com](mailto:simonaa.voiculescu@gmail.com)) and password (Abecedar12)
3. Press 'Log in' but do not select 'Remember me' checkbox
4. After logging in, go to the right side of the new screen and from the 'My account' dropdown, select 'Disconnect'

### Expected result:

After logging out, the username and password fields should be blank and 'remember me' checkbox unselected

### Actual result:

After logging out, the username and password fields are populated and 'remember me' checkbox is automatically selected

### Environment

Chrome 1.2

## Utilizatori Recurenți

[simonaa.voiculescu@gmail.com](mailto:simonaa.voiculescu@gmail.com)

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Ține-mă minte

CONECTARE

# CONCLUZII GENERALE

- In cadrul acestui proiect au fost scrise si acoperite 2 story-uri si testate 13 test case-uri planificate pentru executie.
- Dupa executia tuturor testelor, au fost descoperite 2 bug-uri, ale caror prioritati sunt:
- Dupa fixarea defectelor raportate, urmeaza efectuarea retestarii si a testarii de regresie.
- Accesarea proiectului final adaugat in GitHub se poate face prin intermediul urmatorului link: <https://github.com/SimonaCatrinoiu6>

VA MULTUMESC!