# Acceptance Test Plan (ATP)

## 2IPE0 SOFTWARE/WEB ENGINEERING PROJECT

November 8, 2019


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version: 1.1
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**Abstract**

This document demonstrates the acceptance test plan for CloudFarmer, developed by CloudFarmers. CloudFarmer is a web-based application that is developed as part of the Software Engineering Project (2IPE0) at the Technical University of Eindhoven. All the provided tests reflect the requirements in its respective User Requirements Document (URD) [4]. This document complies with the ESA software standards [1].

# Contents

# I Document Status Sheet

## I.I General

**Document title:** Acceptance Test Plan (ATP)

**Document identifier:** ATP/1.1

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**Document status:** Version 1.1

## I.II Document History

| Version | Date | Authors | Reason |
|---|---|---|---|
| 0.1 | 14-10-2019 | Mohamed | Document set up & Chapter 1. |
| 0.2 | 16-10-2019 | Mohamed & Kas | Chapter 2. |
| 0.3 | 18-10-2019 | Mohamed & Arthur & Kas | Chapter 3. |
| 0.4 | 19-10-2019 | Mohamed & Kas | Chapter 4, Chapter 5, Chapter 6. |
| 0.5 | 21-10-2019 | Luuk | Implemented the feedback from Sander. |
| 0.6 | 22-10-2019 | Léon | The entire document. |
| 0.7 | 22-10-2019 | Luuk | Not every step could be taken from the last. |
| 0.8 | 23-10-2019 | Kas | Appendix A. |
| 1.0 | 23-10-2019 | All | Draft. |

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|---|---|---|---|
| 1.1 | 26-10-2019 | Mohamed | Supervisor’s feedback implementation. |

# II Document Change Records

| Version | Date | Section | Reason |
|---|---|---|---|
| 0.1 | 14-10-2019 | All | Document set up. |
| 0.2 | 15-10-2019 | Chapter 2 | Test plan description is documented. |
| 0.3 | 18-10-2019 | Chapter 3 | Functional and Non-functional requirements were added |
| 0.4 | 19-10-2019 | Chapter 4 | Test procedure documented |
| 0.5 | 21-10-2019 | The entire document | Implemented the feedback from Sander |
| 0.6 | 22-10-2019 | The entire document | Proofread entire document and then made changes to most test cases and procedures. |
| 0.7 | 22-10-2019 | Chapter 3 and 4 | Read chapter 3 and 4 and made sure that a reader can follow exact steps. |
| 0.8 | 23-10-2019 | Appendix A | Added signing page. |
| 1.0 | 23-10-2019 | Whole document | Draft. |
| 1.1 | 26-10-2019 | All except Chapter 1 and 5 | Supervisor’s feedback implementation. |

# 1 Introduction

## 1.1 Purpose

This document specifies the tests that have to be executed by the customer to ensure that the features enforced by the URD [4] have been incorporated in the delivered CloudFarmer application. Additionally, this document entails the procedure to execute those tests as well as the results obtained after their execution. The application is deemed acceptable by the customer if and only if all tests are completed successfully.

## 1.2 Overview

There are four chapters that follow this introductory chapter. Chapter 2 illustrates the features that will be tested accompanied by a brief outline of the testing procedure. Chapter 3 contains the specification of each individual test whereas Chapter 4 provides test procedures to enforce that all test specifications given in Chapter 3 are covered. Additionally, guides to execute those procedures are provided in that Chapter as well. Chapter 5 records the results obtained upon execution the tests. Finally, Chapter 6 provides a mapping of every requirement in the URD [4] to its corresponding test(s) in this document and vice versa.

## 1.3 List of Definitions

### 1.3.1 Definitions

| Name | Definition |
|---|---|
| Active farm | An active farm is the farm to which the history, live, field, equipment, datamaps, and farm settings view are currently referencing. |
| Active field | An active field is the field to which the field view is currently referencing. |
| Active crop field | An active crop field is the crop field to which the field view is currently referencing. |
| Available farm | A farm of which the user is allowed to see the information. |
| CloudFarm | Database server for the application. |
| CloudFarmer | Application as defined by the project group and the customer. |
| CloudFarmers | The project group tasked to create the aforementioned application. |
| Crop | The virtual representation of a physical crop. |
| Crop field | The virtual representation of a physical crop field. A field can contain multiple crop fields. |
| Crop field information/ the information of a crop field | All the information about a specific crop field; location, crop type, crop year, crop season, area. |
| Customer | The person who assigned the task to create the application to the project group. In this case Dimas Satria. |
| Dacom | The company that provided us with their crop database and their API for extracting information from this database. |
| Data sources | List of all the sources of data that are known by the application. |
| Equipment | The sensors in a field |
| Farm | The virtual representation of a physical farm. A user is allowed to have more than one virtual farm. |

| | |
|---|---|
| *Farmer* (Role) | A person who works on the physical farm. |
| *Farm admin* (Role) | A user with unrestricted access to all data associated with a specific farm. (E.g farm information/permissions, field information/permissions ... etc) |
| Farm information/ the information of a farm | All the information about a specific farm; ID number, name, address, postal code, country, email, phone number, website. |
| Farm permissions | A set of rules that determine which users are able to read, write or delete farm information. |
| Field | The virtual representation of a physical field. A farm can have multiple virtual fields. |
| Field information/ the information of a field | All the information about a specific field; location, field name, area, size in hectares, soil type. |
| Field permissions | A set of rules that determine which users are able to read, write or delete field information. |
| *General user* (Role) | A user that is a member of a farm without permissions. |
| Member | A user is a member of a farm, if they have a role assigned to them on that farm. |
| Physical crop field | A physical crop field is a physical field that contains at least one type of crop. |
| Physical farm | A physical farm that has a physical building. |
| Physical field | A physical field is a patch of dirt, clay, or some type of rock that is owned by a farmer, on which they are able to grow crops. |
| *Researcher* (Role) | A person who carries out academic or scientific research. |
| Selected farm | A farm that the user has selected. |
| User | A person that interacts with the application. |
| User role | A role that can be assigned to a user within a farm which defines all the field permissions and farm permissions of the user. These different roles are defined in the definitions and have the tag (role) at the end of them. |
| Views | The history view, live view, fields view, settings view and personal settings view. |

### 1.3.2 Abbreviations and Acronyms

| Acronym | Meaning |
|---|---|
| CSV | Comma-Seperated Values (file format) |
| ESA | European Space Agency |
| ID | Identity |
| JSON | JavaScript Object Notation |
| JWT | JSON Web Tokens |
| OAuth | Open authorization |
| PNG | Portable Network Graphics (file format) |
| SEP | Software Engineering Project |
| TU/e | Eindhoven University of Technology |
| URD | User Requirements Document |
| ATP | Acceptance Test |

## 1.4 List of References


[1] *E.B. for software Standardisation and Control*. ESA software standards, 1991.
[2] *Software Design Document*. Technische Universiteit Eindhoven, 2019.
[3] *Software Transfer Document*. Technische Universiteit Eindhoven, 2019.
[4] *User Requirements Document*. Technische Universiteit Eindhoven, 2019.

# 2 Test Plan

## 2.1 Test items

All features that make up CloudFarmer's functionality will be tested. This includes all views on CloudFarmer's website and their respective operations. The operations feasible on every view depends on the user's role. More information about CloudFarmer and its associated user roles can be found in the URD [4] and the SDD [2].

## 2.2 Features to be Tested

The features described in the URD [4] are prioritised as *Must Have*, *Should have*, *Could have* and *Won't have*. All features designated the priority *Must have* have been implemented and will be tested. Not all *Should have* and *Could have* requirements are implemented. The implemented requirements classified as *Should have* or *Could have* will be tested. Nevertheless, unimplemented *Should have* and *Could have* requirements will not be tested. And requirements classified as *Won't have* have not been implemented and therefore will not be tested.

## 2.3 Test Deliverables

Prior to performing any tests, the following documents and products must be provided:

- The ATP document, Chapter 1–4
- The URD [4]
- The CloudFarmer application

After the test plan has been executed, the following items need to be deliverd:

- All sections of the ATP document
- Problem reports (if any)

## 2.4 Testing Tasks

The following tasks must be accomplished before executing the acceptance test procedure described in Chapter 4.

- Creating the tests
- Linking all tests to their corresponding requirements in the URD [4]
- Ensuring that all environmental needs for the acceptance are met

## 2.5 Environmental Needs

The following resources are required for the acceptance test plan to be executed:

- A desktop or a laptop computer running Chrome version 72 or later
- The cloudfarmer application is running locally on the computer mentioned at the previous bullet point.
- Connection to CloudFarmer's server

## 2.6 Test Case Pass and Fail Criteria

A test case passes if its respective expected output is realised given that its input specifications are met. If the input specifications are met and the expected output is not realised, then the test case fails. The acceptance test succeeds if and only if all test cases pass.

# 3 Test Case Specification

This section entails all the acceptance tests which are required for completing the Test Plan for the web application CloudFarmer. It should be noted that the time for an implemented use case to be executed by the user is checked if it is within 5 minutes. Consequently, the corresponding requirement, CR2, is tested in all test cases of this section.

## 3.1 User Management

### 3.1.1 ATC-1. Create an account

**Precondition:**

- The user is on the login page.

**Functional Requirements Tested:** FR72, FR75, FR76, FR77
**Non Functional Requirements Tested:** CR20, CR41
**Parameters:** *First name, Last name, Email, Duplicate email, Password (with length > 4), ConfirmPassword (identical to "Password")*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on the **Sign up** button | |
| | **2**. The registration form is displayed |
| **3**. Fill in the first name and last name field with their respective parameters. | |
| **4**. Click on the **Sign up** button | |
| | **5**. An error is displayed below the email field |
| **6**. Fill in the Email field with the *Duplicate email* parameter | |
| **7**. Click on the **Sign up** button | |
| | **8**. An error is displayed below the password field |
| **9**. Fill in the rest of the fields with their repsective parameter | |
| **10**. Click on the **Sign up** button | |
| | **11**. An error is displayed below the email field |
| **12**. Fill in the email field with the *Email* parameter | |
| **13**. Click on the **Sign up** button | |
| | **14**. The login page is displayed |

### 3.1.2 ATC-2. Logging in

**Precondition:**

- The user is on the login page.
- The user has a valid account.

**Functional Requirements tested:** FR73
**Non Functional Requirements tested:** CR11, CR37
**Parameters:** *Email, Password*

| Input specifications | Expected output specifications |
| --- | --- |
| **1**. Fill in the email and password field with their respective parameters<br><br>**2**. Click on the **Log In** button | <br><br><br><br>**3**. The user is logged in and the Farms View is displayed |

### 3.1.3 ATC-3. Logging out

**Precondition:**

- The user is logged in.

**Functional Requirements tested:** FR74
**Parameters:** *none*

| Input specifications | Expected output specifications |
| --- | --- |
| **1**. Click on the **log out** icon at the bottom of the Sidebar menu | <br><br><br>**2**. The login page is displayed |

## 3.2 Sidebar and Top bar

### 3.2.1 ATC-4. Selecting farm

**Precondition:**

- The user is logged in.
- The user is on the Farms view.

**Functional Requirements rested:** FR7
**Parameters:** *farm*

| Input specifications | Expected output specifications |
|---|---|
| **1**. The user presses the **heart icon** in the row which contains the farm specified in the parameter | |
| | **2**. The heart icon becomes filled, and the name of the farm appears in the top bar |
| **3**. The user clicks on the name of the farm in the Top bar which is specified by the *farm* parameter | |
| | **4**. The farms view will update, as well as the menu. The farm that the user has selected will now be highlighted in the top bar |

### 3.2.2 ATC-5. Changing views

**Precondition:**

- The user is logged in.
- The user has an active farm.

**Functional Requirements tested:** FR1, FR3, FR4, FR5, FR8, FR9, FR10, FR11, FR12, FR15
**Parameters:** *view*

| Input specifications | Expected output specifications |
| --- | --- |
| **1**. Click on the desired view tab specified by the *view* parameter | |
| | **2**. The selected view will be shown |

### 3.2.3 ATC-6. Going to farm settings view

**Precondition:**

- The user is logged in.
- The user has the role farm admin on the active farm.

**Functional Requirements rested:** FR6, FR13, FR15
**Parameters:** *none*

| Input specifications | Expected output specifications |
| --- | --- |
| **1**. The farm admin clicks on the farm settings view in the side menu | |
| | **2**. The application will show the farm settings view |

## 3.3 Farms View

### 3.3.1 ATC-7. Viewing farm information

**Precondition:**

- The user is logged in and has an active farm selected on which they either have the role, farm admin, farmer, researcher or are a general user with viewing permission from the farm admin.

**Functional Requirements tested:** FR80, FR107, FR117, FR123
**Non functional Requirements tested:** CR24
**Parameters:** *none*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Select the Farms View in the Sidebar menu | |
| | **2**. The farms table is displayed showing information of public farms |

## 3.4 Live View

### 3.4.1 ATC-8. View current data from the active farm

**Precondition:**

- The user is logged in and has an active farm selected on which they either have the role, farm admin, farmer, researcher or are a general user with viewing permission from the farm admin.

**Functional Requirements tested:** FR32
**Non Functional Requirements tested:** CR39
**Parameters:** *Crop field name*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Select the **Live View** from the sidebar | |
| **2**. Click on the **dropdown button** displayed by the crop field with the *Crop field name* parameter. | |
| | **3**. The live/most recent data from the data sources of the active farm are displayed. |

## 3.5 Fields View

### 3.5.1 ATC-9. Add a field to the selected farm

**Precondition:**

- The user is logged in.
- The user has either the role Farmer or Farm Admin on the active farm.
- The user is on the Fields View.

**Functional Requirements tested:** FR38
**Parameters:** *Field name, Area, Soil type*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on the **plus button** at the bottom right corner of the map | |
| | **2**. The cursor is now a cross |
| **3**. Click on the areas of the map where the field's corners are to be defined. | |
| **4**. Connect the last corner with the first one to finalise the creation. | |
| | **5**. A drawer is displayed |
| **6**. Select *Field* with the slider at the top. | |
| **7**. Fill in the *field name* field with its respective parameter. | |
| **8**. Select the soil type parameter from the *Soil type* drop-down menu. | |
| **9**. Select *Public* with the slider on the bottom | |
| **10**. Click on the **Save** button | |
| | **11**. The added field is displayed on the map |

### 3.5.2 ATC-10. View field information of the active field

**Precondition:**

- The user is logged in and has an active farm selected on which they either have the role, farm admin, farmer, researcher or are a general user with viewing permission from the farm admin.
- The user is on the Fields View.

**Functional Requirements tested:** FR39, FR40, FR83, FR108, FR118, FR124
**Parameters:** *field*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on sideways arrow to expand the list of fields on the right of the view | |
| **2**. Click on the field specified by the field parameter in the fields list | |
| | **3**. The selected field is located on the map |
| **4**. Click on the ⋮ icon associated with the selected field | |
| **5**. Click on **View information** | |
| | **6**. The information drawer associated with the field is displayed. |

### 3.5.3 ATC-11. Delete a field from the active farm

**Precondition:**

- The user is logged in.
- The user has either the role farm admin or a farmer on the active farm.
- The user is on the Fields View.

**Functional Requirements tested:** FR42, FR85, FR110
**Parameters:** *field*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on sideways arrow to expand the list of fields on the right of the view . | |
| **2**. Click on the 3 dots of the field specified by the field parameter, in the fields list on the right side of the screen | |
| **3**. Click on **Delete field** | |
| | **4**. The deletion confirmation pop up is displayed |
| **5**. Click on the **OK** button in the pop up | |
| | **6**. A pop up confirming the deletion is shown. |
| **7**. Click on the **OK** button in the pop up | |
| | **8**. The map is loaded again but without the deleted field and its associated crop fields. |

### 3.5.4 ATC-12. Add crop field to the active field

**Precondition:**

- The user is logged in.
- The user either has the role Farmer or Farm Admin on the active farm.
- The user is on the Fields View.

**Functional Requirements tested:** FR43
**Parameters:** *Field, Cropfield name, Crop type, Start date, End date*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on the **plus** button at the bottom right corner of the map | |
| | **2**. The cursor is now a cross |
| **3**. Click on the areas of the map where the field's corners are to be defined. | |
| **4**. Connect the last corner with the first one to finalise the creation. | |
| | **5**. A drawer is displayed |
| **6**. Select *Cropfield* with the slider. | |
| **7**. Fill in the fields with their respective parameters | |
| **8**. Select *Public* with the slider on the bottom. | |
| **9**. Click on the **Save** button | |
| | **10**. The added crop field is displayed on the map |

### 3.5.5 ATC-13. View the information of the active crop field

**Precondition:**

- The user is logged in and has an active farm selected on which they either have the role, farm admin, farmer, researcher or are a general user with viewing permission from the farm admin.
- The user is on the Fields View.

**Functional Requirements tested:** FR44, FR45, FR86
**Parameters:** *crop field*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on the sideways arrow to expand the list of crop fields on the right of the view | |
| **2**. Click on the crop field specified in the parameters | |
| | **3**. The selected crop field is located on the map. |
| **4**. Click on the selected crop field's options icon | |
| **5**. Click on **View information** | |
| | **6**. The information drawer associated with the crop field is displayed. |

### 3.5.6 ATC-14. Edit Field information

**Precondition:**

- The user is logged in.
- The user is a Farm admin or Farmer on the active farm.
- The user in on the fields view.

**Functional Requirements tested:**FR84, FR109
**Parameters:** *field*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on sideways arrow to expand the list of crop fields on the right of the view | |
| **2**. Click on the **3 dots** of the field specified by the *field* parameter | |
| **3**. Click on **view information** | |
| **4**. Click the **Pencil icon** button in the top right corner to edit the data | |
| | **5**. The field information is shown in an editable form |
| **6**. Edit the data you want to edit | |
| **7**. Click on the **Save** button | |
| | **8**. The field information is shown with the edited data |

### 3.5.7 ATC-15. Edit Crop Field information

**Precondition:**

- The user is logged in.
- The user is a Farm admin or Farmer on the active farm.
- The user in on the fields view.

**Functional Requirements tested:**FR87
**Parameters:** *crop field, crop type*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on sideways arrow to expand the list of crop fields on the right of the view . | |
| **2**. Click on the **3 dots** of the crop field specified by the parameters, in the fields list on the right side of the screen | |
| **3**. Click on view information | |
| **4**. Click the **Edit** button in the top right corner. | |
| | **5**. The crop field information is shown in an editable form |
| **6**. Edit the crop type to the respective parameter | |
| **7**. Click on the **Save** button | |
| | **8**. The crop field information is shown with the edited data |

### 3.5.8 ATC-16. Delete crop field from the active field

**Precondition:**

- The user is logged in
- The user is a farm admin or farmer on the active farm.
- The user is on the Fields View.

**Functional Requirements tested:** FR47, FR88
**Parameters:** *crop field*

| Input specifications | Expected output specifications |
| --- | --- |
| **1**. Click on sideways arrow to expand the list of fields on the right of the view . | |
| **2**. Click on the **3 dots** of the crop field specified by the *crop field* parameter in the fields list on the right side of the screen | |
| **3**. Click on **Delete cropfield** | |
| | **4**. The deletion confirmation pop up is displayed |
| **5**. Click on the **OK** button in the pop up | |
| | **6**. A popup confirming the deletion is displayed |
| **7**. Click on the **OK** button in the pop up | |
| | **8**. The map is loaded again but without the deleted crop field. |

## 3.6 Equipment View

### 3.6.1 ATC-17. View current equipment overview

**Precondition:**

- The user is logged in and has an active farm selected on which they either have the role, farm admin, farmer, researcher or are a general user with viewing permission from the farm admin.

**Functional Requirements tested:** FR31, FR51, FR92, FR114, FR122, FR126
**Parameters:** *none*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Select the Equipment View from the side bar | |
| | **2**. The Equipment view is displayed |

### 3.6.2 ATC-18. Add equipment to the active farm

**Precondition:**

- The user is logged in
- The user is as a Farm Admin or Farmer on the active farm.
- The user is provided with a confidential API key from WolkyTolky
- The user is on the Equipment View

**Functional Requirements tested:** FR48, FR115
**Parameters:** *Equipment name, Equipment description, Equipment model, Manufacturing data, Serial number, Accessibility, api key, station id, field, crop field, store*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on the **Add Equipment** button at the top right corner of the view | |
| | **2**. The new equipment dialog form is displayed. |
| **3**. Fill in the equipment details with their respective parameters in the dialog form | |
| **4**. Fill in the *Accessibility* by moving the slider | |
| **5**. Click on the **Add Equipment** button | |
| | **6**. The new equipment list is displayed showing the added equipment |

### 3.6.3 ATC-19. Edit equipment of the active farm

**Precondition:**

- The user is logged in
- The user is a Farm Admin or Farmer on the active farm
- The user is provided with a confidential API key from WolkyTolky
- The user is on the Equipment View

**Functional Requirements tested:** FR93
**Parameters:** *Equipment name, Equipment description, Equipment model, Manufacturing data, Serial number, Accessibility, api key, station id, field, crop field, store*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on the **pencil** icon associated with the equipment that has the equipment name described in the parameters | |
| | **2**. The edit equipment dialog form is displayed. |
| **3**. Fill in the new equipment details with their respective parameters, in the dialog form | |
| **4**. Fill in the *Accessibility* by moving the slider | |
| **5**. Click on the **Save** button | |
| | **6**. The new equipment list is displayed showing the new changes |

### 3.6.4 ATC-20. Delete equipment of the active farm

**Precondition:**

- The user is logged in
- The user is a Farm Admin or Farmer on the active farm
- The user is on the Equipment View.

**Functional Requirements tested:** FR50, FR94, FR116
**Parameters:***equipment name*

| Input specifications | Expected output specifications |
| --- | --- |
| **1**. Click on the trashcan icon button associated with the equipment that has the equipment name as specified by the parameters | |
| | **2**. The equipment deletion confirmation pop-up appears |
| **3**. Click **OK** in the pop-up | |
| | **4**. The equipment's entry is removed from the database |
| | **5**. A pop-up appears confirming the deletion of the equipment |
| **6**. Click **OK** in the pop-up | |
| | **7**. The table is reloaded without the removed equipment |

## 3.7 Farm Settings View

### 3.7.1 ATC-21. View farm information

**Precondition:**

- The user is logged in
- The user is a Farm Admin on the farm.

**Functional Requirements tested:** FR52, FR80
**Parameters:** *none*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Select the Farm Settings View from the sidebar | |
| | **2**. The farm information is displayed |
| | **3**. The User Management table is displayed |

### 3.7.2 ATC-22. Adding new users to the farm

**Precondition:**

- The user is logged in as Farm Admin.
- The user is a Farm Admin of two farms
- The user has two farms as favourite in their top bar, of which they are farm admin.

**Functional Requirements tested:** FR79, FR97
**Parameters:** *Email, Role, Role2*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Select the Farms Settings View from the sidebar | |
| | **2**. The farm settings and underneath that the user management table of the farm is displayed |
| **3**. Click on the **plus** button on top of the User Management Table to add a user | |
| | **4**. An entry in the User Management Table is reserved for the new user |
| **5**. Fill in the email field as specified by the *Email* parameter | |
| **6**. Select the user's role from the role drop-down menu as specified by *Role* parameter | |
| **7**. Click on the "✓" icon under the *Actions* column to save changes. | |
| | **8**. The selected user is added to the farm |
| **9**. Click on the tab of the other farm | |
| **10**. Repeat the previous steps to add the same user in the other farm, however, user *Role2* this time for step 6 | |
| | **11**. The same user is added in both farms but with two different roles |

### 3.7.3 ATC-23. Edit farm information

**Precondition:**

- The user is logged in as a Farm Admin.
- The Farm Admin selected their farm.
- The Farm Admin is on the Farm Settings View.

**Functional Requirements tested:** FR81
**Parameters:** *Farm name, Address, Postal code, Email, Phone number, Website, Country, Accessibility*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Fill in the fields with their respective parameter | |
| **2**. Click on the **Save Changes** button | |
| | **3**. The new farm information is saved |

### 3.7.4 ATC-24. Delete farm information

**Precondition:**

- The user is logged in as a Farm Admin.
- The Farm Admin selected their farm.
- The Farm Admin is on the Farm Settings View.

**Functional Requirements tested:** FR82
**Parameters:** ***farm***

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on the farm in the top bar that is specified by the farm parameter | |
| **2**. Click on the **Delete Farm** button | |
| | **3**. A deletion confirmation pop-up is displayed |
| **4**. Click on the **OK** button in the pop-up | |
| | **5**. All the farm's information is deleted |
| | **6**. A popup is shown confirming the deletion |
| **7**. Click on the **OK** button in the pop-up | |

## 3.8 Personal Settings View

### 3.8.1 ATC-25. View Personal settings

**Precondition:**

- The user is logged in.

**Functional Requirements tested:** FR1, FR8, FR64, FR67, FR69
**Parameters:** None

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on the personal settings icon; The cogwheel in the bottom of the sidebar menu | |
| | **2**. The Personal Settings view is displayed |

### 3.8.2 ATC-26. Edit Personal settings

**Precondition:**

- The user is logged in.
- The user is on the personal settings page.

**Functional Requirements tested:** FR64, FR65, FR66, FR67, FR68, FR69, FR70
**Parameters:** *First name, Last name, Password, Confirm Password*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Fill in the fields with their respective parameters<br>**2**. Click on the **Save settings** button | |
| | **3**. The user is redirected to the last view which was visited before the personal settings view, and their password is saved. |

## 3.9 Usability tests

### 3.9.1 ATC-27. Farm admin cannot change their role

**Precondition:**

- The user is logged in
- The user has the role Farm Admin on the active farm

**Non Functional Requirements Tested:** CR1
**Parameters:** *Role*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Select the Farm Settings View from the side bar | |
| | **2**. The Farm Settings View is displayed |
| **3**. Click on the **pencil icon** button associated with the logged in user in the User Management Table to edit its role | |
| | **4**. The role in the row that was corresponding to the edit button is now editable. |
| **5**. Change the role to *Role* | |
| **6**. Click on the ✓ icon to confirm the role change | |
| | **7**. Error message is shown |
| **8**. Click on the **Ok** button on the pop-up error message | |
| **9**. Click on the × icon | |
| | **10**. The role remains farm admin |

## 3.10 Security

### 3.10.1 ATC-28. Input strings are proof against SQL injections

**Precondition:**

- The user is on the login page.

**Non Functional Requirements Tested:** CR6
**Parameters:** *Email, Password (with length > 4), SQL query*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Fill in the email or the password field with its respective parameter | |
| **2**. Fill in the the other field with the *SQL query* parameter | |
| **3**. Click on the **Log in** button | |
| | **4**. An error message is shown and the user is not logged in. |
| **5**. Enter into the email field the value of the *Email* parameter | |
| **6**. Enter into the password field the value of the *Password* parameter | |
| **7**. Click on the **Log in** button | |
| | **8**. The user is logged in |

### 3.10.2 ATC-29. User authorisation and authentication uses OAuth using JWT

**Precondition:**

- User is on the login page

**Non Functional Requirements Tested:** CR10
**Parameters:** *Email, Password*

| Input specifications | Expected output specifications |
| --- | --- |
| **1**. Fill in the email and the password field with its respective parameter<br><br>**2**. Click on the **Log in** button | **3**. the page shows below the password field “Wrong email address or password, please try again”. And the user is not logged in. |

## 3.11 Environment, Responsiveness and Browsers

### 3.11.1 ATC-30. Chrome 72 and Microsoft Windows support

**Precondition:**

- The operating system is Microsoft Windows.
- The browser is Chrome 72 or a newer version

**Non Functional Requirements Tested:** CR23, CR26, CR31
**Parameters:** *none*

| Input specifications | Expected output specifications |
|---|---|
| **1**. Navigate to localhost:3000 in the browser | **2**. CloudFarmer's login page is displayed |

## 3.12 Miscellaneous

### 3.12.1 ATC-31. Export

**Precondition:**

- The user is logged in.
- The user is on the Farms View.

**Non Functional Requirements tested:** CR17

**Parameters:** None

| Input specifications | Expected output specifications |
|---|---|
| **1**. Click on the **Export icon** (the downward arrow)<br><br>**2**. Click on **Export as CSV** | <br><br><br><br>**3**. The farm data is downloaded as a CSV file |

# 4 Test Procedures

In this chapter, the main procedure to execute the acceptance test is given. This procedure is decomposed into several sub-procedures. To successfully execute the acceptance test, the following instructions should be taken into account.

- The sub-procedures that make up the main procedure should all be executed and in the order listed.
- Every sub-procedure is comprised of several steps. These steps must be followed in the order listed.
- If a sub-procedure makes a reference to a test from the previous chapter, then this test should be completed successfully before continuing.

The following credentials should be used during the testing procedure.

| User Role | Email | Password |
|---|---|---|
| Farm admin | admin@test.nl | admin |
| Farmer | farmer@test.nl | farmer |
| Researcher | researcher@test.nl | researcher |
| General User | general@test.nl | general |

## 4.1 Main Procedure

### 4.1.1 Purpose

The purpose of this chapter is to provide a clear explanation of the order in which the test cases can be executed.

### 4.1.2 Procedure steps

1. Execute ATC-30.
2. Run the User Management Procedure.
3. Run the General User Procedure which includes executing ATC-5 by switching between views.
4. Run the Researcher Procedure
5. Run the Farmer Procedure
6. Run the Farm Admin Procedure

## 4.2 User Management

1. Sign up to CloudFarmer by executing ATC-1 with the following parameters:
    - First name: Dimas
    - Last name: Satria
    - Email: atpdimassep2019@gmail.com
    - Duplicate email: test@test.nl
    - Password: 123456
    - Confirm Password: 123456
2. Launch an SQL injection attack by executing ATC-28 with the following parameters, fill in the email field with the Email parameter:
    - Email: atpdimassep2019@gmail.com
    - Password: 123456
    - SQL query: 'DROP TABLE
3. Log out by executing ATC-3
4. Check if user authentication works by giving the incorrect password and executing ATC-29 with the following parameters:
    - Email: atpdimassep2019@gmail.com
    - Password: abcdef
5. Log in by executing ATC-2 with the following parameters:
    - Email: atpdimassep2019@gmail.com
    - Password: 123456
6. Log out by executing ATC-3

## 4.3 General User

1. Log in as general user by executing ATC-2 with the following parameters:
    - Email: general@test.nl
    - Password: general
2. To extend the side bar with the views' names, click on the CF icon on top of the side bar.
3. Execute ATC-7 (viewing farm information)
4. Execute ATC-31 (exporting)

5. Execute ATC-4 (selecting a farm)
    - Farm: atpTestFarm
6. Execute ATC-8 (viewing the current data of *Test Procedure* farm)
    - Crop field name: Den Bockenreyder
7. Select the Fields View from the side bar
8. Execute ATC-10
    - Farm: atpTestFarm
9. Reload the page by pressing the F5 key on your board
10. Execute ATC-13
    - Crop field name: Den Bockenreyder
11. Execute ATC-17
12. Execute ATC-25 (viewing peronsal settings)
13. Execute ATC-26 (editing personal settings) by typing in the following information to the fields below:
    - First name: atp
    - Last name: testing
    - Password: 1841998
    - Confirm Password: 1841998
14. Log out by executing ATC-3

## 4.4 Researcher

1. Log in as a researcher by executing ATC-2 with the following parameters:
    - Email: researcher@test.nl
    - Password: researcher
2. To extend the side bar with the views' names, click on the CF icon on top of the side bar.
3. Execute ATC-7 (viewing farm information)
4. Execute ATC-31 (exporting)
5. Execute ATC-4 (selecting a farm)
    - Farm: atpTestFarm
6. Execute ATC-8

- Crop field name: Den Bockenreyder

7. Select the Fields View from the side bar and execute
8. Execute ATC-10
    - Farm: atpTestFarm
9. Reload the page with F5
10. Execute ATC-13
    - Crop field name: Den Bockenreyder
11. Execute ATC-17
12. Execute ATC-25
13. Execute ATC-26 (editing personal settings) by typing in the following information to the fields below:
    - First name: Mohamed
    - Last name: Ghanem
    - Password: 1841998
    - Confirm Passowrd: 1841998
14. Log out by executing ATC-3

## 4.5 Farmer

1. Log in as a farmer by executing ATC-2 with the following parameters:
    - Email: farmer@test.nl
    - Password: farmer
2. To extend the side bar with the views' names, click on the CF icon on top of the side bar.
3. Execute ATC-7 (viewing farm information)
4. Execute ATC-31 (exporting)
5. Execute ATC-4 (selecting a farm)
    - Farm: atpTestFarm
6. Execute ATC-8
    - Crop field name: Den Bockenreyder
7. Select the Fields View from the side bar
8. Execute ATC-10

    - Farm: atpTestFarm
9. Refresh the page by pressing F5.
10. Execute ATC-13
    - Crop field: Den Bockenreyder
11. Execute ATC-9
    - Field: NewSEPTestField
    - Soiltype: sandy
12. Execute ATC-14
    - Field name: NewSEPTestField
    - Soiltype: peat
13. Execute ATC-12 insert the following into the dialog form:
    - Field: NewSEPTestField
    - Cropfield name: SEPtestCropField
    - Croptype: Potato
    - Start date: 2019/10/22
    - End date: 2019/10/24
14. Execute ATC-15
    - Cropfield name: NewSEPtestCropField
    - Croptype: cucumber
15. Find the crop field, *NewSEPTestCropField*, in the drawer and execute ATC-16
16. Find the field, *NewSEPTestField*, in the drawer and execute ATC-11 (Deleting *NewSEPTest-Field*)
17. Execute ATC-17 (viewing the overview of the current equipment of *Test Procedure*).
18. Execute ATC-18 (adding new equipment to the *Test Procedure* farm) by inserting the following into the equipment dialog form:
    - Equipment name: TestEq1
    - Equipment description: Testdesc
    - Equipment model: New model
    - Manufacturing data: 01/01/2019
    - Serial number: 1234
    - Accessibility: Public
    - api key: (The API provided by WolkyTolky)

- station id: 16
- field: De Utrecht
- crop field: Den Bockenreyder
- store: yes

19. Execute ATC-19 (editing the *TestEq1* equipment of *Test Procedure* farm) by inserting the following into the equipment dialog form:
    - Equipment name: EditEq
    - Equipment description: Editdesc
    - Equipment model: High
    - Manufacturing data: 01/01/2018
    - Serial number: 4321
    - Accessibility: Public
    - api key: (The API provided by WolkyTolky)
    - station id: 16
    - field: De Utrecht
    - crop field: Den Bockenreyder
    - store: yes
20. Execute ATC-20 (deleting the *EditEq* equipment of *Test Procedure* farm)
21. Execute ATC-25 (viewing personal settings).
22. Execute ATC-26 (editing personal settings) by typing in the following information to the fields below:
    - First name: Mohamed
    - Last name: Ghanem
    - Password: 1841998
    - Confirm Password: 1841998
23. Log out by executing ATC-3.

## 4.6 Farm admin

1. Log in as Farm admin by executing ATC-2 with the following parameters:
    - Email: atpTest@gmail.com
    - Password: test123

2. To extend the side bar with the views' names, click on the CF icon on top of the side bar.
3. Execute ATC-7 (viewing farm information)
4. Execute ATC-31 (exporting)
5. Execute ATC-4
    - Farm: atpTestFarm
6. Execute ATC-6
7. Execute ATC-27
    - role: farmer
8. Execute ATC-8
    - Crop field name: Den Bockenreyder
9. Select the Fields View from the side bar
10. Execute ATC-10
    - Farm: atpTestFarm
11. Reload the page using F5
12. Execute ATC-13
    - Crop field name: Den Bockenreyder
13. Execute ATC-9
    - Field name: FieldOfTeam
    - Area: 3
    - Soiltype: sandy
14. Execute ATC-12
    - Field to add cropfield to: FieldOfTeam
    - Name: SEPtestCropField2
    - Croptype: Potato
    - Start date: 2019/10/21
    - End date: 2019/10/24
15. Execute ATC-16
    - Crop field: SEPtestCropField2
16. Execute ATC-11
    - field: FieldOfTeam
17. Execute ATC-17

18. Execute ATC-18
    - Equipment name: Eq
    - Equipment description: old
    - Equipment model: New model
    - Manufacturing date: 01/01/2019
    - Serial number: 123456
    - Accessibility: Public
    - api key: (The API provided by WolkyTolky)
    - station id: 16
    - field: De Utrecht
    - crop field: Den Bockenreyder
    - store: yes
19. Execute ATC-19
    - Equipment name: EqChanged
    - Equipment description: new
    - Equipment model: High
    - Manufacturing data: 01/01/2018
    - Serial number: 654321
    - Accessibility: Public
    - api key: (The API provided by WolkyTolky)
    - station id: 16
    - field: De Utrecht
    - crop field: Den Bockenreyder
    - store: yes
20. Execute ATC-20
    - EqChanged
21. Click on the Farms View button in the side bar
22. Execute ATC-4
    - farm: atpTestFarm2
23. Execute ATC-21 (viewing the information of *Test Procedure 2*)
24. Execute ATC-22

- Email: test@test.nl
- Role: general
- Role: farmer

25. Execute ATC-23
    - Farm name: TestFarm
    - Address: someaddress
    - Postal code: 00202
    - Email: abcd@gmail.com
    - Phone number: 123456789
    - Website: www.google.com
    - Country: Germany
    - Accessibility: Public
26. Execute ATC-24
    - farm: atpTestFarm
27. Execute ATC-25 (viewing personal settings).
28. Execute ATC-26 (editing personal settings) by typing in the following information to the fields below:
    - First name: test
    - Last name: atp
    - Password: 1841998
    - Confirm Password: 1841998

# 5 Test Reports

The results and test reports of the Acceptance Test Plan are documented in Chapter 5 of the Software Transfer Document (STD) [3].

# 6 Traceability Matrix

## 6.1 Mapping User Requirements to Test Cases

In this section we will map all the User Requirements to all the different Test Cases we have. We will also define the priority of the User Requirement, we will use m (must have), s (should have), c (could have) and w (wont have).

| URD | ATP's | Priority |
|---|---|---|
| FR 1. | ATC-5, ATC-25 | M |
| FR 2. | NOT IMPLEMENTED | S |
| FR 3. | ATC-5 | M |
| FR 4. | ATC-5 | M |
| FR 5. | ATC-5 | M |
| FR 6. | ATC-6 | M |
| FR 7. | ATC-4 | M |
| FR 8. | ATC-5, ATC-25 | M |
| FR 9. | ATC-5 | M |
| FR 10. | ATC-5 | M |
| FR 11. | ATC-5 | M |
| FR 12. | ATC-5 | M |
| FR 13. | ATC-6 | M |
| FR 14. | NOT IMPLEMENTED | S |
| FR 15. | ATC-5, ATC-6 | M |
| FR 16. | NOT IMPLEMENTED | S |
| FR 17. | NOT IMPLEMENTED | S |
| FR 18. | NOT IMPLEMENTED | S |
| FR 19. | NOT IMPLEMENTED | S |
| FR 20. | NOT IMPLEMENTED | S |
| FR 21. | NOT IMPLEMENTED | S |
| FR 22. | NOT IMPLEMENTED | S |
| FR 23. | NOT IMPLEMENTED | S |
| FR 24. | NOT IMPLEMENTED | S |
| FR 25. | NOT IMPLEMENTED | S |
| FR 26. | NOT IMPLEMENTED | S |
| FR 27. | NOT IMPLEMENTED | S |
| FR 28. | NOT IMPLEMENTED | S |
| FR 29. | NOT IMPLEMENTED | S |
| FR 30. | NOT IMPLEMENTED | C |
| FR 31. | ATC-17 | M |
| FR 32. | ATC-8 | M |
| FR 33. | NOT IMPLEMENTED | S |
| FR 34. | NOT IMPLEMENTED | S |
| FR 35. | NOT IMPLEMENTED | S |
| FR 36. | NOT IMPLEMENTED | S |
| FR 37. | NOT IMPLEMENTED | C |
| FR 38. | ATC-9 | M |
| FR 39. | ATC-10 | M |
| FR 40. | ATC-10 | M |

| URD | ATP's | Priority |
|---|---|---|
| FR 41. | NOT IMPLEMENTED | S |
| FR 42. | ATC-11 | M |
| FR 43. | ATC-12 | M |
| FR 44. | ATC-13 | M |
| FR 45. | ATC-13 | M |
| FR 46. | NOT IMPLEMENTED | S |
| FR 47. | ATC-16 | M |
| FR 48. | ATC-18 | M |
| FR 49. | NOT IMPLEMENTED | S |
| FR 50. | ATC-20 | M |
| FR 51. | ATC-17 | M |
| FR 52. | ATC-21 | M |
| FR 53. | NOT IMPLEMENTED | S |
| FR 54. | NOT IMPLEMENTED | S |
| FR 55. | NOT IMPLEMENTED | S |
| FR 56. | NOT IMPLEMENTED | S |
| FR 57. | NOT IMPLEMENTED | S |
| FR 58. | NOT IMPLEMENTED | S |
| FR 59. | NOT IMPLEMENTED | S |
| FR 60. | NOT IMPLEMENTED | S |
| FR 61. | NOT IMPLEMENTED | S |
| FR 62. | NOT IMPLEMENTED | S |
| FR 63. | NOT IMPLEMENTED | S |
| FR 64. | ATC-25, ATC-26 | S |
| FR 65. | ATC-26 | S |
| FR 66. | ATC-26 | S |
| FR 67. | ATC-26 | S |
| FR 68. | ATC-26 | S |
| FR 69. | ATC-25, ATC-26 | S |
| FR 70. | ATC-26 | S |
| FR 71. | NOT IMPLEMENTED | S |
| FR 72. | ATC-1 | M |
| FR 73. | ATC-2 | M |
| FR 74. | ATC-3 | M |
| FR 75. | ATC-1 | M |
| FR 76. | ATC-1 | M |
| FR 77. | ATC-1 | M |
| FR 78. | NOT IMPLEMENTED | S |
| FR 79. | ATC-22 | M |
| FR 80. | ATC-7,ATC-21 | M |

| URD | ATP's | Priority |
|---|---|---|
| FR 81. | ATC-23 | M |
| FR 82. | ATC-24 | M |
| FR 83. | ATC-10 | M |
| FR 84. | ATC-14 | M |
| FR 85. | ATC-11 | M |
| FR 86. | ATC-13 | M |
| FR 87. | ATC-15 | M |
| FR 88. | ATC-16 | M |
| FR 89. | NOT IMPLEMENTED | S |
| FR 90. | NOT IMPLEMENTED | S |
| FR 91. | NOT IMPLEMENTED | S |
| FR 92. | ATC-17 | M |
| FR 93. | ATC-19 | M |
| FR 94. | ATC-20 | M |
| FR 95. | NOT IMPLEMENTED | C |
| FR 96. | NOT IMPLEMENTED | S |
| FR 97. | ATC-22 | M |
| FR 98. | NOT IMPLEMENTED | S |
| FR 99. | NOT IMPLEMENTED | S |
| FR 100. | NOT IMPLEMENTED | S |
| FR 101. | NOT IMPLEMENTED | S |
| FR 102. | NOT IMPLEMENTED | S |
| FR 103. | NOT IMPLEMENTED | S |
| FR 104. | NOT IMPLEMENTED | S |
| FR 105. | NOT IMPLEMENTED | S |
| FR 106. | NOT IMPLEMENTED | S |
| FR 107. | ATC-7 | M |
| FR 108. | ATC-10 | M |
| FR 109. | ATC-14 | M |
| FR 110. | ATC-11 | M |
| FR 111. | NOT IMPLEMENTED | S |
| FR 112. | NOT IMPLEMENTED | S |
| FR 113. | NOT IMPLEMENTED | S |
| FR 114. | ATC-17 | M |
| FR 115. | ATC-18 | M |
| FR 116. | ATC20 | M |
| FR 117. | ATC-7 | M |
| FR 118. | ATC-10 | M |
| FR 119. | NOT IMPLEMENTED | S |
| FR 120. | NOT IMPLEMENTED | S |

| URD | ATP's | Priority |
|---|---|---|
| FR 121. | NOT IMPLEMENTED | S |
| FR 122. | ATC-17 | M |
| FR 123. | ATC-7 | M |
| FR 124. | ATC-10 | M |
| FR 125. | NOT IMPLEMENTED | S |
| FR 126. | ATC-17 | M |
| FR 127. | NOT IMPLEMENTED | C |
| FR 128. | NOT IMPLEMENTED | C |
| FR 129. | NOT IMPLEMENTED | C |
| FR 130. | NOT IMPLEMENTED | C |
| FR 131. | NOT IMPLEMENTED | C |
| FR 132. | NOT IMPLEMENTED | C |
| FR 133. | NOT IMPLEMENTED | C |
| FR 134. | NOT IMPLEMENTED | C |
| FR 135. | NOT IMPLEMENTED | S |
| FR 136. | NOT IMPLEMENTED | S |
| FR 137. | NOT IMPLEMENTED | C |
| FR 138. | NOT IMPLEMENTED | C |
| FR 139. | NOT IMPLEMENTED | C |
| | Constraint requirements | |
| CR 1. | ATC-27 | M |
| CR 2. | ALL ATC | M |
| CR 3. | NOT IMPLEMENTED | S |
| CR 4. | NOT IMPLEMENTED | C |
| CR 5. | NOT IMPLEMENTED | S |
| CR 6. | ATC-28 | M |
| CR 7. | NOT IMPLEMENTED | S |
| CR 8. | NOT IMPLEMENTED | S |
| CR 9. | NOT IMPLEMENTED | S |
| CR 10. | ATC-29 | M |
| CR 11. | ATC-2 | M |
| CR 12. | NOT IMPLEMENTED | S |
| CR 13. | NOT IMPLEMENTED | C |
| CR 14. | NOT IMPLEMENTED | S |
| CR 15. | NOT IMPLEMENTED | S |
| CR 16. | NOT IMPLEMENTED | C |
| CR 17. | ATC-31 | M |
| CR 18. | NOT IMPLEMENTED | S |
| CR 19. | NOT IMPLEMENTED | C |
| CR 20. | ATC-1 | M |

| URD | ATP's | Priority |
|---|---|---|
| CR 21. | NOT IMPLEMENTED | S |
| CR 22. | NOT IMPLEMENTED | C |
| CR 23. | ATC-30 | M |
| CR 24. | ATC-7 | M |
| CR 25. | NOT IMPLEMENTED | S |
| CR 26. | ATC-30 | M |
| CR 27. | NOT IMPLEMENTED | S |
| CR 28. | NOT IMPLEMENTED | S |
| CR 29. | NOT IMPLEMENTED | C |
| CR 30. | NOT IMPLEMENTED | C |
| CR 31. | ATC-30 | M |
| CR 32. | NOT IMPLEMENTED | S |
| CR 33. | NOT IMPLEMENTED | S |
| CR 34. | NOT IMPLEMENTED | C |
| CR 35. | NOT IMPLEMENTED | C |
| CR 36. | NOT IMPLEMENTED | C |
| CR 37. | ATC-2 | M |
| CR 38. | NOT IMPLEMENTED | S |
| CR 39. | ATC-8 | M |
| CR 40. | NOT IMPLEMENTED | C |
| CR 41. | ATC-1 | M |
| CR 42. | NOT IMPLEMENTED | S |
| CR 43. | NOT IMPLEMENTED | C |

## 6.2 Mapping Test Cases to User Requirements

| ATP | FR |
|---|---|
| ATC 1. | FR72, FR75, FR76, FR77, CR20, CR41 |
| ATC 2. | FR73, CR11, CR37 |
| ATC 3. | FR74 |
| ATC 4. | FR7 |
| ATC 5. | FR1, FR3, FR4, FR5, FR8, FR9, FR10, FR11, FR12, FR15 |
| ATC 6. | FR6, FR13, FR15 |
| ATC 7. | FR80, FR107, FR117, FR123, CR24 |
| ATC 8. | FR32, CR39 |
| ATC 9. | FR38 |
| ATC 10. | FR39, FR40, FR83, FR108, FR118, FR124 |
| ATC 11. | FR42, FR85, FR110 |
| ATC 12. | FR43 |
| ATC 13. | FR44, FR45, FR86 |
| ATC 14. | FR84, FR109 |
| ATC 15. | FR87 |
| ATC 16. | FR47, FR88 |
| ATC 17. | FR31, FR51, FR92, FR114, FR122, FR126 |
| ATC 18. | FR48, FR115 |
| ATC 19. | FR93 |
| ATC 20. | FR50, FR94, FR116 |
| ATC 21. | FR52, FR80 |
| ATC 22. | FR79, FR97 |
| ATC 23. | FR81 |
| ATC 24. | FR82 |
| ATC 25. | FR1, FR8, FR64, FR67, FR69 |
| ATC 26. | FR64, FR65, FR66, FR67, FR68, FR69, FR70 |
| ATC 27. | CR1 |
| ATC 28. | CR6 |
| ATC 29. | CR10 |
| ATC 30. | CR23, CR26, CR31 |
| ATC 31. | CR17 |

# 7 Appendix A

## 7.1 Signing page

Hereby the customer and CloudFarmers agree upon the Acceptance test stated in this document.

| **Customer** | **CloudFarmers** |
| --- | --- |
| *Name* | *Name* |
| *Date* | *Date* |
| *Signature before procedure* | *Signature before procedure* |
| *Signature after procedure* | *Signature after procedure* |