Use Case: Simulation Platform for Smart Fridge and Sudoku Solver

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1 Purpose

This document provides use cases for the simulation platform for rottening 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 buttons for choice between SmartFridge and Sudoku
	2	User chooses SmartFridge
	3	Program displays parameter selection with default values
	4	User changes parameters at will
	5	Program displays rendered image for given input parameters
	6	User chooses whether to reject or save the image
Extensions	**Step**	**Branching Action**
	4.1	User insert number and sort of fruit.
	4.2	Program shows preview of the scene to render
Issues	How does the selection look like? Does the user click through multiple images or does he get only one image per generation?	

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 changes parameters at will
	5	Program displays rendered image for given input parameters
	6	User chooses whether to reject or save image
Extensions	**Step**	**Branching Action**
	4.1	Program shows preview of the Sudoku scene to render.
Issues	How does the selection look like? Does the user click through multiple images or does he get only one image per generation?	

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**
	1.1	The developer has to apply the parameter types and names for his mesh generating routine
Issues	How does the selection look like? Does the user click through multiple images or does he get only one image per generation?	

2.2 UML diagram

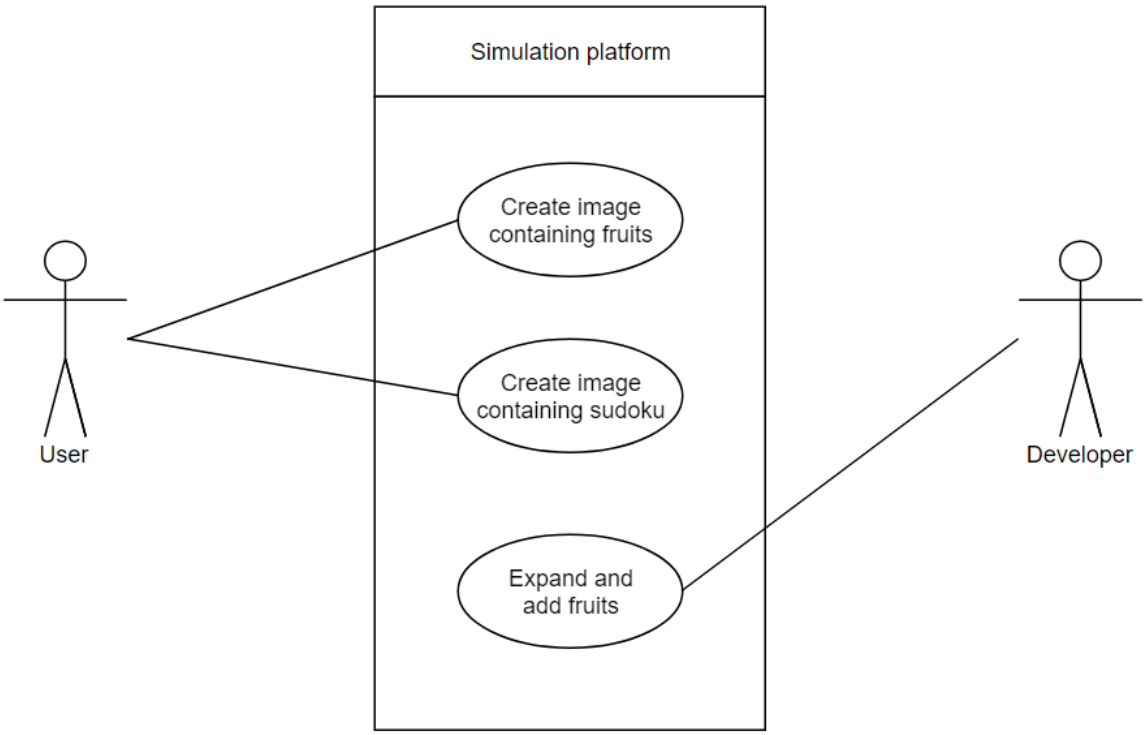

Figure 1: Use Case UML diagram