

**GTA-Group**

**Water Me**  
**Use-Case Specification: Manage plants**

**Version 1.3**

## Revision History

Date	Version	Description	Author
04/Dez/2016	1.0		Olga Akymenko
08/Dez/2016	1.1	Added Espresso test and mockup	Chris Todt
19/Dez/2016	1.2	Changed Diagramm	Olga Akymenko
01/Mai/2017	1.3	Added FP-Calculation	Olga Akymenko
11/Juni/2017	1.4	Changed Diagram and mockups	Olga Akymenko

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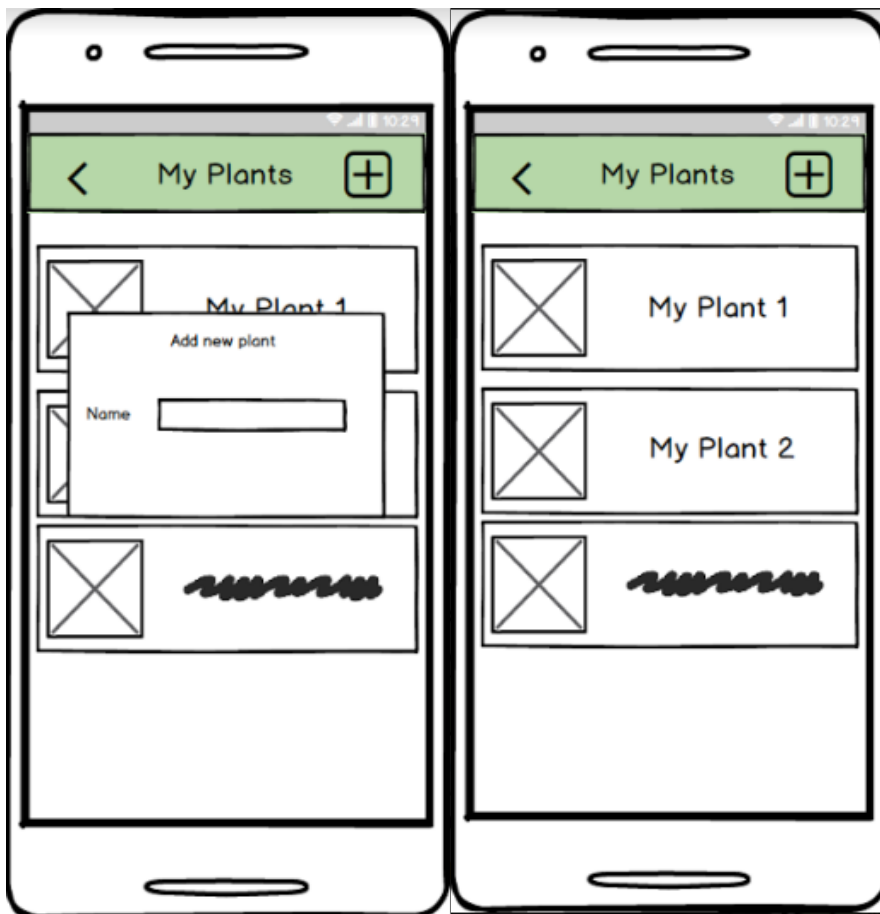
## Use-Case Specification: Manage plants

### 1. Manage plants

#### 1.1 Brief Description

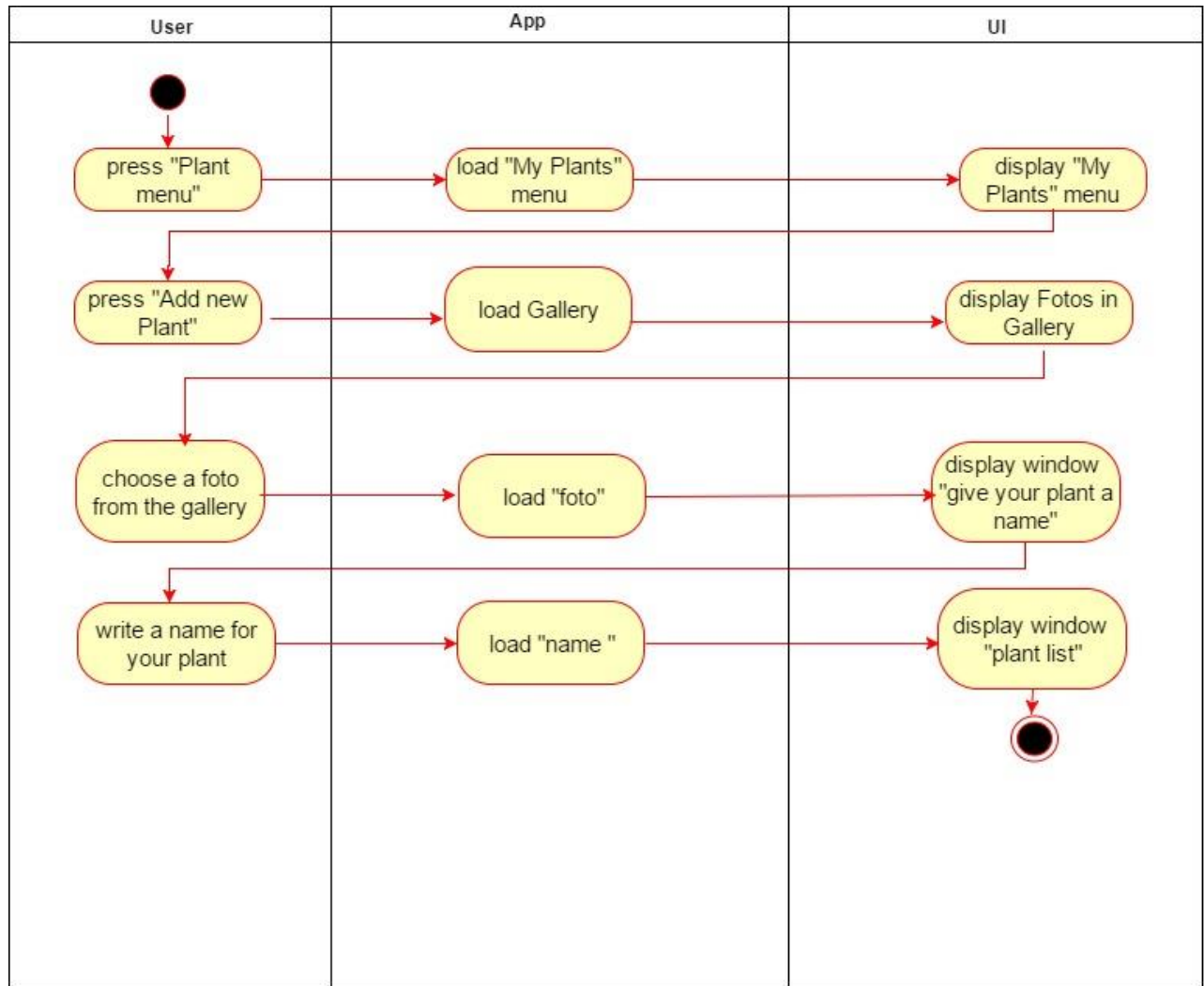
User has the ability to add a new plant in the list. Also, change the image and add information about the plant (the optimum humidity level).

#### 1.2 Mockup



## 2. Flow of Events

### 2.1 Basic Flow



## 2.2 Alternative Flows

(n/a)

## 3. Espresso test

```
package com.project.gta.demo;
```

```
import android.support.test.espresso.ViewInteraction;
import android.support.test.rule.ActivityTestRule;
import android.support.test.runner.AndroidJUnit4;
import android.test.suitebuilder.annotation.LargeTest;
import android.view.View;
import android.view.ViewGroup;
import android.view.ViewParent;

import org.hamcrest.Description;
import org.hamcrest.Matcher;
import org.hamcrest.TypeSafeMatcher;
import org.junit.Rule;
import org.junit.Test;
import org.junit.runner.RunWith;

import static android.support.test.espresso.Espresso.onView;
import static android.support.test.espresso.action.ViewActions.click;
import static android.support.test.espresso.matcher.ViewMatchers.isDisplayed;
import static android.support.test.espresso.matcher.ViewMatchers.withContentDescription;
import static android.support.test.espresso.matcher.ViewMatchers.withId;
import static android.support.test.espresso.matcher.ViewMatchers.withParent;
import static android.support.test.espresso.matcher.ViewMatchers.withText;
import static org.hamcrest.Matchers.allOf;

@LargeTest
@RunWith(AndroidJUnit4.class)
public class UCManagePlants {

    @Rule
    public ActivityTestRule<MainMenu> mActivityTestRule = new
    ActivityTestRule<>(MainMenu.class);

    @Test
    public void uCManagePlants() {
        ViewInteraction appCompatButton = onView(
            allOf(withId(R.id.BTNmyplants), withText("My plants"),
                withParent(allOf(withId(R.id.mainmenu),
                    withParent(withId(R.id.activity_main_menu)))),
                isDisplayed()));
        appCompatButton.perform(click());
    }
}
```

```
ViewInteraction tableLayout = onView(
    allOf(childAtPosition(
        allOf(withId(R.id.LSTplants),
            withParent(withId(R.id.activity_plant_menu))),
        0),
        isDisplayed()));
tableLayout.perform(click());

ViewInteraction appCompatImageButton = onView(
    allOf(withContentDescription("Nach oben"),
        withParent(allOf(withId(R.id.action_bar),
            withParent(withId(R.id.action_bar_container)))),
        isDisplayed()));
appCompatImageButton.perform(click());
}

private static Matcher<View> childAtPosition(
    final Matcher<View> parentMatcher, final int position) {

    return new TypeSafeMatcher<View>() {
        @Override
        public void describeTo(Description description) {
            description.appendText("Child at position " + position + " in parent ");
            parentMatcher.describeTo(description);
        }

        @Override
        public boolean matchesSafely(View view) {
            ViewParent parent = view.getParent();
            return parent instanceof ViewGroup && parentMatcher.matches(parent)
                && view.equals(((ViewGroup) parent).getChildAt(position));
        }
    };
}
}
```

## 4. Special requirements

(n/a)

## 5. Preconditions

### 5.1 Gallery

User has installed the application and is in the "Plant menu". The phone has at least one photo in the gallery.

## 6. Postconditions

### 6.1 Avatar/Information

The plant will be have avatar.

### 6.2 Humidity data

The information about the level of humidity data will help to ensure that the user would received a message about the need for watering in time.

## 7. FP- Calculation

Calculation of DET/RET/FTR: [DET/RET/FTR Table](#)

**Domain Characteristic Table**

MEASUREMENT PARAMETER	COUNT (value >= 0)	WEIGHTING FACTOR		
		Simple	Average	Complex
Number of User Input	2	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of User Outputs	1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of User Inquiries	2	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of Files	0	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of External Interfaces	0	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Complexity Adjustment Table](#) | [FP Calculation](#)

## 8. Extension Points

(n/a)