

---

# **Product Requirements Document**

## **Use Cases Specification**

**SDA8**

SWEN90007 SM2 2021 Project

In charge of: Jiashuai Yu, Sufan Xia, Thomas Capicchiano, and Zhuolun Wu

---



---

SCHOOL OF  
**COMPUTING &  
INFORMATION  
SYSTEMS**

---

**Revision History**

Date	Version	Description	Author
13/08/2021	01.00	Initial draft	Zhuolun Wu
13/08/2021	02.00	Initial draft	Zhuolun Wu
13/08/2021	03.00-D1	Add use cases 1, 2, 3, 4, 5, and 6	Zhuolun Wu
13/08/2021	03.00-D2	Add use cases 7, 8, 9, 10, and 11	Jiashuai Yu
13/08/2021	03.00	Add use cases diagram	Jiashuai Yu
15/08/2021	04.00-D1	Added domain model draft	Sufan Xia
15/08/2021	04.00-D2	Refined and updated the domain model	Tom Capicchiano
15/08/2021	04.00	Added description for domain model	Tom Capicchiano Sufan Xia
19/08/2021	05.00-D1	Update detailed use cases	Sufan Xia
20/08/2021	05.00-D2	Modify use case diagram	Sufan Xia
29/08/2021	05.00-D3	Add more use cases and update diagram	Sufan Xia

## Contents

<b>1. Introduction .....</b>	<b>4</b>
1.1 <i>Proposal</i> .....	4
1.2 <i>Target Users</i> .....	4
1.3 <i>Conventions, terms and abbreviations</i> .....	4
<b>2. Actors .....</b>	<b>4</b>
<b>3. Use Cases.....</b>	<b>5</b>
3.1 <i>System Admin Operations</i> .....	5
3.2 <i>Health Care Provider Operations</i> .....	10
3.3 <i>Vaccine Recipient Operations</i> .....	11

## 1. Introduction

---

### 1.1 Proposal

This document specifies the SWEN90007 project use cases, describing the flow of events, inputs and outputs of each use case to be implemented.

### 1.2 Target Users

This document is mainly intended for SWEN90007 students and the teaching team.

### 1.3 Conventions, terms and abbreviations

This section explains the concept of some important terms that will be used throughout this document. These terms are detailed alphabetically in the following table.

Term	Description
LMS	Learning Management System
AF	Alternative flow(s)
EF	Exception flow(s)

## 2. Actors

---

Actor	Description
Administrator	The system admin has access to all functionalities.
Health Care Provider	Provides vaccination services
Vaccine Recipient	Individuals who are making an appointment for vaccination

### 3. Use Cases

#### 3.1 System Admin Operations

##### [UC001] Administrator creates accounts

##### Actors

Administrator

##### Pre-condition

The administrator has been contacted by the user who wants to create an account.

##### Main Events Flow

1. The administrator opens the register window
2. The administrator fills in all relative information [AF1] [AF2]
3. The system stores the registered account and relative information

##### Alternative Flows

##### [AF1] Type of account is vaccine recipient

1. Required fields include email, password, and date of birth
2. The account has access to book for vaccine and other related functionalities

##### [AF2] Type of account is health care provider

1. Required fields include name, postcode, and type of provider
2. The account has access to manage and provide vaccines and other related functionalities

##### Additional Information

Field	Description	Type (Length)	Mandatory	Unique	Editable	Filtered	Details
Email		Text	√	√	√		
Password		8-16 (length)	√		√		
Date of Birth		Date	√				
Name (of provider)	Name of the health care provider	Text	√				
Postcode (of provider)	Postcode of the health care provider	Integer	√				

Type of Provider		Text	√				GP, hospital, etc.
------------------	--	------	---	--	--	--	--------------------

### [UC002] Administrator Adds Vaccine Types

#### Actors:

Administrator

#### Pre-condition

The administrator is logged on and has access to the vaccine type management window. The vaccine type being added is a new one that has not been added before.

#### Main Events Flow

1. The administrator opens the vaccine type management window
2. The administrator enters the new vaccine type [EF1]
3. The administrator creates the corresponding questionnaire for the new vaccine type.
4. The system stores the new vaccine type (AstraZeneca/Pfizer)

#### Exception Flow

##### [EF1] The Vaccine Type Exists Already

1. The system shows an error to the administrator

### [UC003] Administrator views all users

#### Actors:

Administrator

#### Pre-condition

The administrator is logged on.

#### Main Events Flow

1. The administrator opens the view user page where user data is rendered in a table (only accessible to admin)
2. The administrator selects “all users”
3. The System shows all users in a list view

### **[UC004] Administrator views all timeslots**

**Actors:**

Administrator

**Pre-condition**

The administrator is logged on and has access to view all timeslots.

**Main Event Flow**

1. The administrator opens the timeslot window
2. The system shows all timeslots in a calendar view

### **[UC005] Administrator views vaccine recipients**

**Actors:**

Administrator

**Pre-condition**

The administrator is logged on and filter out all vaccinated users through user management page.

**Main Event Flow**

1. The administrator opens the view user window
2. The administrator selects “all users”
3. The administrator adds a filter of “vaccinated”
4. The system shows all vaccinated users in list view

### **[UC006] Administrator modifies the questionnaires**

**Actors:**

Administrator

**Pre-condition**

The administrator is logged on



### Main Event Flow

1. The administrator opens the vaccination type list page
2. The administrator selects a vaccination type, and the questionnaire window opens
3. The administrator adds, deletes or edits the questions
4. The admin clicks save, and system records the changes

### 3.2 Health Care Provider Operations

#### [UC007] Health Care Provider adds timeslots

**Actors:**

Health Care Provider

**Pre-condition**

The health care provider is logged on and has access to set timeslots.

**Main Event Flow**

1. The health care provider opens the vaccine timeslots setting window
2. The health care provider views all available timeslots
3. The health care provider clicks on any empty spaces on the calendar to create a new timeslot
4. The health care provider customizes the duration of any timeslot
5. The health care provider sets the number of shots available during any timeslot
6. The system stores all above information and make it bookable to vaccine recipients

#### [UC008] Health Care Provider records a vaccination

**Actors:**

Health Care Provider

**Pre-condition**

The recipient has been vaccinated and his Health Care Provider has recorded the vaccination.

**Main Event Flow**

1. The health care provider logs in the system
2. The health care provider records this vaccination details on system
3. The recipient is recorded as vaccinated

### 3.3 Vaccine Recipient Operations

#### [UC009] Recipient searches for available timeslots

##### Actors:

Vaccine Recipient

##### Pre-condition

The recipient has logged in.

##### Main Event Flow

1. The recipient enters the booking page (timeslots window)
2. The recipient searches for suitable timeslots to himself [AF1] [AF2]

##### Alternative Flows

###### [AF1] Select timeslots in a calendar view

1. The recipient selects timeslots calendar view
2. The system shows timeslots in a calendar view

###### [AF2] Select timeslots of a selected Health Care Provider

1. The recipient selects a specific Health Care Provider
2. The system shows all timeslots of the selected Health Care Provider

### [UC010] Recipient books for vaccination

#### Actors:

Vaccine Recipient

#### Pre-condition

The recipient has identified a preferred timeslot

#### Main Event Flow

1. The recipient selects the timeslot and click booking
2. The system shows a questionnaire
3. The recipient enters all required information (age and other underlying health factors)
4. The system validates the eligibility of the recipient according to questionnaire answer
5. The system replies if the recipient can receive the injection [AF1] [AF2]

#### Alternative Flows

##### [AF1] The booking is successful

1. The recipient receives system's reply that he/she can receive the vaccine injection

##### [AF2] The booking fails

1. The recipient receives system's reply that he/she cannot receive the vaccine injection
2. The recipient is redirected to the timeslot selection page

#### Additional Information

Field	Description	Type (Length)	Mandatory	Unique	Editable	Filtered	Details
Age		Integer	√		√		
Health factors		Text			√		

### [UC011] Recipient shows vaccination certification

#### Actors:

Vaccine Recipient

#### Pre-condition

The recipient is vaccinated and logged on.

### Main Event Flow

1. The recipient opens his/her vaccination history
2. The recipient selects the vaccination record (assume COVID-19 vaccine requires at least two shots to assure effectiveness)
3. The system shows recipient's vaccination certification

### 3.4 Use case diagram

