

1. See Page-1 in diagrams.net XML file.

2. *Assuming that the appointments can be displayed on a screen with some sort of a UI. *

Book Appointment Use Case Description

Use Case Name	Book Appointment
Brief Description	Patient calls to make an appointment. Receptionist needs to book it in the CoVax System.
Primary Actor	Receptionist
Secondary Actor (if any)	N/A
Precondition	The booking is not currently in the system.
Dependency	INCLUDE USE CASE Display Appointment
Generalization	N/A
Basic Flow	Steps: 1. A receptionist performs the Display Appointment use case. 2. The receptionist enters the patient information including the date and time of the appointment. 3. System saves the information and displays the new appointment. Postcondition: New appointment in the system
Specific Alternative Flow	No appointment slots available.
	RFS: Basic Flow 1.
	Steps: 1. ABORT
	Postcondition: No new appointment in the system
Global Alternative Flows	N/A
Bounded Alternative Flows	N/A
Special Requirements	1.1 System shall be updated immediately at all clinics after an appointment is booked so that staff is working with the most up to date information. 1.2 System will only take one appointment booking request at a time so appointments don't overlap. 1.3 The number of available booking slots will reflect the actual number of slots that have not been booked. 1.4 Appointments can be made only within operating hours of clinic.

Cancel Appointment Use Case Description

Use Case Name	Cancel Appointment
Brief Description	Patient calls to make cancel an existing appointment. Receptionist removes the appointment from the CoVax System.
Primary Actor	Receptionist
Secondary Actor (if any)	N/A
Precondition	The booking is currently in the system.
Dependency	INCLUDE USE CASE Display Appointment

Generalization	N/A
Basic Flow	Steps: 1. A receptionist performs the Display Appointment use case. 2. The receptionist selects the appointment to be cancelled. 3. The receptionist deletes the appointment. 4. System asks receptionist to confirm the cancellation. 5.Receptionst confirms the cancellation. Postcondition: Appointment removed from the system
Specific Alternative Flow	Receptionist declines confirmation for cancellation. RFS: Basic Flow 5. Steps: 1. ABORT Postcondition: Apportionment is not removed form the system.
Global Alternative Flows	N/A
Bounded Alternative Flows	N/A
Special Requirements	2.1 The system shall update the cancelation immediately so that all staff working with the system will get the latest information.

Change Appointment Use Case Description

Use Case Name	Change Appointment
Brief Description	Patient calls to modify existing appointment. Receptionist records changes to the appointment.
Primary Actor	Receptionist
Secondary Actor (if any)	N/A
Precondition	The booking is currently in the system.
Dependency	INCLUDE USE CASE Display Appointment
Generalization	N/A
Basic Flow	Steps: 1. A receptionist performs the Display Appointment use case. 2. Receptionist makes changes to the appointment. 3. System saves and updates the information. Postcondition: Changes to apportionment are updated in system.
Specific Alternative Flow	N/A
Global Alternative Flows	N/A
Bounded Alternative Flows	N/A
Special Requirements	3.1 The system shall be updated immediately following the changes so that the staff that are working with the system will get the latest information.

Display Appointment Use Case Description

Use Case Name	Display Appointment
Brief Description	System can display the appointments to the receptionist.
Primary Actor	Receptionist
Secondary Actor (if any)	N/A
Precondition	TRUE
Dependency	N/A
Generalization	N/A
Basic Flow	Steps: 1. A receptionist enters a date or patient information to get appointments. 2. System displays appointments. Postcondition: Respective apportionment is displayed.
Specific Alternative Flow	N/A
Global Alternative Flows	N/A
Bounded Alternative Flows	N/A
Special Requirements	4.1 Appointments should be able to be sorted via dates or patients

Generate Patient Report Use Case Description

Use Case Name	Generate Patient Report
Brief Description	The system creates a report containing all information on a specific patient for the user to download.
Primary Actor	Administrative Staff
Secondary Actor (if any)	N/A
Precondition	The patient has records in the system.
Dependency	N/A
Generalization	N/A
Basic Flow	Steps: 1. Receptionist selects a specific patient. 2. System complies patient data and exports it. Postcondition: Patient report is ready to be downloaded by Administrative Staff.
Specific Alternative Flow	N/A
Global Alternative Flows	N/A
Bounded Alternative Flows	N/A
Special Requirements	5.1 The report should include all patient personal information recorded and medical history as well.

Generate Management Report Use Case Description

Use Case Name	Generate Management Report
Brief Description	The system creates a report containing an overview or the clinic activities and vaccine supply/demand.
Primary Actor	Administrative Staff
Secondary Actor (if any)	N/A
Precondition	TRUE
Dependency	N/A
Generalization	N/A
Basic Flow	Steps: 1. Receptionist selects create management report. 2. System compiles clinic data and exports it. Postcondition: Management report is ready to be downloaded by Administrative Staff.
Specific Alternative Flow	N/A
Global Alternative Flows	N/A
Bounded Alternative Flows	N/A
Special Requirements	6.1 The report should include all clinic data including conditions, vaccine supply and demand.

Record Patient Data Use Case Description

Use Case Name	Record Patient Data
Brief Description	Clinical Staff need to add some medical information to a patient record.
Primary Actor	Clinical Staff
Secondary Actor (if any)	N/A
Precondition	TRUE
Dependency	N/A
Generalization	N/A
Basic Flow	Steps: 1. A clinical staff member selects a patient from the system or creates a new record. 2. Clinical staff member inputs/updates patient medical information. 3. System asks to confirm changes to patient record. 4. Clinical Staff member confirms changes. Postcondition: New patient data is recorded in the system
Specific Alternative Flow	Clinical Staff member declines confirmation for changes. RFS: Basic Flow 4. Steps: 1. ABORT Postcondition: Patient record is not changed or created.

Global Alternative Flows	N/A
Bounded Alternative Flows	N/A
Special Requirements	7.1 System shall be update patient information immediately at all clinics after changes are made so that staff is working with the most up to date information.

Retrieve Patient Data Use Case Description

Use Case Name	Retrieve Patient Data
Brief Description	Staff need to retrieve patient data to view medical or personal information.
Primary Actor	Clinical Staff
Secondary Actor (if any)	Medical Records Staff
Precondition	Patient record must exist in system.
Dependency	N/A
Generalization	N/A
Basic Flow	Steps: 1. A staff member selects a patient from the system. 2. System compiles all patient information and displays it. Postcondition: Patient record is displayed for staff to view.
Specific Alternative Flow	N/A
Global Alternative Flows	N/A
Bounded Alternative Flows	N/A
Special Requirements	8.1 Patient information can only be accessed by authorized staff.

Maintain Records Use Case Description

Use Case Name	Maintain Records
Brief Description	Medical Records Staff need to continuously maintain the records system so that information is always up to date and the system does not break down.
Primary Actor	Medical Records Staff
Secondary Actor (if any)	N/A
Precondition	TRUE
Dependency	N/A
Generalization	N/A
Basic Flow	Steps: 1. A Medical Records staff member monitors the system. Postcondition: System is functioning as it should
Specific Alternative Flow	Error occurs in system. RFS: Basic Flow 1. Steps: 1. Alert all clinics.

	Postcondition: System is temporarily suspended from use.
Global Alternative Flows	N/A
Bounded Alternative Flows	N/A
Special Requirements	8.2 Message needs to be sent out to all clinics with information about the error regarding the system.

3.

Nouns	Representation
Clinical Staff	Actor – not an object
Medical Records Staff	Actor – not an object
Receptionists	Actor – not an object
Administrative Staff	Actor – not an object
Appointment	Entity object
Patient	Entity object
Patient Information	Attribute of Patient Entity – not an object
Appointment Information	Attribute of Appointment Entity – not an object
Vaccine	Entity object
Record	Entity object
Records System	Boundary object
Cancellation	Type of appointment – not an object
Display	Boundary object

Verbs	Representation
Delete	Associates control object with Appointment and Record entity and Display boundary
Confirm	Associates control object with Appointment and Record entity and Display boundary
Update	Associates control object with Appointment and Record entity and Display boundary
Selects	Associates control object with Appointment and Record entity and Display boundary
Saves	N/A
Exports	Associates with Record entity and Records System boundary
Inputs	Associates with Record entity and Records System boundary
Views	Associates control object with Appointment and Record entity and Display boundary
Alerts	N/A
Displays	Associates control object and Display boundary

4. See Page-2 in diagrams.net XML file.

5. See Page-3 in diagrams.net XML file.