BUNTS SANGHA'S S.M.SHETTY COLLEGE OFSCIENCE, COMMERCE & MANAGEMENT STUDIES, POWAI MUMBAI-76

"Drmedizone"

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SUBMITTED BY (Name): Siddhesh Sanjay Lanjekar

ROLL NUMBER: 109

SUBMITTED To

DEPARTMENT OF INFORMATION TECHNOLOGY

Project Guide **Coordinator** **External Examiner**

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-Siddhesh Lanjekar

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Drmedizone

Submitted By:

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Project Guide:

Prof. Aditi Shashank Chikhalikar .

Chapter 1 - INTRODUCTION

“Drmedizone" was developed to overcome the problems prevalent in practical manual systems. This software program is supported to remove and possibly mitigate the problems met by this present system. In addition, the system is designed with the specific needs of the people in mind, allowing operations to run smoothly and effectively.
If you enter invalid data, an error message is displayed. No formal knowledge is required for users to use this system. That alone proves its usability. Drmedizone above can be a bug-free, secure, reliable and fast system. It helps users focus on other activities instead of focusing on record keeping.
Drmedizone is an online doctor appointment system this is a web application which allows the people of a particular area to book appointments. This system provides a login and registration for doctor and patient. Doctor is register by giving their required details like timings, fees, category, etc. After successful registration, the doctor and patient can login by giving a username and password. The doctor views the patient booking request, and if he receives the requests, the status will be shown as reservation confirmed to the patient. The patients must be registered and logged in to book a doctor based on the category and the type of problem the patient is facing. The search results will show the list of doctors similar the patient’s required norms and he can select one and send a request, the request will be forwarded to the doctor and if he is available, he will send the approval back to the patient. The patient can view the status in the status tab. After confirming appointment send confirmation email to patients.

1.1BACKGROUND:

This digital world makes our lives easier and better. All kinds of industries are changing us technology. All things go from offline to online, saving time and using this time for other things Therefore, the medical industry is also moving from offline to online. So Drmedizone is a Python (Django) based online appointment web application. Your partner is on a journey to improve the health of you and your family. At Drmedizone, all doctors are affordable to all patients and our doctors a well trained and experienced. Our projects are adaptable to our needs.

1.2 OBJECTIVES:

The motive of this web application is to deliver peace of thoughts to both doctors and sufferers. sufferers commonly visit the health centre for appointments and other reasons, wasting money and time. these issues are conquered via this challenge. Globally available physicians seek based totally on the patient. We can also a set to up and lab take a look at dates for you. Drmedizone the great web application for commonplace diseases and ugly condition.

The main cause of Drmedizone undertaking is to control doctors, medical doctor schedules, clinical news and health practitioner details. projects are constructed exclusively on the administration facet, so simplest directors are assured get entry to.

The cause of this undertaking is to create a software to reduce the guide paintings associated with handling medical doctors, appointments, medical expenses and sufferers. song all affected person, appointment and doctor time table info.

1.3 System Overview: -

Description of the existing system. :-

This platform was created to save you money, and time make and your life easy; Through this project, I am going to meet you with the best and most educated doctors. Sometimes patients are in very trouble finding experts doctors; So, through this project, patients can find and meet a doctor very easily. Using this project, patients make an appointment for a doctor's personal appointment or video call.

1.4PURPOSE:

The purpose of the project is Doctor appointment system that provides Doctors and also Patients. A doctor gives the appointment time and days (how much time/day appointment taking is open); This project is two types of appointment-based project; one is video calling meeting appointments and the other is a face-to-face meeting appointment. This project overcome issues managing and booking an appointment through doctor and patient. Patients taking appointments as per schedule after opening appointment time to before closing time. Any appointment-taking messages are also given to the patient's registered mobile number or email. This project also provide options for the appointment is video meeting and personal meeting; the patient also cancelling appointment option is present. In this project some additional features are available; doctors give health reports to a patient through the application and also downloading facility is available for patients. Doctors decide how future appointments are taken by patients. Patients also chose doctors as per the required criteria. This project saves doctors' as well as patients' time.

1.5SCOPE:

This project aims to save you time and give you satisfaction. The doctor also checks patients if the clinic is not available because the doctor is decided which types of appointments (online or offline) are taken. The doctor/doctor's assistant are managing appointments. Doctors upload patient health care reports on patients' accounts. A patient quickly locates a nearby doctor or clinic/hospital in his/her locality and books an appointment. Search doctors by doctor's speciality wise /city wise/ fesswise. Get updated appointment notifications are send by mobile number and email address. Patients are meat overall world's specialist doctors without living in our homes.

Who will be using this software?

This software are patients and doctors will be used. Through this project doctor are given the treatment for any patients from any state and countries' patients also meat

world’s best expert doctors and taking the treatments. Patients takes advanced appointments also and save over time; Using this project a patient and doctor also meat in online mode means video calling through

Reports of Drmedizone: -

- It generates the file on doctor, appointment, physician fees.
- Provide reports on patient, booking, doctor schedule.
- You can easily download health report PDF from doctor, Doctor fees, appointment booking.

1.6Applicability:

Life is too busy to make an in-person doctor's appointment and get proper health care. The main knowledge of this paintings is to provide patients with ease and comfort when making an appointment with a doctor, and at the same time, it solves the problems that patients have to deal with when making an appointment. The Dremdizone web application as a client, while a database containing doctor, patient and appointment details are maintained by a website that acts as a server.

Chapter 2 - SURVEY OF TECHNOLOGY

2.1DESCRIPTION OF PROJECT:

Drmedizone is an appointment-based system; this project is suitable for doctors and patient interaction with each other. Through this project both are save over time to giving and taking appointments. Most of the time this project is so useful for patient more than doctors; because the patient can make an appointment with any doctors from anywhere. Patients can usually find the kind of speciality's doctor they want. This project is useful for doctors also. In this project doctors are giving a time and days when doctors are available; use given time and days by doctor's patient are taking appointment for personal meeting or video calling.

2.2AVAILABLE TECHNOLOGIES:

2.2 .1 FRONT END TECHNOLOGIES:

2.2.1.1 Html5:

It is a markup language used to create the structure of a web page. It is an only body of web pages. It is a foundational technology and is very popular for making modern websites. It is a very easy and useful language for any creating websites.

2.2.1.2 CSS:

CSS stand for Cascading Style Sheet; CSS is used for make html page is beautiful and user friendly. CSS thoroughly html page is customized. CSS defined of html attributes are displayed.

2.2.1.3 Java Script:

It is a most popular language. It is also interpreted compiled language; JavaScript is a type scripting language; It is a brain of websites. If we are making working website so JavaScript are use in this website. It is use to make website dynamically.

2.2.1.4 Bootstrap:

It is an open-source Cascading Style Sheet CSS framework which is used to make responsive frontend website. It provides CSS and JavaScript templates for different attribute of HTML. Bootstrap are combination of html CSS and JavaScript.

2.2.1 BACKEND TECHNOLOGIES:

Backend technology means over web site are make in working format so write any logic in the code.

2.2.1.1 PROCESSING TECHNOLOGY:

2.2.1.1.1 Python/Django:

Python is easy language comparatively other languages; for writing a syntax and also easy to learn. Python is also ideal backend language because of its many libraries and frameworks. Django and Flask are web development frameworks.

2.2.1.2 DATABASE TECHNOLOGY:

2.2.1.2.1 MySQL:

MySQL is an open-source database structure query language; It is use for relational databases. Using MySQL manage over data into database. This is a very popular language for relational database. Most of the biggest companies used MySQL for store over data.

2.3 JUSTIFICATION OF PLATFORM:

2.3.1 THE FOLLOWING TECHNOLOGIES WILL BE USED IN THE FRONT END.

2.3.1.1 HTML:

Html is language very easy and it's free; html is used for developing website page. it is very easy to developing website page. Html syntax is very easy and understandable. Html language is also used for making responsive web pages; If we are using HTML for developing web pages so this web page is very well responsive to any type of device. Html language has supported all types of browsers. This is user-friendly language.

2.3.1.2 Bootstrap:

Bootstrap is also free open-source framework. It is used for designing purpose.

Bootstrap is help to over normal web page is making attractive and beautiful with responsive web page. It is also easy to used. We are customized the web page.

2.3.1.3 CSS:

CSS is also used designing over html page is beautiful. If we are use CSS in over creating web page so this page is loaded faster than without used CSS page. It’s also user friendly. CSS is also easy to learn and design web pages.

2.3.1.4 JavaScript

JavaScript is a type script language. It is brain over website page; Without JavaScript over web page is static. If we are making working webpage so used JavaScript. JavaScript is also used backend. If we are making over page animated so also used JavaScript.

2.3.2 THE FOLLOWING TECHNOLOGIES WILL BE USED FOR BACKEND BUSINESS LOGIC.

2.3.2.1 Python/Django: -

Python is easy to used and learn; we are writing a programme faster than other types of languages. In python many frameworks and libraries are available. From python we are make any types of projects. A Django, flask are frameworks of python; both are used developing a webpage. In python easy to write a project related logic. I learned python from one year. Python is also very popular and demanding language this time.

2.3.3 THE FOLLOWING TECHNOLOGIES WILL BE USED IN THE DATABASE.

2.3.3.1 MySQL: -

It is storing a many data into database. I know that about MySQL language. If we are used relational database in over project so used MySQL.

MySQL is a totally free and it is an open source. In databases MySQL are most demanding technology; most of the companies are used.

2.4Feasibility study.

The main thing of the probability study is to test the practical, Working and Inexpensive feasibility of adding new things and debugging or manipulating the old running system. There are features in the feasibility study helping of the initial examination. A probability study is an estimation and investigation of a project or system proposed by someone. This study attempts to control whether the development is theoretically and economically. Financially viable in this situation means whether the development is possible within the predictable costs. The feasibility study also controls whether the project makes commercial sense, i.e., whether it is profitable. Simply put, this study analyses how simply or positively you can complete something. We also try to determine if it is profitable or not.

Corporations and administrations typically conduct proof-of-concept studies when it is costly. A probability study evaluates the probability of a proposed plan or project. In a portion of a probability study, the feasibility of development or plan is checked to control whether it will be positive. As the name proposes, feasibility studies are used to control the feasibility of an idea. me. Ensuring the legal and technical feasibility and economic feasibility of the development. Indicates whether the project is worth investing in. In some cases, the project may not start. Different types possible reasons for this. For example, if you need too many resources, not only

can those resources get in the way of doing other things, but it can cost a company more money than it takes to recoup and pay for the lossy project.

- **There are four types of a Feasibility studies.**
  - **Economic feasibility**

    This is a very important aspect to be considered while developing a project. We decided the technology based on minimum possible cost factor. All hardware & software cost has to be biome by the organization. Overall, we have estimated that the benefits the organization is going to receive from the proposed system will surely overcome the initial costs & the later on running cost for system.
  - **Operational feasibility**

    No doubt the proposed system is fully GUI based that is very user friendly & all inputs to be taken all self-explanatory even to a layman. Besides, a proper training has been conducted to let know the essence of the system to the users so that they feel

    comfortable with new system. As far our study is connected the clients are comfortable & happy as the system has cut down their loads & doing.
  - **Technical feasibility**

    This is included the study of function, performance 7 limitations that may affect the ability to achieve an acceptable system. For this feasibility study, we studied complete functionality to be provided in the system checked if everything was possible using different type of frontend & backend platforms.
  - **Schedules feasibility**

    A project will flop if it takes too long to be finished previously itis useful. This means guessing how long the system will take to progress, and if it can be finished in a given time period using some methods like profit dated. Schedule feasibility is a measure of how realistic the development timetable is. Based on given information the system will perform given tasks. Planning a project strategy and building a project schedule to

    - Complete project within time and budget.
    - Resource management system
    - Increase project success rate.
    - Realize significant time and resource savings.

    I tried to complete the software within time limit. And almost I can do it. The proposed system will easily be accessible and it will be well organized and delivered the right information in the right place.

Chapter 3 - Requirements and Analysis

3.1Problem Definition:

As technology advances, many new things have been developed and are helping us in a big manner. One of them is Doctor Appointment Application through which we can get doctor's appointment easily sitting at our home.

Drmedizone wants to expand this through a web application so that people will be able to get appointments easily without going to Doctor's clinic. This Application will make taking appointments more compatible.

3.2Hardware and Software Requirements:

3.2.1 Hardware requirements for development:

- Ram: - minimum 2GB,
- Processor: - minimum 1GHz
- Storage: - 2GB or more

3.2.2 Software requirement for development: -

- Operating system: - Windows
- Frontend: - HTML, CSS, JavaScript, Bootstrap
- Backend: -
    - Business logic language: - Python(Django)
    - Database: - MySQL

3.2.3 Software requirement for user:

- User devices: Smartphone or computer
- Windows :7/8/10/11
- Android 4.1 or higher
- iOS 6 or higher
- Mac OS 10.5 or higher
- User software: Latest version of browsers

3.3Software requirement for user:

The function of this platform is to cater to all the needs of doctors and patients. In order to make it easier for the patient to get all the information from mobile, laptop or desktop, it is easy for the patient to get all the information from mobile, laptop or desktop, giving complete information about the educated and many types of doctors shown on your platform. And accordingly, patients choose the doctor and makes an appointment.

There are the requirements that the end users demand from the system.

3.3.1 Search and visit the website easily:

Patients and doctor also must be able to search the application easily

3.3.2 Have a secured account:

Patients and doctor can register and login with their self-information without any fear of data privacy and have a secured account

3.3.3 Retrieve Account:

Patients and doctor should be able to retrieve their account with their phone number, email or previous password if they forget the password

3.3.4 Option to search:

There must be option for patients to search for their requirements related doctors

Filter Options available on doctor's speciality, fees and user rating of doctors.

3.3.5 Contact for help:

If there is any regarding application there must be option to contact the customer service via email or phone number of customer service.

3.3.6 Give and view feedback:

Patients can give feedback after their visit to the Doctor or related website and doctor also give feedback about website

3.3.7 Payment:

Patients can pay the bill after their appointment is confirmed.

3.3.8 Give and Take appointment:

After registration doctor give time and days for taking appointment; doctor also give advanced appointment days.

3.4Functional Requirement:

As technology advances, many new things have been developed and are helping us in a big manner. One of them is Doctor Appointment Application through which we can get doctor's appointment easily sitting at our home.

Drmedizone wants to expand this through a web application so that people will be able to get appointments easily without going to Doctor's clinic. This web Application will make taking appointments more compatible.

Functionalities provide by Drmedizone are as follows: -

- Provides the searching services based on various features. Such as Doctor, Patient, Booking appointment, Doctor schedule.
- Drmedizone also accomplish the doctors fee detail, appointment booking details, doctor schedule detail, showing doctors.
- It tracks all the information of booking appointment, fees, doctors.
- Show all information about doctors to patients.
- Manage the information of all doctors and patients.
- Admin can Edit, add, update, and delete of patients' and doctors' records.

- Manage the appointment booking information.
- Choose doctors from Filtering by patients.
- Two types of appointment booking; 1) Personal meeting and 2) Video calling meeting.
- Send and download health report.
- Feedback for doctors from patients.
- Feedback for web applications from users.
- Send appointment-related messages from patients' mobile numbers.
- 2 to 3 types of forgetting passwords.
- Find nearby doctors.

What users can do?

- Admin/ Admin team: -
  Access all web applications and CRUD-related operations. Manages all web applications. Solve queries from doctors and patients, and also solve some technical issues, manage doctors and patients send alerts, login, register, forget username and password, fix bugs.

- Doctor: -
  Self-Register and clinic register, login, give health related report for patients; Doctor schedules appointment, forget password; show some patient details, received appointment, give fees, view alert message, give appointment, forget password, update profile, give feedback.

- Patient: -
  Register, update profile, Take and cancel appointments; Pay bills; Download health report from doctors; video chatting appointment options are available; find nearby specialist and forget password, search and filter doctors, received messages, view and download appointment and payment confirmation receipt, give and view feedback, login, update profile.

- Unregister user: -
  - Patient: -
    View Drmedizone web application, Register, search and filter doctors, view doctor's details, view feedback.
  - Doctor: -
    View Drmedizone web application, Register.

3.5Project Constraints:

3.5.1 Compatibility.

This website is a python (Django), HTML and CSS-based website. It doesn't have so much of a gleam. This appointment scheduling website is available on any smartphone or desktops or laptop. The website is designed for the especially doctors and patients to give and take appointments. This website runs smoothly anywhere on mobiles or desktops.

3.5.2 Reliability and availability.

You can easily find this website of our platform through the link. Patients can easily find doctors and take an appointment with particular doctors. This website provides the best educated and trained doctors. Using this website, you save your time as well as money.

3.5.3 Performance.

The performance of the website is very smooth and the students can use it very comfortably. It will be no difficult to give and take appointments, and find doctors.

You can also download your medical reports from doctor.

3.6Gantt Chart:

A Gantt chart is a sequential, horizontal bar chart, an easy and complete timeline that converts your project details into a clear graphical representation. Gantt chart is strongly related with waterfall type project management. In other words, each project phase must complete before the next step can begin, and phases are never repeated.

- **Gantt Char of Drmedizon:**

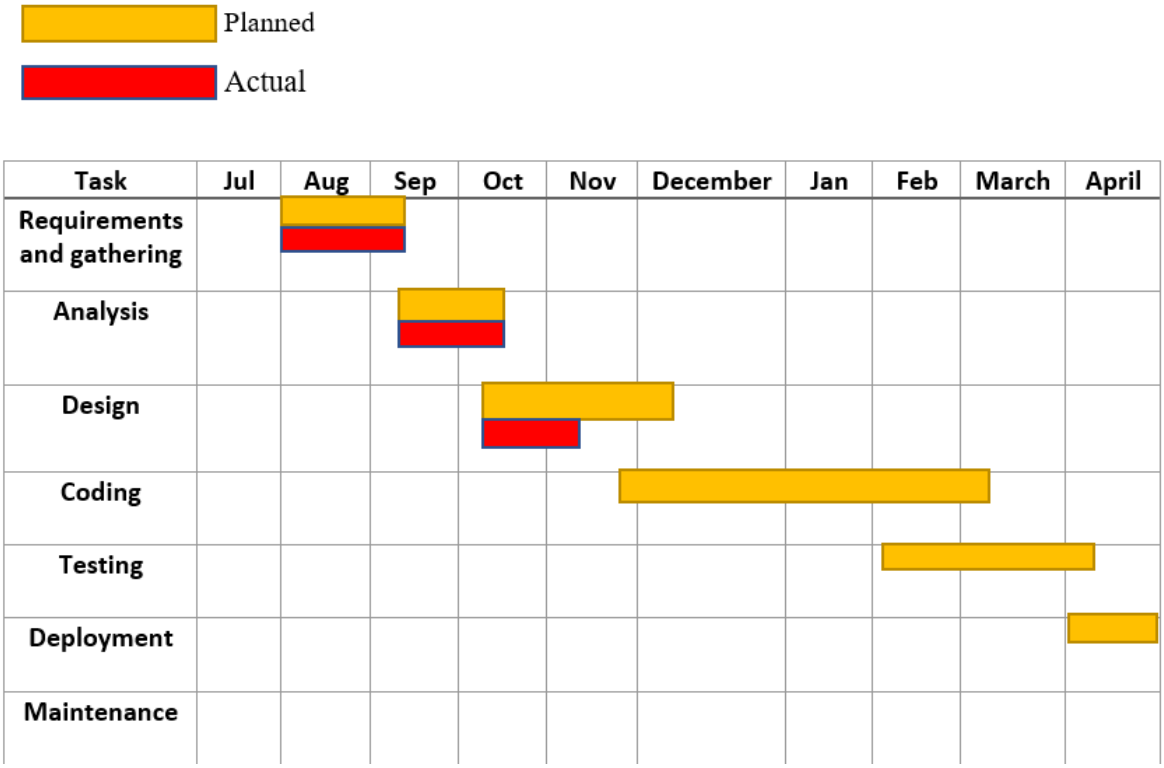


Figure: - Gantt Chart

Chapter 4 - System Design

4.1Basic Modules:

Drmedizone is appointment-based project. Any user can take appointment from doctors. This is a web application. There are some modules present in this web application.

- Doctor appointment management module
- Registration module
- Login module
- Search module
- Doctor management module
- Patient management module
- Appointment scheduled management module
- Payment module
- Filter module

4.2Creation of Diagram:

4.2.1 ER diagram:

An entity Relationship diagram is a type of flow chart. ER diagram is used to developing relationship between data-base and show relationship between user and project. In this diagram are used many symbols rectangle, diamond shape, ovals, and connecting lines to show the interconnection of entities, relationships and their attributes. it is a focus on the relationship of basics within entities instead of relationship between entity.

Entity:

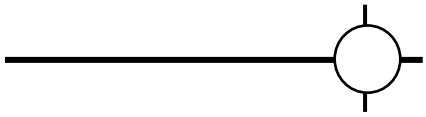
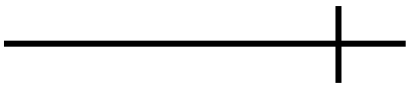
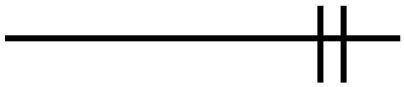
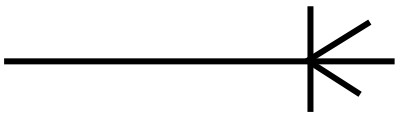
- Entity is real world object.
- Entity is shown in rectangular structure.
- In entity are two types of categories; one is a weak entity and second is an associative entity.
- Weak entity is shown in rectangular figure.
- Associative entity is shown in diamond shape figure.

Attribute:

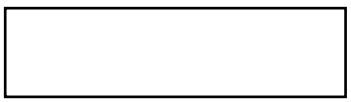
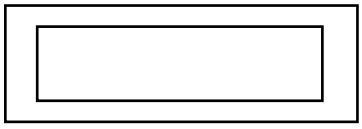
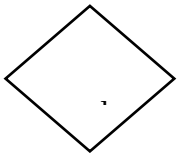
- Attribute is a property of entity.
- Attributes are shown in oval shape.
- Two types of attributes categories, one single value attributes and second is Multivalued attributes.
- In single value attribute are only one attribute value, e.g., birthday date, username etc.
- In multivalued attributes are more than one attribute value is denoted, egg Multiple address, phone numbers etc.

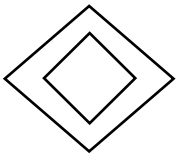
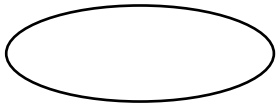
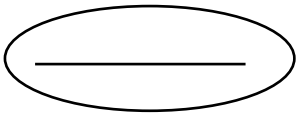
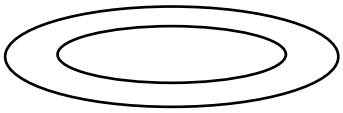
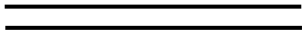
Cardinality:

- Describes the numerical characteristics of the relationship between two entities.
- The three main cardinal relationships are Unary(one-to-one), Binary(one-to-many), and Ternary(many-many).
- Cardinality relationship diagram are shown in following: -

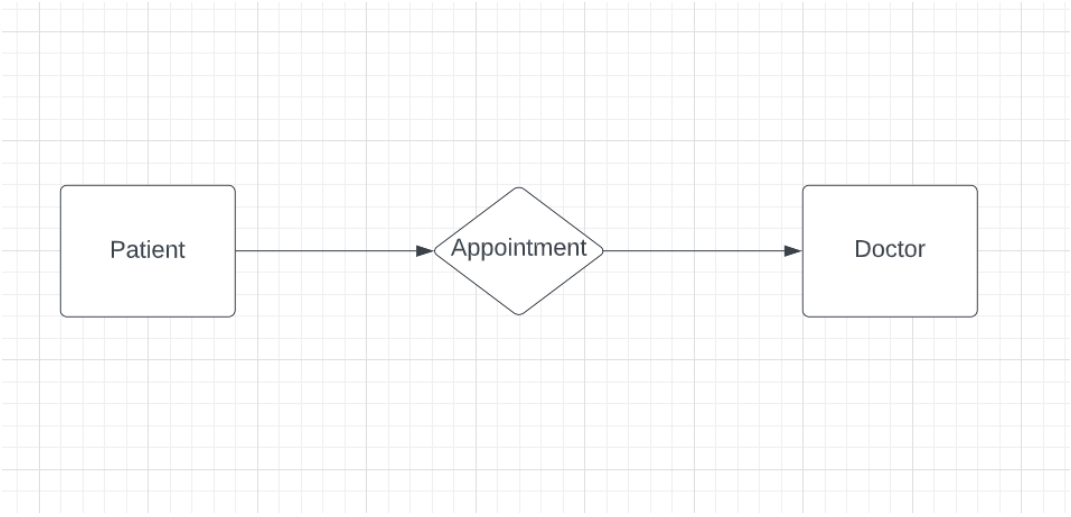
	Zero to one
	One
	One and only one
	Zero or many
	Many
	One or many

- **description: Entity Relationship's shapes and**

Shapes name	Shapes	Meaning
Rectangle		Entity set
Double outline rectangle		Weak Entity
Diamond		Relationship set

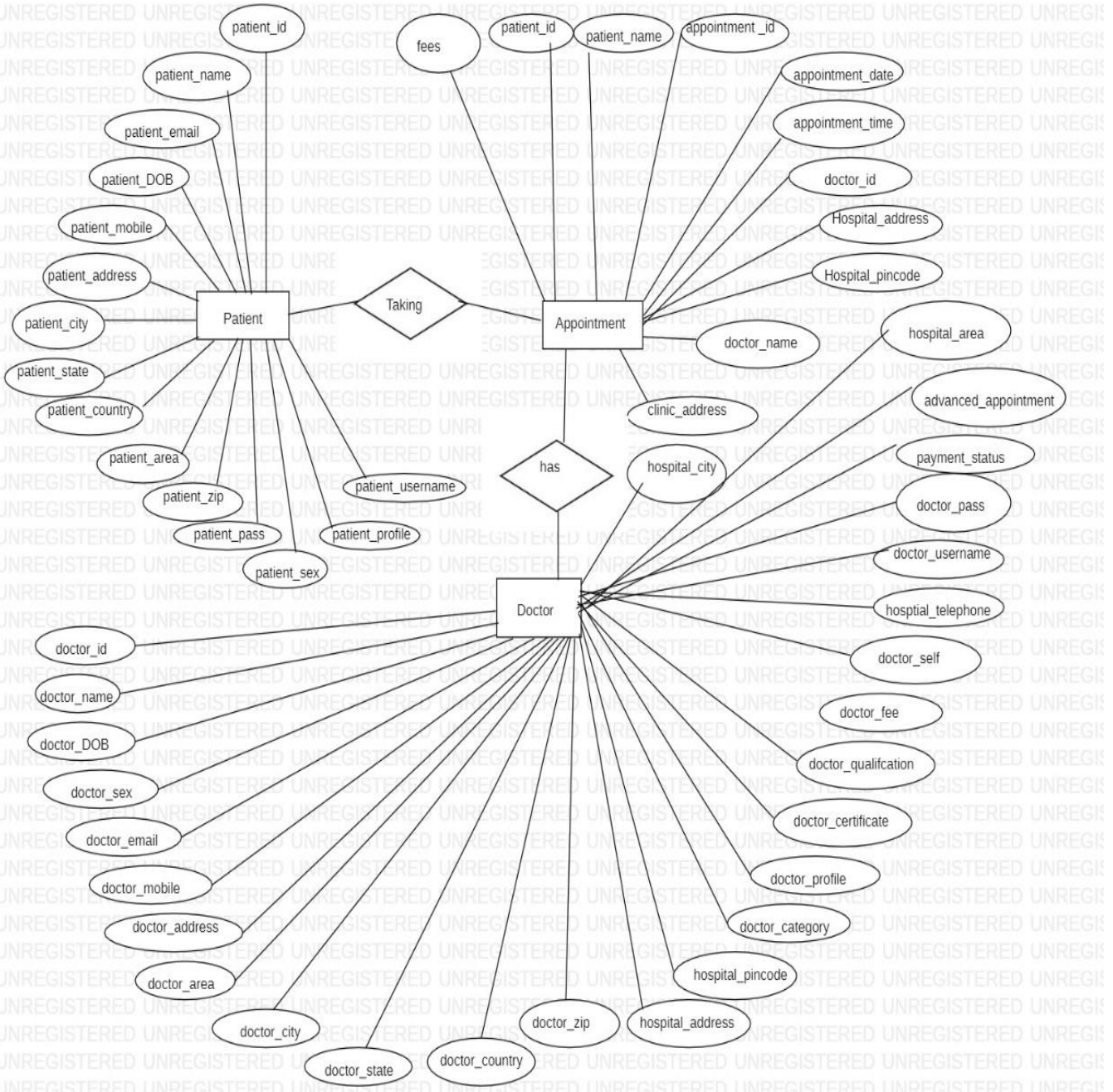
Double outline diamond		Identifying relationship set
Ellipse		Attribute
Ellipse with underline		Primary key attribute
Double line ellipse		Multi-valued attribute
Dashed ellipse		Derived attribute
Line		Link between an entity and relationship
Double line		Total Participants

- **ER diagram for Drmedizone application:**



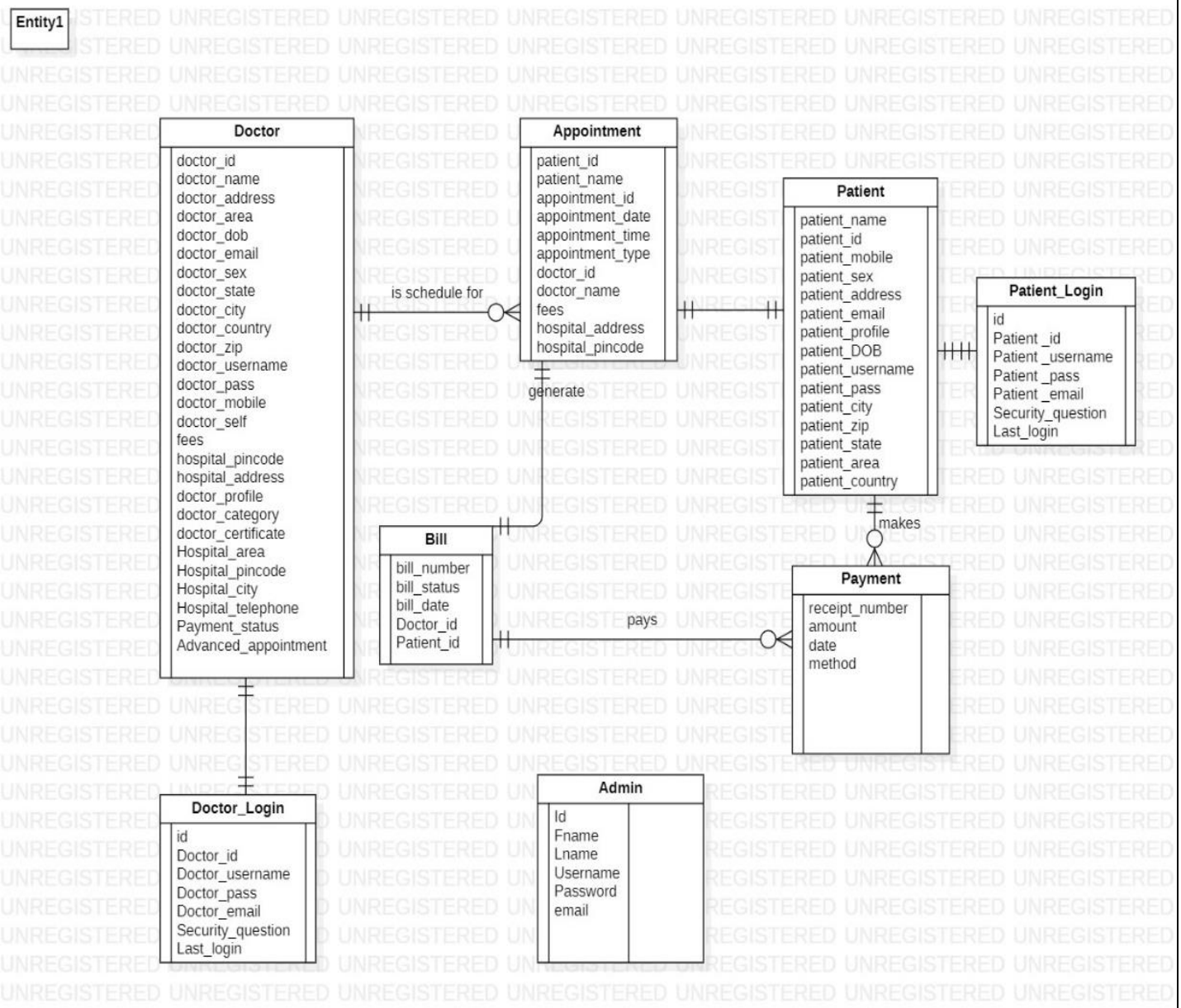
ER Figure No.: 1

o ER diagram for Drmedizone application:



ER Figure No.: 2

- **ER diagram for Drmedizone database:**

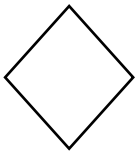
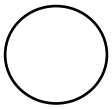
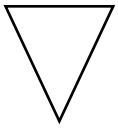
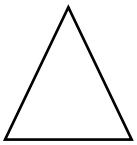


ER Figure No.: 3

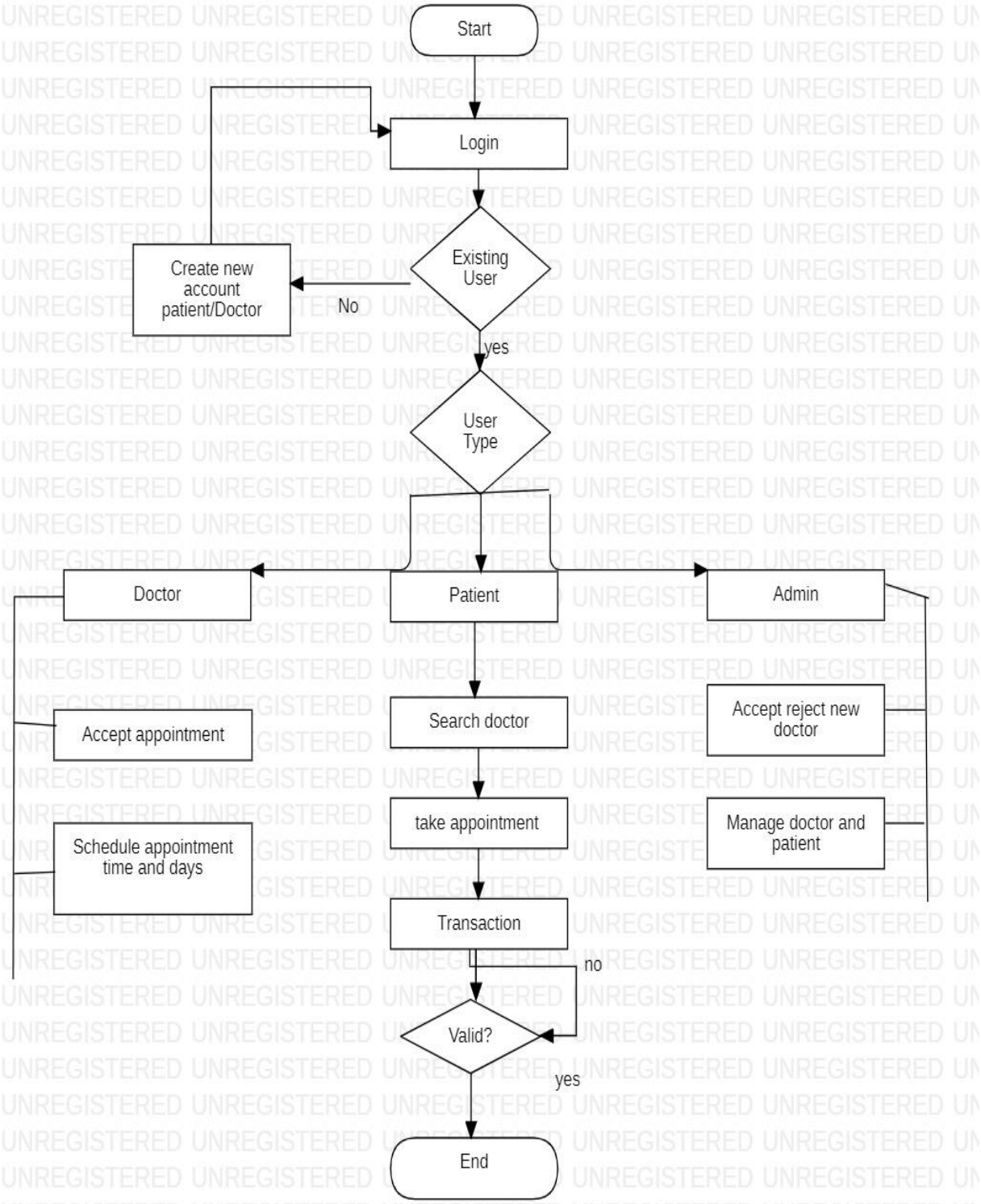
4.2.2 Flow Chart:

Flowcharts are nothing but a graphical representation of truths or a system for better graphical understanding of project. It represents step-by-step solutions to a problem, set of rules, or method. it's a far more figurative way of representing the steps that can be preferred with the help of maximum beginner programmers to understand computer technological know-how procedures, then causal to problem-solving inside the procedure. A flow chart is a picture of stacks that shows how the technology developments with the present. since a flowchart is a graphical design of a procedure, it is easy to understand the system.

- **Flow chart's shapes and description:**

Name	shapes	Meaning
Process		Process or action a] step
Flow line		The direction of process flow
Start / terminator		Start or end point of process flow
Decision		Represents a decision-making point
Connector		Inspection point
Inventory		Raw material storage
Inventory		Finished goods storage
Preparation		Initial setup and other preparation steps before the start of the process flow
Alternate process		Shows a flow which is an alternative to the normal flow
Flow line (dashed)		The alternate flow direction of the information flow

- **Flow chart of the Drmedizone:**



Flow Chart Figure No.: 1

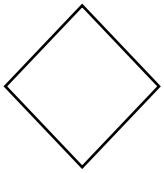
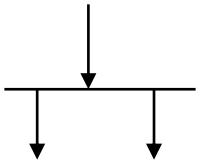
4.2.3 Activity Diagram:

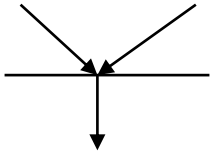
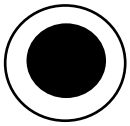
Activity diagrams help you visualize the flow of work from one activity to the next. It put emphasis on the condition of flow and the order in which it occurs. The flow can be sequential or parallel, and to contract with such kinds of flows, the activity diagram has come up with a fork, join, etc.

Activity diagram can be used for:

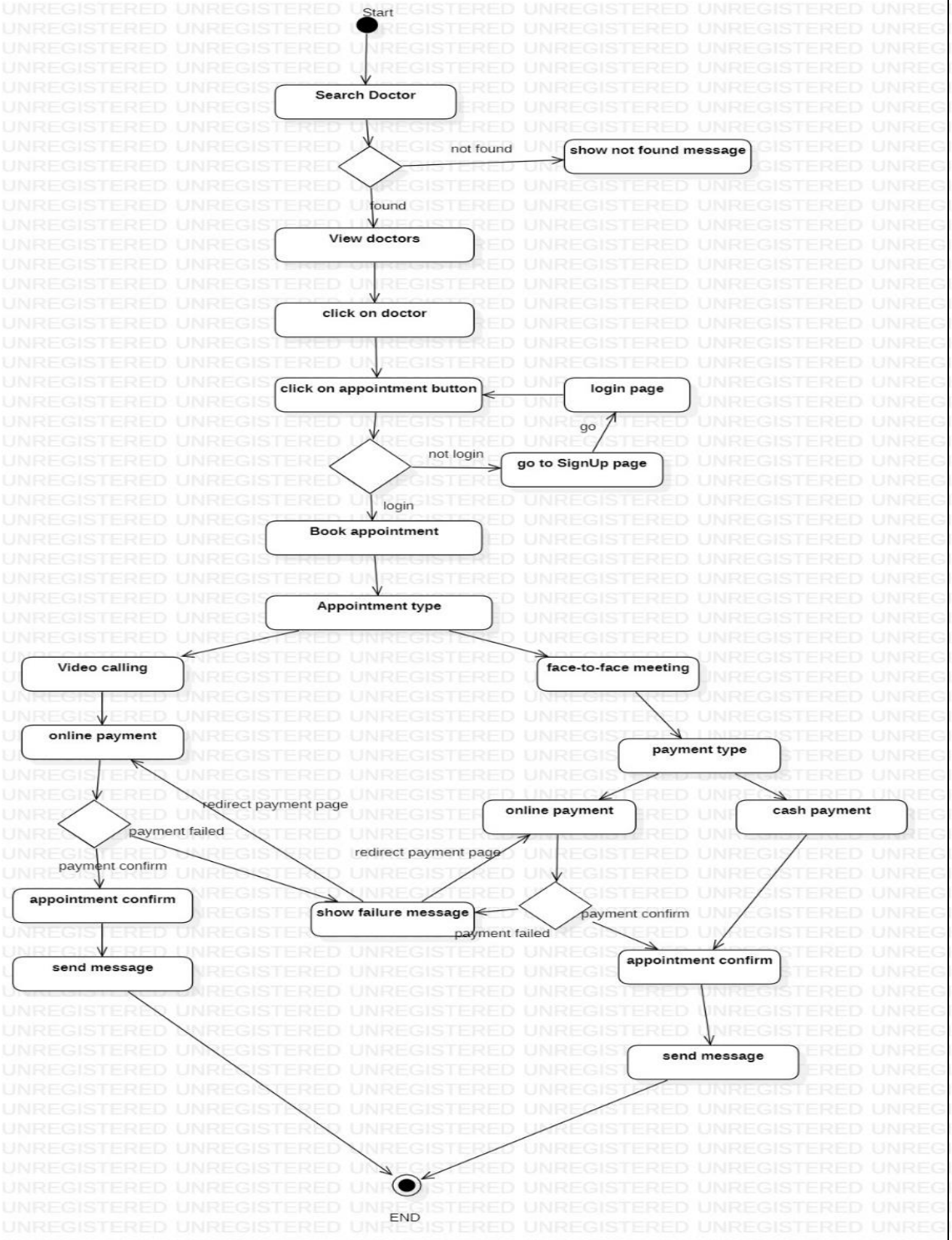
- Displaying work flow by using activities.
- Displaying business requirements.
- High level understanding of the system's functionalities.
- Examining professional requirements at a future stage.

- **Activity diagram's shapes and description:**

Name	shape	Meaning
Start node		The initial state has not yet been used or modified by the activity. An activity diagram starts with this step**.**
Action state		A step in which a user or software performs a specific task. It represents the actions taken during this phase of the software system.
Control flow		Connectors between two states or two actions to show the flow. Shows the order of execution. Also known as roads.
Decision node		A conditional node or decision node is one where multiple options are available. Or there are two or more conditions that can be considered at a software system point
Fork		The point from which two concurrent or parallel processes start or start or process. It generally contains

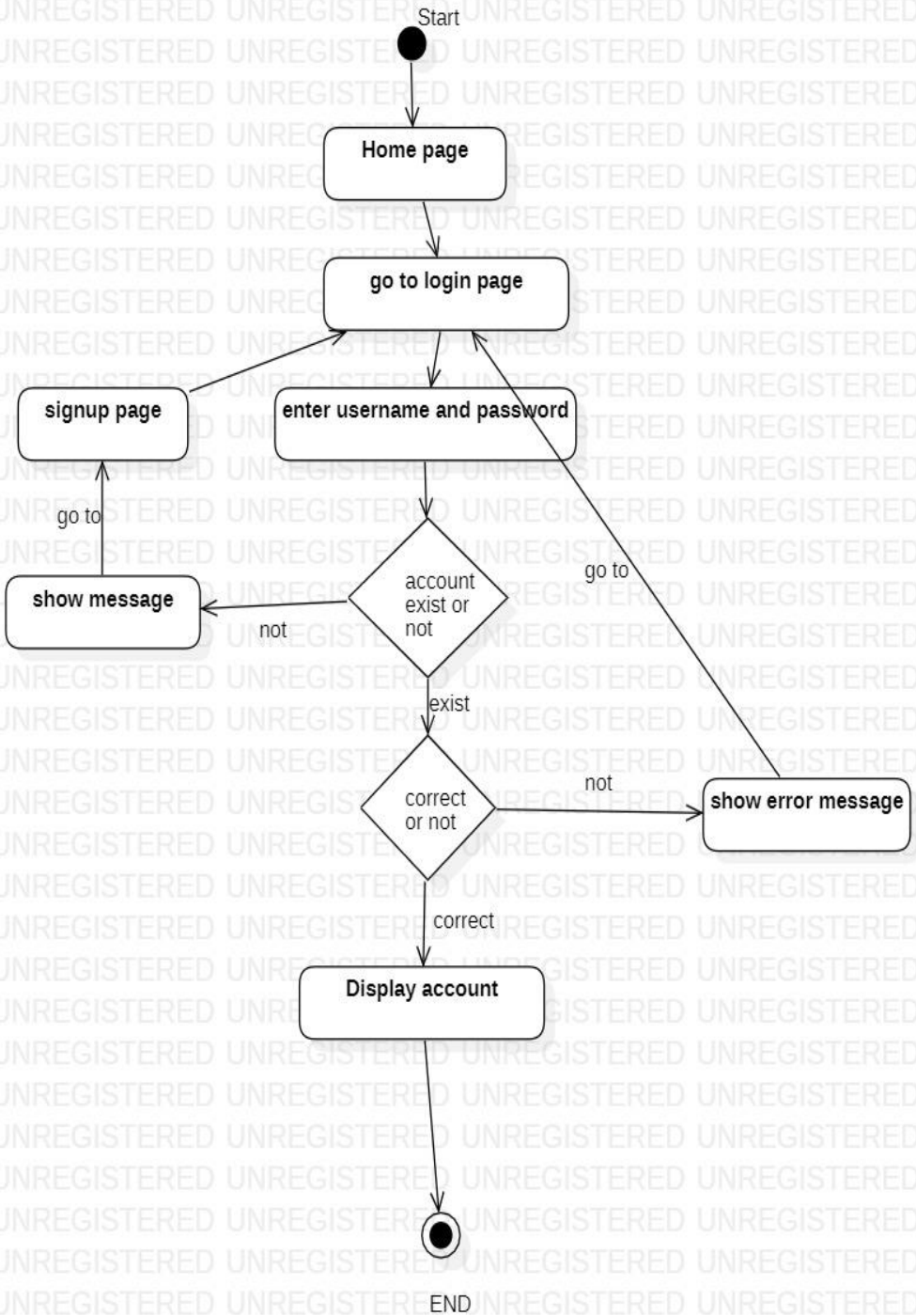
		one input but may or may not have one output.
Join		A connection is where two results of concurrent activities add up to form one result. When concatenating, there is more than one input, but only one output is got. Two activities yield two results and one result is obtained.
End state		This is the last stage of the UML activity diagram. This is where the activity ends in a software system ends.

- **Activity for appointment Booking:**



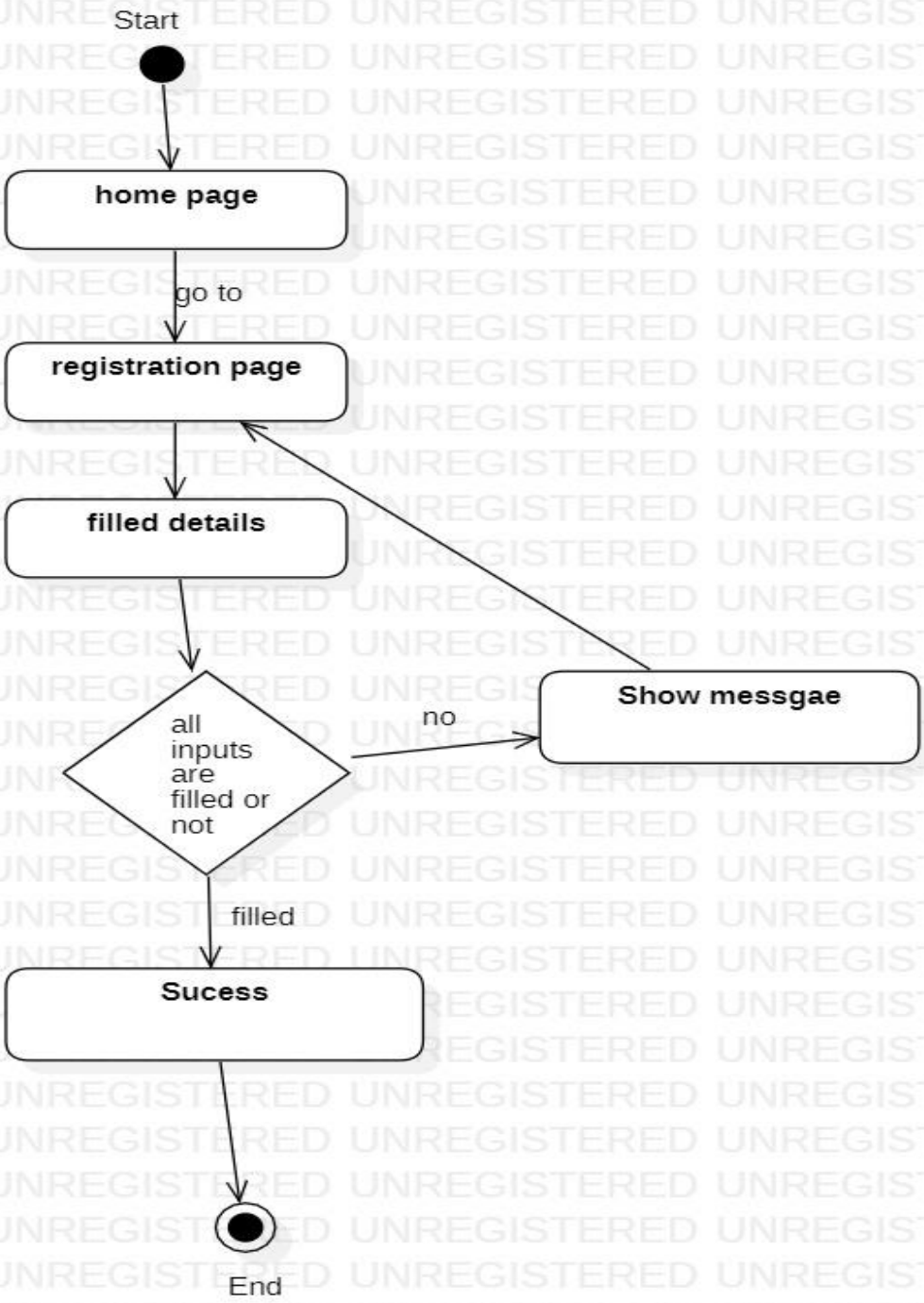
Activity Figure No.: 1

- **Activity diagram for login:**



Activity Figure No.: 2

- **Activity diagram for registration:**



Activity Figure No.: 3

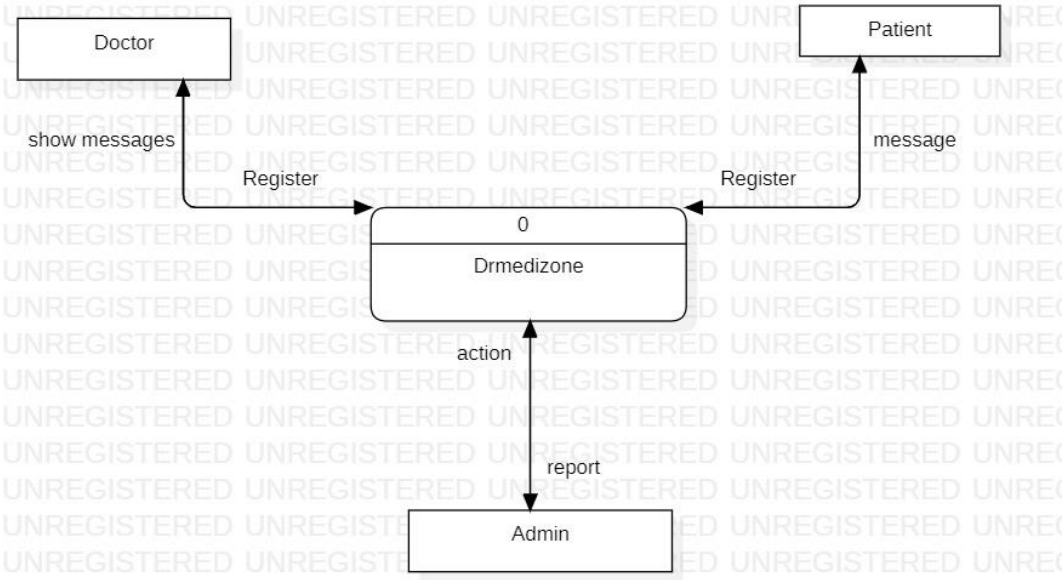
4.2.4 Data flow diagram (DFD):

DFD is the contraction for data flow Diagram. The breath of records of a device or a development is represented by using DFD. It also gives awareness into the inputs and outputs of each object and the method itself. DFD does not have manage float and no loops or decision rules are gift. particular operations depending at the form of records can be defined with the help of a flowchart. data go with the flow Diagram can be represented in many tactics. The DFD goes to based-evaluation displaying tools. information float diagrams are very famous due to the fact they help us to visualise the primary steps and records concerned in software systems.

Levels of DFD diagrams: -

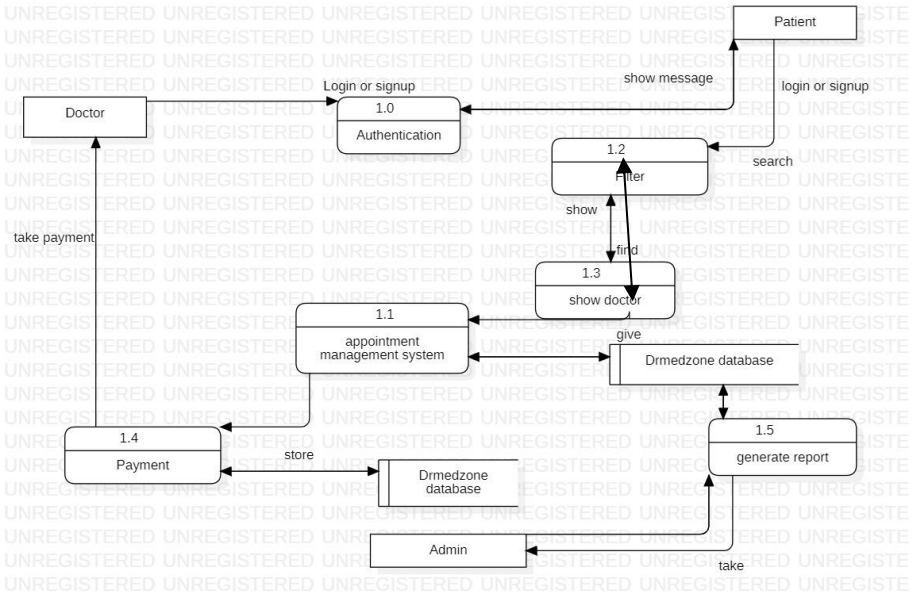
- 0-Level (context) DFD
- 1-Level DFD
- 2-Level DFD

- **Zero level (context) diagram:**



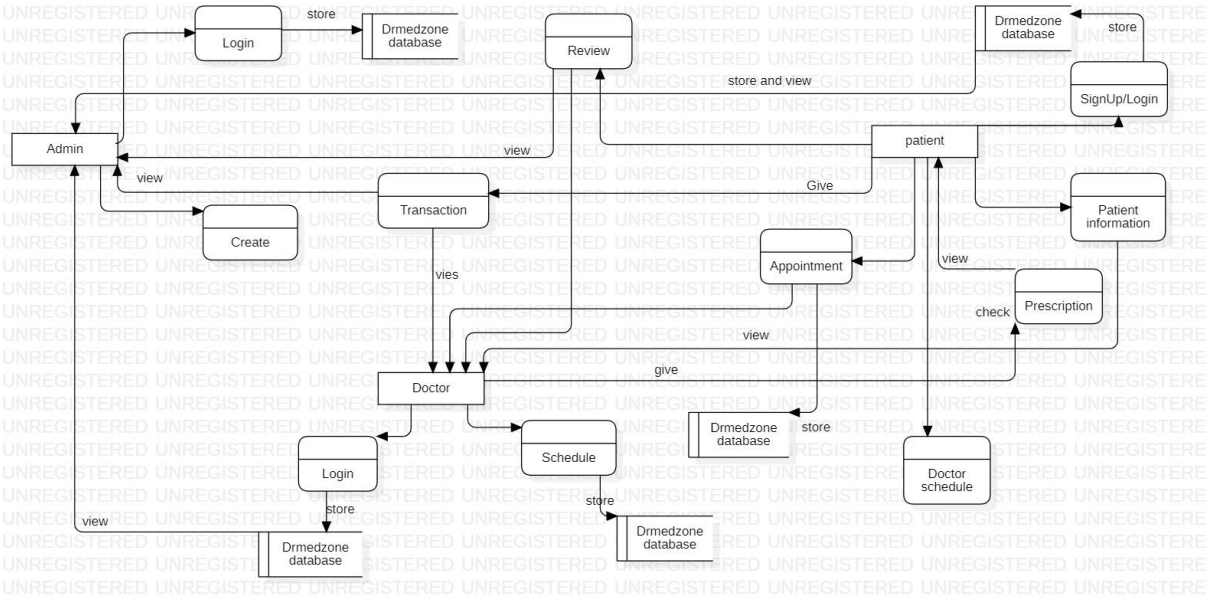
DFD Figure No.: 1

- **First Level Data Flow Diagram (DFD):**



DFD Figure No.: 2

- **Second Level Data Flow Diagram (DFD):**



DFD Figure No.: 3

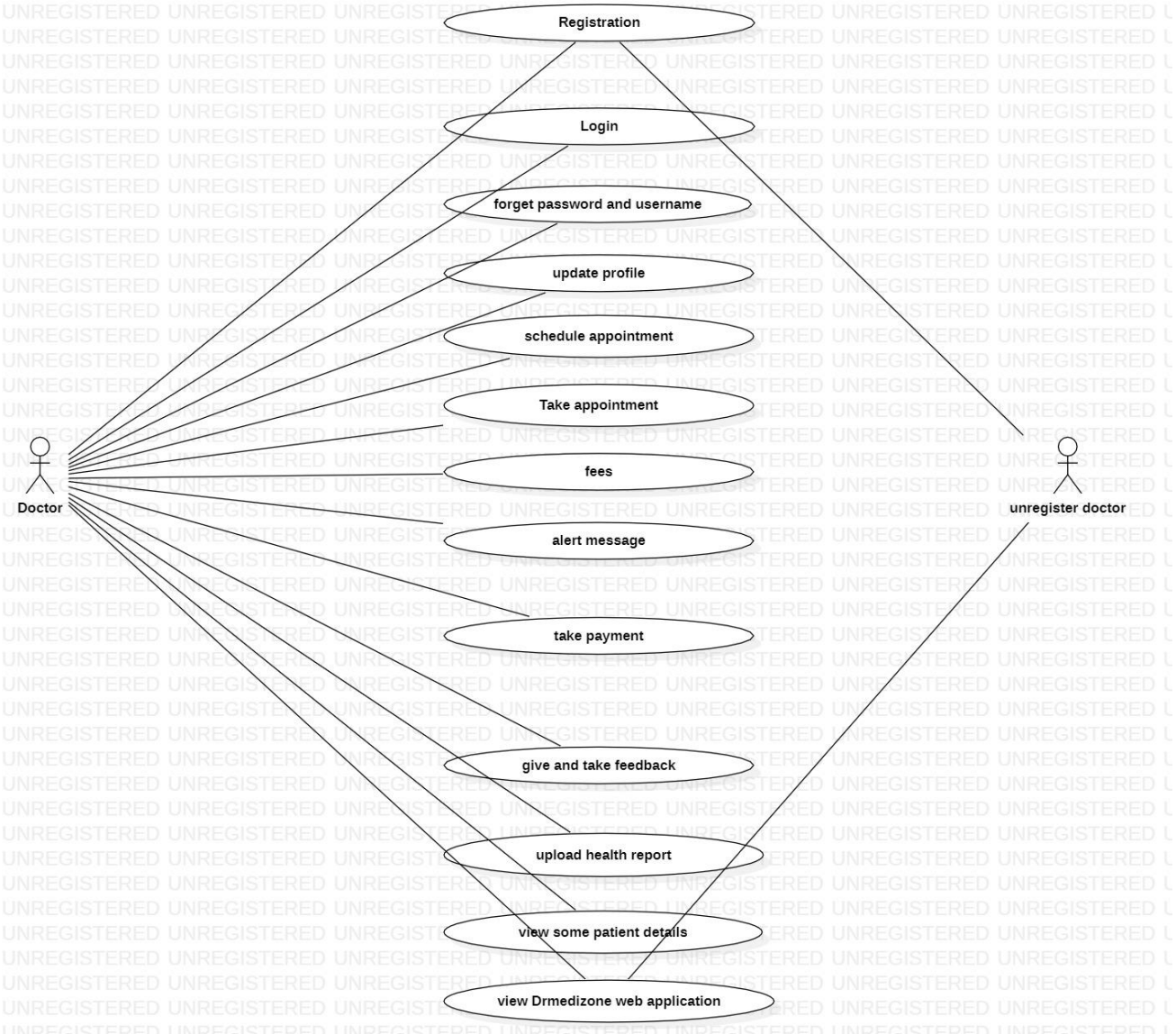
4.2.5 Use case Diagram:

Use case diagram shows a fixed of use cases, or actors, for a gadget and the relationships among them. The encompass dating provides more capability not exact within the base use case. It does not display the order in which the stairs are achieved to reap the goal of each use case. Use case figure are used to reveal the active behaviour of the system. It summarizes the functionality of the machine with the aid of consisting of use instances, actors and their relationships. model the tasks, services, and features required by using

your utility's structures/subsystems. It suggests the excessive-level functionality of the machine and additionally suggests how customers engage with it.

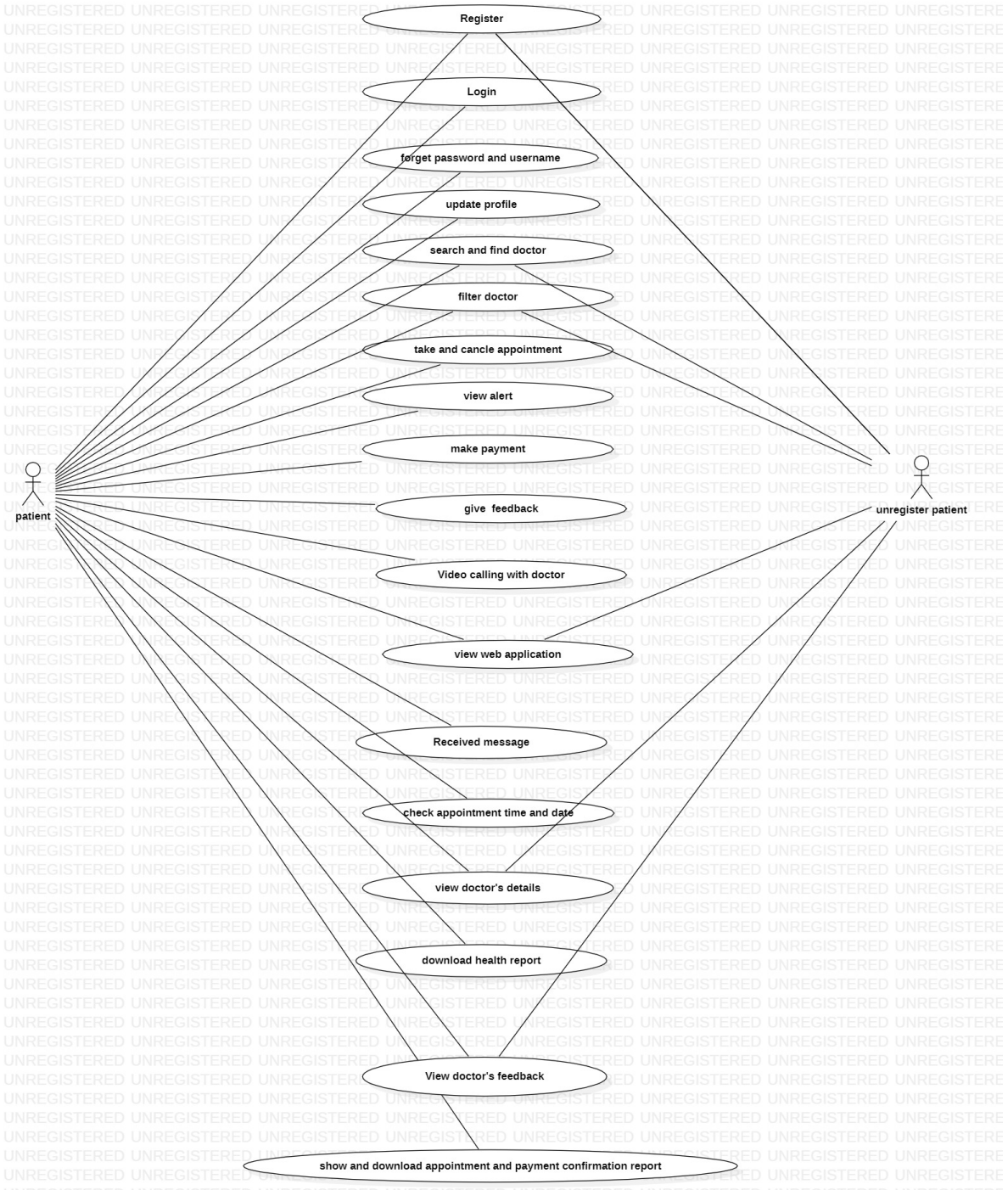
- A simple and entire use case diagram must be clarified.
- A use case diagram should constitute the maximum vital interplay among more than one interaction.
- at the least one module of a machine has to be represented by means of the use case diagram.
- If the use case diagram is huge and greater complex, then it has to be drawn greater generalized.

  - **Use case diagram for doctor:**



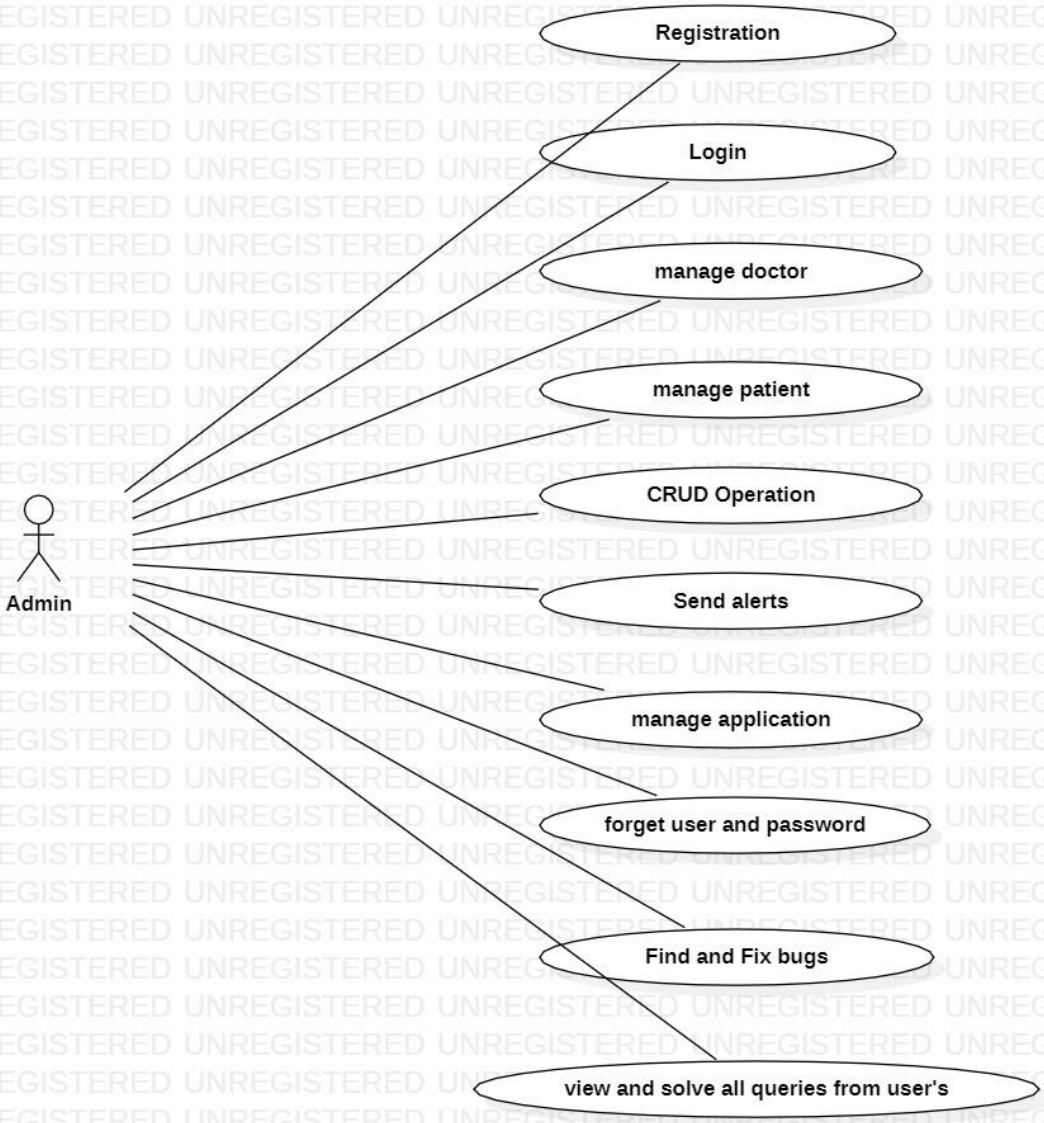
Use case Figure No.: 1

- **Use case diagram for patient: -**



Use case Figure No.: 2

- **Use case diagram for admin:**



Use case Figure No.: 3

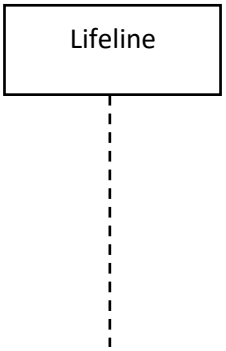
4.1.1 Sequence

4.2.6 Diagram:

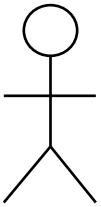
The Sequence diagram represents the go with the movement of messages within the device and is also called as a case diagram. It helps in imagining some dynamic possibilities. It represents the verbal exchange among any two helps as a time-ordered series of activities, such that those lifelines took module on the run time. In UML, the lifeline is represented by way of a vertical bar, while the message glide is represented through a perpendicular dotted line that spreads across the lowest of the page. It includes the iterations as well as branching.

- **Representations of a Sequence Diagram:**

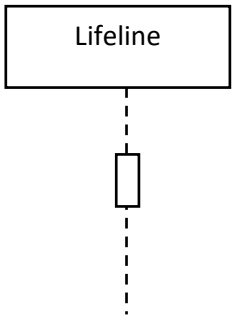
Lifeline:
A man or woman participant inside the series diagram is represented via a lifeline. it's far positioned at the pinnacle of the diagram.



Actor:
A character played by means of an entity that relates with the situation is called as an actor.

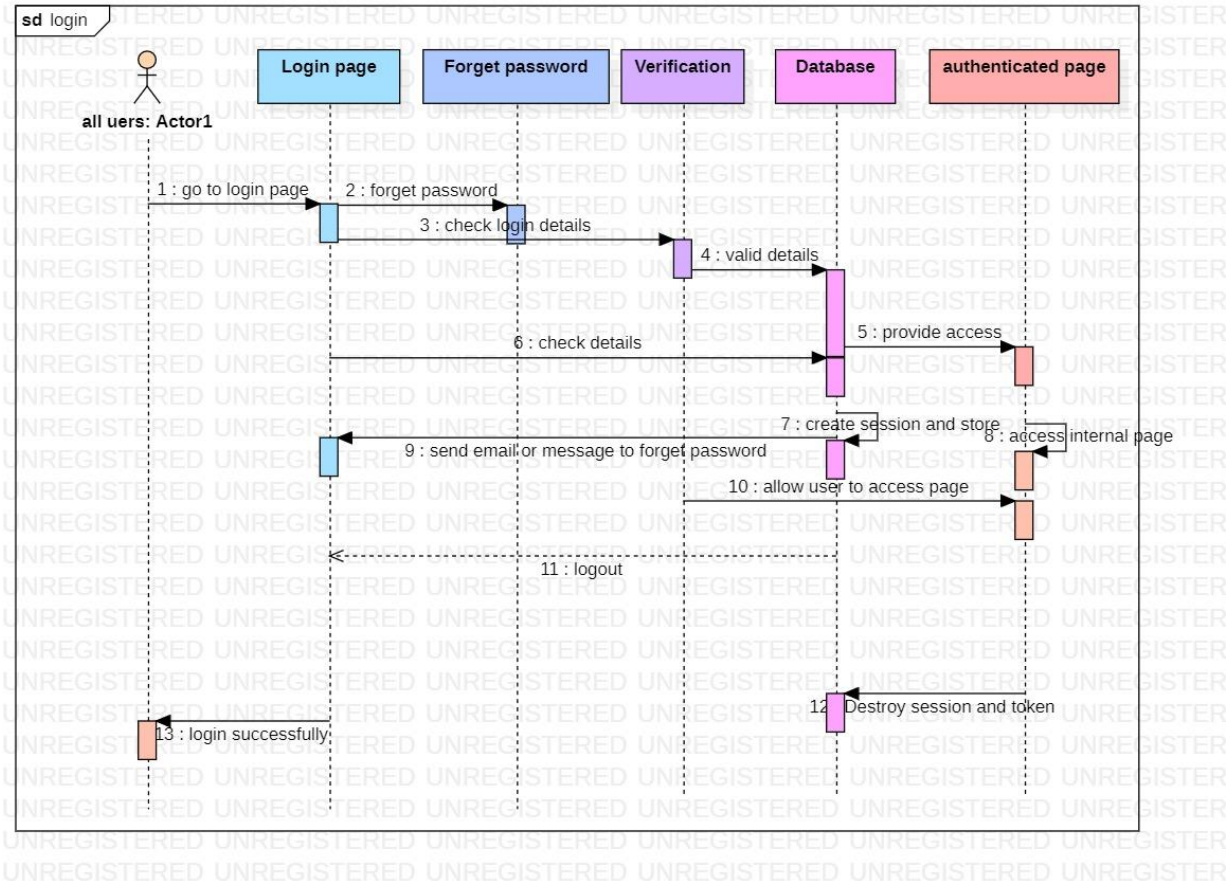


Activation:
It a is represented by a thin rectangle on the lifeline structure. Defines the term in which the process is completed with the help of detail, so the top and lowest of the rectangle are related to the start and finish time.



Note:
Notice is the possibility to attach many comments to a detail. It basically contains useful information for modellers.

- **Sequence diagram for login:**



Sequence Figure No.: 1

4.2.7 Class diagram:

When designing a system or software program, developers will frequently use class figures to plan out what the system will look like in static form. These diagrams allow them to figure out what classes they need, their functionality, and their relationships with other system elements - specifically other classes, processes, attributes, and objects.

Benefit of class diagram:

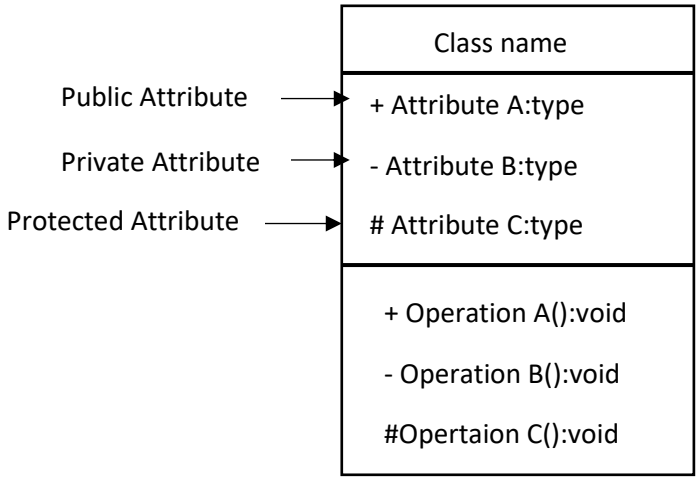
- Class diagrams are simple, fast to read, and gives a logic of orientation.
- They are the foundation for creating systems.
- They provide detailed vision into the structure of your project
- Create complete charts that highlight code required to be programmed and executed to the defined structure.
- Provide an implementation-independent explanation of type used in a project that is later passed on to its components.

Class notation:

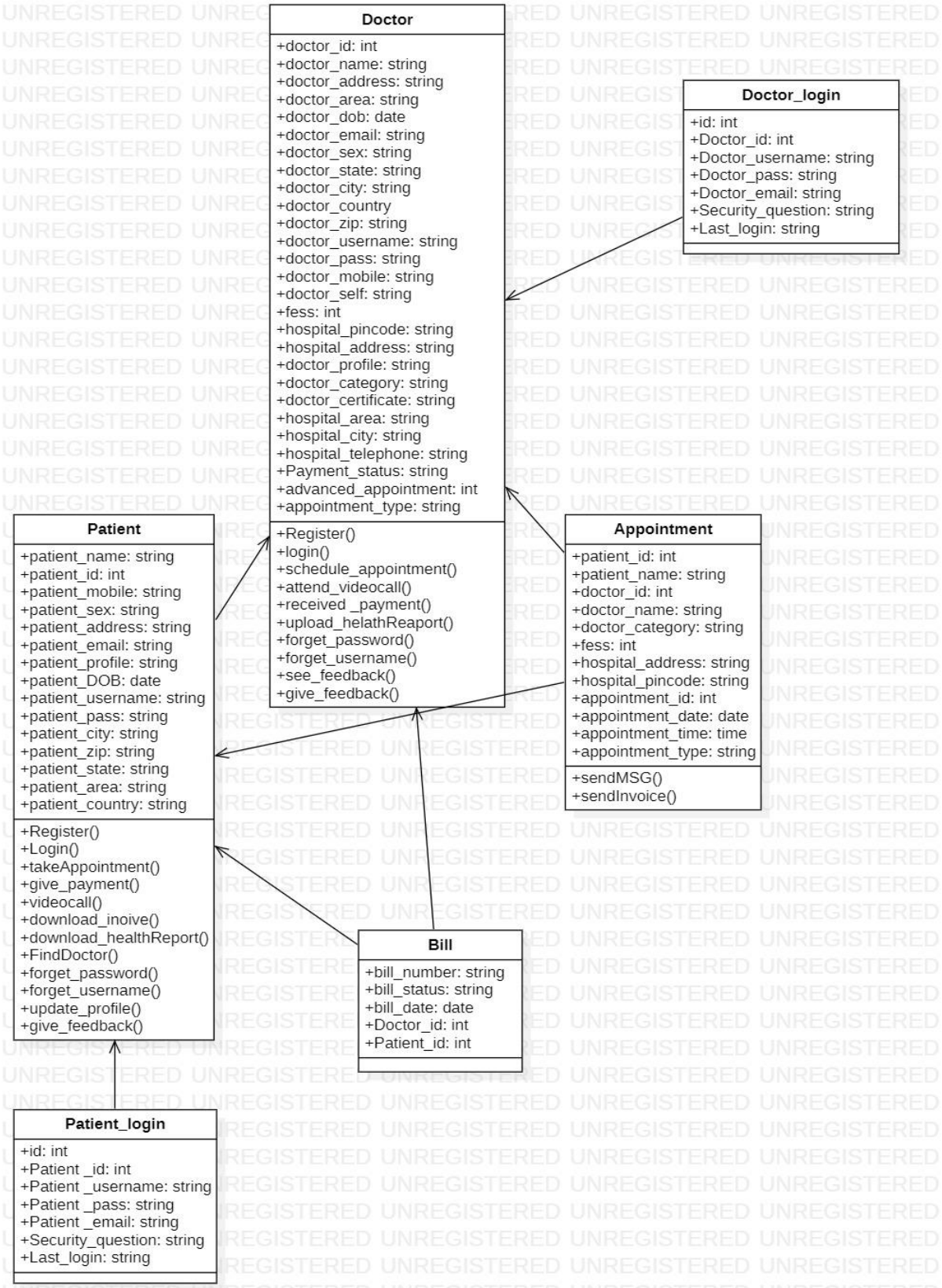
- Class Name:
  - The name of the class is always shown in the first sector. It is the required information.
- Class Attributes:
  - Attributes are shown in the after-class name sector.
  - The attributes types are show after the colon
  - Attributes are values that define a class.
- Class Methods:
  - Operations are show in the third sector. They are facilities the class provides.
  - The return type of a method is show after the colon symbol at the end of the method name.
  - The return types of methods parameters are show after the colon.

Class visibility:

The symbol before an attributes and operations name in a class represent the visibility of the attributes and operations. Visibility signs are used to determine the availability of the information contained in classes.



- **Class diagram of Drmedizone:**



Class Figure No.: 1

4.3List of tables with attributes and constraints:

- **Patient table:**

Serial number	Column name	Data types	Constraints
1	Patient_id	int	Primary Key
2	Patient_name	VarChar(60)	Not null
3	Patient_email	VarChar(60)	Not null
4	Patient_sex	VarChar(60)	Not null
5	Patient_mobile	VarChar(60)	Not null
6	Patient_profile	VarChar(60)	Not null
7	Patient_address	VarChar(60)	Not null
8	Patient_area	VarChar(60)	Not null
9	Patient_city	VarChar(60)	Not null
10	Patient_state	VarChar(60)	Not null
11	Patient_country	VarChar(60)	Not null
12	Patient_username	VarChar(60)	Not null
13	Patient_pass	VarChar(60)	Not null
14	Patient_zip	Int	Not null
15	Patient_dob	DATE	Not null

- **Doctor Table:**

Serial number	Column name	Data types	Constraints
1	Doctor_id	Int	Primary Key
2	Doctor_name	VarChar(60)	Not null
3	Doctor_email	VarChar(60)	Not null
4	Doctor_dob	VarChar(60)	Not null
5	Doctor_sex	VarChar(60)	Not null
6	Doctor_mobile	VarChar(60)	Not null
7	Doctor_address	VarChar(60)	Not null
8	Doctor_city	VarChar(60)	Not null
9	Doctor_state	VarChar(60)	Not null
10	Doctor_zip	VarChar(60)	Not null
11	Doctor_username	VarChar(60)	Not null
12	Doctor_pass	VarChar(60)	Not null
13	Doctor_country	VarChar(60)	Not null
14	Doctor_area	VarChar(60)	Not null
15	Doctor_self	VarChar(60)	Not null
16	Hospital_address	VarChar(60)	Not null
17	Hospital_area	VarChar(60)	Not null
18	Hospital_pincode	VarChar(60)	Not null

19	Hospital_city	VarChar(60)	Not null
20	Hospital_telephone	VarChar(60)	Not null
21	Doctor_category	VarChar(60)	Not null
22	Doctor_profile	VarChar(60)	Not null
23	Doctor_certificate	VarChar(60)	Not null
24	Doctor_qualification	VarChar(60)	Not null
25	Fees	int	Not null
26	Advanced_appointment	int	Not null
27	Payment_status	VarChar(60)	Not null

- **Doctor login table:**

Serial number	Column name	Data type	Constraints
1	id	int	Primary Key
2	Doctor_id	Int	Florigen Key
3	Doctor_username	VarChar(60)	Not null
4	Doctor_pass	VarChar(60)	Not null
5	Doctor_email	VarChar(60)	Not null
6	Security_question	VarChar(60)	Not null
7	Last_login	VarChar(60)	null

- **Patient login table:**

Serial number	Column name	Data type	Constraints
1	id	int	Primary Key
2	Patient _id	Int	Foreign Key
3	Patient _username	VarChar(60)	Not null
4	Patient _pass	VarChar(60)	Not null
5	Patient _email	VarChar(60)	Not null
6	Security_question	VarChar(60)	Not null
7	Last_login	VarChar(60)	null

- **Appointment Table:**

Serial number	Column name	Data types	Constraints
1	Appointment_id	int	Primary Key
2	Appointment_date	Date	Not null
3	Appointment_time	Time	Not null
4	Appointment_type	VarChar(60)	Not null
5	Doctor_id	int	Foreign Key
6	Doctor_name	VarChar(60)	Not null
7	Patient_id	int	Foreign Key
8	Patient_name	VarChar(60)	Not null
9	Fees	int	Not null
10	Hospital_address	VarChar(60)	Not null
11	Hospital_pincode	VarChar(60)	Not null

- **Admin table:**

Serial number	Column name	Data types	Constraints
1	Id	int	Primary Key
2	Fname	VarChar(60)	Not null
3	Lname	VarChar(60)	Not null
4	Username	VarChar(60)	Not null
5	Password	VarChar(60)	Not null
6	email	VarChar(60)	Not null

- **Bill Table:**

Serial number	Column name	Data types	Constraints
1	bill_number	VarChar(60)	Primary Key
2	bill_status	VarChar(60)	Not null
3	bill_date	Date	Not null
4	Doctor_id	Int	Foreign Key
5	Patient_id	Int	Foreign Key

4.4 Test Cases:

System Name: -	Drmedizone		
Module code: -	Dr_001		
Pass	0	Pending:-	7
Fail	0	Number of test case:-	7

Test case Id	Test case	Expected Output	Actual Output	Test Date	Result
Dr_001L1	Correct Username and password	Redirect on profile page			
Dr_001L2	Correct Username and Invalid password	Show error message:- Password is invalid.			
Dr_001L3	Invalid Username and Correct password	Show error message:- Username is invalid.			
Dr_001L4	Invalid Username and Invalid password	Show error message:- Username and password are invalid.			
Dr_001L5	Username input box is empty and Correct password	Show error message:- Please enter username			
Dr_001L6	Correct Username and password	Show error message:- Please enter password			

	input box is empty				
Dr_001L7	Username and password input boxes both are empty	Show error message:- Please enter username and password			
Dr_001L8	Input boxes are empty	Show error message:- Enter all necessary details are required			
Dr_001L9	Click submit button	Submit the form and show message:- Submitted successful-y			
Dr_001L10	If doctor schedule is busy	Show message:- Doctor is not available			
Dr_001L11	Search doctor by name	Show list of all related name of doctors			
Dr_001L12	Search doctor by categories	Show list of all related category of doctors			
Dr_001L13	Search doctor by fees	Show list of all related doctors			
Dr_001L14	Upload health report	Show message:- Upload successfully			
Dr_001L15	Download health report	Show message:- download successfully			
Dr_001L16	Doctor is not found	Show message:- Doctor is not found			
Dr_001L17	Click get appointm	Open appointment form			

	ent button				
Dr_001L18	Click doctor button	Show list of all doctors			
Dr_001L19	Click get appointment button but patient is not login	Open login form			
Dr_001L20	Click on doctor profile	Show all doctor details			