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Personal Health Record (PHR)

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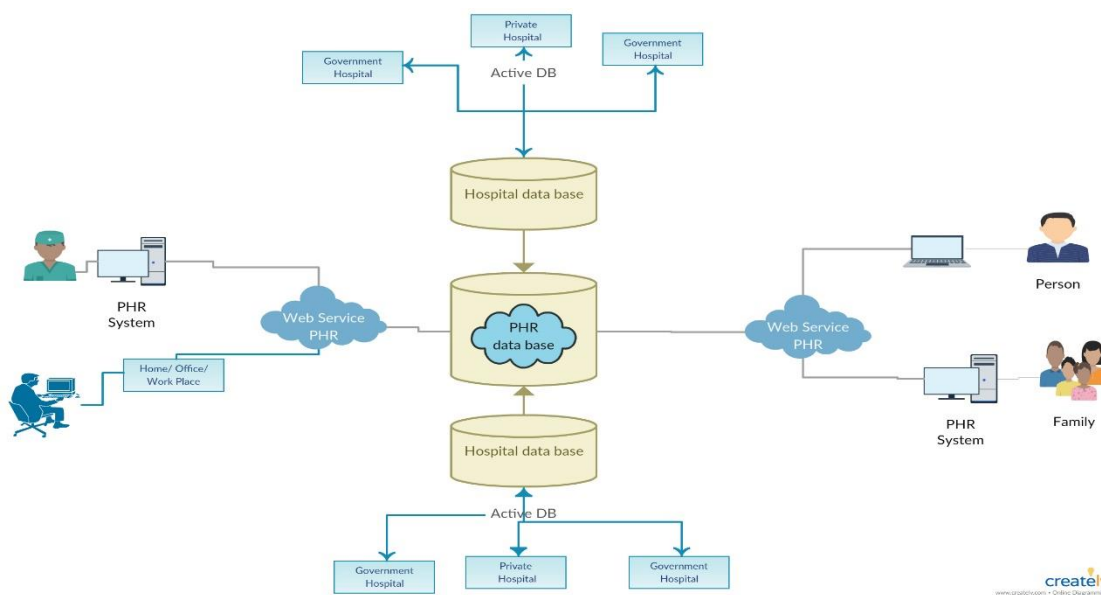
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Chapter 1

1.1 INTRODUCTION:

A personal health record (PHR) is an electronic system through which people can access, manage and track and share past and current information about your health or the health of someone in your care. PHR tools enable an individual to play a more active role in their health. Sometimes this information can save you the money and inconvenience of repeating routine medical tests. Even when routine procedures do need to be repeated, your PHR can give medical care providers more insight into your personal health story. This stands in contrast to the more widely used electronic medical record, which is operated by institutions (such as hospitals) and contains data entered by clinicians or billing data to support insurance claims. The intention of a PHR is to provide a complete and accurate summary of an individual's medical history which is accessible online. The health data on a PHR might include patient-reported outcome data, lab results.



One of the prime advantages of PHR is that it provides a continuous relationship between patient and the physician whereby any encountered changes can be addressed in less amount of time. Another advantage of PHR is that it provides patients with credible health information and enables them to manage their own diseases in a customized way. PHR inculcates a sense of involvement and self-

monitoring which is an important aspect of modern day health management. PHR can also be used by proxies of patients i.e. their friends and relatives (only if authorized by patients) thus enabling them to manage the health of their loved ones.

PHR systems are also beneficial for doctors and clinicians. The patients may enter additional data in their PHR including their personal observations and details symptoms which are helpful for clinicians to make better decisions. The clinicians can also use PHR systems to share medical records in an efficient way. Moreover, the continuous electronic communication via PHR helps in saving time of clinician by reducing the number of telephonic conversation and face to face meetings.

1.2 Problem Statement

The localized data storage of patient's health data restricts the access of health records in case of emergency or travel by other authorized parties such as doctors or nurses. As the health record remains locally in hospitals, if the patient travels to another city in KSA and he needs a medical assistant, then the medical staff in that city knows nothing about his/ her medical history. That's why; this work comes to integrate the medical records into single personal health record that can be accessed globally by the authorized users only.

1.3 Research Goals:

This study aims to develop a personal health record in KSA that allowed authorized users to participate in health care services improvement. To achieve this aim, the following objectives should be met:

1. To develop a PHR system that accumulate and integrate all medical health records into one centralized database
2. To examine the challenges of moving patient's data into a PHR system
3. To evaluate and test the proposed system

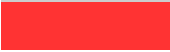





1.4 Importance of the study:




The current healthcare industry has several different types of systems for managing patient and health data, ranging from traditional paper-and-pencil methods to electronic record keeping. However, few of these systems are interoperable, and all consider the records to be the property of the maintaining institution rather than the patient. The PHR system solution will put health records back in the hands of the patient and allow for improved communication and flexibility between parties and health care providers.

1.5 Scope of the study:

This study will cover some local hospitals in Saudi Arabia and will be extended in the future to cover all governmental hospitals in the kingdom.

1.6 Questionnaire summary:

1. Were you familiar with the PHR concept before taking this survey?							
						Response Percent	Response Total
1	Yes					37.50%	3
2	No					37.50%	3
3	I'm not sure					25.00%	2
Analysis	Mean:	1.88	Std. Deviation:	0.78	Satisfaction Rate:	43.75	answered
	Variance:	0.61	Std. Error:	0.28			skipped
2. Does your health provider or insurance company provide you with a PHR?							
						Response Percent	Response Total
1	Yes					37.50%	3
2	No					12.50%	1
3	I'm not sure					50.00%	4
Analysis	Mean:	2.12	Std. Deviation:	0.93	Satisfaction Rate:	56.25	answered
	Variance:	0.86	Std. Error:	0.33			skipped

3. Is the system will be benefit for patients?							
						Response Percent	Response Total
1	1. Strongly agree					37.50%	3
2	2. Agree					50.00%	4
3	3. Agree to some extend					0.00%	0
4	4. Don't agree					12.50%	1

3. Is the system will be benefit for patients?

							Response Percent	Response Total
Analysis	Mean:	1.88	Std. Deviation:	0.93	Satisfaction Rate:	29.17	answered	8
	Variance:	0.86	Std. Error:	0.33			skipped	0

4. Have you ever used one of the medical records sites ?

							Response Percent	Response Total
1	1. Yes			<div></div>			50.00%	4
2	2. No			<div></div>			50.00%	4
Analysis	Mean:	1.5	Std. Deviation:	0.5	Satisfaction Rate:	50	answered	8
	Variance:	0.25	Std. Error:	0.18			skipped	0

5. Do you think evaluation helps improve service quality?

							Response Percent	Response Total
1	1. Yes			<div></div>			62.50%	5
2	2. No			<div></div>			37.50%	3
Analysis	Mean:	1.38	Std. Deviation:	0.48	Satisfaction Rate:	37.5	answered	8
	Variance:	0.23	Std. Error:	0.17			skipped	0

1.7 Project scheduling:

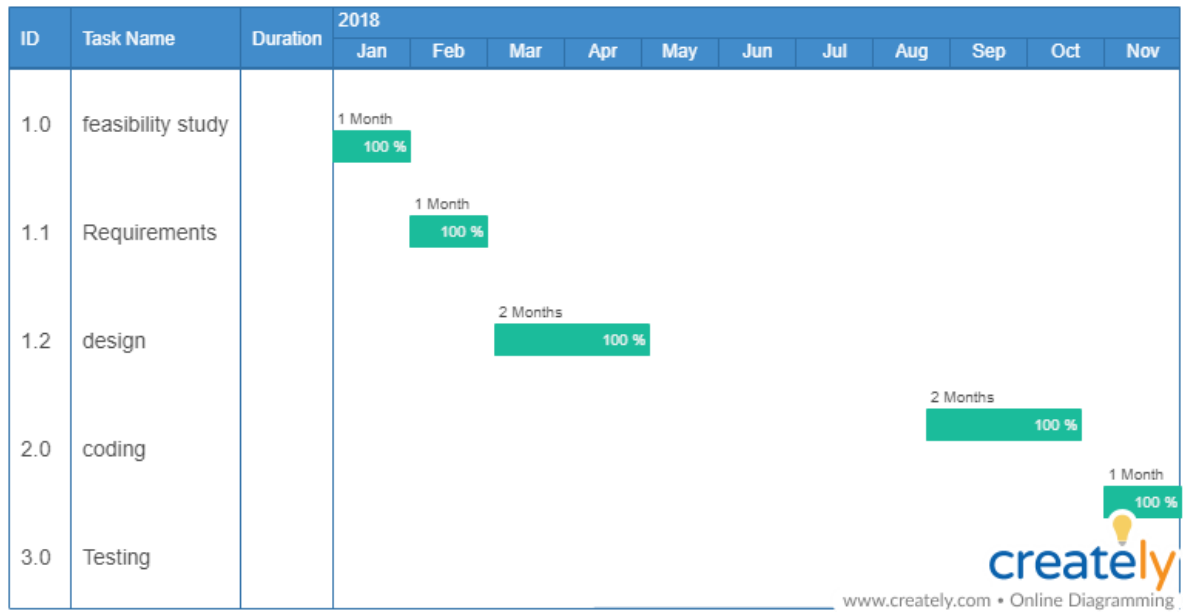


Fig.1.0 Gantt chart

Chapter 2

2.1 Literature reviews:

The American Health Information Management Association (AHIMA) is a national non-profit professional association, founded in 1928, dedicated to the effective management of personal health information needed to deliver quality healthcare to the public.



AHIMA's 71,000+ members are health information management professionals who specialize in managing and protecting your personal health information and medical records in hospitals, doctors' offices, and other healthcare settings.

Health information management professionals care for your health by caring for your health information. Their job is to make sure that all the medical information collected about you is complete, accurate, and protected, yet, readily available for your healthcare providers when it's needed.

AHIMA's vision and values have always been people-centered. After all, the goal of effective HIM is to provide quality healthcare to the public. As part of our mission to serve as a resource for the public, AHIMA is working to help individuals become better managers of their own personal health information by sponsoring a public service initiative that draws upon the unique expertise of AHIMA and its members.

Personal health information is a valuable resource to individuals, their families, and the doctors, nurses, and other healthcare professionals who provide treatment and care. HIM professionals are reaching out—at the community level—to share their knowledge of health information and medical records directly with the public in order to help them better understand and manage their personal health information and thus improve the quality of care they receive.

Chapter 3

3.1 Research methodology:

3.2 Agile methodology:

In software application development, Agile is a methodology that anticipates the need for flexibility and applies a level of pragmatism into the delivery of the finished product. Agile requires a cultural shift in many companies because it focuses on the clean delivery of individual pieces or parts of the software and not on the entire application.

Agile has replaced Waterfall as the development methodology of choice in most companies.

3.3 Twelve principles of the Agile Manifesto

In 2001, 17 software development professionals gathered to discuss concepts around the idea of lightweight software development and ended up creating the Agile Manifesto. The Manifesto outlines the core values of Agile, and although there has been debate about whether the Manifesto has outlived its usefulness, it continues at the core of the Agile movement.

Included in the Manifesto are concepts that were revolutionary at the time, including the emphasis on people and communication, rather than on processes and tools. Other key parts of the Manifesto include working directly with and satisfying customers, breaking all work down into small chunks, meeting daily to ensure work is on track and being open to changes even at the very end of the process.

3.4 Types of Agile methodologies

In any Agile environment, it is likely there are several Agile methodologies being used. One of the oldest of these is extreme programming, which is based on the idea that for successful development to happen quickly, testing must be done regularly. In many cases, the tests must be written even before the code.



Another Agile methodology that is widely used is Scrum. Scrum brings everyone on the team, including the business stakeholders, together to agree on features. Then, specific goals are set for a 30-day sprint, at which point the agreed-upon software is delivered.

Some Agile proponents emphasize Lean development, or Lean Programming, which strips software development down to the basics. Feature-driven, test-driven or behaviour-driven can also be used in an agile environment, depending on the needs of the organization.

3.5 Advantages of Agile:

Much has been compared over the years with Agile versus Waterfall approaches.

In the Waterfall era of software development, coders worked alone, with little to no input before handing the software to testers and then on to production.

Bugs complications and feature changes either weren't handled well, or were dealt with so late in the process that projects were seriously delayed or even scrapped.

The idea behind Agile model, in which everyone -- including the business side -- stayed involved and informed in the development process, represented a profound change in both the culture and a company's ability to get better software to market more quickly.

Collaboration and communication became as important as technology, and because the Agile Manifesto is open to interpretation, Agile has been adapted and modified to fit organizations of all sizes and types. The Agile cultural shift also paved the way for the latest software development evolution, DevOps.

3.6 Disadvantages of Agile:

Many would say the biggest disadvantage of Agile is the fact it has been modified -- some would say diluted -- by many organizations. This phenomenon is so widespread that the "Agile my way" practitioners are known as "Scrum butts," as in, "We do Scrum in our organization, but...".

Although Agile opens up the lines of communication among developers and the business side, it's been less successful bringing testing and operations into that mix -- an omission that may have helped the idea of DevOps gain traction.

Another potential concern about Agile is its lack of emphasis on technology, which can make it difficult to sell the concept to upper managers who don't understand the role that culture plays in software development.

Chapter 4

System Requirements:

4.1 Functional Requirement :

- The system must maintain basic patient information and permissions on the central server.
- The system should allow patients to create new accounts.
- The system should allow users to store important information such as sensitivity and conditions On the central server.
- The system should allow approved emergency medical facilities access to important information Such as allergies and conditions as needed.
- The system must maintain medical records of patients in full.
- The system must provide a common API for health information systems to update and Read records.
- The system should allow authorized health providers to attach information to the system.
- The system should allow patients to view all records stored in the system.

4.2 Data requirements:

- Patient contact information.
- Emergency patient information.
- Medical records of patients.
- Medical records permissions for patients.
- Records of access to medical records of patients.

4.3 Rules of work and logic:

- Only the patient has the right to modify contact information and billing information.
- Accredited medical facilities may only attach medical records to the system.
- Medical records are appended only and are never modified.

4.4 System Design:

4.5 Use Case Model:

4.5.1 Actors and Their Goals:

Actor	Goal
Patient	<ul style="list-style-type: none">• Manage your personal account• Manage data on the system• Manage personal records information
Medical Staff	<ul style="list-style-type: none">• Display medical information for the patient• Add medical information to the patient• Upload medical records to the patient
Follow up the medical condition of friends	<ul style="list-style-type: none">• Display medical information for the patient

4.5.2 Use case diagram:

4.5.2.1 Medical Staff Use case

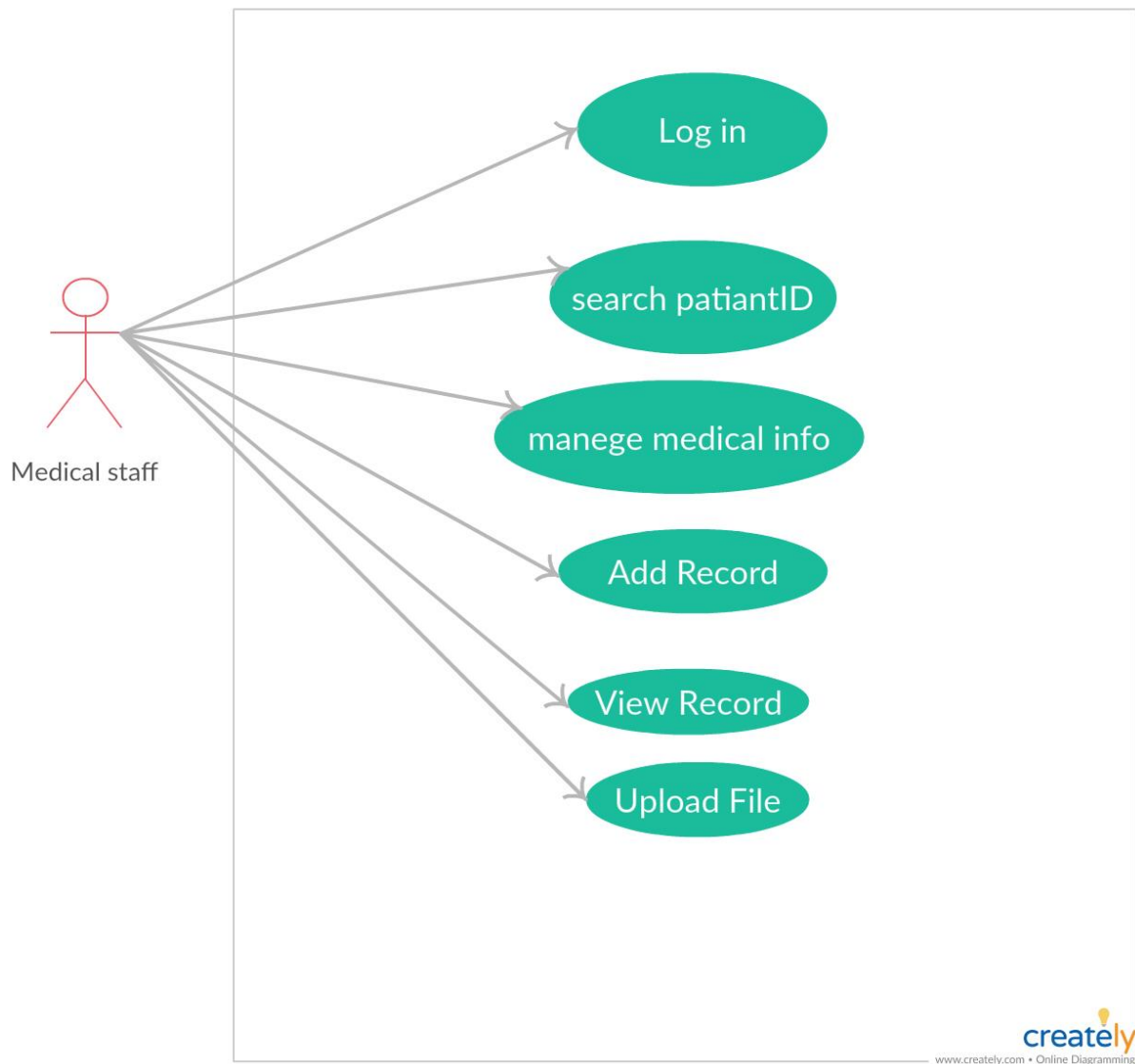


Fig.2.0 Medical Staff (Use-case diagram)

4.5.2.2 Patient Use case

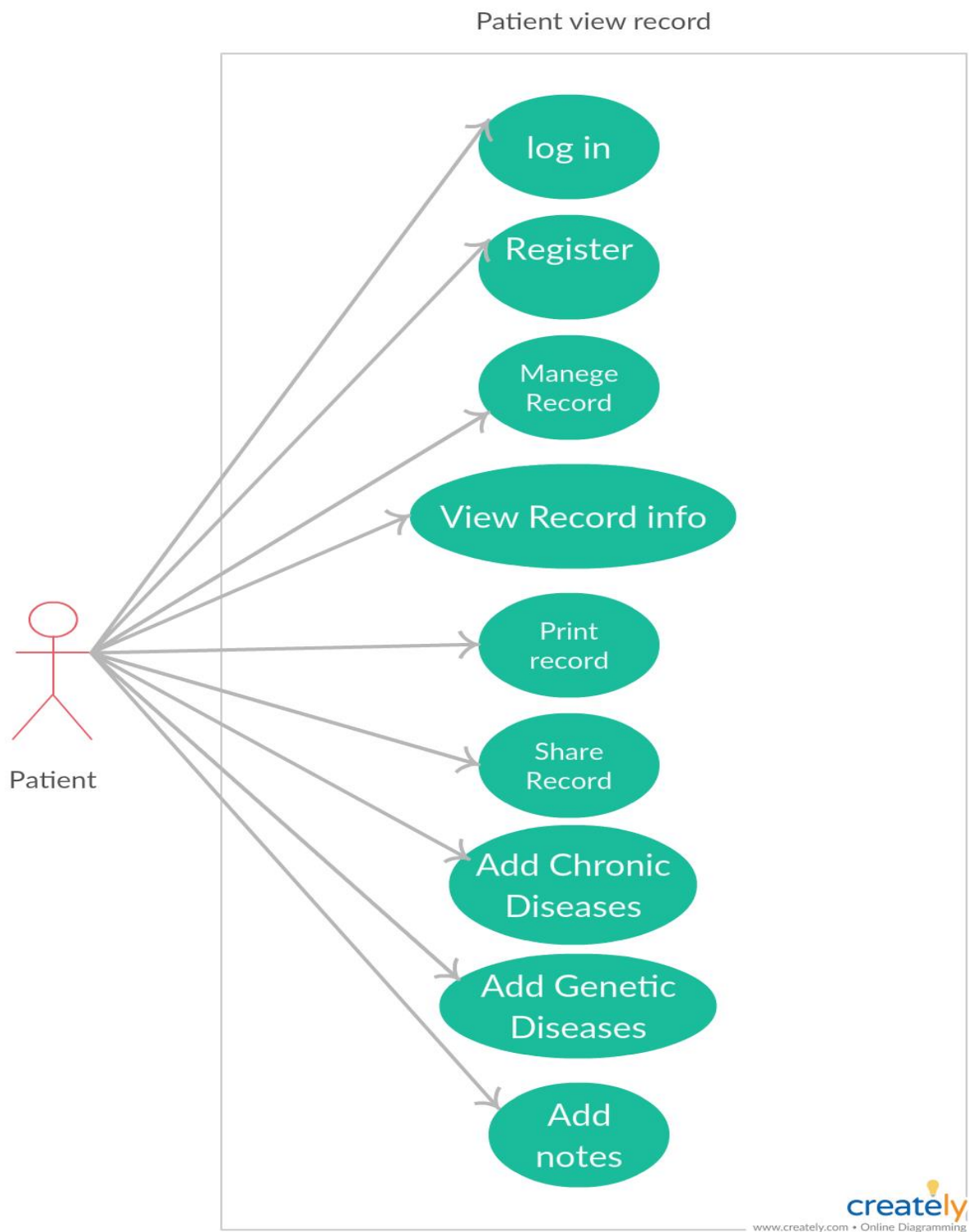


Fig.2.1 Patient (Use-case diagram)

4.5.2.3 system environment Use case

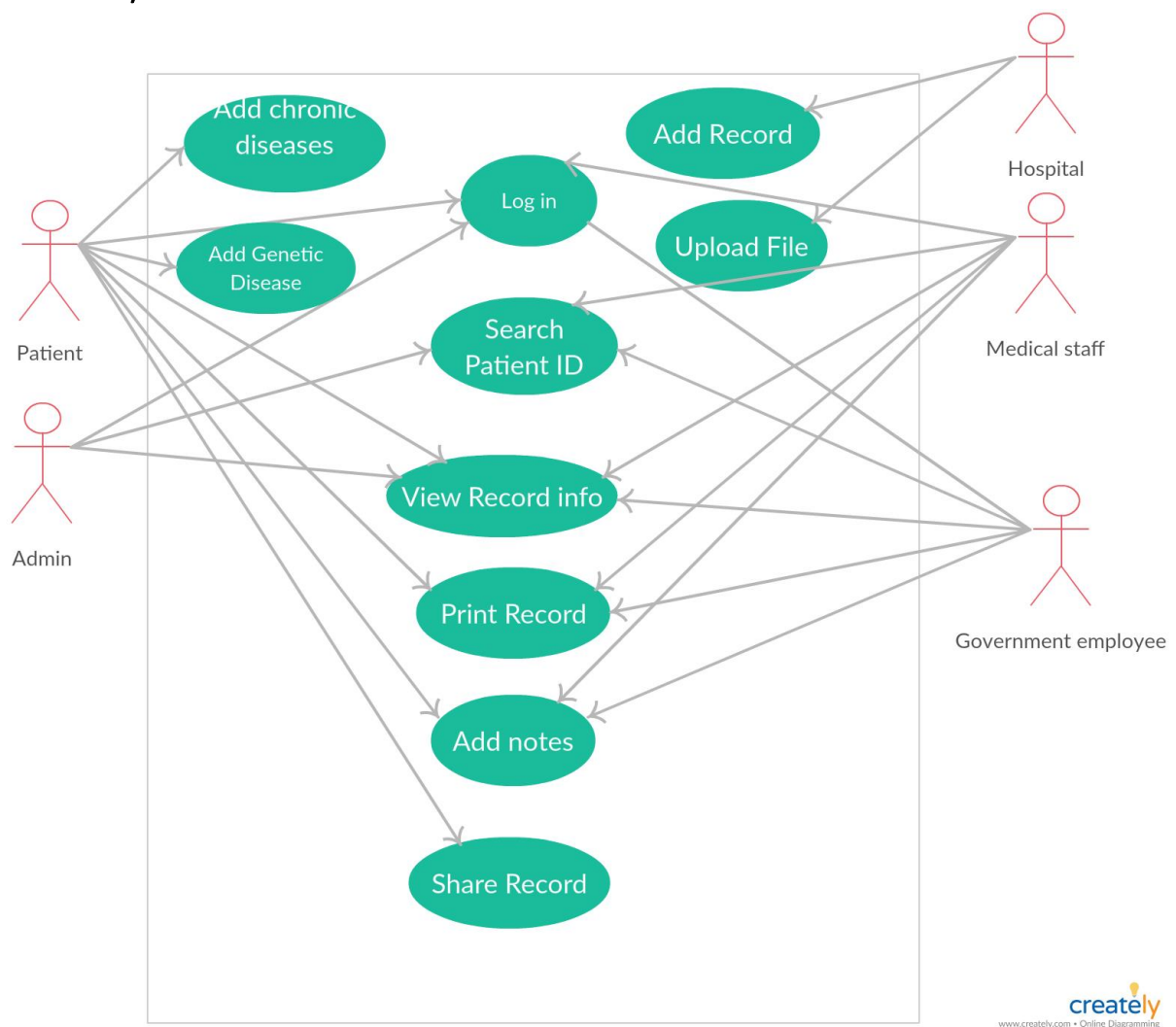


Fig.2.3 system environment (Use-case diagram)

4.6 Use case description:

4.6.1 Update Emergency Info:

USE CASE #		
USE CASE Name	Update Record Info	
ACTOR	Medical Staff	
Goal	<p>To update the patient's emergency information for view and use by medical Establishments, doctors, emergency workers.</p> <p>To view the patient's emergency medical information from the system in the Event of an emergency.</p>	
Overview and scope	<p>Shows the process that the doctor undertakes in order to update his or her Emergency information on the central server. This information is what emergency workers and medical workers and facilities use in the event of an urgent situation, when the patient is injured or able to speak for him or Herself.</p>	
Preconditions	<p>Patient has created an account for use with the Personal Health Record System and has logged into the associated web service. Patient has obtained information in another medium about his or her emergency information, including drug prescriptions, allergies, family history, contact persons, and pre-existing conditions.</p>	
MAIN SUCCESSFUL SCENARIO	Actor Action	System Action
	1- Medical facility employee clicks "Update Record Info" option on PHR page.	2- System displays record medical Types to view or update.
	3- Medical facility employee chooses a record type by clicking on the Appropriately labelled button.	4- System displays any current emergency records on the screen for That record type.
	5- Medical facility employee chooses option to update listing for that type of record medical	6- System displays form entry page for Subscriber to enter information.

	7- Medical facility employee enters appropriate information for the selected Record type.	
	8- Medical facility employee clicks “Save” to Finalize the record.	9- System adds the record that has just been finalized Medical facility employee to the existing list of records for that record.
		10- System displays updated record Listing for the selected record type.
	11- Medical facility employee reviews updated listing to check that Information is correct.	
	Medical facility employee disconnects from System.	
Other non-functional requirements	The confirmation page for the updated record will be shown to the patient Immediately after the “Save” button is clicked. The record listing should Propagate to all involved servers within 24 hours of a record being updated.	

USE CASE #		
USE CASE Name	View Record Info	
ACTOR	Medical facility & Patient	
Goal	To view the patent emergency medical information from the system.	
Overview and scope	Shows the process of viewing a patient's emergency medical information for use by emergency workers when the patient is unconsciousness or similarly Impaired. This information may be used by the facility to contact the emergency contacts listed by the patient for urgent decision making or Information.	
Preconditions	<ul style="list-style-type: none"> • Patient has created an account for use with the Personal Health Record System and updated his or her emergency contact information via the Update Emergency Info on Server use case • medical facility employee is associated with an Emergency Medical Facility with permissions to access Medical Records 	
MAIN SUCCESSFUL SCENARIO	Actor Action	System Action
	1- Employee logs in with username, password, facility ID	2- Verifies the username and password and access permissions
		3- Display patient search window
	4- Employee enters patient's ID in search screen	5- Searches for patients by ID number and displays list of possible matches
	6- Employee selects a patient	7- System displays patient summary information
	8- Employee selects record type for viewing	9- System logs access and displays records
	10- Employee requests to close Window.	11- System Closes

4.7 Activity diagrams:

4.7.1 Update medical record Info:

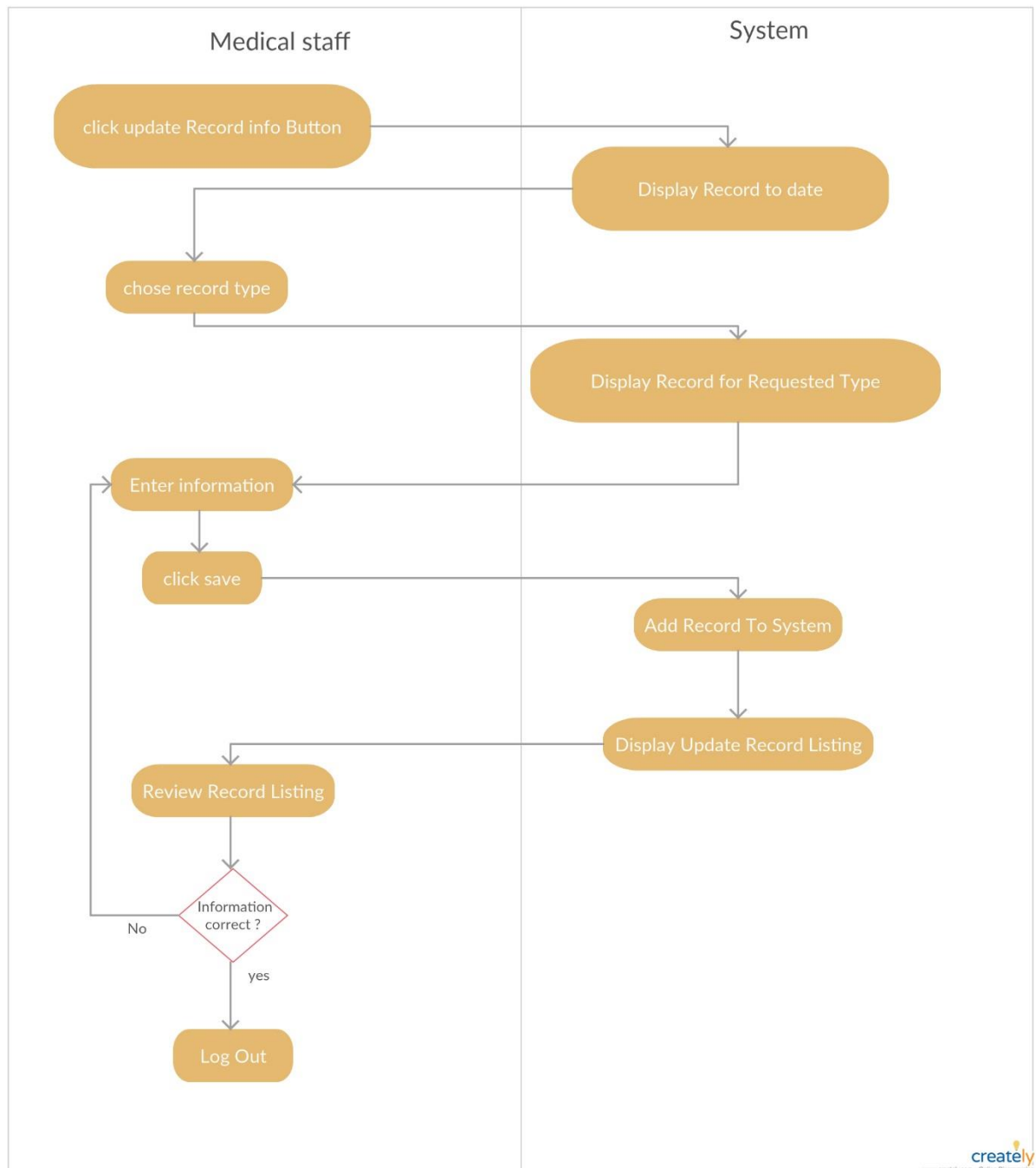


Fig. 3.0 Update medical record (Activity diagram)

4.7.2 View medical record Info (Medical staff):

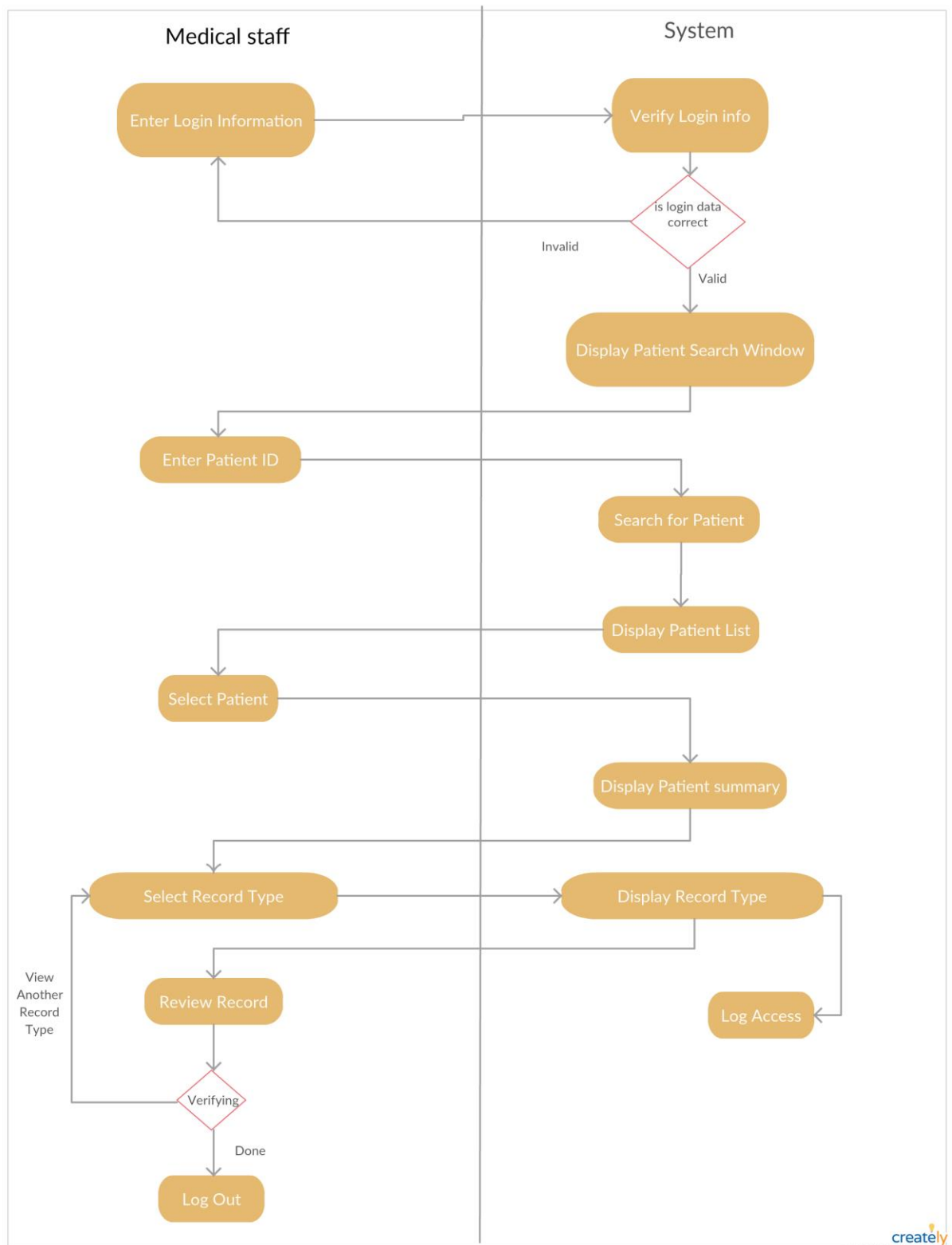


Fig. 3.1 View medical record Medical Staff(Activity diagram)

4.7.3 View medical record Info(Patient)

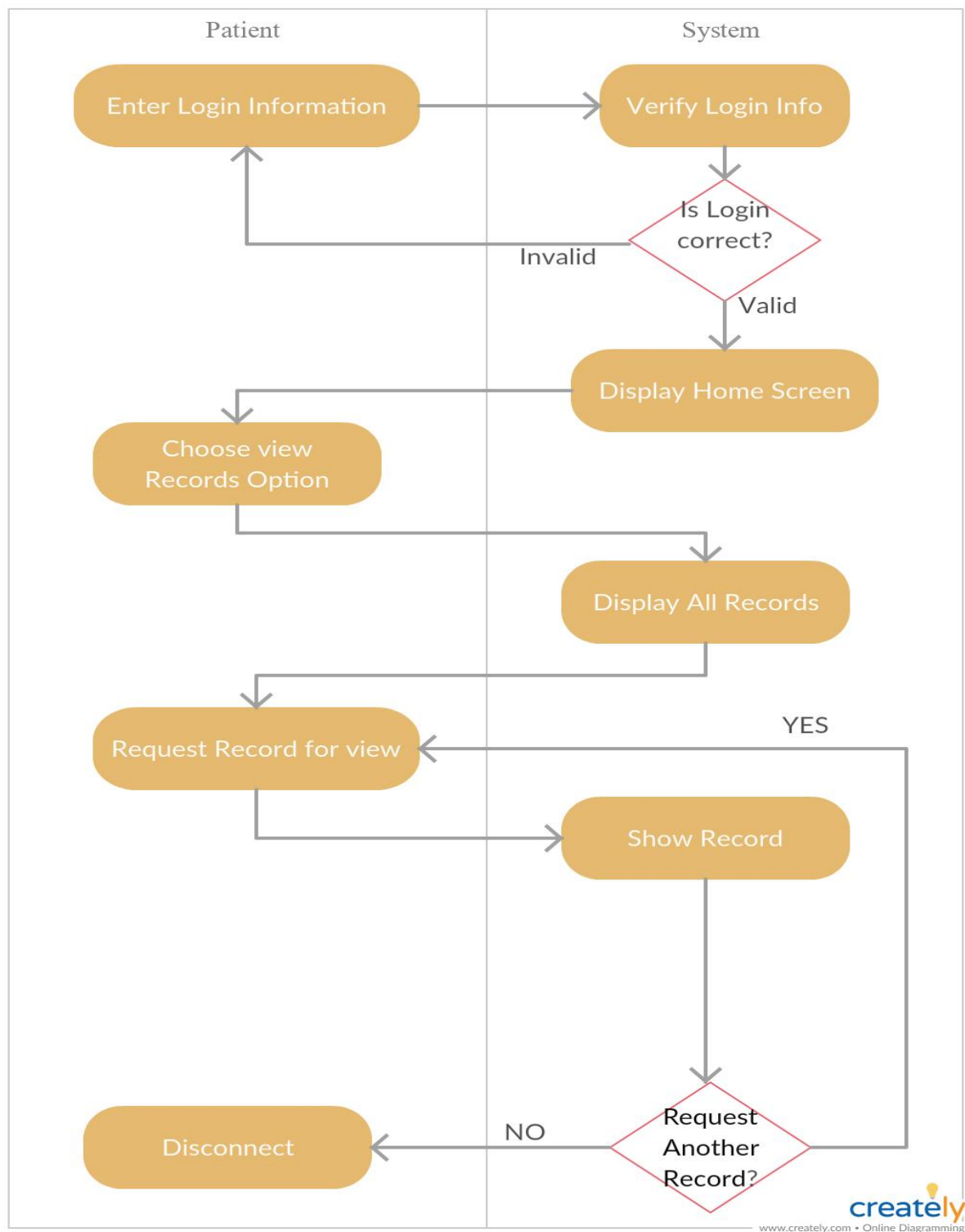


Fig. 3.1 View medical record Patient (Activity diagram)

4.8 System Sequence Diagrams:

4.8.1 Update medical record Info:

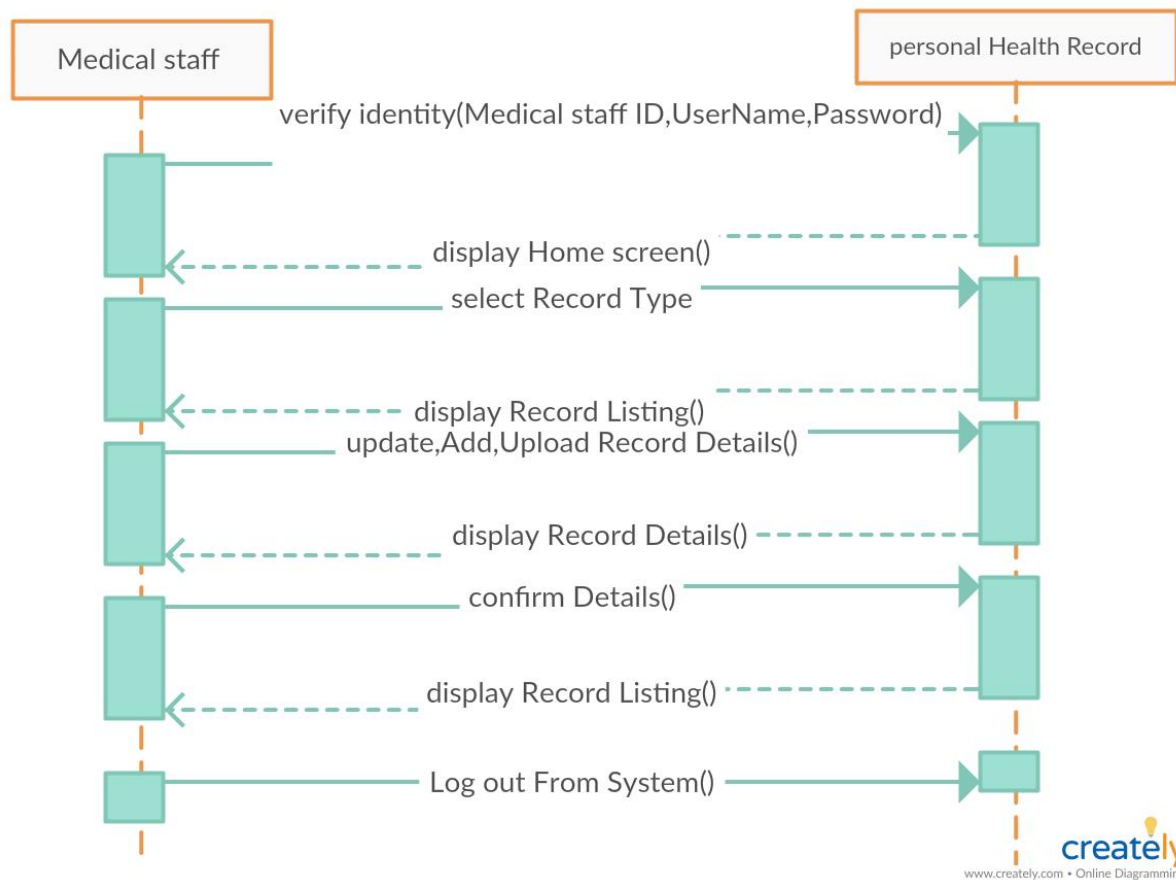


Fig. 4.0 Sequence diagram Medical Staff (Update medical record)

4.8.2 View medical record Info(Medical Staff):

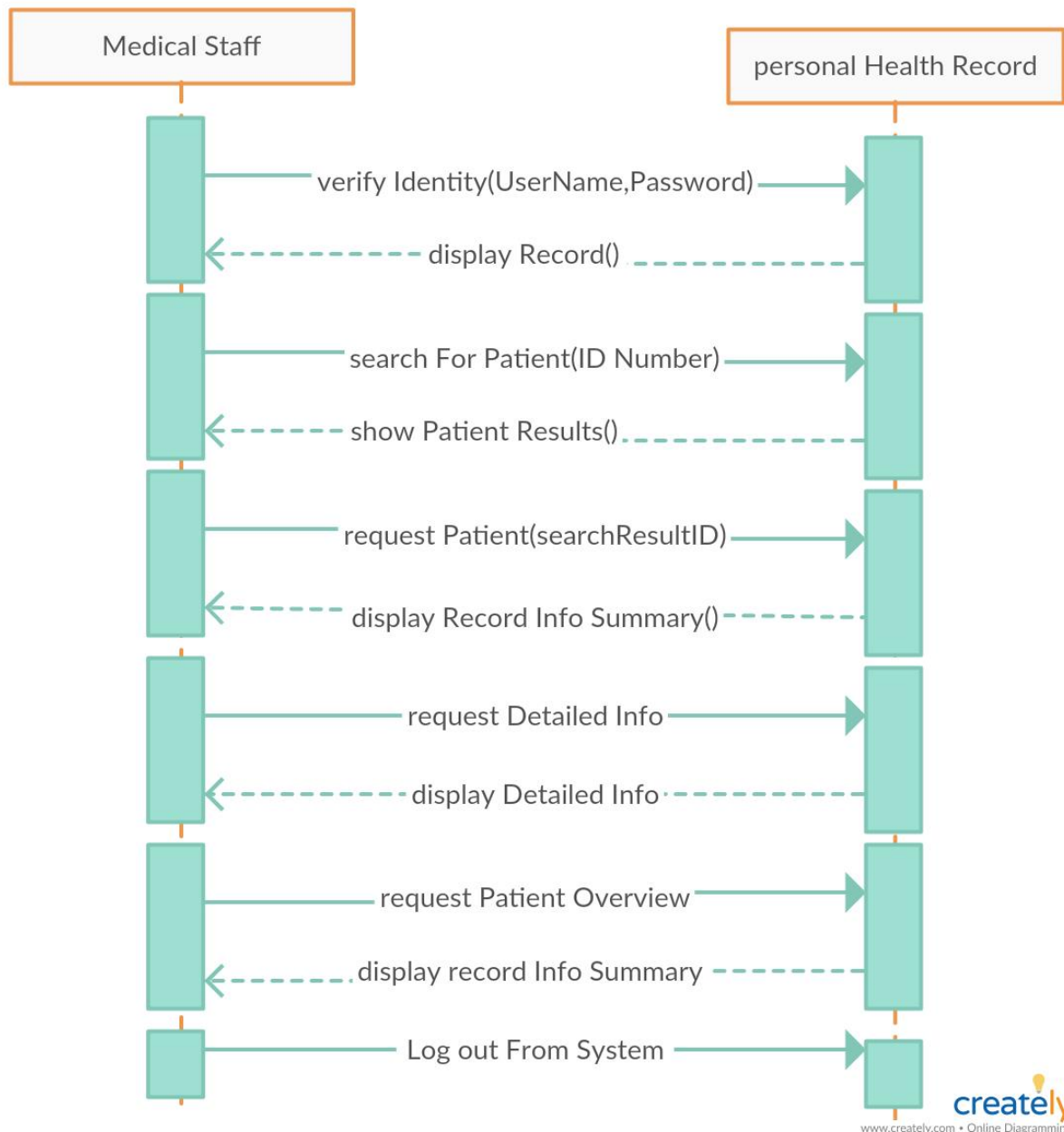


Fig. 4.1 Sequence diagram Medical Staff (view medical record)

4.8.3 View medical record Info (Patient):

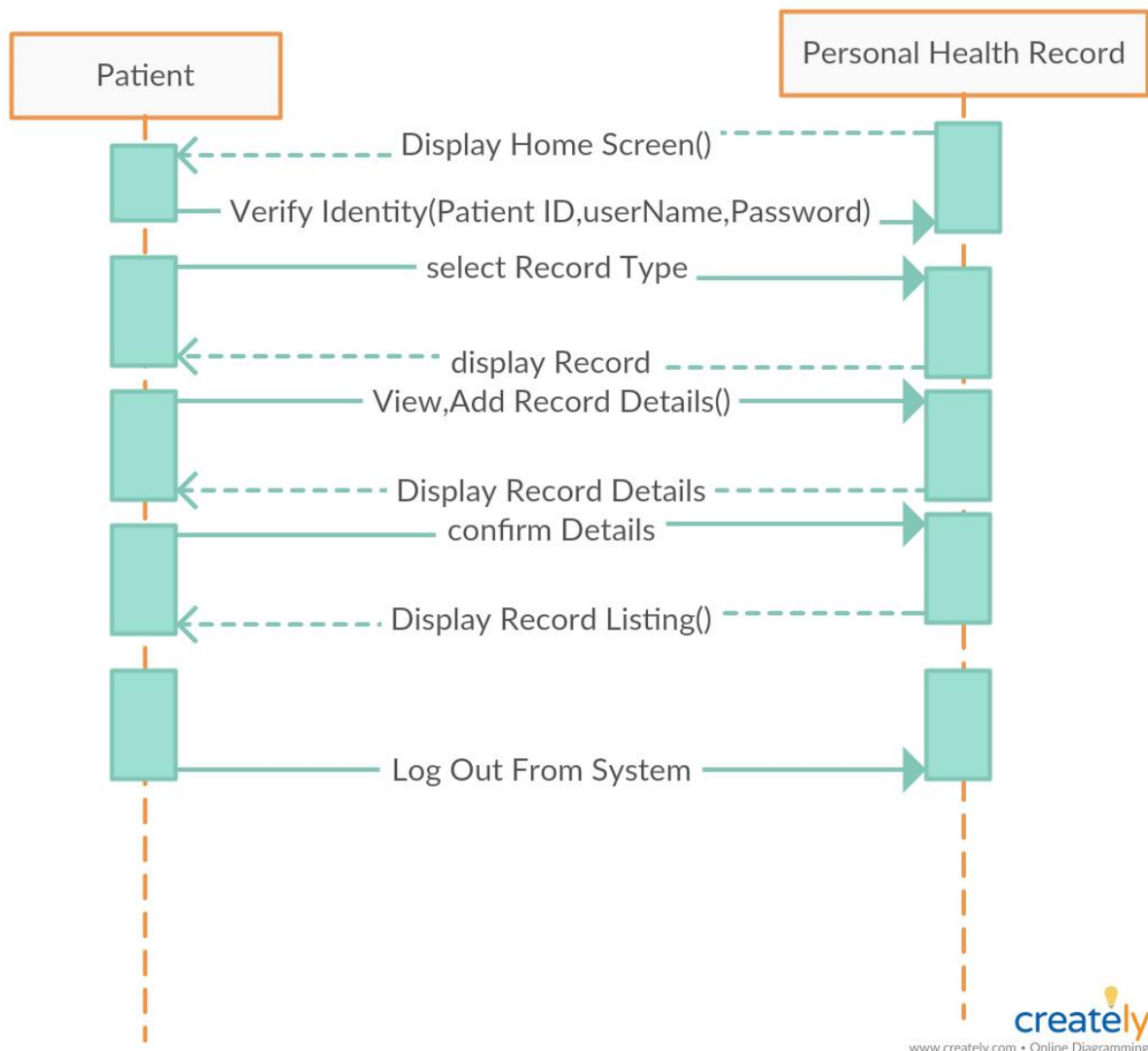


Fig. 4.2 Sequence diagram Patient (view medical record)

4.9 Sequence Diagrams:

4.9.1 Update medical record Info:

The “Update medical record Info” use case sequence diagram depicts the underpinnings of the system’s relationship with the medical Staff. The medical Staff first logs into the system and has his/her identity verified by the information tied to his/her account. Once verified, the system displays a list of services to the patient, who then chooses to modify the emergency records associated with the account

The system pulls up all pre-existing emergency records for all the different record types, allowing the medical Staff to drill down and select the exact record type they wish to update.

Once selected, the system displays all the records stored for that record type, with the option to add a new one. Once the medical Staff has updated a particular record, the system will display a confirmation page to the medical facility employee in order to ensure that any information entered.

4.9.2 View Medical Record Info(medical Staff):

In the View Medical Record Info detailed system use case we can see the process the system uses to access and display these records.

the system asks for a list of patients matching a first and last name and ID number from a generic patient account object.

Once the user selects the appropriate user the system gets that particular patient object from the system.

This object is then asked for all of its Medical Record.

4.9.3 View Medical Record Info(patient):

In the View Medical Record Info detailed system use case we can see the process the system.

The system shows the patient's medical records, and the patient makes notes or the like.

4.10 Design Class Diagram:

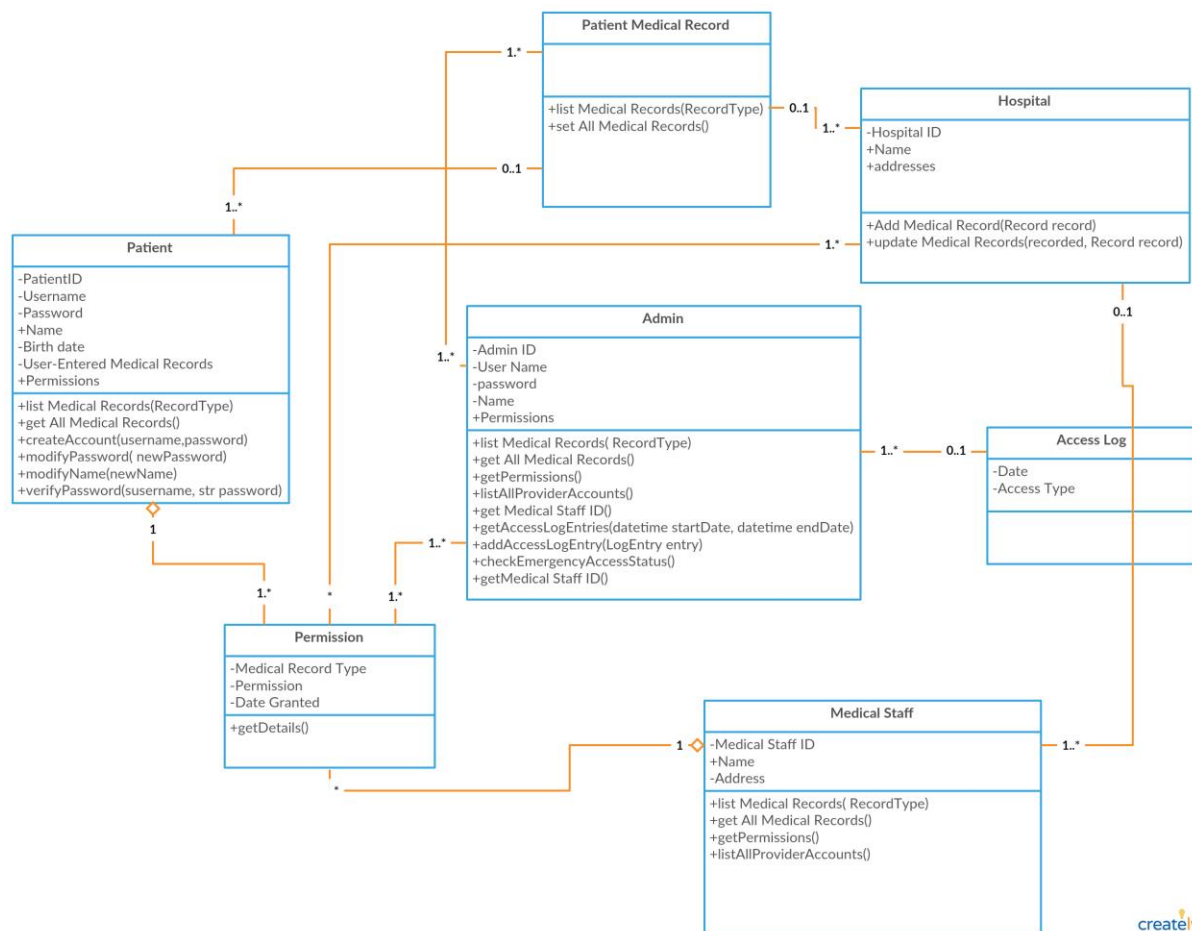


Fig. 5.0 Class diagram

4.10.1 Design Class Diagram:

The design class diagram, while seemingly complex at first sight class diagram. All of the same classes are there, and thus, the same logic and cardinality between the classes is applied. However, reference attributes and operations were added to many of the classes for the purpose of making the diagram more abstraction friendly when it comes time to actually construct the system.

4.11 Physical Design:

4.11.1 ER-DIAGRAM FOR PHR SYSTEM:

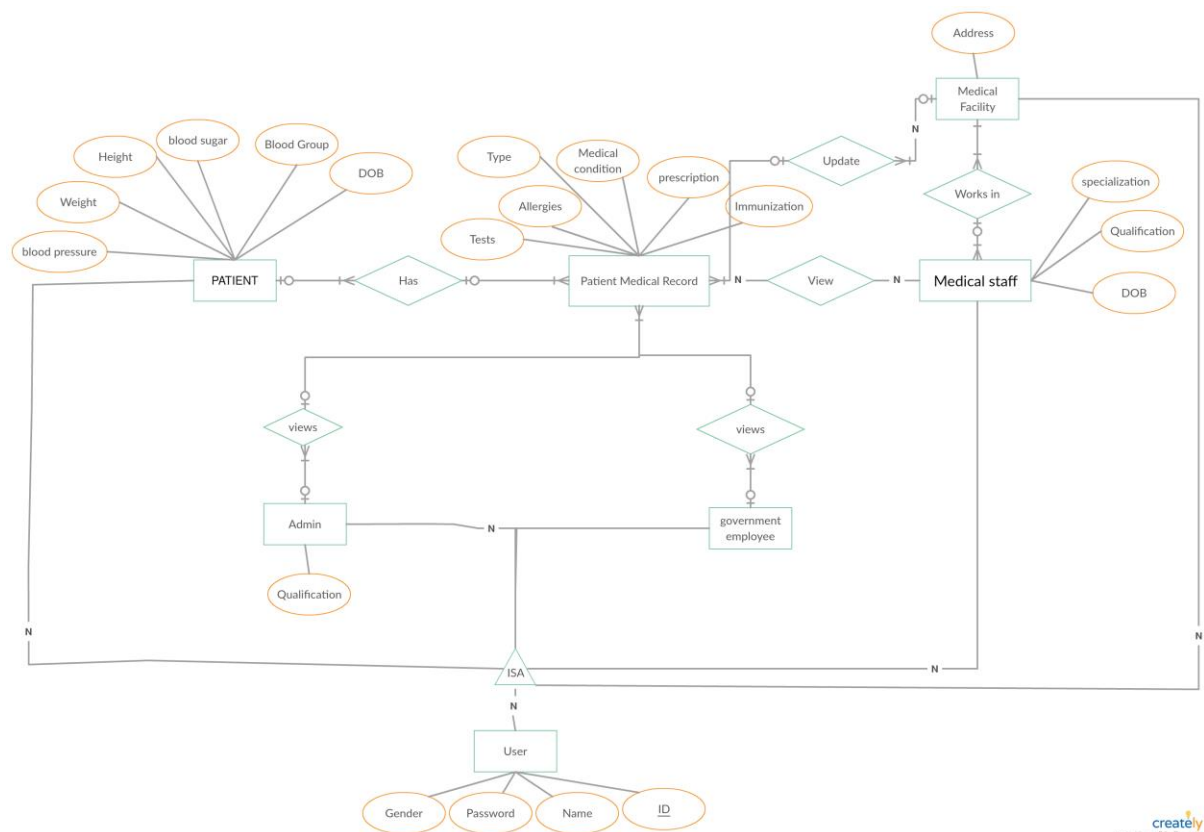


Fig. 6.0 ER diagram

Interaction representation for PHR System has several entities such as PHR, Patient, Registration, Hospital, Tests, Identities, Reports and Treatment. Each entity has several attributes with the relationship in a flow manner. Hospital or Institution contains the In-patient medical module which contains the Patient ID, Patient name and membership date on which the treatment process has been started. They process various tests for several diseases and surgical problems and provide the prescription and drugs which need to be console.

Patient or user details are been registered in PHR it contains information such as Name, Date of birth, Age, Gender, Address, Contact number, Email address and Blood group. PHR also stores several Identities such as Height, Weight, personal identification and other problems.

Chapter 5

5.1 System design:

5.2 Web interfaces:

5.2.1 Home Page (PHR):

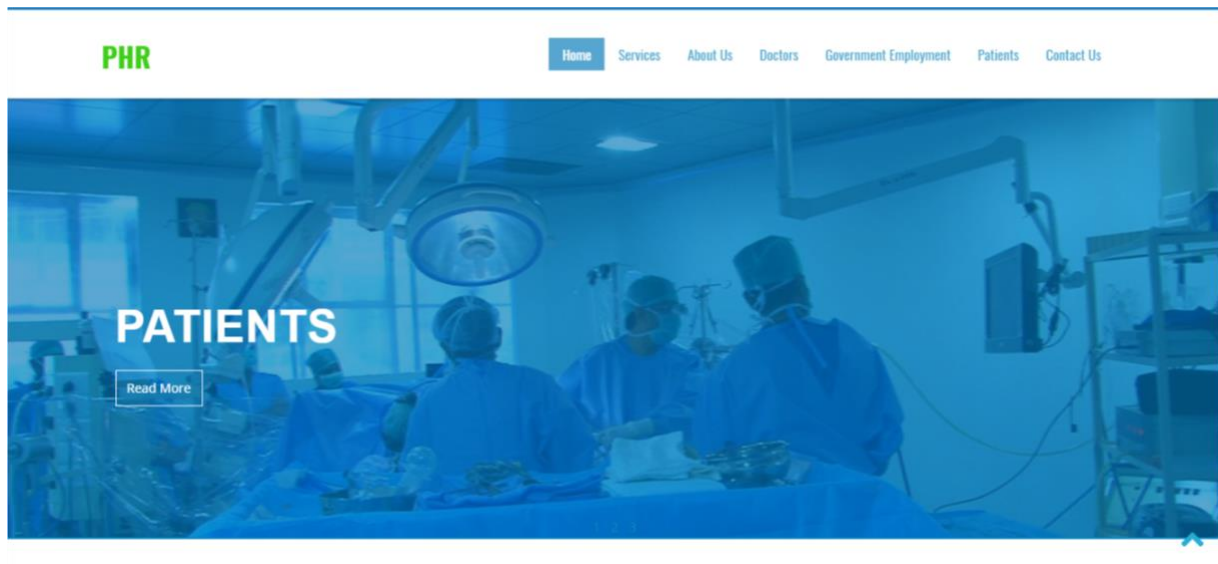


Fig. 7.0 Home page

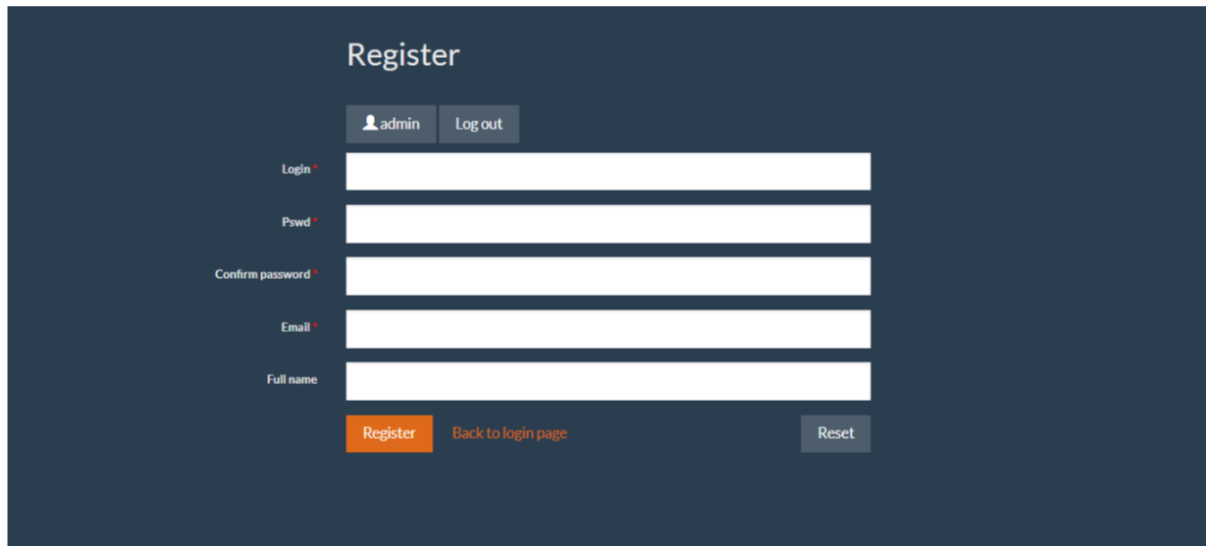
The main interface of the site which allows you to move between the pages of the website

- sign in page
- who we are
- what services we provide
- contact page

5.2.2 Register Page:

Sign up page: is page for registration in the web application to have full access to the functionality available in the web.

(Username, password, confirm password, Email, Full Name)

A screenshot of a web application's 'Register' page. The page has a dark blue background. At the top, the word 'Register' is displayed in white. Below it, there are two buttons: 'admin' with a user icon and 'Log out'. The main form consists of five white input fields with labels to their left: 'Login *', 'Pwd *', 'Confirm password *', 'Email *', and 'Full name'. At the bottom of the form, there are three buttons: an orange 'Register' button, a blue 'Back to login page' button, and a grey 'Reset' button.

5.2.3 Login Page:

Sign in page: is the process by which an individual gains access to the system by identifying and authenticating.

(Username, Password)

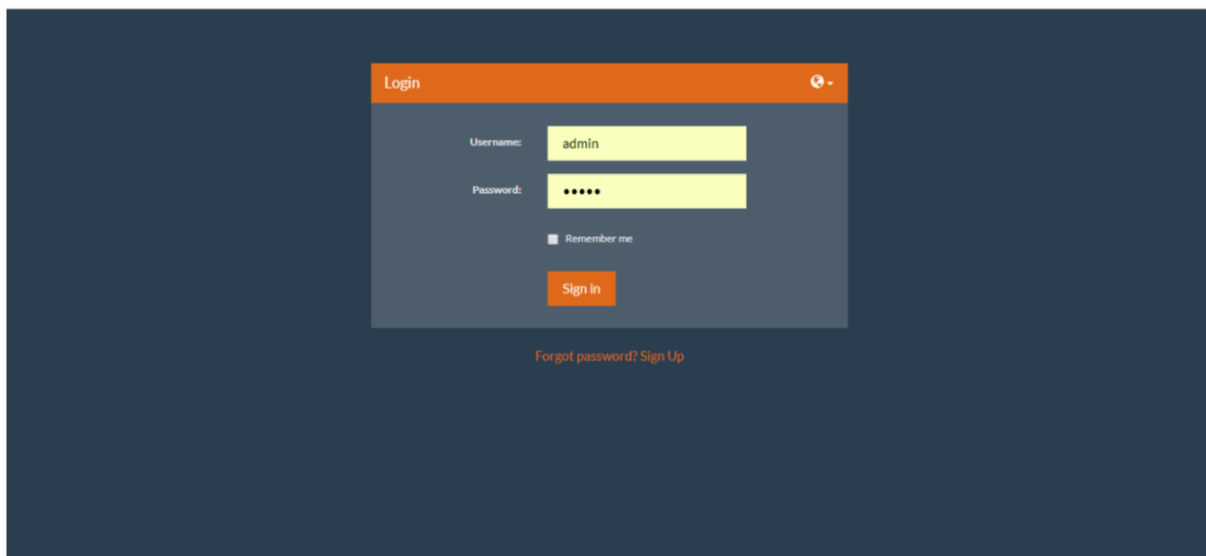
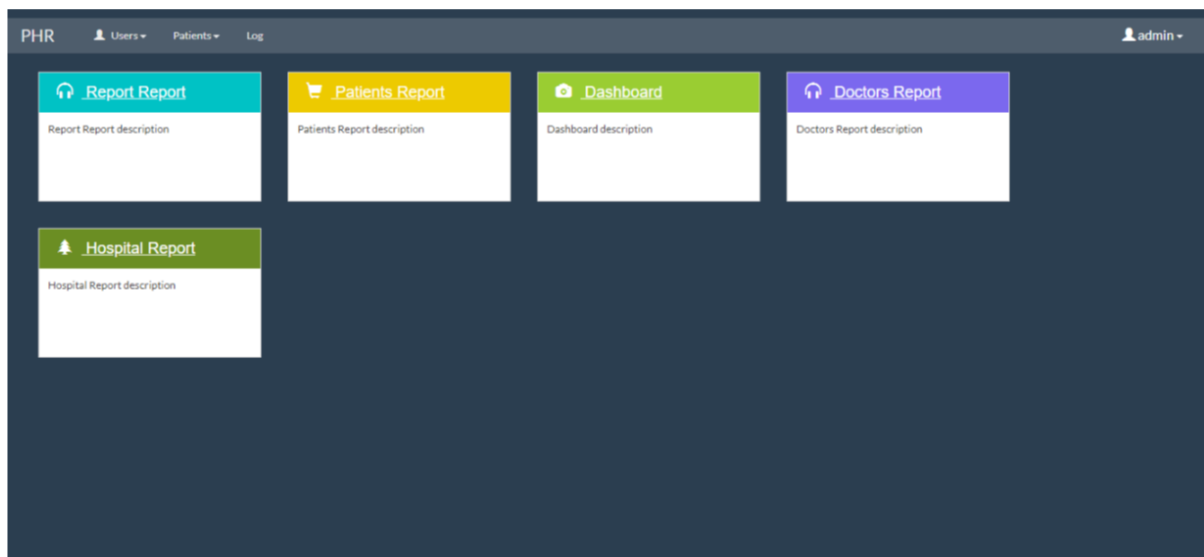
A screenshot of a web application's 'Login' page. The page has a dark blue background. A white modal box is centered on the page. The modal has an orange header with the word 'Login' and a close button. Inside the modal, there are two input fields: 'Usernames:' with the value 'admin' and 'Password:' with masked characters. Below these fields is a checkbox labeled 'Remember me'. At the bottom of the modal is an orange 'Sign in' button. Below the modal, the text 'Forgot password? Sign Up' is displayed in a small, light blue font.

Fig. 7.1 Login Page

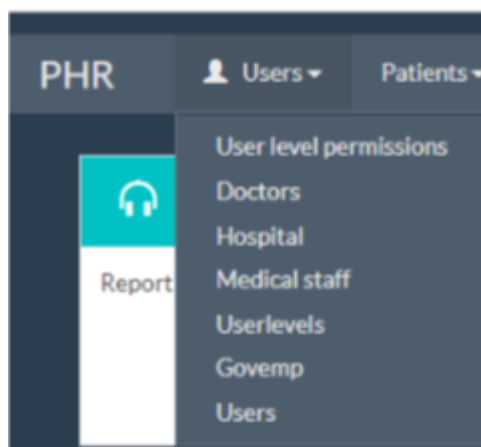
5.2.4 Admin area page:

The home page of the admin, which enables him to move between the pages of the site and search for a patient or search for a report or search for a doctor etc.



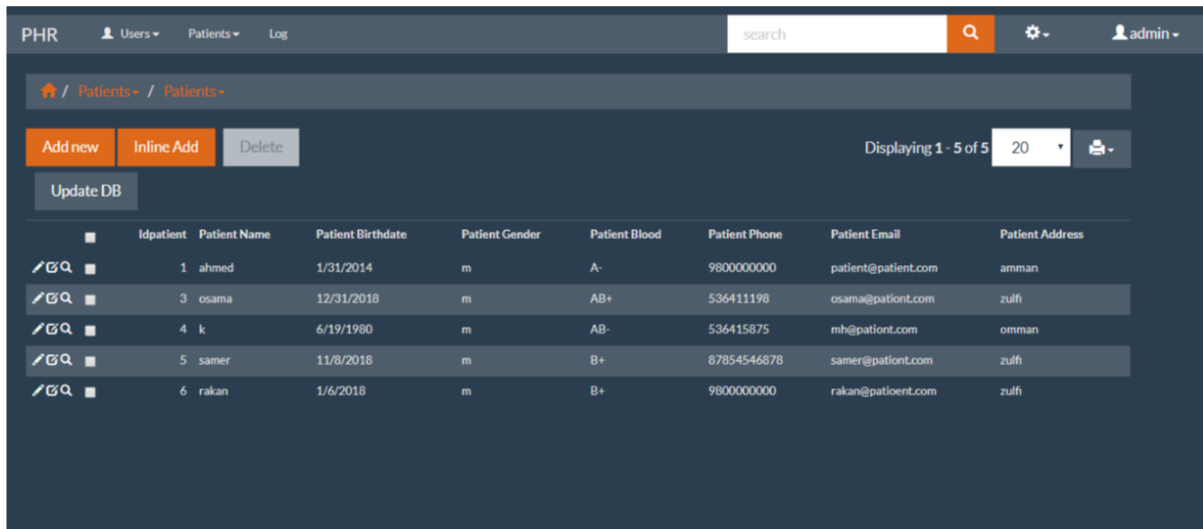
5.2.5 Users menu:

The user's checklist for browsing his data.



5.2.6 List of patients:

List of patients and some data about them such as e-mail, mobile number, blood type, address and date of birth and can modify the patient's data.

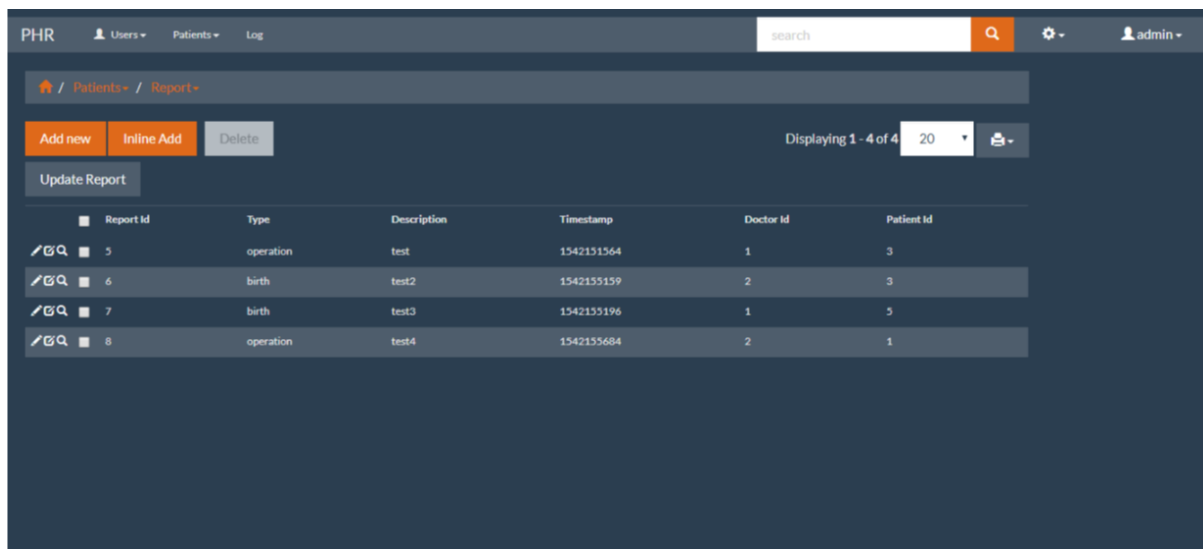


The screenshot shows the 'Patients' page in a PHR system. At the top, there's a navigation bar with 'PHR', 'Users', 'Patients', and 'Log'. A search bar is on the right. Below the navigation bar, there's a breadcrumb 'Patients / Patients'. Action buttons include 'Add new', 'Inline Add', 'Delete', and 'Update DB'. A status bar indicates 'Displaying 1 - 5 of 5' with a dropdown for '20' items per page. The main table lists 5 patients with columns for Idpatient, Patient Name, Patient Birthdate, Patient Gender, Patient Blood, Patient Phone, Patient Email, and Patient Address. Each row has edit and delete icons.

	Idpatient	Patient Name	Patient Birthdate	Patient Gender	Patient Blood	Patient Phone	Patient Email	Patient Address
	1	ahmed	1/31/2014	m	A-	9800000000	patient@patient.com	amman
	3	osama	12/31/2018	m	AB+	536411198	osama@patient.com	zulf
	4	k	6/19/1980	m	AB-	536415875	mh@patient.com	omman
	5	samer	11/8/2018	m	B+	87854546878	samer@patient.com	zulf
	6	rakan	1/6/2018	m	B+	9800000000	rakan@patient.com	zulf

5.2.7 List of Report:

List of Report and same data about patients such as patient ID and doctor ID and the description of patient and what's the type of patient.



The screenshot shows the 'Report' page in a PHR system. At the top, there's a navigation bar with 'PHR', 'Users', 'Patients', and 'Log'. A search bar is on the right. Below the navigation bar, there's a breadcrumb 'Patients / Report'. Action buttons include 'Add new', 'Inline Add', 'Delete', and 'Update Report'. A status bar indicates 'Displaying 1 - 4 of 4' with a dropdown for '20' items per page. The main table lists 4 reports with columns for Report Id, Type, Description, Timestamp, Doctor Id, and Patient Id. Each row has edit and delete icons.

	Report Id	Type	Description	Timestamp	Doctor Id	Patient Id
	5	operation	test	1542151564	1	3
	6	birth	test2	1542155159	2	3
	7	birth	test3	1542155196	1	5
	8	operation	test4	1542155684	2	1

5.2.8 Permissions:

The Permissions page is the page that allows the Admin to give the registrants permission to add, delete, modify, view or print.

	Add	Edit	Delete	List/View	Print/Export	Import	Admin mode (access to all records)
expand all	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Users (7)							
<input checked="" type="checkbox"/> Userlevelpermissions (userlevelpermissions)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Doctors (doctors)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Hospital (hospital)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Medicalstaff (medicalstaff)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Userlevels (userlevels)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Goveemp (goveemp)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Sec Users (sec_users)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Patients (2)							
<input checked="" type="checkbox"/> Patients (patients)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Report (report)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Log (log)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Unlisted tables (7)							
<input checked="" type="checkbox"/> Admin (admin)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Dashboard (Dashboard)				<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> Doctors Report (doctors Report)				<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> Hospital Report (hospital Report)				<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> Pages (pages)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Patients Report (patients Report)				<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> Report Report (report Report)				<input checked="" type="checkbox"/>			

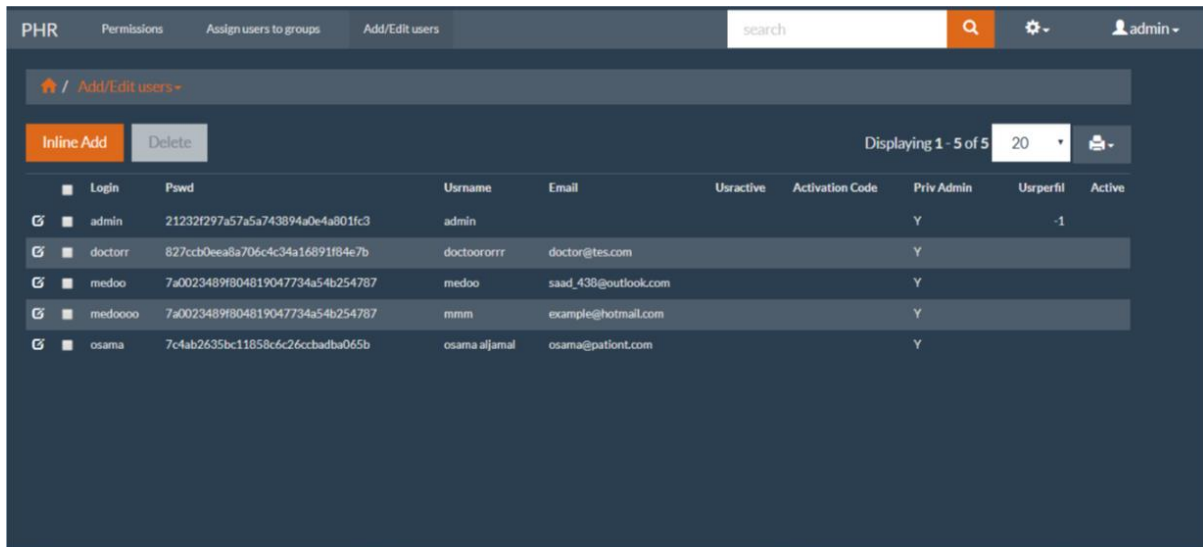
5.2.8.1 Assign users to groups:

Distribution of registrants on the system according to the type of registrar if he is a patient, doctor, hospital or Govt employee.

Username	Display name	E-mail	<Admin>	Doctors	goveemp	Hospitals	patient
admin	admin		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
doctor0	doctor0	doctor@tes.com	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
osama	osama aljamal	osama@patient.com	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.2.8.2 Add/Edit User:

Enables Admin to modify users, delete user or add user.



	Login	Pswd	Username	Email	Ustractive	Activation Code	Priv Admin	Ustrperfil	Active
<input checked="" type="checkbox"/>	admin	21232f297a57a5a743894a0e4a801fc3	admin				Y	-1	
<input checked="" type="checkbox"/>	doctorr	827ccb0eea8a706c4c34a16891f84e7b	doctoorrrr	doctor@tes.com			Y		
<input checked="" type="checkbox"/>	medoo	7a0023489f804819047734a54b254787	medoo	saad_438@outlook.com			Y		
<input checked="" type="checkbox"/>	medoooo	7a0023489f804819047734a54b254787	mmmm	example@hotmail.com			Y		
<input checked="" type="checkbox"/>	osama	7c4ab2635bc11858c6c26ccbadba065b	osama aljamal	osama@patlont.com			Y		

5.2.9 Patient:



PHR	Patients	osama
	Patients	
	Report	

5.2.10 Login Page (HMS):


This page to login and chooses type.


Select Language ▾

HOSPITAL MANAGEMENT SYSTEM

login

account type ▾

 admin



login

[forgot password?](#)

5.2.11 Admin dashboard Page:

Dashboard page Which goes to other sections of the site

admin panel | select language ▾ | account ▾

admin dashboard

doctor 2 | patient 5 | nurse 1

dashboard

department

doctor

patient

nurse

pharmacist

laboratorist, eo

accountant

monitor hospital ▾

settings ▾

profile

doctor

patient

nurse

pharmacist

laboratorist, eo

accountant

appointment

payment

blood bank

medicine

operation report

birth report

death report

bed allotment

noticeboard

settings

language

backup


calendar schedule

month | week | day

November 2018


Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1	2	3
4	5	6	7	8	9	10

noticeboard

 Chairmans Birthday

17 Jan is Chairmans bithday.

27 Jan

 Christmas Holidays

25ch will be holiday.

25 Dec

5.2.12 Doctor dashboard Page:

Dashboard page Which goes to other sections of the site

doctor dashboard

doctor panel select language Dr. khalil

patient appointment prescription bed allotment blood bank manage report

calendar schedule month week day

November 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24

noticeboard

- Christmas Holidays
25th will be holiday. 25 Dec
- Chairmans Birthday
17 Jan is Chairmans birthday. 27 Jan

5.2.13 Patient List page:

This page for display the patient lists











doctor panel select language account

manage patient

doctor 2 patient 5 nurse 1

patient list + add patient

Search: Show 10 entries

#	patient name	age	sex	blood group	birth date	options
1	ahmed	34	male	A-	2014-01-31	 
2	osama	50	male	AB+	2018-12-31	 
3	mohmmad	50	male	AB-	1980-06-19	 
4	samer	1	male	B+	2018-11-08	 
5	rakan	0	male	B+	2018-01-06	 

Showing 1 to 5 of 5 entries

First Previous 1 Next Last

5.2.14 Add new patient page:

This page for doctor can be Add new patient.

The screenshot shows a web application interface for adding a new patient. On the left is a dark teal sidebar with a 'patient' header and icons for 'manage appointment', 'manage prescription', 'bed allotment', 'view blood bank', 'manage report', and 'profile'. The main content area has a header with 'patient list' and '+ add patient'. Below this is a form with the following fields: 'name' (text input with 'khaled'), 'email' (text input with 'khaled@patient.com'), 'password' (password input with '*****'), 'address' (text input with 'zulf'), 'phone' (text input with '123456854'), 'sex' (dropdown menu with 'male'), 'birth date' (text input with '15/11/2018'), 'age' (text input with '1'), and 'blood group' (dropdown menu with 'O-'). A red 'add patient' button is at the bottom right of the form.

5.2.15 Add new report for patient:

This page enables the doctor to add a patient report

The screenshot shows a web application interface for adding a new patient report. At the top is a red header bar with 'doctor panel', 'select language', and 'account'. Below this is a sidebar with a 'manage report' header and icons for 'dashboard', 'patient', 'manage appointment', 'manage prescription', 'bed allotment', 'view blood bank', 'manage report' (highlighted), and 'profile'. The main content area has a header with 'manage report' and a sub-header with 'operation', 'birth', 'death', 'other', and '+ add report'. Below this is a form with the following fields: 'type' (dropdown menu with 'operation'), 'description' (text input with 'Congestion'), 'date' (text input with '11/22/2018'), 'doctor' (dropdown menu with 'Dr. khalil'), and 'patient' (dropdown menu with 'samir'). A red 'add report' button is at the bottom right of the form.

5.2.16 View patient reports:

To show all patients' reports at the hospital or to search for a particular patient.

#	description	date	patient	doctor	options
1	test	14 Nov,2018	osama	Dr. khalil	
2	test4	14 Nov,2018	ahmed	Dr . Khaled	
3	test5	15 Nov,2018	osama	Dr. khalil	
4	test9	15 Nov,2018	osama	Dr. khalil	

5.2.17 API Data transmission style:

5.2.17.1 Patient information:

So the information is transferred from the hospital server to a Phr server in the form of array

```
localhost/hms/api/Medvac/getpatient.php

[{"patient_id":"1","name":"ahmed","email":"patient@patient.com","password":"patient","address":"amman","phone":"9800000000","sex":"male","birth_date":"2014-01-31","age":"34","blood_group":"A-","account_opening_timestamp":"1448984171"}, {"patient_id":"3","name":"osama","email":"osama@patient.com","password":"doctor","address":"zulf","phone":"536411198","sex":"male","birth_date":"2018-12-31","age":"50","blood_group":"AB+","account_opening_timestamp":"1540852833"}, {"patient_id":"4","name":"mohammad","email":"mh@patient.com","password":"mh","address":"omman","phone":"536415875","sex":"male","birth_date":"1980-06-19","age":"50","blood_group":"AB-","account_opening_timestamp":"1542143286"}, {"patient_id":"5","name":"samer","email":"samer@patient.com","password":"samer","address":"zulf","phone":"87854546878","sex":"male","birth_date":"2018-11-08","age":"11","blood_group":"B+","account_opening_timestamp":"1542143725"}, {"patient_id":"6","name":"rakan","email":"rakan@patient.com","password":"doctor","address":"zulf","phone":"9800000000","sex":"male","birth_date":"2018-01-06","age":"0","blood_group":"B+","account_opening_timestamp":"1542268971"}]
```

5.2.17.2 Report information:

```
localhost/hms/api/Medvac/report.php

[{"report_id":"6","type":"birth","description":"test2","timestamp":"1542155159","doctorname":"Dr . Khaled","name":"osama","patient_id":"3","doctor_id":"2"}, {"report_id":"5","type":"operation","description":"test","timestamp":"1542151564","doctorname":"Dr. khalil","name":"osama","patient_id":"3","doctor_id":"1"}, {"report_id":"7","type":"birth","description":"test3","timestamp":"1542155196","doctorname":"Dr. khalil","name":"samer","patient_id":"5","doctor_id":"1"}, {"report_id":"8","type":"operation","description":"test4","timestamp":"1542155684","doctorname":"Dr . Khaled","name":"ahmed","patient_id":"1","doctor_id":"2"}, {"report_id":"9","type":"operation","description":"test5","timestamp":"1542266976","doctorname":"Dr. khalil","name":"osama","patient_id":"3","doctor_id":"1"}, {"report_id":"10","type":"operation","description":"test9","timestamp":"1542268821","doctorname":"Dr. khalil","name":"osama","patient_id":"3","doctor_id":"1"}, {"report_id":"11","type":"operation","description":"Congestion","timestamp":"1542748812","doctorname":"Dr. khalil","name":"ahmed","patient_id":"1","doctor_id":"1"}]
```

5.3 Database Tables:

Collection of information that is organized so that it can be easily accessed, managed and updated.

Data is organized into rows, columns and tables, and it is indexed to make

it easier to find relevant information in our project Personal Health Record

we have 20 Tables in PHR database and we have 26 Tables in the example of hospital data base

We are going to pass the impotent table and explain it and what the purpose from it.

This is the capture for the whole database tables.

PHR data base:

الجدول	العملية	صفوف	النوع	Collation	الحجم	الحمل الزائد
admin	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	1	MyISAM	latin1_swedish_ci	2.1 كيلوبايت	-
doctors	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	4	InnoDB	utf8_general_ci	64 كيلوبايت	-
govemp	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	1	MyISAM	latin1_swedish_ci	2.1 كيلوبايت	-
hospital	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	1	MyISAM	latin1_swedish_ci	2.1 كيلوبايت	-
log	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	0	MyISAM	latin1_swedish_ci	1 كيلوبايت	-
medicalstaff	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	1	MyISAM	latin1_swedish_ci	2.1 كيلوبايت	-
pages	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	2	InnoDB	utf8_general_ci	16 كيلوبايت	-
patients	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	6	InnoDB	utf8_general_ci	16 كيلوبايت	-
prescription	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	0	MyISAM	utf8_unicode_ci	1 كيلوبايت	-
project1_audit	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	214	InnoDB	utf8_general_ci	16 كيلوبايت	-
project1_permissionugroups	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	4	InnoDB	utf8_general_ci	16 كيلوبايت	-
project1_permissionugmembers	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	6	InnoDB	utf8_general_ci	16 كيلوبايت	-
project1_permissionugrights	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	43	InnoDB	utf8_general_ci	16 كيلوبايت	-
report	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	6	MyISAM	utf8_unicode_ci	2.4 كيلوبايت	-
sec_users	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	6	InnoDB	utf8_general_ci	16 كيلوبايت	-
speciality	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	6	InnoDB	utf8_general_ci	16 كيلوبايت	-
treatments	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	9	InnoDB	utf8_general_ci	16 كيلوبايت	-
userlevelpermissions	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	24	InnoDB	utf8_general_ci	16 كيلوبايت	-
userlevels	استعراض, إنشاء, تحديث, حذف, استيراد, تصدير	4	InnoDB	utf8_general_ci	16 كيلوبايت	-
المجموع		335	InnoDB	utf8_general_ci	252.7 كيلوبايت	0 بايت

10 جدول (جداول)

phpMyAdmin

performance_schema
phpmyadmin
phr
New
admin
doctors
govemp
hospital
log
medicalstaff
pages
patients
prescription
project1_audit
project1_permissionugroups
project1_permissionugmembers
project1_permissionugrights
report
sec_users
speciality
treatments
userlevelpermissions
userlevels
test

HMS database:

The screenshot displays the phpMyAdmin web interface for a database named 'hospital'. The top navigation bar includes various tools like 'SQL', 'Import', 'Export', and 'Search'. The main area is divided into two panes. The left pane shows a list of tables in the 'hospital' database, including 'accountant', 'admin', 'appointment', 'bed', 'bed_allotment', 'blood_bank', 'blood_donor', 'department', 'diagnosis_report', 'doctor', 'email_template', 'invoice', 'laboratorist', 'language', 'log', 'medicine', 'medicine_category', 'message', 'noticeboard', 'nurse', 'patient', 'payment', 'pharmacist', 'prescription', 'report', and 'settings'. Each table entry includes its name, character set, collation, and engine. The right pane shows the 'New' database structure, which is currently empty. The interface is in Arabic, with the top bar and right sidebar text in that language.

5.3.1 User Table:

As it is clear from its name for the preservation of user data for the site of PHR at all levels, whether it is admin or other ranks.

This table consists of thirteen columns.

#	الاسم	النوع	Collation	الخواص	خالي	إفتراضي	التعليقات	إضافي	العملية
1	login	varchar(32)	utf8_general_ci	لا	لا	لا شيء			تغيير - سقط - أكثر
2	pswd	varchar(32)	utf8_general_ci	نعم	نعم	NULL			تغيير - سقط - أكثر
3	username	varchar(64)	utf8_general_ci	نعم	نعم	NULL			تغيير - سقط - أكثر
4	email	varchar(64)	utf8_general_ci	نعم	نعم	NULL			تغيير - سقط - أكثر
5	usractive	varchar(1)	utf8_general_ci	نعم	نعم	NULL			تغيير - سقط - أكثر
6	activation_code	varchar(32)	utf8_general_ci	نعم	نعم	NULL			تغيير - سقط - أكثر
7	priv_admin	varchar(1)	utf8_general_ci	نعم	نعم	7			تغيير - سقط - أكثر
8	usrperfil	int(11)		نعم	نعم	NULL			تغيير - سقط - أكثر
9	active	int(11)		نعم	نعم	NULL			تغيير - سقط - أكثر
10	reset_token	varchar(50)	utf8_general_ci	نعم	نعم	NULL			تغيير - سقط - أكثر
11	reset_date	datetime		نعم	نعم	NULL			تغيير - سقط - أكثر
12	reset_token1	varchar(50)	utf8_general_ci	نعم	نعم	NULL			تغيير - سقط - أكثر
13	reset_date1	datetime		نعم	نعم	NULL			تغيير - سقط - أكثر

5.3.2 Hospital Tables:

The hospital schedule records and saves hospital data recorded in the system

#	الاسم	النوع	Collation	الخواص	خالي	إفتراضي	التعليقات	إضافي	العملية
1	hospital_id	int(11)		لا	لا	لا شيء		AUTO_INCREMENT	تغيير - سقط - أكثر
2	name	longtext	utf8_unicode_ci	لا	لا	لا شيء			تغيير - سقط - أكثر
3	email	longtext	utf8_unicode_ci	لا	لا	لا شيء			تغيير - سقط - أكثر
4	password	longtext	utf8_unicode_ci	لا	لا	لا شيء			تغيير - سقط - أكثر
5	address	longtext	utf8_unicode_ci	لا	لا	لا شيء			تغيير - سقط - أكثر
6	phone	longtext	utf8_unicode_ci	لا	لا	لا شيء			تغيير - سقط - أكثر
7	department_id	int(11)		لا	لا	لا شيء			تغيير - سقط - أكثر
8	profile	longtext	utf8_unicode_ci	لا	لا	لا شيء			تغيير - سقط - أكثر
9	userlevel_id	int(11)		لا	لا	لا شيء			تغيير - سقط - أكثر

hospital_id	name	email	password	address	phone	department_id	profile	userlevel_id
1	fff	h@h.com	12345	dsfds		1	edwe	3

تعديل - نسخ - حذف - تصدير

تحقق من الكل مع المجدد:

5.3.3 Patient Table:

This table saves all hospitalized patients with some information about the patient

#	الاسم	النوع	Collation	الخواص	خالي	إفتراضي	التعليقات	إضافي	العملية
1	idpatient	int(11)		لا	لا شيء			AUTO_INCREMENT	تغيير سقط أكثر
2	patient_name	varchar(150)	utf8_general_ci	لا	لا شيء				تغيير سقط أكثر
3	patient_birthdate	date		نعم	NULL				تغيير سقط أكثر
4	patient_gender	varchar(1)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
5	patient_blood	varchar(3)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
6	patient_phone	varchar(20)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
7	patient_email	varchar(100)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
8	patient_address	varchar(250)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر

patient_address	patient_email	patient_phone	patient_blood	patient_gender	patient_birthdate	patient_name	idpatient	
amman	patient@patient.com	9800000000	-A	m	2014-01-31	ahmed	1	تعديل نسخ حذف
zulf	osama@patient.com	536411198	+AB	m	2018-12-31	osama	3	تعديل نسخ حذف
omman	mh@patient.com	536415875	-AB	m	1980-06-19	k	4	تعديل نسخ حذف
zulf	samer@patient.com	87854546878	+B	m	2018-11-08	samer	5	تعديل نسخ حذف
zulf	rakan@patient.com	9800000000	+B	m	2018-01-06	rakan	6	تعديل نسخ حذف

5.3.4 Report Table:

This table saves all patient reports with some data about the patient

#	الاسم	النوع	Collation	الخواص	خالي	إفتراضي	التعليقات	إضافي	العملية
1	report_id	int(11)		لا	لا شيء			AUTO_INCREMENT	تغيير سقط أكثر
2	type	longtext	utf8_unicode_ci	لا	لا شيء		operation, birth, death		تغيير سقط أكثر
3	description	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
4	timestamp	int(11)		لا	لا شيء				تغيير سقط أكثر
5	doctor_id	int(11)		لا	لا شيء				تغيير سقط أكثر
6	patient_id	int(11)		لا	لا شيء				تغيير سقط أكثر
7	docname	varchar(100)	utf8_unicode_ci	نعم	NULL				تغيير سقط أكثر
8	pname	varchar(100)	utf8_unicode_ci	نعم	NULL				تغيير سقط أكثر

pname	docname	patient_id	doctor_id	timestamp	description	type	report_id	
samer	Dr. khalil	5	1	1542155196	test3	birth	7	تعديل نسخ حذف
osama	Dr. Khaled	3	2	1542155159	test2	birth	6	تعديل نسخ حذف
osama	Dr. khalil	3	1	1542151564	test	operation	5	تعديل نسخ حذف
ahmed	Dr. Khaled	1	2	1542155684	test4	operation	8	تعديل نسخ حذف
osama	Dr. khalil	3	1	1542266976	test5	operation	9	تعديل نسخ حذف
osama	Dr. khalil	3	1	1542268821	test9	operation	10	تعديل نسخ حذف

5.3.5 Admin Table:

#	الاسم	النوع	Collation	الخواص	خالي	إفتراضي	التعليقات	إضافي	العملية
1	admin_id	int(11)		لا	لا شيء			AUTO_INCREMENT	تغيير سقط أكثر
2	name	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
3	email	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
4	password	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
5	address	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
6	phone	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
7	userlevel_id	int(11)		لا	لا شيء				تغيير سقط أكثر
<div> userlevel_id phone address password email name admin_id </div>									
3	9800000000	Admin Address	admin	admin@admin.com	Administrator	1			
<div> تحقق من الكل مع المحدد: تعديل نسخ حذف تصدير </div>									

5.3.6 Doctor Table:

#	الاسم	النوع	Collation	الخواص	خالي	إفتراضي	التعليقات	إضافي	العملية
1	iddoctor	int(11)		لا	لا شيء			AUTO_INCREMENT	تغيير سقط أكثر
2	namedoctor	varchar(60)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
3	day1	varchar(10)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
4	day2	varchar(10)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
5	day3	varchar(10)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
6	day4	varchar(10)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
7	day5	varchar(10)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
8	speciality_idspeciality	int(11)		لا	لا شيء				تغيير سقط أكثر
9	node_order	int(11)		نعم	NULL				تغيير سقط أكثر
10	treatments_idtreatments	int(11)		نعم	NULL				تغيير سقط أكثر
11	login	varchar(32)	utf8_general_ci	نعم	NULL				تغيير سقط أكثر
login	treatments_idtreatments	node_order	speciality_idspeciality	day5	day4	day3	day2	day1	namedoctor
NULL	1	100	3	Friday	Thursday	Wednesday	Tuesday	Monday	Megan
NULL	1	101	2	Friday	Thursday	Wednesday	Tuesday	Monday	Mary
NULL	1	102	5	Friday	Thursday	Wednesday	Tuesday	Monday	Joane
NULL	2	103	1	Friday	Thursday	Wednesday	Tuesday	Monday	Paul

5.3.7 Govt employ Table:

#	الاسم	النوع	Collation	الخواص	خالي	إفتراضي	التعليقات	إضافي	العملية
1	emp_id	int(11)		لا	لا شيء			AUTO_INCREMENT	تغيير سقط أكثر
2	name	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
3	email	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
4	password	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
5	address	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
6	phone	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
7	userlevel_id	int(11)		لا	لا شيء				تغيير سقط أكثر

userlevel_id	phone	address	password	email	name	emp_id	خيارات
3	4444444444	govemp	govemp	govemp@mail.com	govemp	1	تعديل نسخ حذف

تحقق من الكل مع المحدد: تعديل نسخ حذف تصدير

5.3.8 Medical staff Table:

#	الاسم	النوع	Collation	الخواص	خالي	إفتراضي	التعليقات	إضافي	العملية
1	staff_id	int(11)		لا	لا شيء			AUTO_INCREMENT	تغيير سقط أكثر
2	name	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
3	email	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
4	password	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
5	address	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
6	phone	longtext	utf8_unicode_ci	لا	لا شيء				تغيير سقط أكثر
7	userlevel_id	int(11)		لا	لا شيء				تغيير سقط أكثر

userlevel_id	phone	address	password	email	name	staff_id	خيارات
2	536452545	dmam	adnan	adnan@staff.com	adnan	1	تعديل نسخ حذف

تحقق من الكل مع المحدد: تعديل نسخ حذف تصدير

5.4 Coding source:

5.4.1 Read JSON file :

This code calls your information from the server's code is for fetching information from the second server

```
$json = file_get_contents('http://localhost/hms/hms/api/Medvac/getpationt.php');

//Decode JSON

$data = json_decode($json,true);
foreach ($data as $patient) {
    //echo($patient['blood_group']);

    $patient_id = $patient['patient_id'];
    $name = $patient['name'];
    $email = $patient['email'];
    //$password = $user['password'];
    $address = $patient['address'];
    $phone = $patient['phone'];
    $sex = $patient['sex'];
    $birth_date = $patient['birth_date'];
        $birth_date=date($birth_date);

    //$age = $patient['age'];

    $blood_group = $patient['blood_group'];

    //$account_opening_timestamp = $user['account_opening_timestamp'];

    preparing statement for insert query

    $st = mysqli_prepare($conn, 'INSERT INTO patients(idpatient,
patient_name,patient_birthdate,patient_gender, patient_blood, patient_phone, patient_email,
patient_address) VALUES(?,?,?,?,?,?,?,?)');

    bind variables to insert query params

    mysqli_stmt_bind_param($st, 'sssssss', $patient_id, $name,$birth_date, $sex, $blood_group,
$phone,$email,$address);
```

5.4.2 Read JSON file report:

This code calls your information from the servers code is for fetching information from the second server

```
$json = file_get_contents('http://localhost/hms/hms/api/Medvac/report.php');  
$data = json_decode($json,true);  
foreach ($data as $report) {  
    //echo($patient['blood_group']);  
  
    $name = $report['name'];  
    $report_id = $report['report_id'];  
    $type = $report['type'];  
    //$password = $user['password'];  
    $description = $report['description'];  
    $timestamp = $report['timestamp'];  
    $doctorname = $report['doctorname'];  
    $patient_id = $report['patient_id'];  
    $doctor_id = $report['doctor_id'];  
  
    $st = mysqli_prepare($conn, 'INSERT INTO report(report_id, type, description, timestamp,  
doctor_id, patient_id,docname,pname) VALUES(?,?,?,?,?,?,?,?)');  
  
    mysqli_stmt_bind_param($st, 'sssssss', $report_id, $type,$description,  
$timestamp,$doctor_id,$patient_id, $doctorname, $name);
```

5.4.3 API codes:

5.4.3.1 Report API code:

```
<?php

    error_reporting(0);

    ini_set('display_errors', 0);

    $objConnect = mysql_connect("localhost","root","");

    $objDB = mysql_select_db("hospital");

    $patient_id=$_REQUEST['patientid'];

    $strSQL = "SELECT `report_id`, `type`, `description`, `timestamp`,doctor.name as
    doctorname,patient.name,patient.patient_id,doctor.doctor_id FROM report join patient on
    patient.patient_id=report.patient_id join doctor on doctor.doctor_id=report.doctor_id";

    if($patient_id!=null){

        $strSQL = "SELECT `report_id`, `type`, `description`,
        `timestamp`,doctor.name,patient.name,patient.patient_id,doctor.doctor_id FROM report join
        patient on patient.patient_id=report.patient_id join doctor on doctor.doctor_id=report.doctor_id

        WHERE patient_id=$patient_id";
    }

    $objQuery = mysql_query($strSQL);

    $intNumField = mysql_num_fields($objQuery);

    $resultArray = array();

    while($objResult = mysql_fetch_array($objQuery))
    {

        $arrCol = array();

        for($i=0;$i<$intNumField;$i++)
        {

            $arrCol[mysql_field_name($objQuery,$i)] = $objResult[$i];

        }

        array_push($resultArray,$arrCol);

    }

    mysql_close($objConnect);

    echo json_encode($resultArray);
```

5.4.3.2 *get Patient API code:*

```
<?php

    error_reporting(0);

ini_set('display_errors', 0);

$objConnect = mysql_connect("localhost","root","");

    $objDB = mysql_select_db("hospital");

$patient_id=$_REQUEST['patientid'];

    $strSQL = "SELECT * FROM patient ";

if($patient_id!=null){

    $strSQL = "SELECT * FROM patient WHERE patient_id=$patient_id";

}

    $objQuery = mysql_query($strSQL);

    $intNumField = mysql_num_fields($objQuery);

    $resultArray = array();

    while($objResult = mysql_fetch_array($objQuery))

    {

        $arrCol = array();

        for($i=0;$i<$intNumField;$i++)

        {

            $arrCol[mysql_field_name($objQuery,$i)] = $objResult[$i];

        }

        array_push($resultArray,$arrCol);

    }

    mysql_close($objConnect);

    echo json_encode($resultArray);

?>
```

Chapter 6

6.1 Results and discussion and Conclusions:

6.1.1 Results:

The result is that the Web site is able to collect, coordinate and display all patient data in the registered hospital systems for those who are entitled to see it. This facilitates the patient and the doctors to know the patient's health status

6.1.2 Discussion:

During two semesters we have regular meeting with my supervisor Dr.Yousef Qawqzeh , through that meeting we discuss the developments that took place and the amendments about graduation project which is Personal Health record.

We are going to take a brief review about what discussed and learned from the graduation project through the two semesters:

Project one:

- ✓ discussed similar ideas from sites and applications.
- ✓ discussed Feasibility study and statistical.
- ✓ We discussed the location service requirements and the data transfer method.
- ✓ discussed Use UML to analyse the system.
- ✓ discussed the design the system.

Project two:

- ✓ discussed the tools and platform we are going to work on during creating the web app.
- ✓ Discussed why chose these tools and platform.
- ✓ Discussed to set a plan to distribute the work across the whole semester.
- ✓ Discussed the template design and its functionality.
- ✓ Discussed adjusting on the template design.
- ✓ Discussed the database issues.
- ✓ Discussed programming the system and then test it.

6.1.3 Conclusions:

The proposed system is a website called “Personal Health record”, the project is based on covering the gap between the patient or doctor and reports Help the patient and medical staff know patient reports and patient information This project starts by reviewing the literature on similar ideas from sites and studying feasibility study and statistical.

this has been done by use Unified Modelling Language (UML), in order to analyze the system requirement. The system has been implemented by Php tools After having the project done we have learned to perform a complete literature Review perform a complete structural analysis, and perform the design of all structural elements (UML).

The future work of this project is to encrypt the patient data and development of the website interfaces and increase the number of information about the patient.

6.2 References:

- Dr. Yousef Qawqzeh as supervisor
- https://www.slideshare.net/kelemam/the-adoption-of-personal-health-records-by-consumers?qid=aa80253e-f11e-4ace-aa22-e19084ac1230&v=&b=&from_search=4
- http://www.myphr.com/tools/about_us.aspx
- [http://www.ahima.org/?_utma=56204215.2002326212.1520101001.1524357408.1524377062.5&_utmb=56204215.1.10.1524377062&_utmc=56204215&_utmx=-&_utmz=56204215.1524353190.3.2.utmcsr=google|utmccn=\(organic\)|utmcmd=organic|utmctr=\(not%20provided\)&_utmv=-&_utmk=96380440](http://www.ahima.org/?_utma=56204215.2002326212.1520101001.1524357408.1524377062.5&_utmb=56204215.1.10.1524377062&_utmc=56204215&_utmx=-&_utmz=56204215.1524353190.3.2.utmcsr=google|utmccn=(organic)|utmcmd=organic|utmctr=(not%20provided)&_utmv=-&_utmk=96380440)
- Awareness and Willingness to Use Personal Health Record Systems in Saudi Arabia
Mafawez Alharbi , Yousef K. Qawqzeh .
- <https://www.wikipedia.org/>