

Use Case: Simulation Platform for Smart Fridge and Sudoku Solver

Sreenivas, Jonas and Mariusz

February 16, 2018

1 Purpose

This document provides use cases for the simulation platform for rotting fruits and Sudokus. The use cases are described either by words and a UML diagram.

2 Use Case

2.1 Specifications

Number	1	
Name	Rendering images for SmartFridge	
Description	A User goes through the dialogues to create an image containing various fruits of different rotten and non-rotten states.	
Priority	5	
Preconditions	Program was started	
Postconditions	None	
Primary Actor(s)	User	
Secondary Actor(s)	None	
Trigger	User chooses SmartFridge after program start.	
Main Scenario	Step	Action
	1	Program shows start dialogue containing choice between SmartFridge and Sudoku
	2	User chooses SmartFridge
	3	Program displays parameter selection with default values
	4	User specifies amount and save path of the images
	5	User changes parameters at will
	6	Images are written to the specified path
Extensions	Step	Branching Action
	-	-

Number	2	
Name	Rendering images for Sudoku Solver	
Description	A User goes through the dialogues to create an image dataset containing various Sudoku puzzles.	
Priority	4	
Preconditions	Program was started	
Postconditions	None	
Primary Actor(s)	User	
Secondary Actor(s)	None	
Trigger	User chooses Sudoku after program start.	
Main Scenario	Step	Action
	1	Program shows start dialogue containing buttons for choice between SmartFridge and Sudoku
	2	User chooses Sudoku
	3	Program displays parameter selection with default values
	4	User specifies amount and save path of the images
	5	User changes parameters at will
	6	Images are written to the specified path
Extensions	Step	Branching Action
	-	-

Number	3	
Name	Add a fruit to the SmartFridge (Experimental Use case for scalability in future	
Description	A Developer goes through the dialogues to create an image containing one Sudoku.	
Priority	2	
Preconditions	Developer has information and access to plugin interface	
Postconditions	Program is still executable	
Primary Actor(s)	Developer	
Secondary Actor(s)	None	
Trigger	None	
Main Scenario	Step	Action
	1	Developer adds a blender compatible mesh for the new fruit
	2	Developer adds a colormap for the new fruit
Extensions	Step	Branching Action
	-	-
Issues	<ul style="list-style-type: none"> ◦ How does the access look like? Will there be a specific interface? ◦ How to specify positioning of the new models inside the scene? 	

2.2 UML diagram

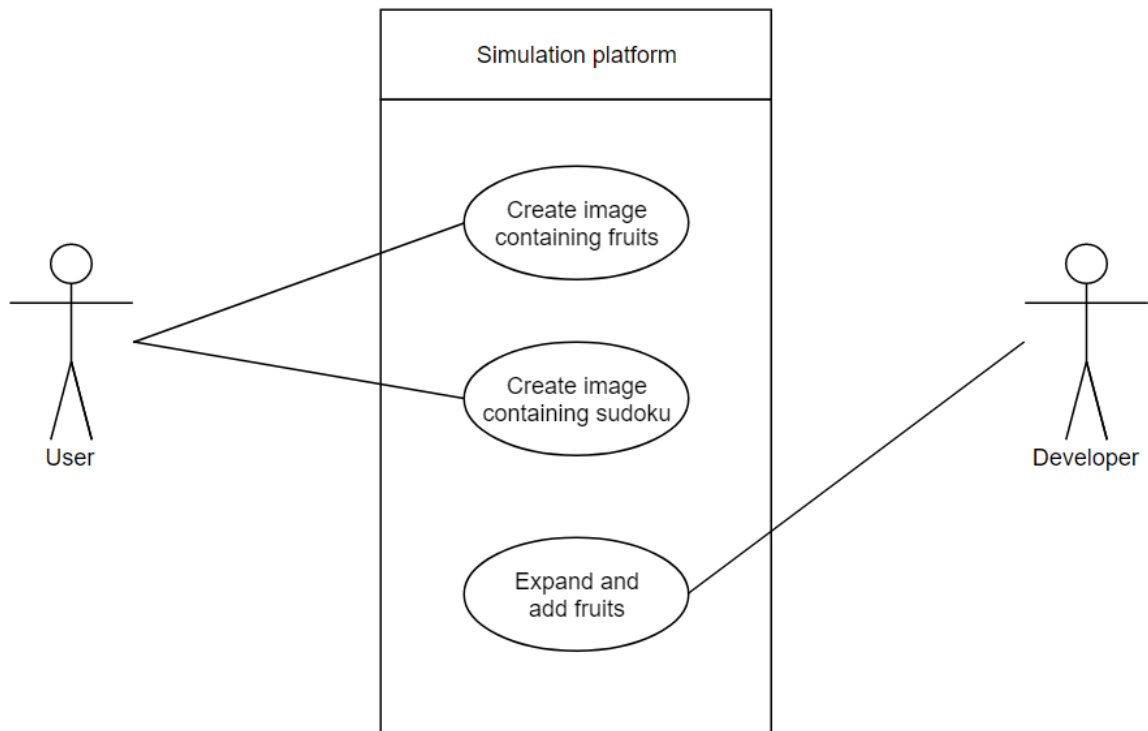


Figure 1: Use Case UML diagram