V-CARE Health Care System

ABSTRACT

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Roll no:28

ABSTRACT

In recent days it is hard for everyone due to covid-19 people are afraid to go hospitals or to consult a doctor. Hence, people are less likely to visit a doctor these days since they have to go out of their homes and visit the doctor. The doctor then might suggest another specialist depending on the severity and the type of the disease.

Hence, a more accessible method is required for people to get checked if they have a specific disease. In India, especially, there has been a surge of internet usage in recent times and a lot more people now have access to smartphones and other devices through which they can access the internet easily.

Therefore, we will be creating a system that helps the people know what kind of disease they might have instead of directly using search engines which could generally give out wrong data due to inappropriate searches of symptoms by people.

This application will assess the information given by the user by asking specific questions and their severity of their situation then predict what disease they might have and also suggest best doctor's available for curing those diseases and help the patient.

EXISTING SYSTEM

Most of the people tend to search on search engines like Google to find out what disease they might have. This could be effective, but sometimes, the search engine might show a different conclusion since the severity of some symptoms is not mentioned by the user. Therefore, this outcome could be inaccurate, it could show something very severe or minor, both of which could be harmful for the user and might cause him/her to panic.

PROPOSED SYSTEM

The proposed V Care Online Disease Prediction system would help a lot more people self-diagnose so that they can take appropriate steps to counter the situations. For example, once the application gives an output mentioning a disease, the user might directly contact a specialist if needed instead of going to a general physician. In later versions, we could also use this data to make this system better and also help the people get directions to the nearest doctor/specialist

User Types

1. Admin
   This user overall manages the web application. They have rights to view the doctor and patient details. They have right to add or remove a doctor by looking on their details. Also, they will manage the complaints, review by users and doctors.

2. User
   User will register their name and their details in this app via registration page. They can sign in the login page on successful registration. Also, they can get appointment from a best doctor on giving the symptoms on the patient registration page. The user has right to edit and view his/her profile details and also the doctor appointment status and history of the appointments.
   User can add their symptoms and based on the symptoms in the database, the disease will be predicted. Also, one user can get appointment to doctor based on the reviews and department near to the patient location.

3. Doctor
   Doctor will registered by the admin after verifcation. They can sign in the login page on successful registration. Also, they can get appointment details for a day and can accept or decline the request so the patient will be assigned to new doctor.

SYSTEM MODULES

The modules are :

1. Register and Login.
2. Disease prediction based on symptoms
   - User can enter symptoms
   - Detail report will be provided after entering the symptoms
3. Appointment Booking
   - User can have appointments with Doctors based on time slots
4. Realtime chat with doctors.
5. Payment Management.

Table Design

Table 1:Login_DB

Primary key: Login_id

Column name	Datatype	Constraints
Login_id	Int	Primary key
Username	Varchar(35)	Not Null
Password	Varchar(25)	Not Null
Role	Varchar(10)	Not null
Status	Int	Not null

Table 2:Patient_Registration

Primary key:Preg_id

Foreign key: Login_id

Column name	Datatype	Constraints
Preg_id	Int	Primary key
First name	Varchar(25)	Not Null
Last name	Varchar(25)	Not Null
DOB	Date	Not Null
Gender	Varchar(10)	Not Null
Mobile_no	Int	Not Null
Login_id	Int	Foreign key

Table 3:Doctor _Registration

Primary key:Dreg_id

Foreign key: Login_id

Column name	Datatype	Constraints
Dreg_id	int	Primary key
First name	Varchar(25)	Not Null
Last name	Varchar(25)	Not Null
DOB	Date	Not Null
Gender	Varchar(10)	Not Null
Doctor_licence_no	Varchar(25)	Not Null
Mobile_no	int	Not Null
Login_id	Int	Foreign key

Table 4:Symptom

Primary key: Symptom_id

Foreign key: Login_id

Column name	Datatype	Constraints
Symptom_id	int	Primary key
Symptom _name	Varchar(30)	Not Null
Fuzzy set	Varchar(50)	Not Null
Range_value	int	Not Null
Description	Varchar(500)	Not Null
Login_id	Int	Foreign key

Table 5:Mapping

Primary key: Disease_id

Foreign key: Symptomid

Column name	Datatype	Constraints
Disease_id	int	Primary key
Fuzzyvalue	Varchar(20)	Not Null
Weight	Varchar(30)	Not Null
Symptom_id	int	Foreign key

Table 6:Disease

Primary key: Disease_name

Foreign key:Disease_id

Foreign key: Login_id

Column name	Datatype	Constraints
Disease_name	Varchar(25)	Primary key
Specialist	Varchar(20)	Not Null
Precaution	Varchar(30)	Not Null
Disease_id	int	Foreign Key
Login_id	Int	Foreign key

Table 7:Booking

Primary key:booking_id

Foreign key:login_id, Dreg_id

Column name	Datatype	Constraints
Dreg_id	int	Primary Key
Date	Date	Not Null
Time	Timestamp	Not Null
	int	Foreign key
login_id	int	Foreign key

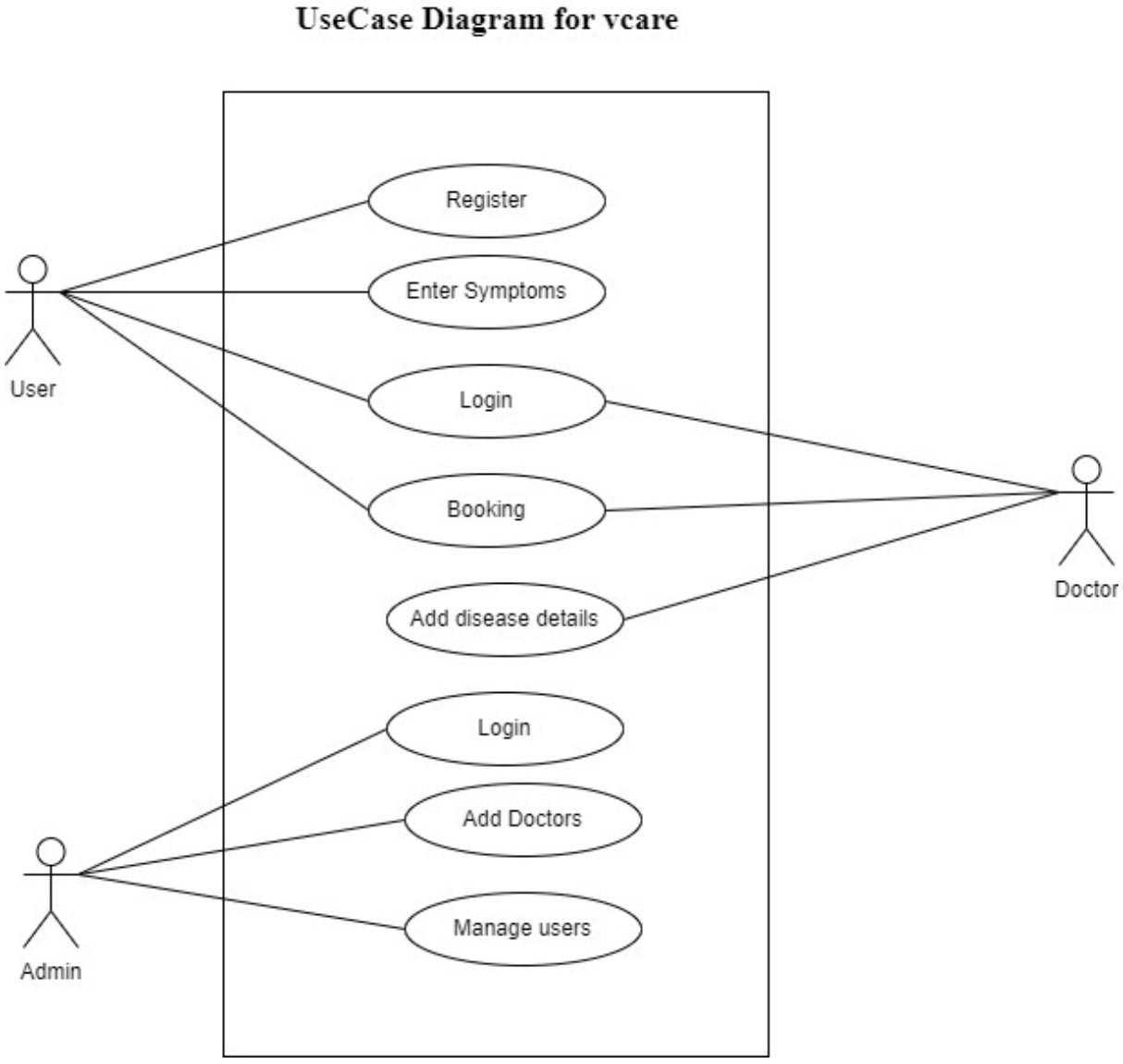
Table 8:Feedback

Primary key:Feedback_id

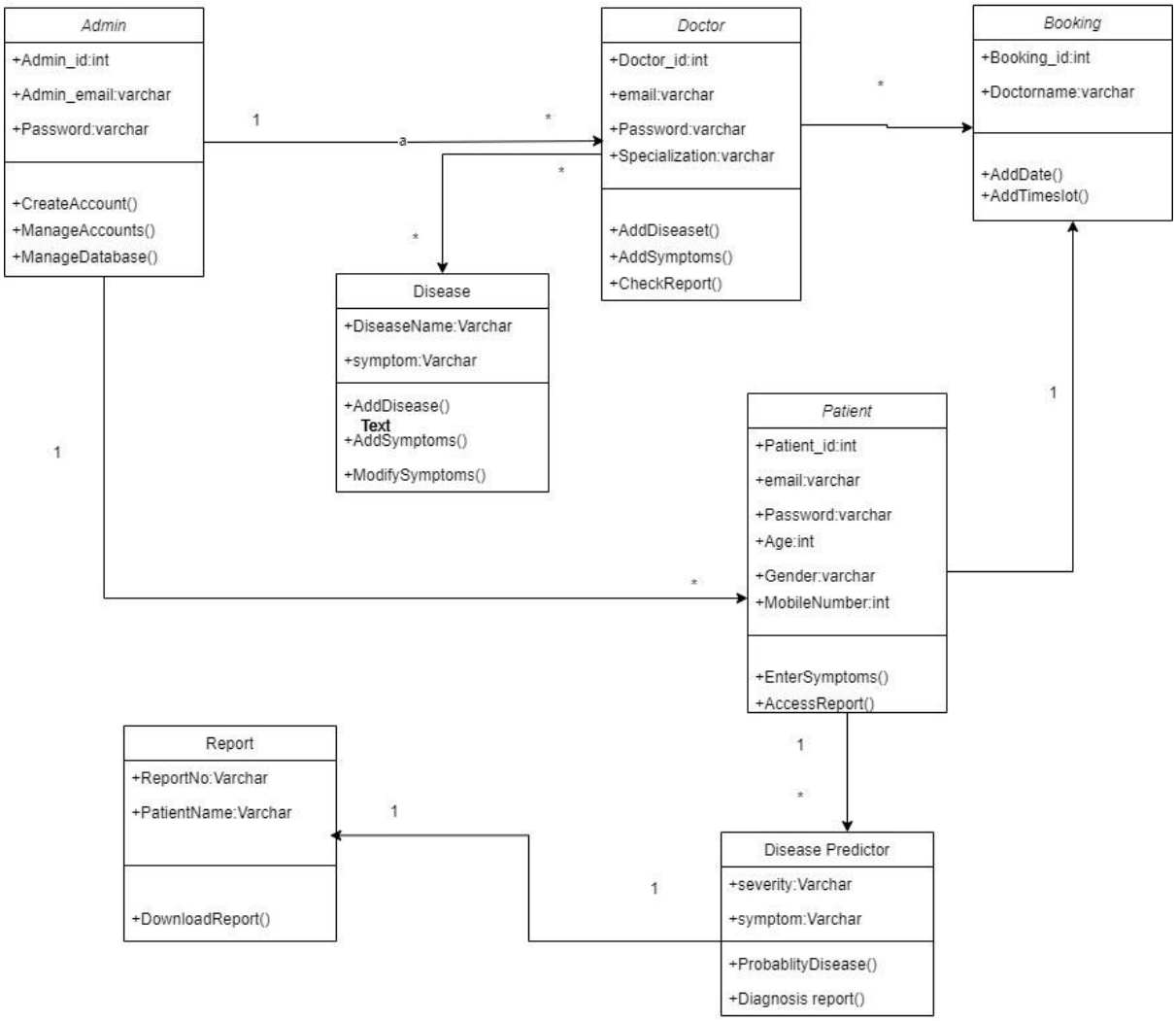
Foreign key:login_id

Column name	Datatype	Constraints
Feedback_id	int	Primary Key
Rating	int	Not Null
Review	Varchar(20)	Not Null
login_id	int	Foreign key

UML Diagrams



Class Diagram


Admin
+Admin_id:int
+Admin_email:varchar
+Password:varchar
+CreateAccount()
+ManageAccounts()
+ManageDatabase()
Doctor
+Doctor_id:int
+email:varchar
+Password:varchar
+Specialization:varchar
+AddDiseaset()
+AddSymptoms()
+CheckReport()
Booking
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+Doctorname:varchar
+AddDate()
+AddTimeslot()
Disease
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+AddDisease()
+AddSymptoms()
+ModifySymptoms()
Patient
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+email:varchar
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+Age:int
+Gender:varchar
+MobileNumber:int
+EnterSymptoms()
+AccessReport()
Report
+ReportNo:Varchar
+PatientName:Varchar
+DownloadReport()
Disease Predictor
+severity:Varchar
+symptom:Varchar
+ProbablityDisease()
+Diagnosis report()
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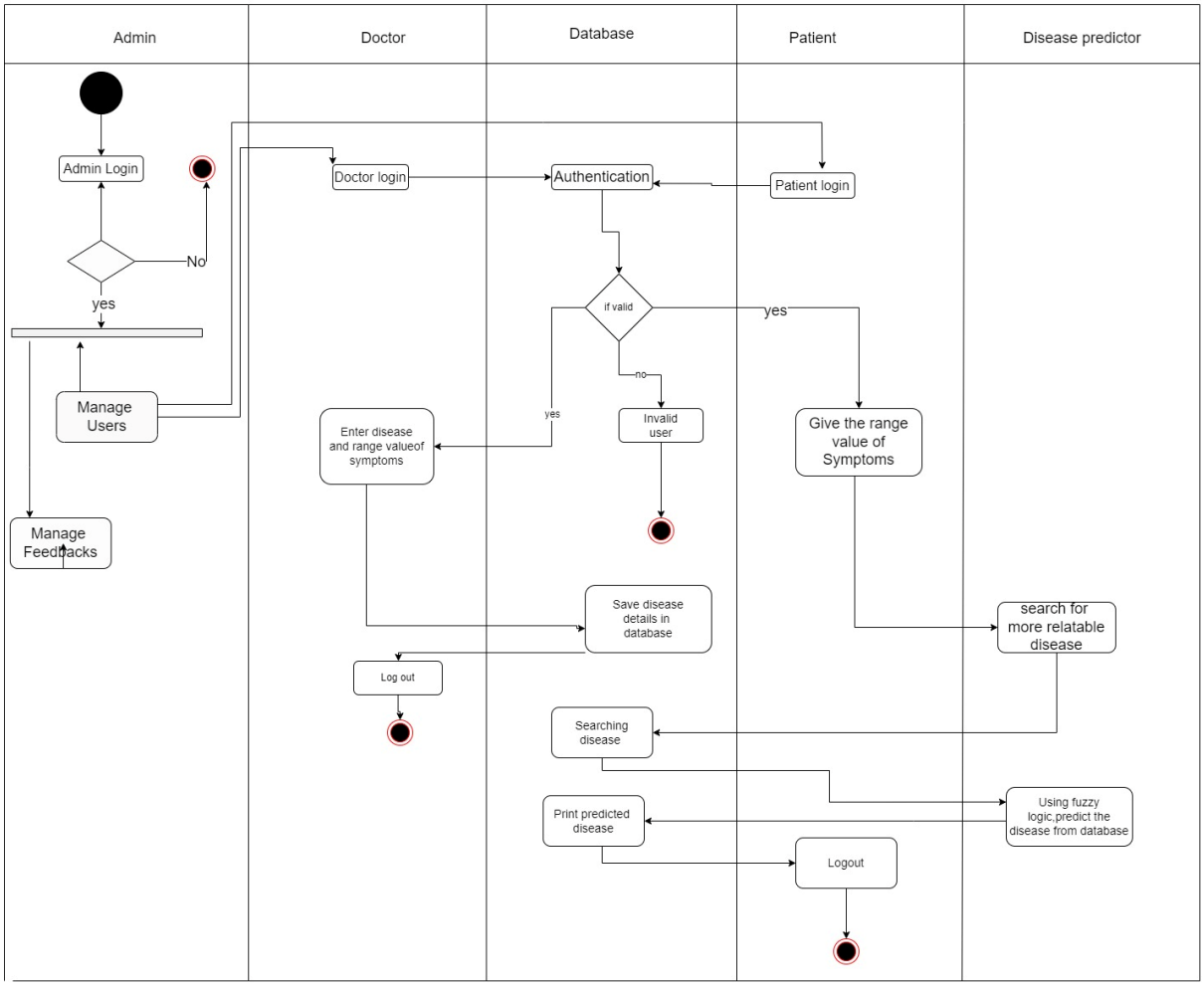
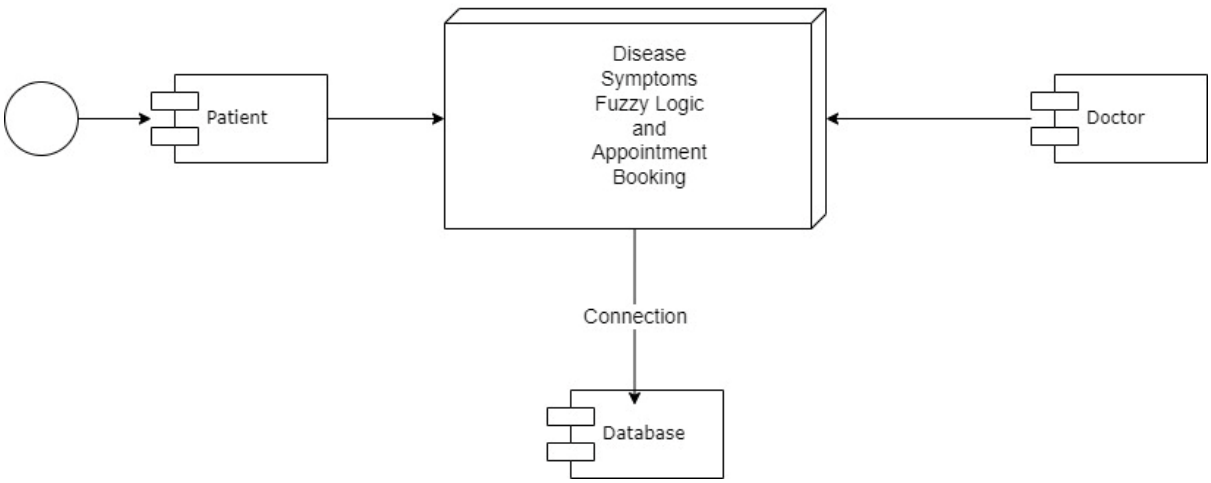
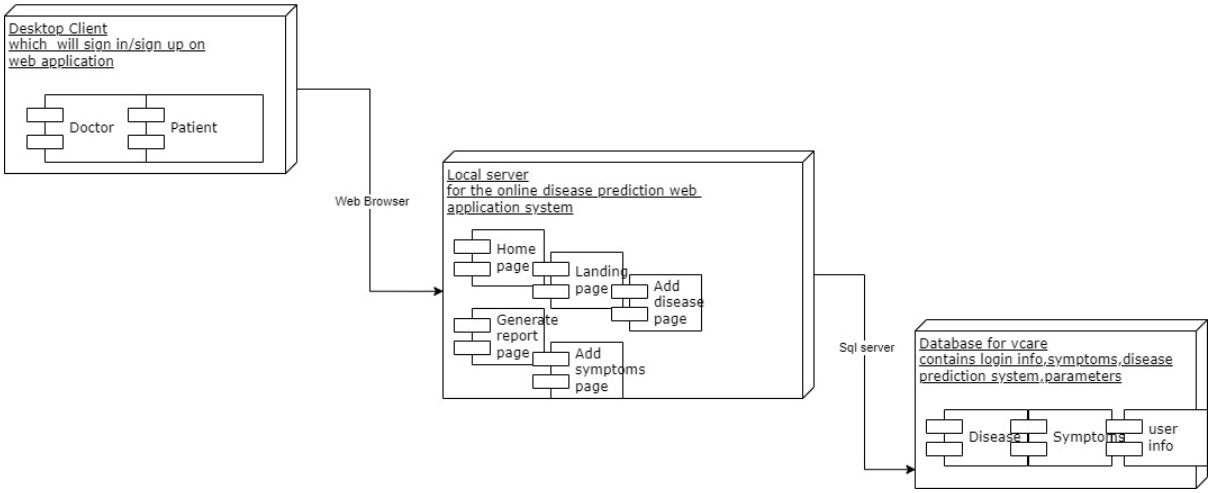
Activity Diagram



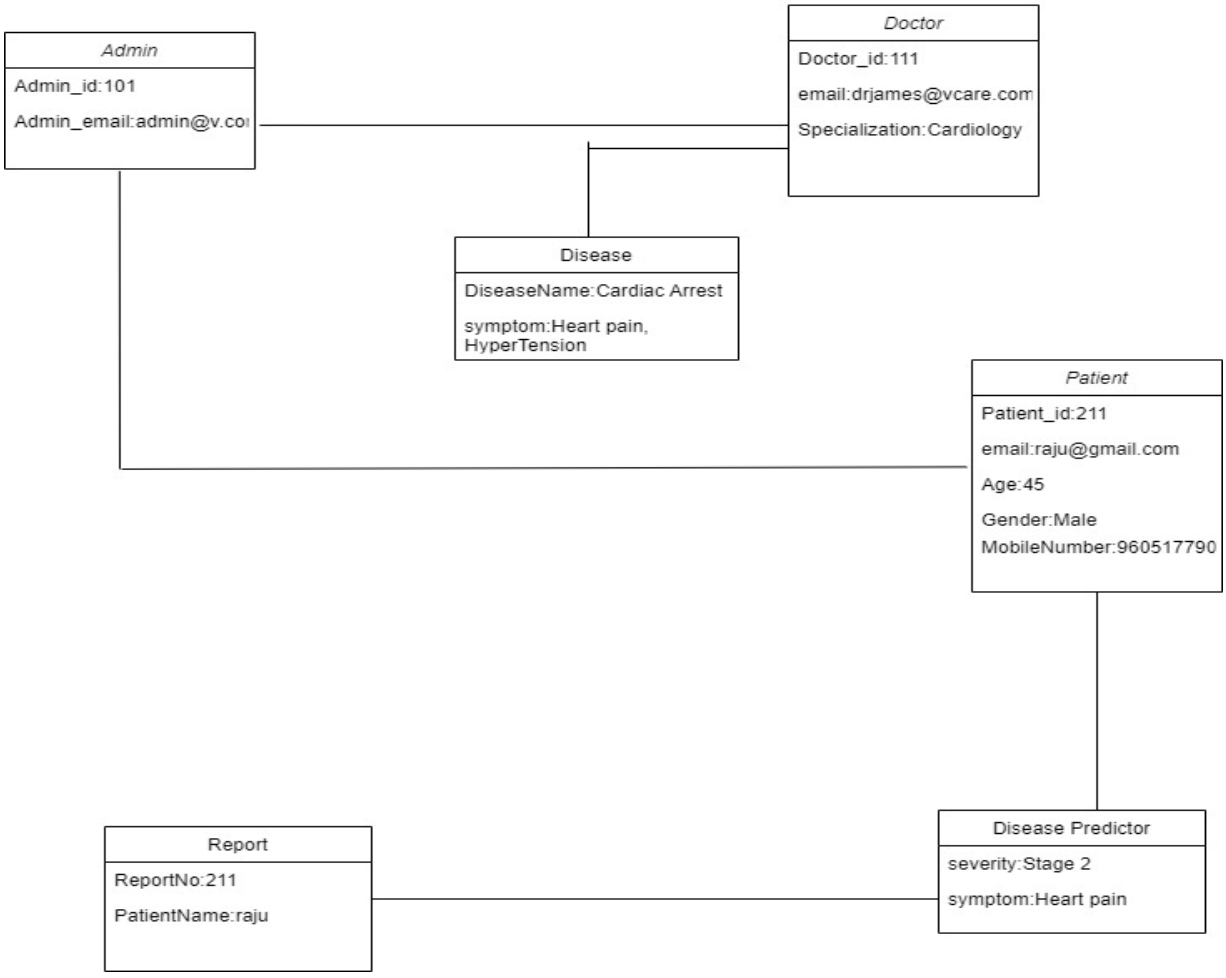
Component Diagram for v Care Disease prediction



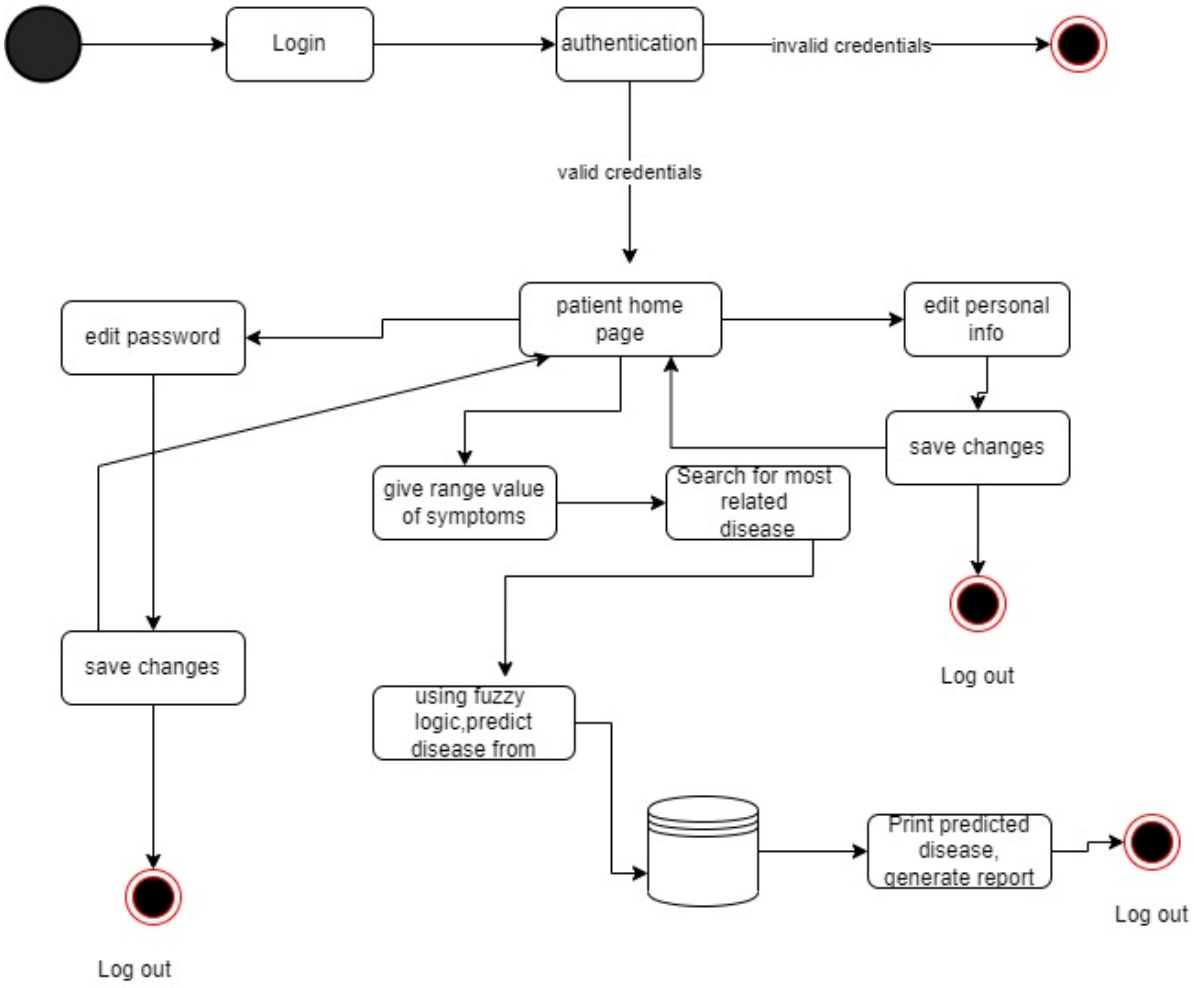
Deployment diagram for v-care disease prediction system



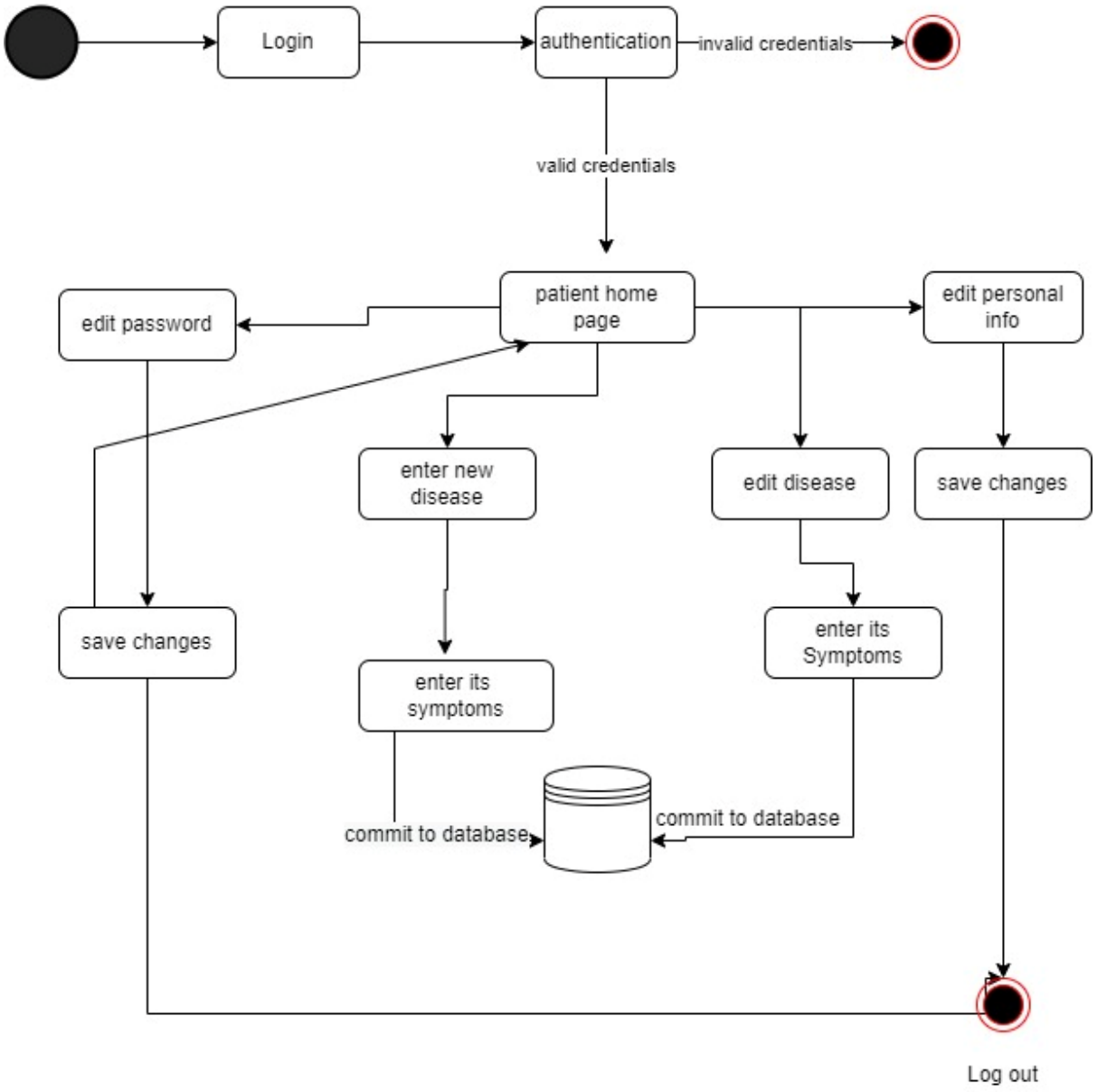
Object Diagram For V care disease prediction



State chart Diagram
for
v Care Disease prediction



State chart Diagram
for
Doctor object



Sequence Diagram
For
V care disease prediction