

Requirements “TimBan”

The web-application “TimBan” is a web-application that provides the possibility to record working time of single employees (users). Employees can see their time report individually. With “TimBan” users can be assigned to a project. In projects, it is visible how many hours have been spent by each employee.

The following document includes the requirements, a sample flow chart, mockups and a test plan for the application “TimBan”. This document contains a “first overview” for the IT-Project, which has been simplified as much as possible. Along the project, the use cases, flowcharts, mockups and the documentation in general will be detailed to a greater extent.

Functional Requirements

Dissatisfier

Subconscious requirements that must be implemented. Functionalities which the user expects to work as usual.

Satisfier

Conscious requirements that must be implemented. Expected functionalities.

Delighter

Unconscious requirements that exceed the stakeholder’s expectations.

These categories help prioritizing the work. A list of requirements has been created. This list is structured according to the Kano categories.

Category	Requirement
<i>Dissatisfier</i>	Access Web-App; Admin Login; Admin Logout; User Creation; User Display; User Update; User Deletion; User Login; User Logout; Manage Profile; Change Password; Record User start time; Record User stop time; View planned Working Times; View actual Working Times; View total Overtime/Undertime
<i>Satisfier</i>	Define Holidays; Edit / Correct WorkingTimes; View Report in weekly / monthly / yearly views
<i>Delighter</i>	Change Language; Create Project; Add / Change color of a Project; Create Project Manager role; View Project Members; Assign Time to Projects; View Project Detail per User; View Project Detail per Project

Dissatisfiers

Use Case 101: Access Web-App

Access Web-App		
Use Case Number	101	
Description	The system shall return the homepage if a request is done.	
Inputs	-	
Scenario	Main	Alternative
	User enters correct URL system returns page	User enters wrong URL-slug system throws 404
Result	The landing page is shown.	
Postcondition	The page is successfully loaded.	

Use Case 102: Admin Login

Admin Login		
Use Case Number	102	
Description	The system shall allow the admin to log-in	
Inputs	Username, password	
Scenario	Main	Alternative
	Admin enters the username and password	The system informs the admin that the username or the password is incorrect
Result	-	
Postcondition	Admin has access to the admin-account	

Use Case 103: Admin Logout

Admin Logout		
Use Case Number	103	
Description	The system shall allow the admin to log-out	
Inputs	-	
Scenario	Main	Alternative
	Admin clicks on the "Log-out" button	
Result	-	
Postcondition	Admin is logged out	

Use Case 104: User Creation

User Creation		
Use Case Number	104	
Description	The system shall allow the user to create a account	
Inputs	Name, e-mail address, password	
Scenario	Main	Alternative
	User enters name, e-mail address and sets a password	System informs the user that name, e-mail address or/ and password are missing
Result	-	
Postcondition	User is able to log-in to the account	

Use Case 105: User Display

User Display		
Use Case Number	105	
Description	The system shall allow to display the user	
Inputs	-	
Scenario	Main	Alternative
Result	-	
Postcondition	The user has been successfully displayed	

Use Case 106: User Update

User Update		
Use Case Number	106	
Description	The system shall allow the user to update the account	
Inputs	-	
Scenario	Main	Alternative
	User clicks on the "Update account" button to update relevant user data	
Result	-	
Postcondition	The user account has been successfully updated	

Use Case 107: User Deletion

User Deletion		
Use Case Number	107	
Description	The system shall allow the user to delete the user account	
Inputs	-	
Scenario	Main	Alternative
	User enters credentials and clicks on the "Delete account" button	System informs the user that the password and/or the username are incorrect.
Result	-	
Postcondition	User account has been cleared out of the system	

Use Case 108: User Login

User Login		
Use Case Number	108	
Description	The system shall allow the user to log-in	
Inputs	E-mail address/username, password	
Scenario	Main	Alternative
	User enters the e-mail address/username and password	System informs the user that the e-mail address/username and/or password is not correct
Result	Log entry has been added to log file	
Postcondition	User has access to the account	

Use Case 109: User Logout

User Logout		
Use Case Number	109	
Description	The system shall allow the user to log-out	
Inputs	-	
Scenario	Main	Alternative
	User clicks on the "Log-out" button	
Result	Log out entry has been added to log file	
Postcondition	User is logged out	

Use Case 110: Manage Profile

Manage Profile		
Use Case Number	110	
Description	The system shall allow the user to manage the profile	
Inputs	-	
Scenario	Main	Alternative
	User clicks on the "Manage Profile" button	
Result	-	
Postcondition	The user profile has been displayed and managed	

Use Case 111: Change Password

Change Password		
Use Case Number	111	
Description	The system shall allow to the user to change the password	
Inputs	-	
Scenario	Main	Alternative
	User clicks on the "Change password" button	
Result	-	
Postcondition	Password has been successfully changed	

Use Case 201: Record User start time

Record user start time		
Use Case Number	201	
Description	The system shall allow the user to start recording its working time.	
Inputs	-	
Scenario	Main	Alternative
	User clicks on the "check-in" button.	
Result	Button changes from "check-in" to "check-out".	
Postcondition	Work status has been changed to online.	

Use Case 202: Record User stop time

Record user stop time		
Use Case Number	202	
Description	The system shall allow the user to stop recording its working time.	
Inputs	-	
Scenario	Main	Alternative
	User clicks on the "check-out" button.	
Result	Button changes from "check-out" to "check-in".	
Postcondition	Work status has been changed to offline.	

Use Case 203: View planned Working Times

View planned Working Times		
Use Case Number	203	
Description	The system shall allow the user to view the planned working times.	
Inputs	-	
Scenario	Main	Alternative
	The user views the planned working time on the dashboard.	
Result	View planned working times is loaded.	
Postcondition	-	

Use Case 204: View actual Working Times

View actual Working Times		
Use Case Number	204	
Description	The system shall allow the user to view the actual working times.	
Inputs	-	
Scenario	Main	Alternative
	The user views the actual working time on the dashboard.	
Result	View of working time is loaded.	
Postcondition	-	

Use Case 205: View total Overtime/Undertime

View total Overtime/Undertime		
Use Case Number	205	
Description	The system shall allow the user to view the total Overtime and Undertime.	
Inputs	-	
Scenario	Main	Alternative
	The user views the total Undertime and Overtime on the dashboard.	
Result	View of working report is loaded.	
Postcondition	-	

Satisfiers

Satisfiers fall in the category of requirements that are core functionality of the application. Therefore, requirements in this category are being implemented.

Use Case 301: Define Holidays

Define Holidays		
Use Case Number	301	
Description	The system shall allow the user to define holidays.	
Inputs	-	
Scenario	Main	Alternative
	User clicks on "Define new holidays" button Save Holidays	
Result	User created new "Holidays"	
Postcondition	"Holidays" successfully created and stored	

Use Case 302: Edit / Correct WorkingTimes

Edit / Correct Working Times		
Use Case Number	302	
Description	The system shall allow the user to edit working times.	
Inputs	-	
Scenario	Main	Alternative
	Click the button 'edit' on the respective record. Change the time record. Save changes.	
Result	The time record is edited.	
Postcondition	Time record was successfully adapted and stored.	

Use Case 303: View Report in weekly / monthly / yearly views

View Report in weekly / monthly / yearly views		
Use Case Number	303	
Description	The system shall allow the user to view the report in weekly, monthly and yearly views.	
Inputs	-	
Scenario	Main	Alternative
	User clicks on weekly, monthly or yearly view selection.	
Result	The report is shown in the desired version.	
Postcondition	-	

Delighters

To further enhance the product, delighters can be implemented. The following requirements may be implemented but are not required that the application is running properly.

Use Case 401: Change Language

Change Language		
Use Case Number	401	
Description	The system may provide the user with the choice of two languages (English, German)	
Inputs	Select option from the menu	
Scenario	Main	Alternative
	User clicks on the desired language option	
Result	The system is translated	
Postcondition	New language is selected	

Use Case 501: Create Project

Create Project		
Use Case Number	501	
Description	The system may provide the project manager with the option to create a project	
Inputs	Select option to create new project	
Scenario	Main	Alternative
	User clicks on "create project" button Save project	User doesn't have the appropriate rights
Result	Project manager created a new project	
Postcondition	New project successfully created and stored	

Use Case 502: Add / Change color of a Project

Add / Change color of a Project		
Use Case Number	502	
Description	The system may provide the project manager with the option to add/change the coloring of a project	
Inputs	Select option to add/change color	
Scenario	Main	Alternative
	User clicks on a project User adds a color to the project	User changes color of a project
Result	Project manager added/changed the coloring of the project	
Postcondition	New coloring selection stored	

Use Case 503: Create Project Manager role

Create Project Manager role		
Use Case Number	503	
Description	The system may provide the administration with the option to create a "project manager" role	
Inputs	Select option to create project manager role	
Scenario	Main	Alternative
	Admin clicks on "create project manager" button Admin adds credentials Admin clicks "save"	
Result	Project manager role creation has been performed successfully	
Postcondition	New project manager role is created and stored	

Use Case 504: View Project Members

View Project Members		
Use Case Number	504	
Description	The system may provide a view of the project members	
Inputs	Select project member view	
Scenario	Main	Alternative
	User clicks "project member view" button	
Result	Project member view is created	
Postcondition	System displays the project members view to the user	

Use Case 505: Assign Time to Projects

Assign Time to Projects		
Use Case Number	505	
Description	The system may provide the option to assign time to projects	
Inputs	Select time to assign to a project	
Scenario	Main	Alternative
	User selects a project User assigns time to the project User confirms assigned time	
Result	Time has been assigned	
Postcondition	The system stored the assigned time within the projects	

Use Case 506: View Project Detail per User

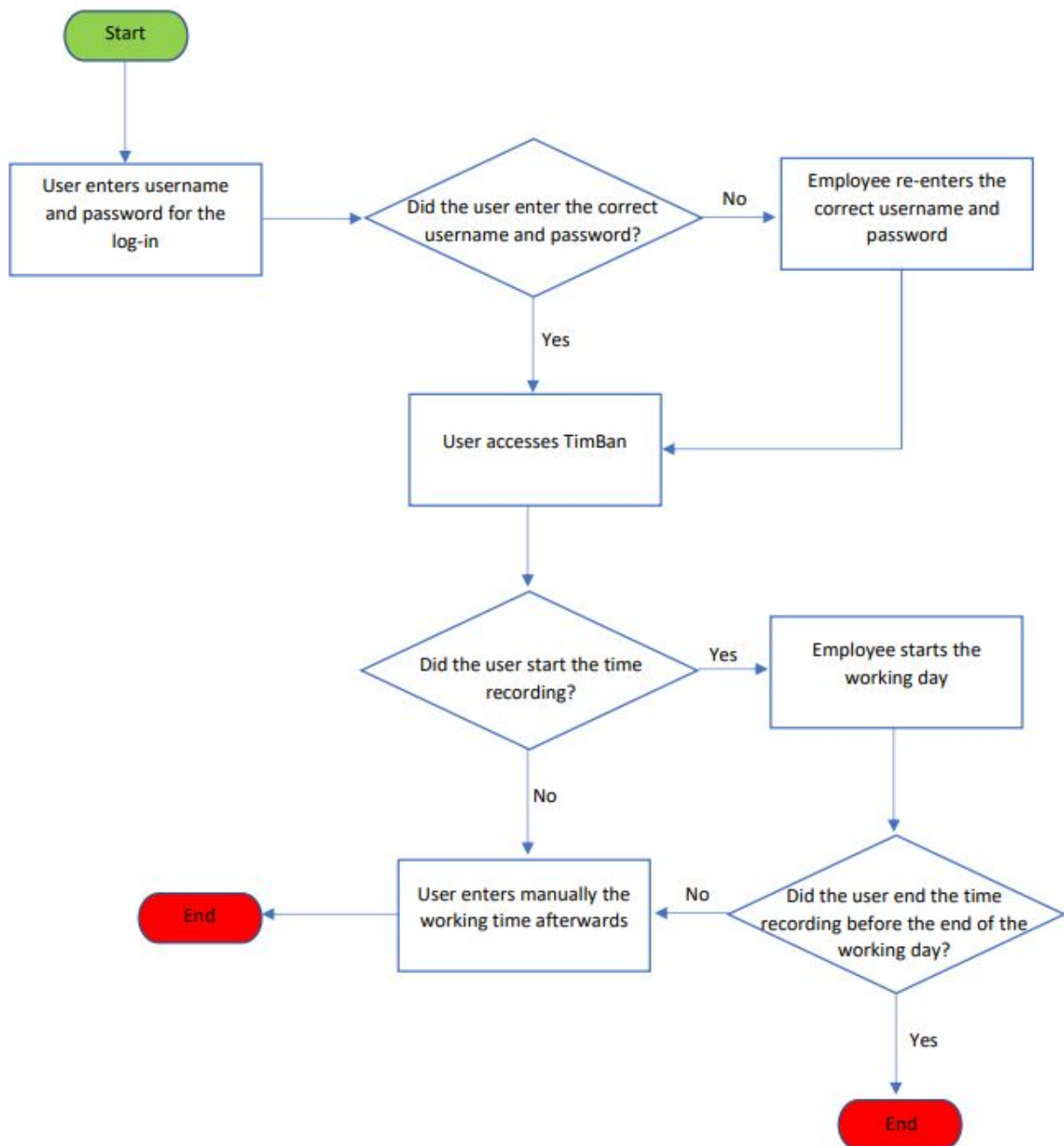
View Project Detail per User		
Use Case Number	506	
Description	The system may provide a detailed view for each user	
Inputs	Select user detail view	
Scenario	Main	Alternative
	User clicks "user detail view" button	
Result	User detail view is created	
Postcondition	System displays the user detail view to the user	

Use Case 507: View Project Detail per Project

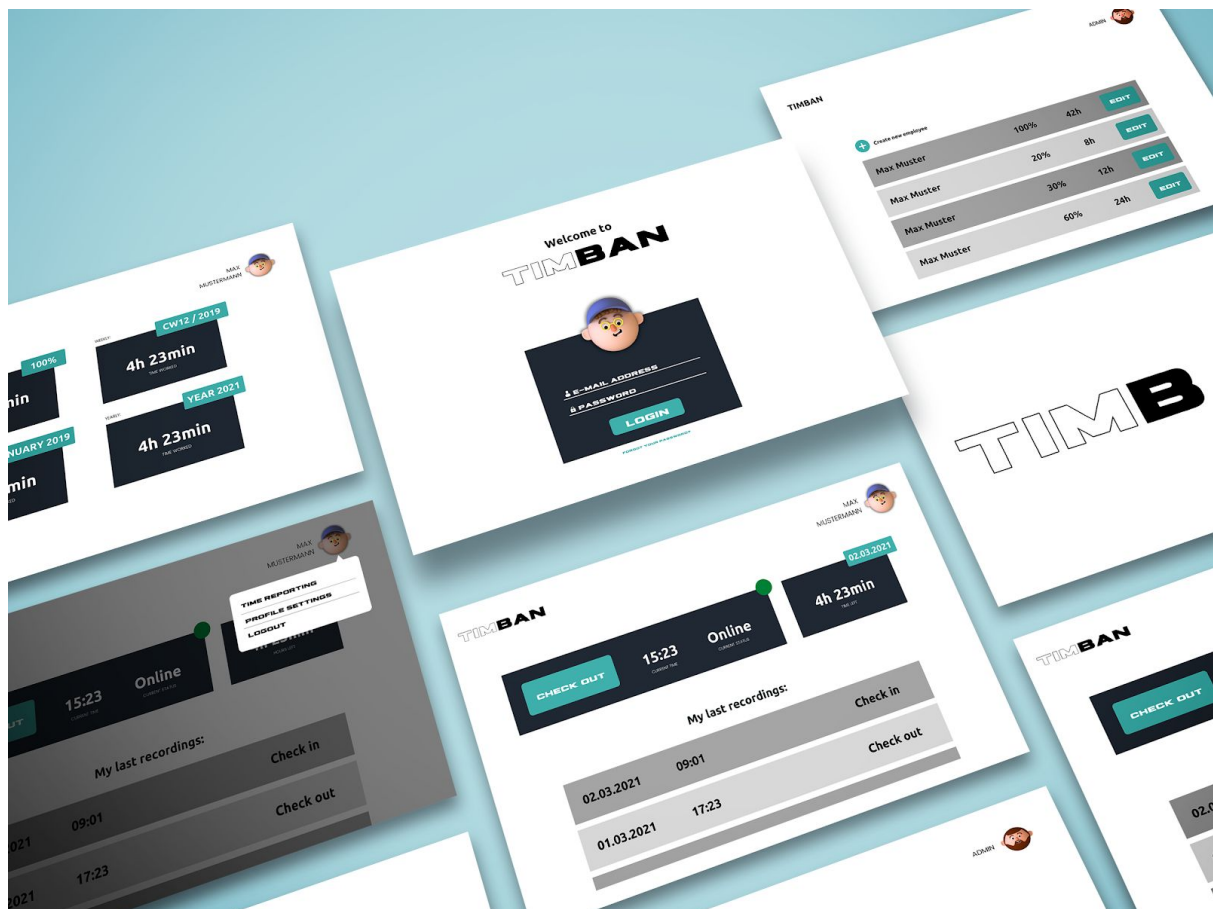
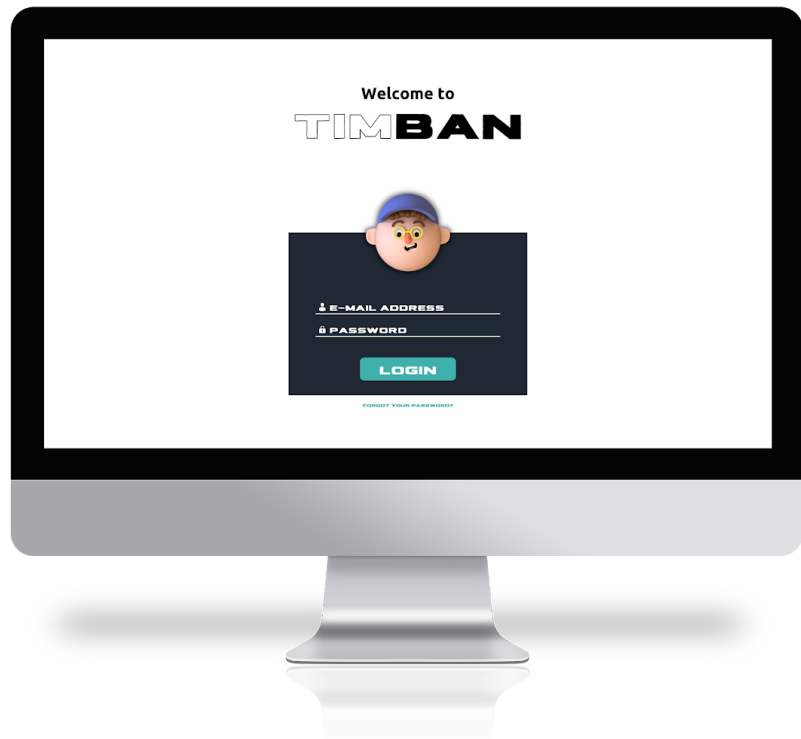
View Project Detail per Project		
Use Case Number	507	
Description	The system may provide a detailed view for each project	
Inputs	Select project detail view	
Scenario	Main	Alternative
	User clicks "project detail view" button	
Result	Project detail view is created	
Postcondition	System displays the project detail view to the user	

Flow chart

The flowchart is based on the use-case 201 (Record User start time) and 202 (Record User stop time). The following chart has been structured as simply as possible. Functionalities and features will be added throughout the project. Therefore, detailed flowcharts based on different use cases will follow.



Mockup



Test Plan

With the test plan a clear structure of testing on installation is given. According to this list, the application is tested and functionality is evaluated.

The tests are written according to all defined Use Cases and numerated in the same matter.

Test 101 is the test for the UC 101.

A test consists of a condition, a task and an expected result. If a condition is not met, the test cannot be executed. Tests that are recursively dependent on another non-executable test also have to be skipped.

If the result is not as expected, the test is not successful. In this case, the exact result has to be noted in the report.

Test Nr	Test Case	Success	Report
#101	Access Web-App Condition: System installed	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	101.1 Call the web-application with the URL. <i>Result: In the browser, the homepage must be displayed.</i>		
#102	Admin Login Condition: Test #101 successful	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	102.1 Login with the predefined admin user. <i>Result: See admin Panel; admin user is logged in</i>		
#103	Admin Logout Condition: Test #102 successful	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	103.1 Log the admin user out of the application. <i>Result: Homepage is displayed; no user is logged in</i>		
Further Notes:			

Test Nr	Test Case	Success	Report
#104	User Creation Condition: Test #102 successful; logged in as admin		
104.1	Create a new user. Enter valid credentials. <i>Result: Page content is reloaded; Result of creation is shown as a notification; Created user is shown;</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
104.2	Create a new user. Enter invalid credentials. <i>Result: User is not created. Notification - bad credentials - is shown.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
#105	User Display Condition: Test #104 successful; logged in as admin		
105.1	Open the view "All Users" (may be different in implementation) <i>Result: All users created by current admin are shown in a list.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
#106	User Update Condition: Test #104 successful; logged in as admin		
106.1	Open the view "All Users" (may be different in implementation), select a user to edit credentials and save. <i>Result: View "All Users" is loaded; edited user credentials are changed correctly.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<i>Further Notes:</i>			

Test Nr	Test Case	Success	Report
#107	User Deletion Condition: Test #104 successful; logged in as admin		
107.1	Delete a created user. <i>Result: View "All Users" is loaded; deleted user is not visible anymore in the list</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
#108	User Login Condition: Test #104 successful; not logged in		
108.1	Login with a previously created user (not admin). <i>Result: User dashboard is shown; Log entry for login is entered in a log file</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
#109	User Logout Condition: Test #108 successful; logged in as a user (not admin)		
109.1	Log out of the application. <i>Result: In the browser, the homepage must be displayed; no user is logged in; Log entry for logout is entered in a log file</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Further Notes:			

Test Nr	Test Case	Success	Report
#110	Manage Profile Condition: Test #108 successful; logged in as a user (not admin)		
110.1	Open the view "Edit Profile"; select edit credentials and save. Enter valid credentials.	<input type="checkbox"/> Yes	
	<i>Result: Page content is reloaded; Result of creation is shown as a notification; New user credentials is shown;</i>	<input type="checkbox"/> No	
110.2	Enter invalid credentials.	<input type="checkbox"/> Yes	
	<i>Result: User is not updated. Notification - bad credentials - is shown.</i>	<input type="checkbox"/> No	
#111	Change Password Condition: Test #108 successful; logged in as a user (not admin)		
111.1	Open the view "Edit Profile" (may be different in implementation), select edit credentials and save. Enter a valid password.	<input type="checkbox"/> Yes	
	<i>Result: Page content is reloaded; Positive result of update is shown as a notification;</i>	<input type="checkbox"/> No	
111.2	Enter an invalid password.	<input type="checkbox"/> Yes	
	<i>Result: User is not updated. Notification - bad password credentials - is shown.</i>	<input type="checkbox"/> No	
<i>Further Notes:</i>			