PUNJAB UNIVERSITY COLLEGE OF INFORMATION TECHNOLOGY

<< PROJECT D-2 >>

SUBMITTED TO:

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MIB Software House

Project: Covid Management Website

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1. Introduction:

Vision: To Serve Humanity

Mission Statement: To manufacture world's best Covid Management Website!

1.1 Purpose:

To facilitate general public regarding COVID-19 pandemic. This system will help citizens to make their registration for vaccination through a web-based system. This will be used by govt. authorities to accept the order from vaccination centers and to manage related information about related process.

1.2 Details of Project:

This is a web-based software application used to co-operate with Govt. to keep their public up-to-date about Corona pandemic. This software application will not only facilitate the Govt. but also provide the public with 1st hand information about latest vaccines for Covid patients, facilitate them to find nearest vaccination centers from their homes using global positioning system (GPS). This software product will facilitate people to register them for vaccine and will provide them tentative schedules. They will be able to select the schedule of their own choice according to their ease!

This web-application will also share latest research on Covid disease. Its ever-changing symptoms due to new militant variants. Latest vaccines developed by different pharmaceutical companies, like *AstraZanica* and *Novavax* etc. People will be able to view feedback on vaccines and they will also be able to post their reviews about vaccines and complains pertaining to attitude of servants of vaccination centers.

This software will facilitate govt. to declare track and deliver vaccine to desired vaccination centers. After proper login vaccination centers will be allowed to order for vaccine and will collaborate with govt. They will also be able to share their opinions on vaccines' qualities and their reaction on public after successful inoculation.

The **functional requirements** of our system:

1. Provide information about Covid and its symptoms.
2. Provide information about vaccines.
3. Provide an easy environment for vaccine registration.
4. Data management related to Covid patients and vaccinated ones.
5. Managing Schedule for citizens.
6. Vaccination centers will be allowed to order for more vaccines.
7. Govt. sector will keep an eye on records to avoid **black-marketing.**

1.3 Intended audience:
Primary actors:

Citizens

Doctors of Vaccination Centers

Distributors

Secondary actors:

Vaccination Regulatory Authority

Management Department
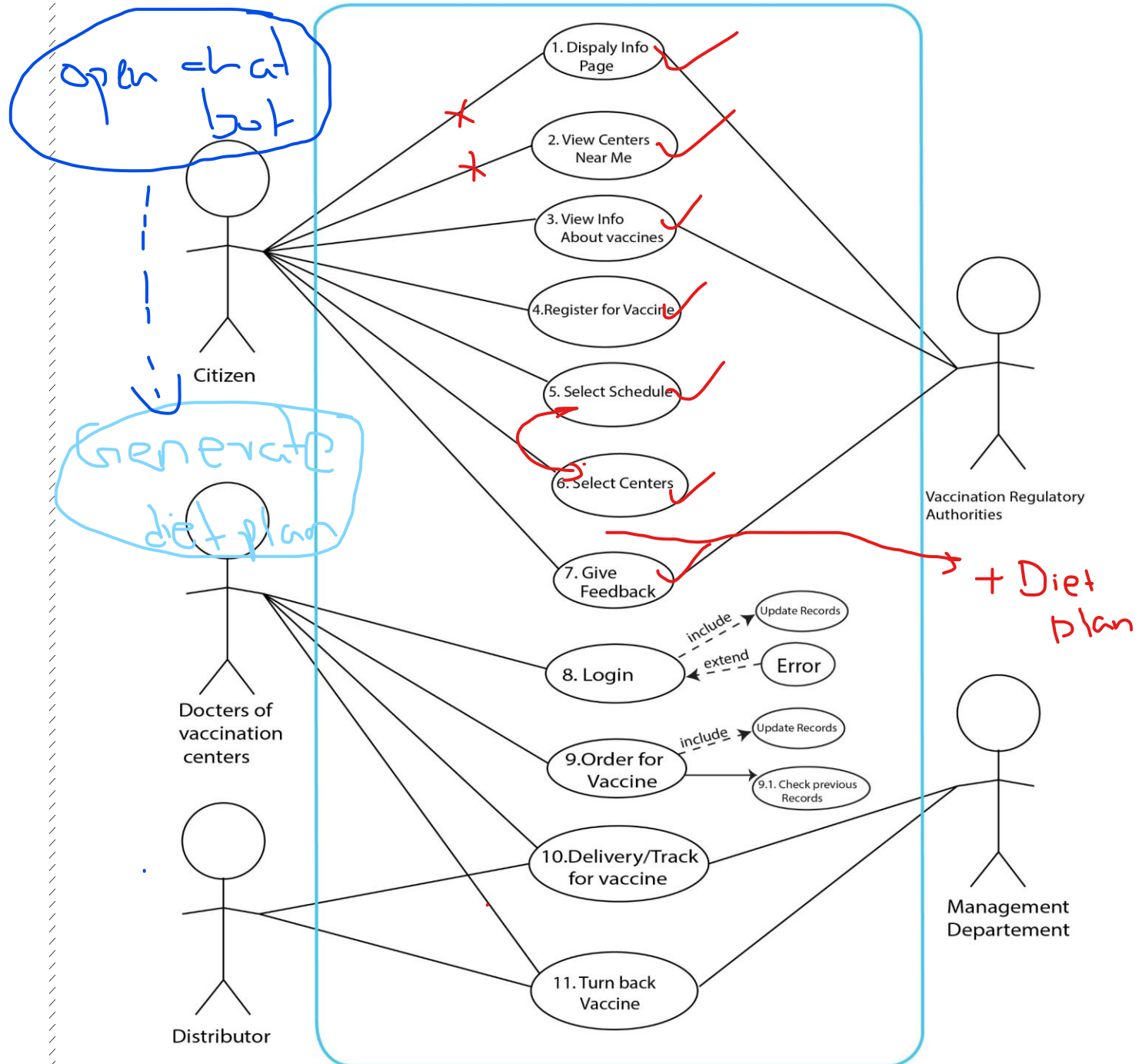
Offstage actors:

Government

1.4 Scope:

This web application will facilitate different communities of the state. Some examples are given below to show the wide applicability of this software product.

- Media Societies: to know the current situation of Covid-19
- Govt. institutes and Policy makers (Bureaucrats, Ministers, etc.): The information provided in this site will help them to make policies for general public.
- People will get vaccinated through this channel and they will be able to post their experiences after vaccination.
- General Public: They will be able to update their knowledge pertaining to Covid SOPs and vaccines.
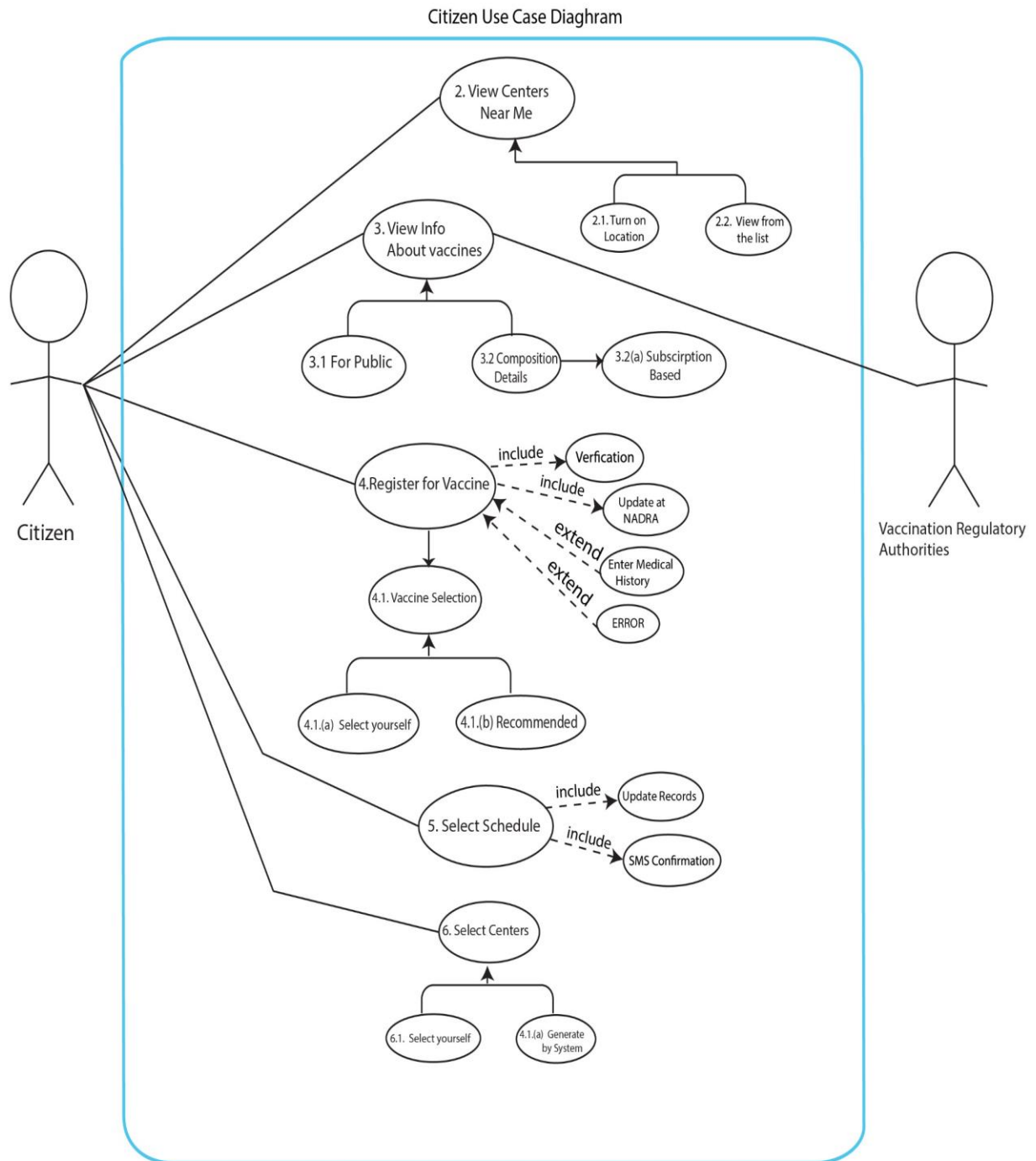- Distributors can find great way to earn money through this website.

2. Use Case Diagrams

- Main Use-Case of the system

Main System Use Case Diaghram

Citizen

open chat bot

Generate diet plan

Docters of vaccination centers

Distributor

1. Dispaly Info Page
2. View Centers Near Me
3. View Info About vaccines
4. Register for Vaccine
5. Select Schedule
6. Select Centers
7. Give Feedback
8. Login
9. Order for Vaccine
   9.1. Check previous Records
10. Delivery/Track for vaccine
11. Turn back Vaccine

Update Records

Error

include

extend

+ Diet plan

Vaccination Regulatory Authorities

Management Departement

- **Use Case for Citizens:**

Citizen Use Case Diaghram

3. Use Case Descriptions:

UC-1

ID	1
Title	Display Info Page
Description	This citizens will be able to view all kinds of information about Covid which include latest research blogs, symptoms (new/old), Corona SOPs, Positive cases, daily reported cases, area-wise cases stats, recovery cases and reported deaths due to Covid pandemic
Primary actor(s)	Citizens
Pre-condition	Web Access only
Main success scenarios	1. People will access website application with desire of gathering information about Covid-19 pandemic. 2. To view information, citizens doesn`t require any registration. 3. They just need to access the website and information is displayed as a homepage.
Extensions	Vaccination regulatory authority will be able to update information through manual as well as automated systems.
Frequency of use	Very frequent
Status	
Owner	MIB Software House

UC-2

ID	UC-2
Title	View centers near me
Description	The citizens who are intended to view COVID Vaccination Centers will select "View centers near me" option and the system will display centers that are near to them by using map facility.
Primary Actor	Citizens
Pre-conditions	Citizen has web access and turned on his location.
Post-conditions	Citizen will have taken an overview about the location of centers around him/her.
Main Success Scenario:	1. Citizen selects "View enters near me" from the menu. 2. To use this option, citizen will have to turn on his/her location. 3. After turning on location and selecting the option from menu, system will open the map and let the citizen to view the centers. 4. By default system displays centers around citizen`s location. 5. But citizen can scroll up or down, right or left to view the centers further.
Frequency of use	Frequent
Status	
Owner	MIB Software House

UC-3

ID	UC-3
Title	View Info about Vaccines
Description	This option is not only for general public who want to view reviews and general info about vaccine but also for chemists and doctors who want to get the specific details i.e. composition etc. about vaccine.
Primary Actor	Citizens (General public and doctors/chemists)
Pre-conditions	The person who is going to use this option has web access only.
Post-conditions	If the person is from general public, he/she will have read reviews and general info about vaccine. If the person is chemist or doctor, he/she will have read the vaccine`s composition details.
Main Success Scenario:	1. The intended person selects "View Info about Vaccines" from the menu. 2. System displays two options (For Public & Composition details) here. One for general public and other for doctors and chemists. 3. Citizen will select "For Public" option and be able to view general information and reviews about vaccine. 4. If the intended person is doctor or chemist, he/she will select "Composition details". To use this option, he/she will have to get subscription from the owner of the system. 5. Vaccination regulatory authority maintains and updates the information.
Frequency of use	Moderate
Status	
Owner	MIB Software House

UC-4

ID	UC-4
Title	Register yourself
Description	This option is for both general public who want to get register for vaccination and distributors who are supplying vaccines from medical company to Vaccination Centers.
Primary actor	Citizens and Distributors
Pre-condition	Web access only
Post-condition	If the intended person is citizen, he/she will have registered as a candidate for vaccination. If the intended person is distributor, he/she will have registered as a distributor.
Main success scenarios	1. The intended person selects "Register yourself" from the menu. 2. System displays two options (Register for Vaccination & Register as a distributor) here. One for general public and other for distributors. 3. Citizen will select "Register for Vaccination" option and be able to register him/herself by providing CNIC number, mobile number and required medical history etc. 4. If the intended person is distributor, he/she will select "Register as a distributor" and register him/herself by providing all the required information. To use this option, he/she will have to pay to the owner of the system.
Extensions	The system will verify the candidates credentials and displays error message if any error found.
Frequency of use	Moderate
Status	
Owner	MIB Software House

UC-5

ID	UC-5
Title	Select Schedule
Description	Registered citizens will be able to view tentative schedules (automatically generated) for vaccination, they select schedule according to their ease. They will **NOT** be allowed to select schedule for 2nd doze of vaccine.
Primary actor(s)	Citizens (Registered citizens only)
Pre-condition	Citizen must be registered through proper channel
Post-condition	His schedule will be confirmed.
Main success scenarios	1. Registered citizens select "Schedule" option. 2. Dropdown menu displays opt-able schedules 3. Citizens select the schedule of its own choice for 1st vaccine and the schedule for 2nd dose is selected automatically. 4. System maintains record and displays confirmation message.
Frequency of use	Moderate
Status	
Owner	MIB Software House

UC-6

ID	UC-6
Title	Select Centers
Description	When citizens that are intended to get vaccinate will be able to view, a list of COVID Vaccination Centers and they can select a center according to their ease!
Primary Actor	Citizens
Pre-conditions	Citizen has register him/herself.
Post-conditions	Citizen will have selected a COVID Vaccination Center.
Main Success Scenario:	1. Citizen selects "Select Centers" from the menu. 2. System displays a list of COVID Vaccination Centers available for selection. 3. Citizen selects one center which is near to their location. 4. Citizen clicks "Submit" button. 5. System maintains record of citizen regarding selection of center and displays a confirmation message.
Frequency of use	Moderate
Status	
Owner	MIB Software House

UC-7

ID	UC-7
Title	Give Feedback
Description	Citizens that have registered will share their assessment regarding vaccination. They will give their reviews.
Primary actor	Citizens
Main success/scenario:	1. Citizens will select "Feedback". 2. They will be able to check the other's feedbacks. 3. They will write reviews about vaccine and complaints about staff.
Frequency of use	Moderate
Status	
Owner	MIB Software House

UC-8

ID	UC-8
Title	Log in
Description	Government has provided Vaccination Centers with Register Certificate on which a unique code is mentioned. A person from vaccination center who is going to log into the system will enter that unique code and password to get logged in.
Primary actor	A person from vaccination center.
Pre-condition	Web access only
Post-condition	They will have registered as doctors of vaccination centers.
Main success scenarios	1. Citizens selects "Log in" from the homepage. 2. System displays form for registration. 4. They have to enter a unique code and password. 6. They select "Register" button to register themselves. 7. System register them and displays a confirmation message.
Extensions	The system will verify the credentials and displays error message if any error found.
Frequency of use	Moderate
Status	
Owner	MIB Software House

UC-9

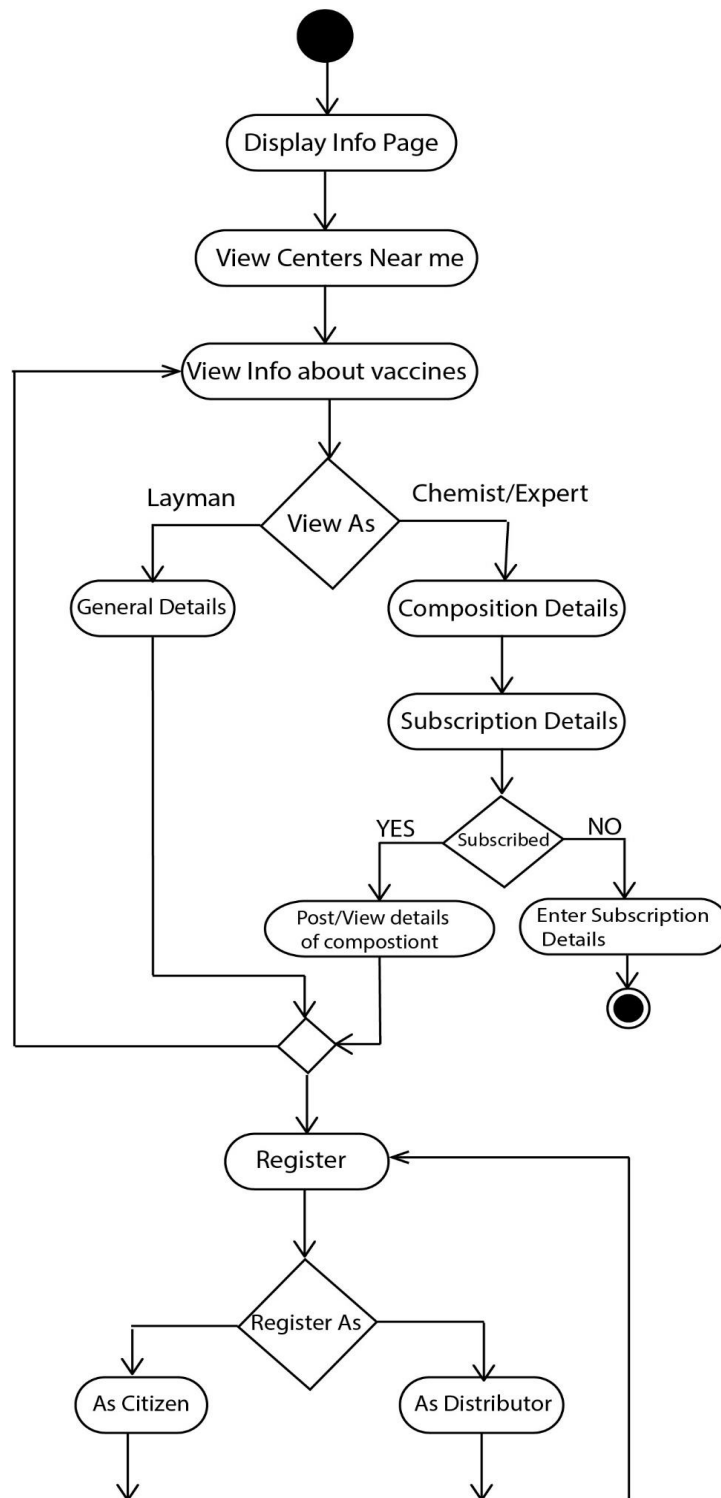| ID	UC-9
Title	Order for vaccine
Description	Vaccination center will order new stock to continue their service.
Primary Actor	Doctors of Vaccination Centers
Pre-conditions	Vaccination center has logged into the system.
Post-conditions	Vaccination Centers confirmed the order.
Main Success Scenario:	1. A person from VCs who is going to order for vaccine selects "Order for vaccine" from the menu. 2. System displays available vaccines. 3. Person selects one or more vaccines. 4. Person clicks "Submit" button. 5. System notes the order for vaccine and sends a confirmation message.
Extensions	The record will be updated in the ordering history.
Frequency of use	Moderate
Status	
Owner	MIB Software House

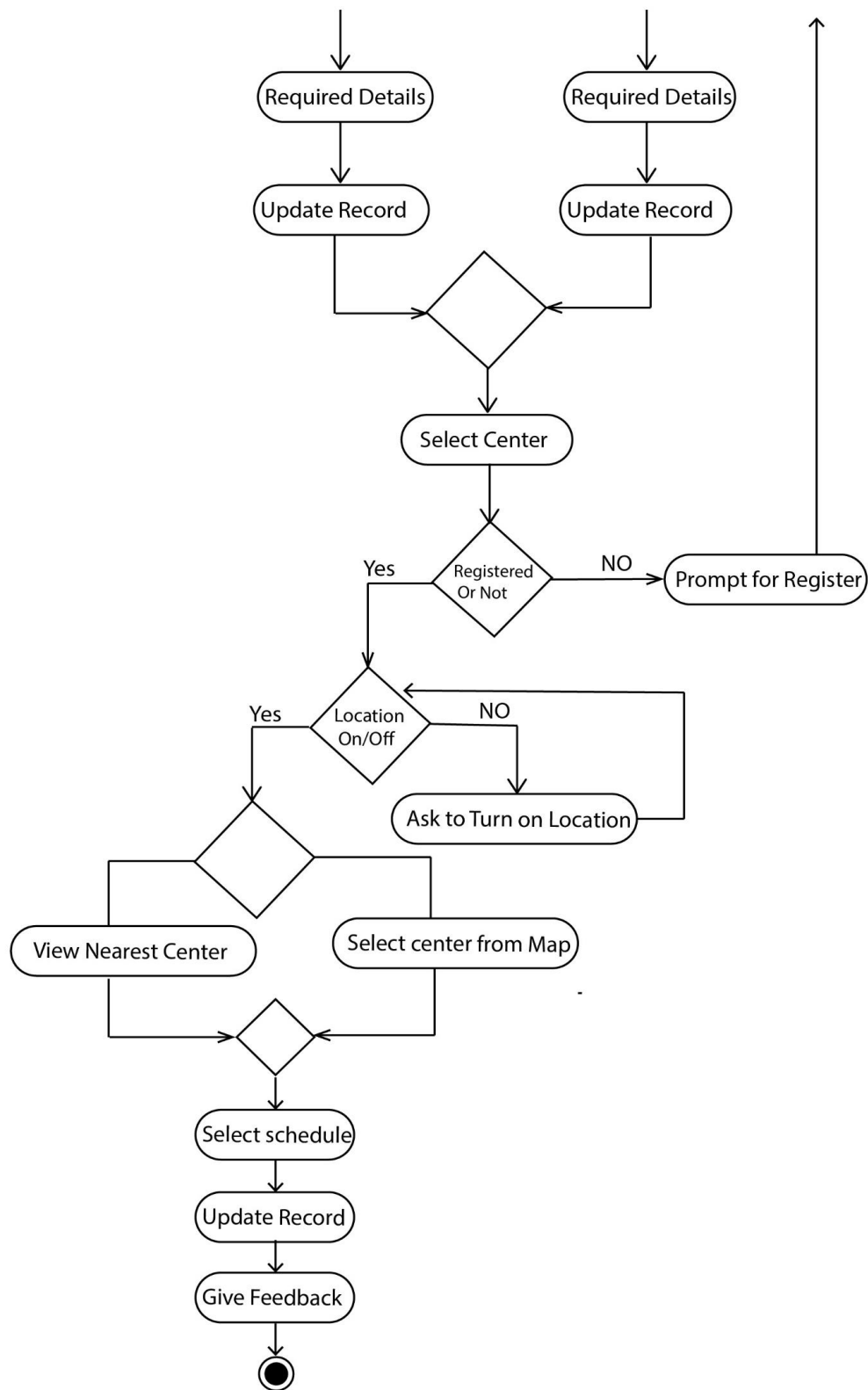## UC-10

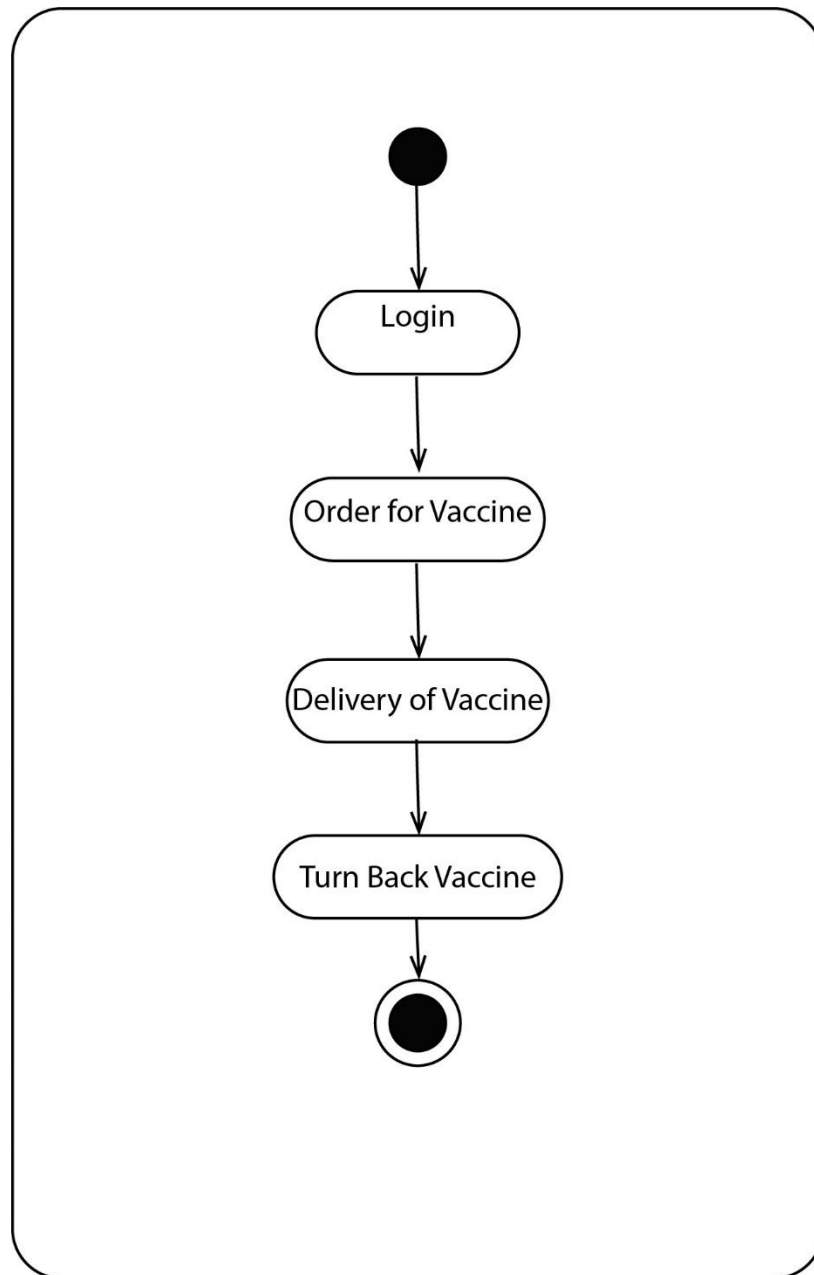| ID	UC-10
Title	Deliver/Track Vaccine
Description	With help of this Doctors of VCs and Distributors will be able to deliver and track vaccine.
Primary actor(s)	Doctors of vaccination centers, Distributors
Pre-condition	Order must be confirmed before the use of this option.
Main success scenarios	1. The users will use "Deliver/Track Vaccine" button. 2. Doctors of VCs will be able to track the vaccination package. 3. Distributors will be able to update information for MD and DVCs. 4. Management department will also be able to track the package.
Frequency of use	Moderate
Status	
Owner	MIB Software House

UC-11

ID	UC-11
Title	Turn Back Vaccine
Description	This option will help DVCs to turn back vaccine if any delivered vaccine is near to expiry, spoiled or leaked etc.
Primary actor(s)	Doctors of vaccination centers, Distributors
Pre-condition	Medicine must be delivered at VC.
Main success scenarios	1. The users will use "Turn Back Vaccine" button. 2. Doctors of VCs will have to share pictures of ramshackle vaccine. 3. Distributors will pick the ramshackle vaccine and supplied back to authorities. 4. Management department will also be able to track the package. 5. Investigation team will investigate the reasons for vaccine contamination.
Frequency of use	Un-frequent
Status	
Owner	MIB Software House

6. ACTIVITY DIAGRAM:

Required Details → Update Record

Required Details → Update Record

Select Center

Registered Or Not — Yes / NO → Prompt for Register

Location On/Off — Yes / NO → Ask to Turn on Location

View Nearest Center

Select center from Map

Select schedule

Update Record

Give Feedback

Activity Diagram for DVCs:

Appendix A: Glossary

DVCs:

DVCs is the acronym of Doctors of Vaccination Centers

VCs:

VCs stands for vaccination Centers

MD:

MD means Management Department, the department of Vaccine regulatory authority, which deals with distributors and make ensure that ordered vaccine is delivered in time. This department also signs contracts with distributors. Our website will provide competent distributors to MD.

UC:

UC is often used in this document which means USE-CASE. It is the oval shaped figure in the use-case diagram which indicates towards some activity of the system.

UCD:

UCD will stands for Use-Case Description or Use-Case Diagram according to the context.