



Civil Defense Command and Control Center



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Submitted to Dr. Ramzi Haraty in partial fulfillment of the requirements for the course "CSC  
490: Software Engineering."

11/17/2023

Civil Defense Command and Control Center						
Cypher Nova						
Test Case ID: TC001			Test Designed by: Nancy Akoum			
Test Priority (Low/Medium/High): Med			Test Designed date: 11/1/2023			
Module Name: Login form			Test Executed by:			
Test Title: Verify login with a valid username and valid password			Test Execution date:			
Description: Evaluate the functionality of the login page with the user attempt to log in with a valid email and a valid password						
Pre-conditions: The user possesses a valid username and password						
Dependencies: User credentials are securely stored in the database						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	Open the web app and click on the login button to access the form	User: <a href="mailto:beirut.center@gmail.com">beirut.center@gmail.com</a>	The user should successfully log in and access the dashboard.			
2	Provide valid username	Password: xyThk9?aepOOnhbeirut				
3	Provide valid password					
4	Click on the login button					
Post-conditions: The user is validated with the database and successfully logs into the account. The account session details are logged into the database.						





<b>Test Case ID:</b> TC004				<b>Test Designed by:</b> Nancy Akoum		
<b>Test Priority (Low/Medium/High):</b> Med				<b>Test Designed date:</b> 11/1/2023		
<b>Module Name:</b> Login form				<b>Test Executed by:</b>		
<b>Test Title:</b> Restrict login with empty username box and a password				<b>Test Execution date:</b>		
<b>Description:</b> Evaluate the login page functionality when a user attempts to log in with an empty username and a password						
<b>Pre-conditions:</b> The user possesses a valid username and password						
<b>Dependencies:</b> The user credentials are securely stored in the database						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	Open the web app and click on the login button to get the form	Password: 1234	The user should NOT be able to login and access the dashboard			
2	Keep username box empty		An error message signals username field is required			
3	Provide password					
4	Click on login button					
<b>Post-conditions:</b> The user is denied access and fails to log in to account. An error message signals to enter the username.						





















<b>Test Case ID:</b> TC014				<b>Test Designed by:</b> Joy Andraos		
<b>Test Priority (Low/Medium/High):</b> High				<b>Test Designed date:</b> 11/1/2023		
<b>Module Name:</b> Dashboard				<b>Test Executed by:</b>		
<b>Test Title:</b> Generate a new incident form with complete details				<b>Test Execution date:</b>		
<b>Description:</b> Evaluate the “Create incident” page functionality						
<b>Pre-conditions:</b> The user possesses valid credentials and logged in						
<b>Dependencies:</b> None						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	Click on the create new incidents button “+”	Type of emergency: forest fire	The user should be able to save the new incident form			
2	Fill all the details in	Priority level: high				
3	Save incident	...				
4						
<b>Post-conditions:</b> The user successfully saved the new incident.						





<b>Test Case ID:</b> TC016				<b>Test Designed by:</b> Joy Andraos		
<b>Test Priority (Low/Medium/High):</b> High				<b>Test Designed date:</b> 11/1/2023		
<b>Module Name:</b> Dashboard				<b>Test Executed by:</b>		
<b>Test Title:</b> Status of a new incident				<b>Test Execution date:</b>		
<b>Description:</b> Evaluate the system's ability to display and manage the status of newly created incidents.						
<b>Pre-conditions:</b> The user possesses valid credentials, logs in, and creates a new incident						
<b>Dependencies:</b> None						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	Click on the table of active incidents		The user should be able to view the incident created in the "active" table with a status = active			
<b>Post-conditions:</b> The user can view and follow in real-time the ongoing emergency and its potential evolutions.						

<b>Test Case ID:</b> TC017				<b>Test Designed by:</b> Joy Andraos		
<b>Test Priority (Low/Medium/High):</b> High				<b>Test Designed date:</b> 11/1/2023		
<b>Module Name:</b> Dashboard				<b>Test Executed by:</b>		
<b>Test Title:</b> Status of an incomplete incident (mission complete but post-mission report incomplete)				<b>Test Execution date:</b>		
<b>Description:</b> Evaluate the system's handling of incidents marked as resolved with incomplete post-mission reports.						
<b>Pre-conditions:</b> The user possesses valid credentials, logged in, and resolved an incident without filling the post-mission report.						
<b>Dependencies:</b> None						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	Once the mission is over, click on the "done" button on the incident form		The user should be able to view the incident resolved in the "active" table with a status = resolved which indicates it is over with an incomplete post-mission report			
2	Click on the table of active incidents					
<b>Post-conditions:</b> The user marked the mission as resolved and can now move to the post-mission report.						

<b>Test Case ID:</b> TC018				<b>Test Designed by:</b> Joy Andraos		
<b>Test Priority (Low/Medium/High):</b> High				<b>Test Designed date:</b> 11/1/2023		
<b>Module Name:</b> Dashboard				<b>Test Executed by:</b>		
<b>Test Title:</b> Status of a completed incident (mission resolved and post-mission report complete)				<b>Test Execution date:</b>		
<b>Description:</b> Evaluate the system's handling of incidents marked as closed with completed post-mission reports.						
<b>Pre-conditions:</b> The user possesses valid credentials, logs in, resolves an incident, and fills in the post-mission report.						
<b>Dependencies:</b> None						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	After resolving an incident, the user fills in the post-mission report	Degree of damage: severe (with a text describing the details)	The user should be able to view the incident resolved in the "history" table with a status = closed which indicates it is over with its post-mission report			
2	Click on the "close" button when done	...				
<b>Post-conditions:</b> The user marked the mission as closed and can still view it and update it in the history table.						

<b>Test Case ID:</b> TC019				<b>Test Designed by:</b> Joy Andraos		
<b>Test Priority (Low/Medium/High):</b> High				<b>Test Designed date:</b> 11/1/2023		
<b>Module Name:</b> Dashboard				<b>Test Executed by:</b>		
<b>Test Title:</b> Update details of an incident				<b>Test Execution date:</b>		
<b>Description:</b> Evaluate the system's capability to update information on an incident						
<b>Pre-conditions:</b> The user possesses valid credentials and logged in.						
<b>Dependencies:</b> None						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	Click on the table of active incidents table	Type of emergency: <del>Forest fire</del> is modified to house fire	The user should be able to modify the incident's details			
2	Click on the "update" button					
3	Access the incident form and modify the needed details					
4	Click on the "save" button					
<b>Post-conditions:</b> The user updated information on an incident.						

<b>Test Case ID:</b> TC020			<b>Test Designed by:</b> Joy Andraos			
<b>Test Priority (Low/Medium/High):</b> High			<b>Test Designed date:</b> 11/1/2023			
<b>Module Name:</b> Dashboard			<b>Test Executed by:</b>			
<b>Test Title:</b> Automatic resource allocation			<b>Test Execution date:</b>			
<b>Description:</b> Evaluate the automatic allocation of resources based on the details filled in when creating the incident						
<b>Pre-conditions:</b> The user possesses valid credentials, logs in, and creates a new incident						
<b>Dependencies:</b> None						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status	Notes
1	Save the incident and initiate automatic resource allocation, measuring the time taken		An automatic form of the resources needed and available is generated.			
2	Generate the automatic form of needed resources and record the time taken		Availability should be updated in real-time, meaning it should not show available when it is not and vice versa.			
3	Validate that the availability updates in real-time within an acceptable time limit					
4	Verify data integrity by checking that the allocated resources match the incident details					
<b>Post-conditions:</b> The user generated an automatic form of the needed resources in real-time and proceeded with it.						



<b>Test Case ID:</b> TC022				<b>Test Designed by:</b> Joy Andraos		
<b>Test Priority (Low/Medium/High):</b> High				<b>Test Designed date:</b> 11/1/2023		
<b>Module Name:</b> Dashboard				<b>Test Executed by:</b>		
<b>Test Title:</b> Manual Resource Allocation				<b>Test Execution date:</b>		
<b>Description:</b> Evaluate the manual allocation of resources						
<b>Pre-conditions:</b> The user possesses valid credentials, logs in, and creates a new incident						
<b>Dependencies:</b>						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	After saving the incident, the user is taken to the resource allocation form and chooses the “manual” button		The form of the resources needed is generated with a green flag next to the available ones			
2	The user manually selects the needed resources which are all available					
3	Click on “Proceed”					
<b>Post-conditions:</b> The user-generated a manual form of the needed resources and proceeded with it.						

<b>Test Case ID:</b> TC023				<b>Test Designed by:</b> Joy Andraos		
<b>Test Priority (Low/Medium/High):</b> High				<b>Test Designed date:</b> 11/1/2023		
<b>Module Name:</b> Dashboard				<b>Test Executed by:</b>		
<b>Test Title:</b> Manual resource allocation error				<b>Test Execution date:</b>		
<b>Description:</b> Evaluate the manual allocation of resources with attention to handling errors.						
<b>Pre-conditions:</b> The user possesses valid credentials, logged in, and created a new incident						
<b>Dependencies:</b> None						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	After saving the incident, the user is taken to the resource allocation form and chooses the “manual” button		The form of the resources needed is generated with a green flag next to the available ones and a red flag next to the unavailable ones.			
2	The user manually selects the needed resources but some of them are unavailable		The user receives an attention message indicating that some resources are unavailable but can proceed anyway in case of high priority.			
3	Click on “Proceed”					
<b>Post-conditions:</b> The user-generated a manual form of the needed resources and failed to proceed with it.						



<b>Test Case ID:</b> TC024			<b>Test Designed by:</b> Ahmad El Kurdi			
<b>Test Priority (Low/Medium/High):</b> Med			<b>Test Designed date:</b> 11/1/2023			
<b>Module Name:</b> Messaging			<b>Test Executed by:</b>			
<b>Test Title:</b> Messaging feature from/to the center to/from responders			<b>Test Execution date:</b>			
<b>Description:</b> Evaluate the functionality of the messaging feature for communication between the center and responders during a mission						
<b>Pre-conditions:</b> The user possesses valid credentials and logged in.						
<b>Dependencies:</b> None						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	The user clicks on the “message” button		Messages are sent and received successfully			
2	The user accesses chats with responders and selects the needed one					
3	The user sends a message and receives a message when the responder answers					
<b>Post-conditions:</b> The user managed to send messages from the center and receive messages from the responders’ side.						

Test Case ID: TC025				Test Designed by: Ahmad El Kurdi		
Test Priority (Low/Medium/High): Med				Test Designed date: 11/1/2023		
Module Name: Maps				Test Executed by:		
Test Title: Real-time tracking on maps				Test Execution date:		
Description: Evaluate the performance and accuracy of real-time tracking on maps.						
Pre-conditions: The user possesses valid credentials and logged in.						
Dependencies: None						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	The user clicks on the “maps” button and measures the time taken		The user should access the Lebanese map and be able to view the trucks on mission and the available ones in real-time			The time taken for each step should be within acceptable limits for a seamless real-time experience
2	Observe the real-time tracking of trucks on a mission recording the time taken					
3	Introduce a simulated high-traffic scenario by increasing the number of tracked vehicles on the map.					







<b>Test Case ID:</b> TC028				<b>Test Designed by:</b> Ahmad Abou El Kheir		
<b>Test Priority (Low/Medium/High):</b> High				<b>Test Designed date:</b> 11/1/2023		
<b>Module Name:</b> Role-based access				<b>Test Executed by:</b>		
<b>Test Title:</b> Call center account access to maps				<b>Test Execution date:</b>		
<b>Description:</b> Evaluate that only the call center can view the trucks of all the centers in Lebanon in real-time						
<b>Pre-conditions:</b> The call center user possesses valid credentials and logged in.						
<b>Dependencies:</b>						
Step	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	Notes
1	The call center user clicks on the “map” button		The call center user should access the Lebanese map and be able to view the trucks on mission and the available ones of all the centers in real-time			
<b>Post-conditions:</b> The call center user successfully viewed the Lebanese maps along with the trucks of all the centers interacting in real time.						

