Product Requirements Document
Submission 1 Specification

SDA7

SWEN90007 SM2 2021 Project

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Revision History

Date	Version	Description	Author
12/08/2021	01.00-D01	Initial draft	
12/08/2021	01.00-D02	Added use case diagram	Benjamin Yi
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14/08/2021	01.00-D07	Added use case descriptions for health care providers	Daniel Jiang
14/08/2021	01.00	Added domain diagram description	John McCleary

Contents

1. Introduction

1.1 Proposal

This document specifies the SWEN90007 project use cases, actors to be implemented, and the system's domain model.

1.2 Target Users

This document is mainly intended for SWEN90007 students and 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.
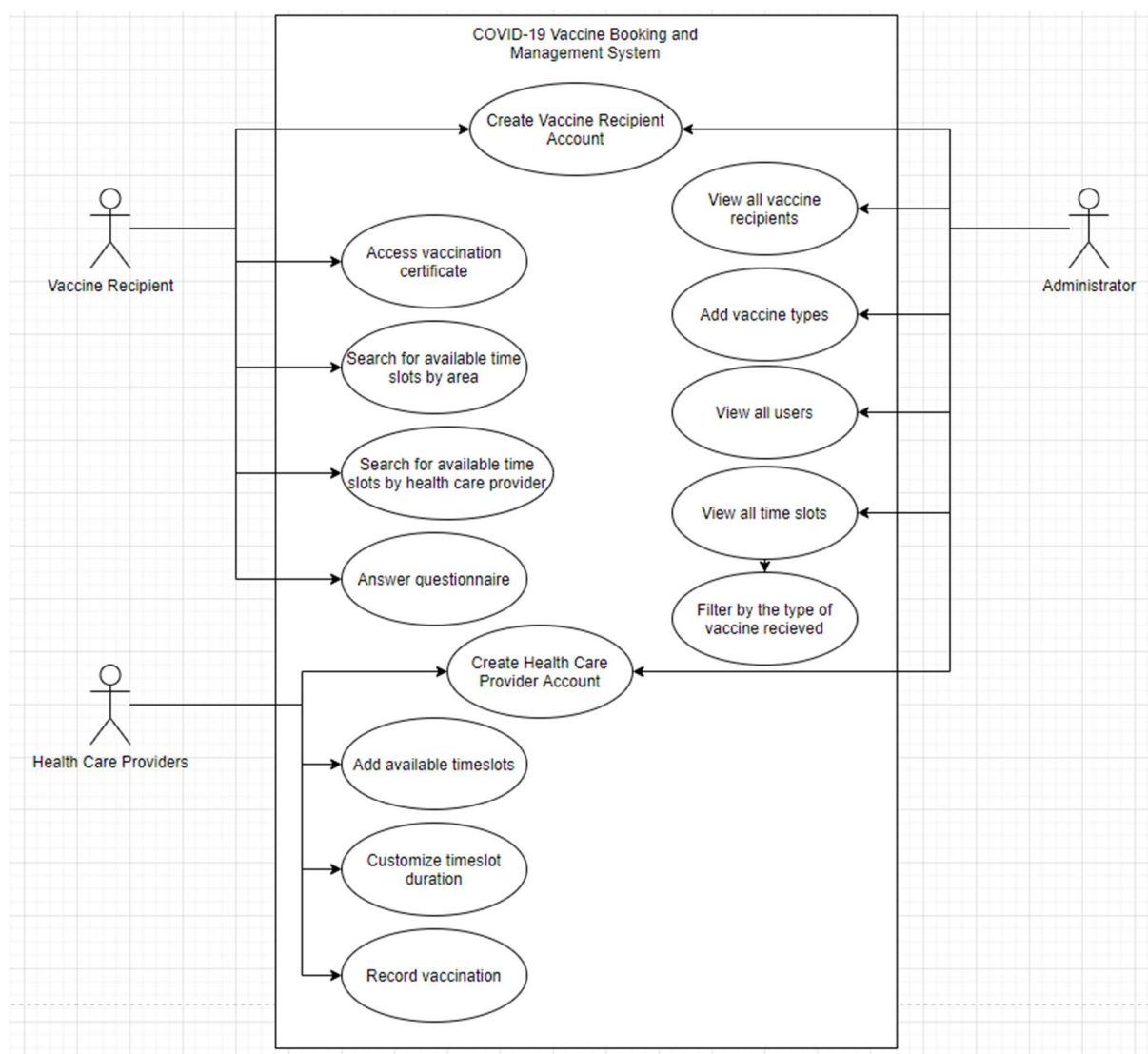
Term	Description
GitHub	Version control website for the project and the documents
LMS	Learning Management System
Slack	Online communication channel for team members

2. Actors

Actor	Description
Vaccine Recipient	Vaccine recipients are the people who want to take a vaccine and apply for it.
Health Care Providers	Health care providers are doctors or organizations which have the capability to provide vaccines to recipients.
Administrator	The administrator takes the responsibility to manage the data of this system.

3. Use Cases

3.1 Use Case Diagram: COVID-19 Vaccine Booking and Management System

3.2 List of use cases

Create Vaccine Recipient Account

Actors

1. Vaccine Recipients
2. Administrator

Basic Flow

Vaccine recipients access the platform and registers for an account, filling in personal details such as name and age during the registration process.

The administrator also has the authority to create accounts for some kinds of vaccine recipients such as disabled.

Access vaccination certificate

Actors

1. Vaccine Recipients

Basic Flow

After receiving a vaccine, vaccine recipients log on to the system and chooses to access their vaccination certificate. The vaccination certificate shows details on vaccination time and type, and is proof of vaccination given by the health care provider.

Search for available time slots by area

Actors

1. Vaccine Recipients

Basic Flow

After logging in, the vaccine recipient chooses to search for time slots available that fit with their eligible vaccines. They are shown a list of available time slots. The vaccine recipient then filters the list by area, leaving only time slots from health care providers in their postcode showing.

Search for available time slots by health care providers

Actors

1. Vaccine Recipients

Basic Flow

After logging in, the vaccine recipient chooses to search for time slots available that fit with their eligible vaccines. They are shown a list of available time slots. The vaccine recipient then filters the list by health care providers, leaving only time slots from chosen health care providers showing.

Answer questionnaire

Actors

1. Vaccine Recipients

Basic Flow

After registration, the vaccine recipient is presented with a questionnaire to determine vaccine eligibility. The vaccine recipient fills out the questionnaire (a combination of multiple-choice questions and written answers) and submits it via the form online. Possible vaccine eligibility is then presented to the vaccine recipient (immediately or after admin review depending on answers given).

Create Health Care Account

Actors

1. Health Care Providers
2. Administrator

Basic Flow

A health care provider accesses the platform and creates an account with details including name, postcode and the type of provider they are.

The administrator also could create accounts for health care providers including all the necessary information.

Add Available Time Slots

Actors

1. Health Care Providers

Basic Flow

After logging in, a health care provider can add any number of time slots that they have available. These time slots can be added up to 6 months in advance.

Customize Time Slot duration

Actors

1. Health Care Providers

Basic Flow

After adding an available time slot, a health care provider can customize the duration of this time slot.

Record Vaccination

Actors

1. Health Care Providers

Basic Flow

After administering a vaccination, a health care provider records the details of the vaccination against the vaccine recipient. The details include the type of vaccination, date of vaccination, name of health care provider, and recipient name and date of birth.

View All Vaccine Recipients

Actors

1. Administrator

Basic Flow

The administrator can view the information of all vaccine recipients through the system, including the name, age, date of birth and vaccination record of the vaccine recipients. All the information would be displayed as a form on the website.

Add Vaccine Types

Actors

1. Administrator

Basic Flow

After logging in, the administrator could add available vaccine types to the system, so that the vaccine recipients can choose the vaccine they want to take, and the health care providers also could select the vaccine types they can offer.

View All Users

Actors

1. Administrator

Basic Flow

After logging in, the administrator could browse the list of all users, including vaccine recipients and health care providers. The list would contain the name and the type(vaccine recipients or health care providers) of each user.

View all Time Slots

Actors

1. Administrator

Basic Flow

After logging in, the administrator could view all the time slots created by health care providers and their availability.

4. Domain Model

4.1 Domain Model Description

Based on the specifications provided for the Examination Application, the system entities, attributes, and business rules can be summarized as:

- **Users** can be either an **Administrator, Vaccine Recipient,** or **Health Care Provider.**
- Only Administrators and Vaccine Recipients can create **Accounts.**
- Only Administrators can add **Vaccines.**
- Only Health Care Providers can create **Time-Slots.**
- Only Vaccine Recipients may book *one* Time-Slot.
- The application must have a *single* Administrator.
- Only the administrator may view all Vaccine Recipients and see which Vaccine they received.
- Vaccines of type <u>Pfizer</u> may be administered to *all* recipients.
- Vaccines of type <u>AstraZeneca</u> may only be administered to Vaccine Recipients with an <u>Age</u> > 50.
- Only Administrators may view *all* Users.
- Only Administrators may view *all* Time Slots.
- Only Vaccine Recipients may view *all unbooked* Time Slots.
- A Vaccine Recipient may see all Time Slots corresponding to a given Health Care Provider.
- Only Vaccine Recipients may respond to a **Questionnaire.**
- A Questionnaire has *one or more* **Questions.**
- The questionnaire may return *one* **Eligibility Result.**
- The Eligibility Result may return *zero or more* eligible Vaccines for the recipient.
- Time-Slots may be added up to six months in advance.
- Only Health Care Providers may create **Vaccination Records.**
- A Vaccine Recipient may have *one* Vaccination Record.
- A Vaccination Record may have only *one* Vaccine Recipient, *one* Time Slot, and *one* Vaccine.
- The Vaccination Record *may only be viewed by its corresponding* Vaccine Recipient.

4.2   Domain Model Diagram