**Software Test Document**



Attendance System

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# Introduction

This document contains all executed test cases from the Checkpoint Software Test Plan.

Any bugs or failures described in the executed test cases will be recorded and logged with Microsoft VSTS development tools.

# Executed test cases

This section includes all the test cases executed for the Checkpoint software.

## Checkpoint Web App Performance Test Cases

The following executed test cases in this section are for testing the performance of the Checkpoint Web Application.

Browser compatibility test caseas shown in *Table 1.*

Table 1: Browser compatibility test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Browser Compatibility | OK | FAIL | Description | Severity |
| Functionality in Chrome | X |  | OK. |  |
| Functionality in Firefox | X |  | OK. |  |
| Functionality in Opera | X |  | OK. |  |
| Functionality in Microsoft Edge | X |  | OK. |  |
| GUI is rendered correctly in Chrome | X |  | Ok. |  |
| GUI is rendered correctly in Firefox | X |  | OK. |  |
| GUI is rendered correctly in Opera | X |  | OK. |  |
| GUI is rendered correctly in Edge | X |  | Buttons are not rounded and glowing when hoovering over them | Cosmetic |

Multiple simultaneous users test case as shown in

*Table* 2*.*

Table 2: Multiple simultaneous users test case

Tester: Morten Liknes, Kevin Brueland & Chi Lam Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Multiple Simultaneous Users | OK | FAIL | Description | Severity |
| System handles 3 or more simultaneous attempt to update the same table in the database | X |  | Ok. |  |

## Checkpoint Web App Host Functionality Test Cases

The following executed test cases in this section are for testing the Host functionality in the Checkpoint Web Application.

Register host client test case as shown in *Table 3.*

Table 3: Register host client function test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Register Host Client Function | OK | FAIL | Description | Severity |
| Registration succeeds with valid data | X |  | Registration is successful |  |
| Registration fails with invalid password length (< 6 chars) | X |  | Ok. |  |
| Registration fails with duplicate username | X |  | Shows error message: “Registraion Failed: Violation of PRIMARY KEY constraint 'XPKCLIENT'. Cannot insert duplicate key in object 'dbo.CLIENT'. The duplicate key value is (Stingasdf). The statement has been terminated. “ this should be less confusing for the user. | cosmetic |
| Registration fails with invalid postcode  (does not exist) | X |  | Shows error message:” Registraion Failed: The INSERT statement conflicted with the FOREIGN KEY constraint "R\_19". The conflict occurred in database "CheckPoint", table "dbo.ADDRESS", column 'PostalCode'. The statement has been terminated.  “ | cosmetic |
| Registration fails with invalid email  format | X |  | 1. Input value: pergunner.com  Error message shown: “Email not valid - must contain be in the form 'xxx@xxx.xxx'  “  Sentence does not make sence.  2. Input value: per@gunnarcom  Error message shown:” Registraion Failed: The INSERT statement conflicted with the CHECK constraint "chk\_Email". The conflict occurred in database "CheckPoint", table "dbo.CLIENT", column 'Email'. The statement has been terminated.  ”  Should get a less confusing feedback for the user. | cosmetic |
| Registration fails with invalid phone number (< 8 digits / non-integer) | X |  | Input value: ssssssss  Server exception is thrown and server error page is displayed.  “Input string was not in correct format”  Input value: many digits  Server exception is thrown and server error page is displayed.  “Could not convert to int32”  No exception handling is implemented | Medium |
| Registration fails with null fields | X |  | Error message:” One or more field is empty! Please fill in all fields. Password must be 6 characters or more. Email not valid - must contain be in the form 'xxx@xxx.xxx' PhoneNumber must be 8 digits or more. Postal Code must be an valid integer value!  ”  Error message is displayed out of green border on webpage. This does not look good. | cosmetic |
| Registration response to invalid data | X |  | Ok. |  |
| Registration data stored correctly in database | X |  | Ok. |  |
| Response if registration fails | X |  | Ok. |  |
| Client is redirected to the login page after registration is successful | X |  | Ok. |  |

Host login test case as shown in *Table 4.*

Table 4: Login function test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Login Function | OK | FAIL | Description | Severity |
| Login succeeds with valid data | X |  | OK. |  |
| Login fails with invalid data | X |  | OK. |  |
| Login recognizes correct client type | X |  | OK. |  |
| Login stores client to session | X |  | OK. |  |
| Login response to null fields | X |  | OK. |  |
| Login hides password | X |  | OK. |  |

Create appointment test case as shown in *Table 5*.

Table 5: Create appointment test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Create Appointment Function | OK | FAIL | Description | Severity |
| New Appointment creation with valid data is successful | X |  | OK. |  |
| Creation fails with null fields | X |  | Error message: ” One or more field is empty! Please fill in all fields. Time must be in correct format! Please enter a time hh:mm. Dates must be in correct format! Please enter a date mm/dd/yyyy: Time must be in correct format! Please enter a time hh:mm. Postal Code must be an valid integer value!”  Text is partially covered by button. | Cosmetic |
| Creation fails with invalid time | X |  | OK. |  |
| Creation fails with invalid date | X |  | OK. |  |
| Creation fails with invalid postcode  (does not exist / non-integer) | X |  | Error message:”  Failed to save changes!The INSERT statement conflicted with the FOREIGN KEY constraint "R\_3". The conflict occurred in database "CheckPoint", table "dbo.ADDRESS", column 'PostalCode'. The statement has been terminated.”  Text is partially covered by button. | Cosmetic |
| Appointment is stored correctly in database | X |  | OK. |  |
| Response if creation fails | X |  | OK. Se above cosmetic bugs. |  |

Update appointment test case as shown in *Table 6.*

Table 6: Update appointment test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Update Appointment Function | OK | FAIL | Description | Severity |
| Page shows correct appointment data | X |  | OK. |  |
| Appointment updated with valid data is successful | X |  | Ok. |  |
| Update fails with null fields | X |  | Error message: ” One or more field is empty! Please fill in all fields. Time must be in correct format! Please enter a time hh:mm. Dates must be in correct format! Please enter a date mm/dd/yyyy: Time must be in correct format! Please enter a time hh:mm. Postal Code must be an valid integer value!”  Text is partially covered by button. | Cosmetic |
| Update fails with invalid time | X |  | OK. |  |
| Update fails with invalid date | X |  | Ok. |  |
| Update fails with invalid postcode  (does not exist / non-integer) | X |  | Error message:”  Failed to save changes!The INSERT statement conflicted with the FOREIGN KEY constraint "R\_3". The conflict occurred in database "CheckPoint", table "dbo.ADDRESS", column 'PostalCode'. The statement has been terminated.”  Text is partially covered by button. | Cosmetic |
| Appointment is updated correctly in database | X |  | OK. |  |
| Response if update fails | X |  | Se above cosmetic bugs. |  |

Delete appointment test case as shown in *Table 7.*

Table 7: Delete appointment test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Delete Appointment Function | OK | FAIL | Description | Severity |
| Appointment is deleted | X |  | Ok. |  |
| Deletion is updated correctly in database | X |  | Ok. |  |

Create course test case as shown in *Table 8*.

Table 8:Create course test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Create Course Function | OK | FAIL | Description | Severity |
| New course creation with valid data is successful | X |  | Ok. |  |
| Creation fails with null fields | X |  | Ok. |  |
| Course is stored correctly in database | X |  | Ok. |  |
| Response if creation fails | X |  | Ok. |  |

Add existing appointment to course test case as shown in *Table 9*.

Table 9: Add existing appointment to course test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Add Existing Appointment To Course Function | OK | FAIL | Description | Severity |
| Existing appointment is added successfully | X |  | Ok. |  |
| Adding can be abandoned successfully | X |  | Ok. |  |
| Course is stored with existing appointment correctly in database | X |  | Ok. |  |

Host homepage test case as shown in *Table 10*.

Table 10: Host homepage test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Host Home Page Function | OK | FAIL | Description | Severity |
| Appointment table is displayed successfully | X |  | Ok. |  |
| Sorting appointment data functions correctly | X |  | Ok. |  |
| Create new appointment button navigates to correct page | X |  | Ok. |  |
| Manage appointment button navigates to correct page | X |  | Ok. |  |
| View courses button navigates to correct page | X |  | Ok. |  |
| Add selected appointment to course button navigates to correct page | X |  | Ok. |  |

Host courses page test case as shown in *Table 11*.

Table 11: Host courses page test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Host Courses Page Function | OK | FAIL | Description | Severity |
| Courses page table is displayed successfully | X |  | Ok. |  |
| Sorting course data functions correctly | X |  | Ok. |  |
| Create new course button navigates to correct page | X |  | Ok. |  |
| Manage courses button navigates to correct page | X |  | Ok. |  |
| View courses button navigates to correct page | X |  | Ok. |  |
| Manage attendance button navigates to correct page | X |  | Ok. |  |

Add appointment to course page test case as shown in *Table 12.*

Table 12: Add appointment to course page test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Add appointment to course page Function | OK | FAIL | Description | Severity |
| Appointment Data is displayed correctly | X |  | Ok. |  |
| “Yes“ button navigates to correct page | X |  | Ok. |  |
| “No” button navigates to correct page | X |  | Ok. |  |
| Appointment data is read only | X |  | Ok. |  |

Select course page test case as shown in *Table 13*.

Table 13: Select course page test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Select Course Page Function | OK | FAIL | Description | Severity |
| Course table is displayed successfully | X |  | Ok. |  |
| “Add Appointment To Selected Course “button navigates to correct page | X |  | Ok. |  |
| “Cancel” button navigates to correct page | X |  | Ok. |  |
| Data is stored correctly in the database | X |  | Ok. |  |

Manage course attendance page test case as shown in *Table 14*.

Table 14: Manage course attendance page test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Manage Course Attendance Page Function | OK | FAIL | Description | Severity |
| Course table is displayed successfully and shows courses with active attendee request | X |  | Ok. |  |
| Attendees table is displayed successfully when a course is selected | X |  | Ok. |  |
| When a course is selected “Accept Attendance Request” and “Accept All Attendance Requests For Selected Course” buttons will show | X |  | Ok. |  |
| “Accept attendance request” button accepts the selected attendee | X |  | Ok. |  |
| “Accept All Attendance Requests For Selected Course” button accepts all the attendee requests | X |  | Ok. |  |
| Attendees are updated correctly in the database | X |  | Ok. |  |
| Sorting course data functions correctly | X |  | Ok. |  |
| Sorting attendee data functions correctly | X |  | Ok. |  |
| Response if updating the database fails | X |  | Ok. |  |
| “Manage Attendance For Appointments” button navigates to correct page | X |  | Ok. |  |

Manage appointment attendance page test case as shown in *Table 15*.

Table 15: Manage appointment attendance page test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Manage Appointment Attendance Page Function | OK | FAIL | Description | Severity |
| Appointment table is displayed successfully and shows appointments with active attendee request | X |  | Ok. |  |
| Attendees table is displayed successfully when an appointment is selected | X |  | Ok. |  |
| Appointment is selected “Accept attendance request” and “Accept All Attendance Requests For Selected Course” buttons will show | X |  | Ok. |  |
| “Accept attendance request” button accepts the selected attendee | X |  | Ok. |  |
| “Accept All Attendance Requests For Selected Appointment” button accepts all the attendee requests | X |  | Ok. |  |
| Attendees are updated correctly in the database | X |  | Ok. |  |
| Sorting appointment data functions correctly | X |  | Ok. |  |
| Sorting attendee data functions correctly | X |  | Ok. |  |
| Response if updating the database fails | X |  | Ok. |  |
| “Manage Attendance For Courses” button navigates to correct page | X |  | Ok. |  |

Completed appointments page test case as shown in *Table 16*.

Table 16: Completed appointments page test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Completed Appointments Page Function | OK | FAIL | Description | Severity |
| Appointment table is displayed successfully | X |  | Ok. |  |
| Sorting appointment data functions correctly | X |  | Ok. |  |
| “View Attendances For Selected Appointment” button redirects to correct page | X |  | Ok. |  |

Appointment attendance records page test case as shown in *Table 17*.

Table 17: Appointment attendance records page test case

Tester: Morten Liknes Date: 04.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Appointment Attendance Records Page Function | OK | FAIL | Description | Severity |
| Appointment table is displayed successfully | X |  | Ok. |  |
| Attendees table is displayed successfully | X |  | Ok. |  |
| “View Completed Appointments” button redirects to correct page | X |  | Ok. |  |

## Checkpoint Web App User Functionality Test Cases

The following executed test cases in this section are for testing the User functionality in the Checkpoint Web Application.

Register user client test case as shown in *Table 18*.

Table 18: Register user client test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Register User Client Function | OK | FAIL | Description | Severity |
| Registration succeeds with valid data | X |  | Registration is successful |  |
| Registration fails with invalid password length (< 6 chars) | X |  | Ok. |  |
| Registration fails with duplicate username | X |  | Shows error message: “Registraion Failed: Violation of PRIMARY KEY constraint 'XPKCLIENT'. Cannot insert duplicate key in object 'dbo.CLIENT'. The duplicate key value is (Stingasdf). The statement has been terminated. “ this should be less confusing for the user. | cosmetic |
| Registration fails with invalid postcode  (does not exist) | X |  | Shows error message:” Registraion Failed: The INSERT statement conflicted with the FOREIGN KEY constraint "R\_19". The conflict occurred in database "CheckPoint", table "dbo.ADDRESS", column 'PostalCode'. The statement has been terminated.  “ | cosmetic |
| Registration fails with invalid email  format | X |  | 1. Input value: pergunner.com  Error message shown: “Email not valid - must contain be in the form 'xxx@xxx.xxx'  “  Sentence does not make sence.  2. Input value: per@gunnarcom  Error message shown:” Registraion Failed: The INSERT statement conflicted with the CHECK constraint "chk\_Email". The conflict occurred in database "CheckPoint", table "dbo.CLIENT", column 'Email'. The statement has been terminated.  ”  Should get a less confusing feedback for the user. | cosmetic |
| Registration fails with invalid phone number (< 8 digits / non-integer) | X |  | Input value: ssssssss  Server exception is thrown and server error page is displayed.  “Input string was not in correct format”  Input value: many digits  Server exception is thrown and server error page is displayed.  “Could not convert to int32”  No exception handling is implemented | Medium |
| Registration fails with null fields | X |  | Error message:” One or more field is empty! Please fill in all fields. Password must be 6 characters or more. Email not valid - must contain be in the form 'xxx@xxx.xxx' PhoneNumber must be 8 digits or more. Postal Code must be an valid integer value!  ”  Error message is displayed out of green border on webpage. This does not look good. | cosmetic |
| Registration response to invalid data | X |  | Ok. |  |
| Registration data stored correctly in database | X |  | Ok. |  |
| Response if registration fails | X |  | Ok. |  |
| Client is redirected to the login page after registration is successful | X |  | Ok. |  |

Login test case as shown in *Table 19*.

Table 19: Login test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Login Function | OK | FAIL | Description | Severity |
| Login succeeds with valid data | X |  | Ok. |  |
| Login fails with invalid data | X |  | Ok. |  |
| Login recognizes correct client type | X |  | Ok. |  |
| Login stores client to session | X |  | Ok. |  |
| Login response to null fields | X |  | Ok. |  |
| Login hides password | X |  | Ok. |  |

Find public appointments page test case as shown in *Table 20*.

Table 20: Find public appointments page test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Find Public Appointments Page Function | OK | FAIL | Description | Severity |
| Public appointments table are displayed correctly | X |  | Ok. |  |
| Sorting appointment data functions correctly | X |  | Ok. |  |
| Selecting an appointment and clicking Apply To Attend The Selected Appointment button navigates to correct page. | X |  | Ok. |  |
| Find Public Courses button redirects to correct page |  | X | "Argument null" exception when a user without a Tag ID tries to apply to an appointment or course. | Medium |

Find public courses page test case as shown in *Table 21*.

Table 21: Find public courses page test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Find Public Courses Page Function | OK | FAIL | Description | Severity |
| Public Courses table are displayed correctly | X |  | Ok. |  |
| Sorting Course data functions correctly | X |  | Ok. |  |
| Selecting a course and clicking Apply To Attend The Selected Course button navigates to correct page. | X |  | Ok. |  |
| “Find Public Appointments” button redirects to correct page |  | X | "Argument null" exception when a user without a Tag ID tries to apply to a course. | Medium |

Apply to attend appointment page test case as shown in *Table 22*.

Table 22: Apply to attend appointment page test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Apply To Attend Appointment Page Function | OK | FAIL | Description | Severity |
| Appointment details are displayed correctly | X |  | Ok. |  |
| Message box with “Yes” and “No” buttons are displayed with a confirmation message. |  | X | No message box is showing | High |
| “Yes” button updates database with a new attendee where status is 0 , tag Id and Appointment id is correct. | X |  | Ok. |  |
| “No” button redirects to correct page | X |  | Ok. |  |
| “Back To Find Appointments” button is displayed after attendance attempt | X |  | Ok. |  |
| “Back To Find Appointments” button redirects to correct page | X |  | Ok. |  |
| Response if attendee creation fails | X |  | Ok. |  |

Apply to attend course page test case as shown in *Table 23*.

Table 23: Apply to attend course page test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Apply To Attend Course Page Function | OK | FAIL | Description | Severity |
| Course details and appointments are displayed correctly | X |  | Ok. |  |
| Sorting Appointment data functions correctly | X |  | Ok. |  |
| “Cancel” button redirects to correct page | X |  | Ok. |  |
| When Apply to course button is clicked a message box with “Yes” and “No” buttons are displayed with a confirmation message. | X |  | Ok. |  |
| “Yes” button updates databasae with a new attendee for each appointment in the couse where status is 0 , tag Id and Appointment id is correct. |  | X | User is not able to attend a course where the user already is an attende for one of the appointments in the course  Error: Duplicat primary key error | High |
| “No” button hides the messagebox | X |  | Ok. |  |
| “Continue” button is displayed after attendance attempt | X |  | Ok. |  |
| “Continue” button redirects to correct page | X |  | Ok. |  |
| Response if attendee creation fails | X |  | Ok. |  |

Appointment attendance history page test case as shown in *Table 24*.

Table 24: Appointment attendance history page test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Appointment Attendance History Page Function | OK | FAIL | Description | Severity |
| Appointment table is displayed successfully | X |  | Ok. |  |
| Attendance time and date is displayed for the selected appointment | X |  | Ok. |  |
| Sorting appointment data functions correctly | X |  | Ok. |  |

## Checkpoint Native App Functionality Test Cases

The following executed test cases in this section are for testing the functionality in the Checkpoint Native Application.

Reading terminal login view test case as shown in *Table 25*.

Table 25: Reading terminal login view test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reading Terminal Login View | OK | FAIL | Description | Severity |
| Login succeeds with valid data | X |  | Ok. |  |
| Login fails with invalid data | X |  | Ok. |  |
| Login hides password | X |  | Ok. |  |

Start appointment view test case as shown in *Table 26*.

Table 26: Start appointment view test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Start Appointment View | OK | FAIL | Description | Severity |
| Reading terminal displays appointments successfully | X |  | Ok. |  |
| “Start Appointments” button starts the selected appointment | X |  | Ok. |  |

Attend appointment test case as shown in *Table 27*.

Table 27: Attend appointment test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attend Appointment Function | OK | FAIL | Description | Severity |
| Reading terminal prompts attendee to swipe his RFID tag. | X |  | Ok. |  |
| Reading terminal stores attendance data in database successfully |  | X | Application crashes ”Injection manager has stopped working” | Critical |
| Reading terminal displays message to attendee confirming successful registration | X |  | Ok. |  |
| Registration fails if attendee is not signed up for the appointment | X |  | Ok. |  |
| Response if registration fails | X |  | Ok. |  |

## Checkpoint Native App & Hardware Performance Test Cases

The following executed test cases in this section are for testing the performance in the Checkpoint Native Application and hardware.

Reading terminal attendance registration time as shown in *Table 28*.

Table 28: Reading terminal attendance registration time test case

Tester: Morten Liknes Date: 07.04.2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reading terminal Attendance Registration time | OK | FAIL | Description | Severity |
| Registers attendee and gives attendee feedback within 3 seconds | X |  | Ok. |  |