

ACCEPTANCE TESTING

Project Client on Board

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Group: Brave Alligators

Authors:

Adrian Krantz – 524202

Darius Bejan - 516471

Georgs Jakubovskis - 517100

Hai Ha Pham - 493611

Tiffany Deng – 452428

Sadra Samadzadeh - 519407

Test Plan

This Acceptance Test suite aims to cover all user requirements demonstrated in the Functional Design of this project, checking that whether they are fulfilled by the final deliverable. Each requirement is covered by one or more tests to make sure the function works as intended. It is also possible that one test covers multiple requirements, this is due to the fact that these requirements share the same source/action flow, and can all be test together at once. Screenshots of the testing outcome are also included where necessary to demonstrate the testing result.

Requirements

User requirements that are needed to be tested, as demonstrated in the Functional Design, are as follows:

Covered by	ID	Requirement	MoSCoW	Note
TC 1.x	US1	As a company administrator, I want to be able to see the history of events in an installed converter, so I can keep track of a converter's data	M	
TC 2.x	US2	As a customer, I want to be notified if my converter detects a failure so that I know if my solar panels are working	M	
N/A	US3	As a customer, I want to be able to see the history of events in an installed converter, so I can keep track of converter's data	M	Functionality not present
TC 4.x	US4	As a customer, I want to be able to register with an email and a password so that I can use the application	M	
TC 5.x	US5	As company administrator, I want to be able to create, remove, update, and delete the converters of a customer, so I can maintain the website	M	
TC 6.x	US6	As a global administrator, I want to be able to create, remove, update, and delete the companies, so I can maintain the website	M	
TC 7.x	US7	As a customer, I want to login to the application so that I can keep track of my converters	M	
TC 9.x	US9	As customer, I want to be able to see the availability and status of the converters, so I can be sure the converters work properly	M	
TC 11.x	US11	As a global administrator, I want to be able to add, remove and modify company administrators so that I can maintain the application	M	
TC 12.x	US12	As a global administrator, I want to login to the application so that I can maintain the application	M	
TC 13.x	US13	As a company administrator, I want to login to the application so that I can keep track of my clients	M	
	US14	As a global administrator, I want to be able to do what company administrator and the customer can do, so I can maintain the system	M	To keep this document concise and duplicate-free, it is preferable that testing of this use case not documented here. Testing where necessary can be done by following the steps outlined in the test cases for company admins, using a global admin credential.
N/A	US16	As a company administrator, I want the application to be able to communicate with different supplier's converters so that our customers can track their converters	M	Obsolete due to no real converter API used in this project

TC 5.x	US17	As a company administrator, I want to see the expected throughout put per converter, so I can make sure that the expectations are met	M	
TC 18.x	US18	As a customer, I want to see the expected throughout put per converter, so I can make sure that the expectations are met	M	
N/A	US19	As company administrator, I want to be able to create, remove, update, and delete the tickets of a converter, so I can maintain the website	M	Functionality not present (except read)
TC 4.x, TC 20.x	US20	As a company administrator, I want to be able to add, remove and modify customers so that I can maintain all my customers on the application	M	

Test cases

Number: TC 1.1

Name: Read event history of a converter

Short description: Company administrator browse the history of events (log) of an installed converter, to keep track of a converter's data

System: Integrated application

Requirements: US1

Reason for this test:

Preconditions:







1. Company administrator 'Harry4324' is logged in and is at the main page
2. Company of this administrator has at least 1 client, and this client has at least 1 converter

Step	Action	Expected result	Pass/Fail
1	Navigate to 'Customer' tab at the main page	The user is redirected to http://localhost:3030/customers and a list of customers is shown on the screen (screenshot below)	P
2	User clicks on the grey 'Converter' button on the row of user ID 7, Adams WWilson	The user is redirected to http://localhost:3030/customers/7/converters and a list of customers is shown on the screen (screenshot below)	P
3	User clicks on the grey 'Log' button (with the book icon) on the row of converter ID 4	The user is redirected to http://localhost:3030/converters/4/logs and a list of log entries of this converter is shown on the screen (screenshot below). The user can see the description of an event, as well as the timestamp when this event occurred.	P






















Postconditions:

Supporting screenshots:






















The below screenshot shows the list of customers that the user sees on screen after step 1

Add new a customer				
#id	Firstname	Lastname	Email	Actions
7	Adams	WWilson	adamwilson1234@gmail.com	  
31	George	Jack	georg@gmail.com	  
First Previous 1 Next Last				

The below screenshot shows the list of converters that the user sees on screen after step 2

Add a new converter					
Converter_id	Converter Name	Status	Expected Throughput	Serial Number	
4	SB 3700TL-20	Warning	11	2930495863	  
5	SB 3700TL-20	Warning	14	3136233424	  
7	SB 3700TL-20	Warning	13	3135461245	  
3	SB 3500TL-20	Off	12	3135463424	  
10	SB 2500TL-20	Alarm	14	3135465645	  
6	SB 3200TL-20	Ok	12	3130873424	  
11	SB 2600TL-20	Warning	13	3165464322	  
First Previous 1 Next Last					

The below screenshot shows the list of log entries that the user sees on screen after step 3

Add a new converter					
Converter_id	Converter Name	Status	Expected Throughput	Serial Number	
4	SB 3700TL-20	Warning	11	2930495863	  
5	SB 3700TL-20	Warning	14	3136233424	  
7	SB 3700TL-20	Warning	13	3135461245	  
3	SB 3500TL-20	Off	12	3135463424	  
10	SB 2500TL-20	Alarm	14	3135465645	  
6	SB 3200TL-20	Ok	12	3130873424	  
11	SB 2600TL-20	Warning	13	3165464322	  
First Previous 1 Next Last					

Number: TC 2.1

Name: Converter failure notification

Short description: The client receives a notification in case of abnormality in converter behavior. This can be browsed using the 'Notification' box of the main page.

System: Integrated application

Requirements: US2

Reason for this test:

Preconditions:

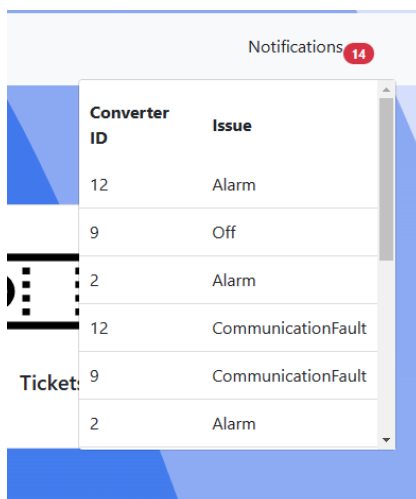
3. Client is logged in
4. Client has at least 1 converter

Step	Action	Expected result	Pass/Fail
1	A new converter failure is recorded in the system	Red popover which indicates notification count (screenshot below) increases by 1	P
2	User clicks on the 'Notification' button	Newest notification is shown in the dropdown notification list. Details include the ID of the converter and a description of the issue (screenshot below)	P

Postconditions:

1. Log and ticket of this event is added to the database

Supporting screenshot(s):



This screenshot shows that the number of notifications and the expected failure details are displayed correctly.

Number: TC 4.1

Name: Customer registration – good weather

Short description: Company administrator registers a customer

System: Integrated application

Requirements: US4, US20

Reason for this test:

Preconditions:

1. Company administrator is logged in and is at the main page

Step	Action	Expected result	Pass/Fail
1	Navigate to 'Customer' tab at the main page	The user is redirected to http://localhost:3030/customers and a list of customers is shown on the screen	P
2	The user clicks on the 'Add a new customer' button located above the customer list	A registration form is popped up	P
3	The user enters the following registration details in the form: <ul style="list-style-type: none">- Username: "acceptance1"- Password: "password"- Repeat Password: "password"- First Name: "AcceptanceFN"- Last Name: "AcceptanceLN"- Email Address: "acceptance1@a.com"- Phone Number: "0611223344"	N/A	
4	The user clicks the 'Add' button at the end of the form	The form disappeared and there is no further notification. The user is redirected back to his customer list	P

Postconditions:

1. A user with details as provided in the form is added to the database

Note: Since a customer does not have a converter at the time of registration, the company admin who created this user's account cannot see him yet (after redirected back to the customer list page). Only when the customer acquires a converter of this company admin's company will he be able to view this customer in the customer list. This is a known limitation and has been addressed, no further action with regards to testing required.

Number: TC 4.2

Name: Customer registration – bad weather

Short description: Company administrator registers a customer. This time, various attempts to input invalid details (e.g., too long first/last name, password repeat not matching, invalid email format) will be made

System: Integrated application

Requirements: US4, US20

Reason for this test: To check whether front-end data validation works as intended.

Preconditions:

1. Company administrator is logged in and is at the main page

Step	Action	Expected result	Pass/Fail
1	Navigate to 'Customer' tab at the main page	The user is redirected to http://localhost:3030/customers and a list of customers is shown on the screen	P
2	The user clicks on the 'Add a new customer' button located above the customer list	A registration form is popped up	P
3	The user enters the following registration details in the form: <ul style="list-style-type: none">- Username: "acceptance2"- Password: "password"- Repeat Password: "password"- First Name: "AcceptanceFN"- Last Name: "AcceptanceLN"- Email Address: "acceptance2@a.com"- Phone Number: "0611223344"	N/A	
4	The user modifies the following field in the form (comparing to the fields in step 3): <ul style="list-style-type: none">- First Name: "AcceptanceFNUltraSuperLong" And clicks the 'Add' button at the end of the form	A browser popup message that says that says 'Name too long' is shown, the form remained on the screen, together with the details	F
5	The user modifies the following field in the form (comparing to the fields in step 3): <ul style="list-style-type: none">- Password: "123"- Repeat password: "123"	A browser popup message that says that says 'Password must be at least 8 characters' is shown, the form remained on the screen, together with the details	P

	And clicks the 'Add' button at the end of the form		
6	<p>The user modifies the following field in the form (comparing to the fields in step 3):</p> <ul style="list-style-type: none"> - Password: "123456789" - Repeat password: "123" <p>And clicks the 'Add' button at the end of the form</p>	A browser popup message that says that says 'Passwords do not match' is shown, the form remained on the screen, together with the details	P
7	<p>The user modifies the following field in the form (comparing to the fields in step 3):</p> <ul style="list-style-type: none"> - Email: "accept" <p>And clicks the 'Add' button at the end of the form</p>	A browser popup message that says that says 'Email is invalid' is shown, the form remained on the screen, together with the details	P
8	<p>The user modifies the following field in the form (comparing to the fields in step 3):</p> <ul style="list-style-type: none"> - Phone Number: "12345678912233333333" <p>And clicks the 'Add' button at the end of the form</p>	A browser popup message that says that says 'Phone number is not valid' is shown, the form remained on the screen, together with the details	P

Postconditions:

1. No user with details as provided in the form is added to the database

Number: TC 5.1

Name: CRUD of converters of a customer

Short description: Company administrator create, read, update and delete a converter of a customer – good weather

System: Integrated application

Requirements: US5, US17

Reason for this test:

Preconditions:

1. Company administrator is logged in and is at the main page
2. The company administrator is 'Harry4324' of company ID 2 and the customer ID is 31




Step	Action	Expected result	Pass/Fail
1	Navigate to 'Converters' tab at the main page	The user is redirected to http://localhost:3030/converters and a list of converters managed by the company of this administrator is shown on the screen. Expected throughput and actual throughput information are displayed on the list, the user can easily observe whether the expectations are met.	P
2	The user clicks on the 'Add a new converter' button located above the customer list	A registration form is popped up	P
3	The user enters the following registration details in the form: <ul style="list-style-type: none">- Converter Name: "ATC1"- Converter ID: "14"- Owner ID: "31"- Installer ID: "2"- Serial Number: "1234567890"- Expected Throughput: "13"	N/A	
4	The user clicks the 'Add' button at the end of the form	The form disappeared and there is no further notification. The user is redirected back to his converter list. The list now contains the most recently added converter at the end	P

5	The user navigates to http://localhost:3030/customers/31/converters via the address bar of the browser	a list of converters, owned by customer ID 31, and managed by the company of this administrator is shown on the screen	P
6	The user clicks on the blue 'Edit' button (with the pen icon, screenshot below) of the converter	An edit form is popped up	P
7	The user enters the following modification details in the form: - Name: "ATConverter1" And clicks the 'Save changes' button at the end of the form	The form disappeared and there is no further notification. The user is redirected back to the customer's converter list. The list now shows the newest changes of the converter	P
8	The user clicks on the red 'Delete' button (with the bin icon, screenshot below) of the converter	A confirmation prompt is popped up	P
9	The user clicks on the 'Delete' button of the prompt	The form disappeared and there is no further notification. The user is redirected back to the customer's converter list. The list is now updated – the converter was deleted and can no longer be seen on the list.	F – the company admin is not redirected to the customer's converter list, but to his company's (all) converter list

Postconditions:

1. After step 4, a converter with details as provided in the form is added to the database
2. After step 7, modified information of the converter is saved into the database
3. After step 9, the converter entry, together with its details no longer exists in the database

Supporting screenshot(s):

14	ATConverter1	Ok	13	1234567890	  
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The above screenshot shows a row in the customer's converter list. The aforementioned 'Edit' and 'Delete' buttons can be seen on the left side.

Number: TC 5.2

Name: CRUD of converters of a customer – bad weather

Short description: Company administrator create and update a converter of a customer – bad weather. This time, various attempts to input invalid details will be made

System: Integrated application

Requirements: US5, US17

Reason for this test: To check whether front-end data validation works as intended.

Preconditions:

1. Company administrator is logged in and is at the main page
2. The company administrator is 'Harry4324' of company ID 2 and the customer ID is 31

Step	Action	Expected result	Pass/Fail
1	Navigate to 'Converters' tab at the main page	The user is redirected to http://localhost:3030/converters and a list of converters managed by the company of this administrator is shown on the screen. Expected throughput and actual throughput information are displayed on the list, the user can easily observe whether the expectations are met.	P
2	The user clicks on the 'Add a new converter' button located above the customer list	A registration form is popped up	P
3	The user enters the following registration details in the form: <ul style="list-style-type: none">- Converter Name: "ATC1"- Converter ID: "14"- Owner ID: "31"- Installer ID: "2"- Serial Number: "1234567890"- Expected Throughput: "13"	N/A	
4	The user modifies the following field in the form (comparing to the fields in step 3): <ul style="list-style-type: none">- Converter ID: "1" Then clicks the 'Add' button at the end of the form	The form remains shown on screen. A message that says 'POST issue' is shown at the end of the form	P

5	<p>The user modifies the following field in the form (comparing to the fields in step 3):</p> <ul style="list-style-type: none"> - Installer ID: "3" <p>Then clicks the 'Add' button at the end of the form</p>	<p>The form remains shown on screen. A message that says 'POST issue' is shown at the end of the form</p>	<p>F – converter added successfully. However, company administrator should not be able to add a converter that is not installed by his company...</p>
6	<p>The user modifies the following field in the form (comparing to the fields in step 3):</p> <ul style="list-style-type: none"> - Owner ID: "100" (which does not exist) <p>Then clicks the 'Add' button at the end of the form</p>	<p>The form remains shown on screen. A message that says 'POST issue' is shown at the end of the form</p>	<p>P</p>
7	<p>The user navigates to http://localhost:3030/customers/31/converters via the address bar of the browser</p>	<p>a list of converters, owned by customer ID 31, and managed by the company of this administrator is shown on the screen</p>	<p>P</p>
	<p>-End of POST test-</p>		
8	<p>The user clicks on the blue 'Edit' button (with the pen icon, screenshot below) of the converter</p>	<p>An edit form is popped up</p>	<p>P</p>
9	<p>The user enters the following modification details in the form:</p> <ul style="list-style-type: none"> - Name: "AcceptanceFNUltraSuperLong" <p>And clicks the 'Save changes' button at the end of the form</p>	<p>The form disappeared and there is no further notification. The user is redirected back to the customer's converter list. No change is made to the converter's detail.</p>	<p>P</p>

Postconditions:

1. No new converter or modification details as provided in the form(s) are added to the database

Number: TC 6.1

Name: CRUD of companies – good & bad weather

Short description: Global administrator create, read, update and delete a company. As bad weather data validation testing is only needed for a single company name field, this can be bundled together with the good weather test without making the test case too large.

System: Integrated application

Requirements: US6

Reason for this test:

Preconditions:

1. Global administrator 'AdminFred' is logged in and is at the main page


Step	Action	Expected result	Pass/Fail
1	Navigate to 'Company' tab at the main page	The user is redirected to http://localhost:3030/companies and a list of companies that exist in the system is shown on the screen	P
2	The user clicks on the 'Add new company' button located above the company list	A registration form is popped up	P
3	The user enters the following registration details in the form: <ul style="list-style-type: none">- Company Name: "ATCompanyUltraSuperFreakingLong" (Name too long)	N/A	
4	The user clicks the 'Add' button at the end of the form	The form disappeared and there is no further notification. The user is redirected back to his company list. The list remained the same – no new company is added.	Soft P – data validation works on backend, but does not on front end
5	The user clicks on the 'Add new company' button located above the company list	A registration form is popped up	P
6	The user enters the following registration details in the form: <ul style="list-style-type: none">- Company Name: "ATCompany"	N/A	
7	The user clicks the 'Add' button at the end of the form	The form disappeared and there is no further notification. The user is redirected back to his company list. The list now	P










		contains the most recently added company	
8	The user clicks on the blue 'Edit' button (with the pen icon) of the company row on the list with ID 43 and name "ATCompany"	An edit form is popped up	P
9	The user enters the following modification details in the form: - Name: "ATCompany1" And clicks the 'Save changes' button at the end of the form	The form disappeared and there is no further notification. The user is redirected back to the company list. The list now shows the newest changes of the company	P
10	The user clicks on the red 'Delete' button (with the bin icon, screenshot below) of the converter	A confirmation prompt is popped up	P
11	The user clicks on the 'Delete' button of the prompt	The form disappeared and there is no further notification. The user is redirected back to the company list. The list now shows the updated company list, with the company "ATCompany1" deleted.	P

Postconditions:

1. After step 7, a company with details as provided in the form is added to the database
2. After step 9, modified information of the company is saved into the database
3. After step 11, the company entry, together with its details no longer exists in the database. All company administrators of this company and the converters installed by this company are cascaded from the database.

Supporting screenshot(s):



Add new a company		
ID	Name	Actions
2	PristlySolar	 
42	sadra	 
43	ATCompany	 
1	Exodia	 
3	SolarCompany	 

The screenshot above shows an example of the company list, with the add, edit and delete company buttons.

Number: TC 7.1

Name: Customer login – good & bad weather

Short description: The customer logs in the system. First, attempts to use incorrect username/password will be made, to test if authorization works correctly.

System: Integrated application

Requirements: US7

Reason for this test:

Preconditions:

1. Customer is not logged in

Step	Action	Expected result	Pass/Fail
1	Navigate to localhost:3030/login using a web browser	A login prompt is shown in the screen	P
2	Log in with username 'Kla' and password '12345678'	A message that says 'Username does not match' is shown at the bottom of the login form. The user is not logged in/redirected.	P
3	Log in with username 'Klaus' and password '123'	A message that says 'The password does not match' is shown at the bottom of the login form. The user is not logged in/redirected.	P
4	Log in with username 'Klaus' and password '12345678'	The user is logged in and redirected to the main page, which contains a welcome message, a notification box, and options to browse converters owned and tickets (which can also be accessed via the navigation bar).	P

Postconditions:

Number: TC 11.1

Name: Company administrator registration – good weather

Short description: Global administrator registers a company administrator.

System: Integrated application

Requirements: US11

Reason for this test:

Preconditions:

1. Global administrator is logged in and is at the main page

Step	Action	Expected result	Pass/Fail
1	Navigate to 'Users' tab at the main page	The user is redirected to http://localhost:3030/customers and a list of users is shown on the screen	P
2	The user clicks on the 'Add a new companyAdmin' button located above the customer list	A registration form is popped up	P
3	The user enters the following registration details in the form: <ul style="list-style-type: none">- Company ID: "1"- Username: "acceptance_comad"- Password: "123456789"- Repeat Password: "123456789"- First Name: "AcceptanceFN"- Last Name: "AcceptanceLN"- Email Address: "acceptance_comad@a.com"- Phone Number: "0622334455"	N/A	
4	The user clicks the 'Add' button at the end of the form	The form disappeared and there is no further notification. The user is redirected back to his user list	F – validation error, popup message says "Username cannot be null, empty or undefined."

Postconditions:

1. A company admin with details as provided in the form is added to the database

Number: TC 9.1

Name: Customer browses converters

Short description: Customer browses the availability and status of the converters, to make sure the converters work properly

System: Integrated application

Requirements: US9

Reason for this test:

Preconditions:

1. Customer is logged in and is at the main page

Step	Action	Expected result	Pass/Fail
1	Navigate to 'Converters' tab at the main page	The user is redirected to http://localhost:3030/converters and a list of converters is shown on the screen. This list contains the required information such as expected throughput, actual throughput and status of the converters (screenshot below).	P

Postconditions:

Supporting screenshot(s):



Converter_id	Converter Name	Expected throughput	Actual throughput	Converter Status
2	SB 3300TL-31	12	11	Alarm
9	SB 3700TL-20	12	12	CommunicationFault
12	SB 3700TL-20	12	11	Warning
1	SB 3300TL-30	14	13	CommunicationFault
14	ATC1	13	null	Ok

First Previous 1 Next Last

The above screenshot demonstrates the information that a customer would see when he attempts to browse the converter list.

Number: TC 12.1

Name: Global administrator login – good & bad weather

Short description: The global administrator logs in the system. First, attempts to use incorrect username/password will be made, to test if authorization works correctly.

System: Integrated application

Requirements: US12

Reason for this test:

Preconditions:

1. Global administrator is not logged in

Step	Action	Expected result	Pass/Fail
1	Navigate to localhost:3030/login using a web browser	A login prompt is shown in the screen	P
2	Log in with username 'AdminF' and password 'admin'	A message that says 'Username does not match' is shown at the bottom of the login form. The user is not logged in/redirected.	P
3	Log in with username 'AdminFred' and password '123'	A message that says 'The password does not match' is shown at the bottom of the login form. The user is not logged in/redirected.	P
4	Log in with username 'AdminFred' and password 'admin'	The user is logged in and redirected to the main page, which contains a welcome message, a notification box, and options to browse all users (global admins, company admins, customers), all companies, all converters and all tickets (which can also be accessed via the navigation bar).	P

Postconditions:

Number: TC 13.1

Name: Company administrator login – good & bad weather

Short description: The company administrator logs in the system. First, attempts to use incorrect username/password will be made, to test if authorization works correctly.

System: Integrated application

Requirements: US13

Reason for this test:

Preconditions:

1. Company administrator is not logged in

Step	Action	Expected result	Pass/Fail
1	Navigate to localhost:3030/login using a web browser	A login prompt is shown in the screen	P
2	Log in with username 'AdminF' and password 'companyadmin'	A message that says 'Username does not match' is shown at the bottom of the login form. The user is not logged in/redirected.	P
3	Log in with username 'Harry4324' and password '123'	A message that says 'The password does not match' is shown at the bottom of the login form. The user is not logged in/redirected.	P
4	Log in with username 'Harry4324' and password 'companyadmin'	The user is logged in and redirected to the main page, which contains a welcome message, a notification box, and options to browse all customers of this admin's company, all converters installed by this admin's company and all tickets associated with these converters (which can also be accessed via the navigation bar).	P

Postconditions:

Number: TC 18.1

Name: Customer check converter's expected throughput

Short description: Customer read the expected throughput per converter, so he can make sure that the expectations are met

System: Integrated application

Requirements: US18

Reason for this test:

Preconditions:

1. Customer is logged in and is at the main page

Step	Action	Expected result	Pass/Fail
1	Navigate to 'Converters' tab at the main page	The user is redirected to http://localhost:3030/converters and a list of converters owned by this user shown on the screen. Expected throughput and actual throughput information are displayed on the list, the user can easily observe whether the expectations are met.	P

Postconditions:

Number: TC 20.1

Name: Update a customer – good weather

Short description: Company administrator update the details of a customer of his company – good weather

System: Integrated application

Requirements: US20

Reason for this test:

Preconditions:

1. Company administrator 'Harry4324' is logged in and is at the main page
2. Customer with ID '7' exists in the database

Step	Action	Expected result	Pass/Fail
1	Navigate to 'Customer' tab at the main page	The user is redirected to http://localhost:3030/customers and a list of customers is shown on the screen	P
2	The user clicks on blue 'Edit' button (with the pen icon) on the row of customer with ID 7	An 'Edit Customer' form is popped up	P
3	The user enters the following registration details in the form: <ul style="list-style-type: none">- Username: "Adam1234"- Password: "123456789"- First Name: "Adam"- Last Name: "WWilson"- Email Address: "adamwilson1234@gmail.com"- Phone Number: "0655243328"	N/A	
4	The user clicks the 'Finish' button at the end of the form	The form disappeared and there is no further notification. The user is redirected back to his customer list	P

Postconditions:

1. Modified information of the customer is saved into the database

Number: TC 20.2

Name: Update a customer – bad weather

Short description: Company administrator updates a customer. This time, various attempts to input invalid details (e.g., too long first/last name, password repeat not matching, invalid email format) will be made

System: Integrated application

Requirements: US20

Reason for this test: To check whether front-end data validation works as intended.

Preconditions:

1. Company administrator is logged in and is at the main page

Step	Action	Expected result	Pass/Fail
1	Navigate to 'Customer' tab at the main page	The user is redirected to http://localhost:3030/customers and a list of customers is shown on the screen	P
2	The user clicks on blue 'Edit' button (with the pen icon) on the row of customer with ID 7	An 'Edit Customer' form is popped up	P
4	The user enters the following modification field(s) in the form: - First Name: "AcceptanceFNUltraSuperLong" And clicks the 'Add' button at the end of the form	A browser popup message that says that says 'Name too long' is shown, the form remained on the screen, together with the details	F – frontend does not validate, backend does so no update made
5	The user enters the following modification field(s) in the form: - Username: "A" And clicks the 'Add' button at the end of the form	A browser popup message that says that says 'Username too short' is shown, the form remained on the screen, together with the details	P
6	The user enters the following modification field(s) in the form: - Username: "AnUltraSuperFreakingLongUsername" And clicks the 'Add' button at the end of the form	A browser popup message that says that says 'Username too long' is shown, the form remained on the screen, together with the details	F – frontend does not validate, backend does so no

			update made
7	The user modifies the following field in the form (comparing to the fields in step 3): - Email: "accept" And clicks the 'Add' button at the end of the form	A browser popup message that says that says 'Email is invalid' is shown, the form remained on the screen, together with the details	P
8	The user modifies the following field in the form (comparing to the fields in step 3): - Phone Number: "12345678912233333333" And clicks the 'Add' button at the end of the form	A browser popup message that says that says 'Phone number is not valid' is shown, the form remained on the screen, together with the details	P

Postconditions:

1. No modification details as provided in the form are added to the database

Number: TC 20.3

Name: Delete a customer

Short description: Company administrator deletes a customer of his company from the system

System: Integrated application

Requirements: US20

Reason for this test:

Preconditions:

1. Company administrator 'Harry4324' is logged in and is at the main page
2. Customer with ID '7' exists in the database

Step	Action	Expected result	Pass/Fail
1	Navigate to 'Customer' tab at the main page	The user is redirected to http://localhost:3030/customers and a list of customers is shown on the screen	P
2	The user clicks on red 'Delete' button (with the bin icon) on the row of customer with ID 7	A confirmation prompt is popped up	P
3	The user clicks on the 'Delete' button of the prompt	The form disappeared and there is no further notification. The user is redirected back to the customer list. The list is now updated – the customer was deleted and can no longer be seen on the list.	P

Postconditions:

1. After step 3, the customer entry, together with its details no longer exists in the database. All converters owned by this customer are cascaded from the database.