

AN-NAJAH NATIONAL UNIVERSITY

SOFTWARE ENGINEERING

REPORT

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## **website of hope makers for cancer patient**

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## **Abstract**

One of the most important things in our life is to touch the Marginalized groups of people , this is the goal of humanity being in the world , and because of that we choose our idea of our web project which talk about cancer and cancer patients , we try to let the arab world know about cancer and statistics of cancer patients in Palestine. We also try to make it possible and easy for patients and doctors to communicate with each others , and let the medical staff do the required action at the required time.

## **System users**

Patients

Medical staff

Normal people (website visitors).

Database Controller

# Chapter 1

## Website Demo

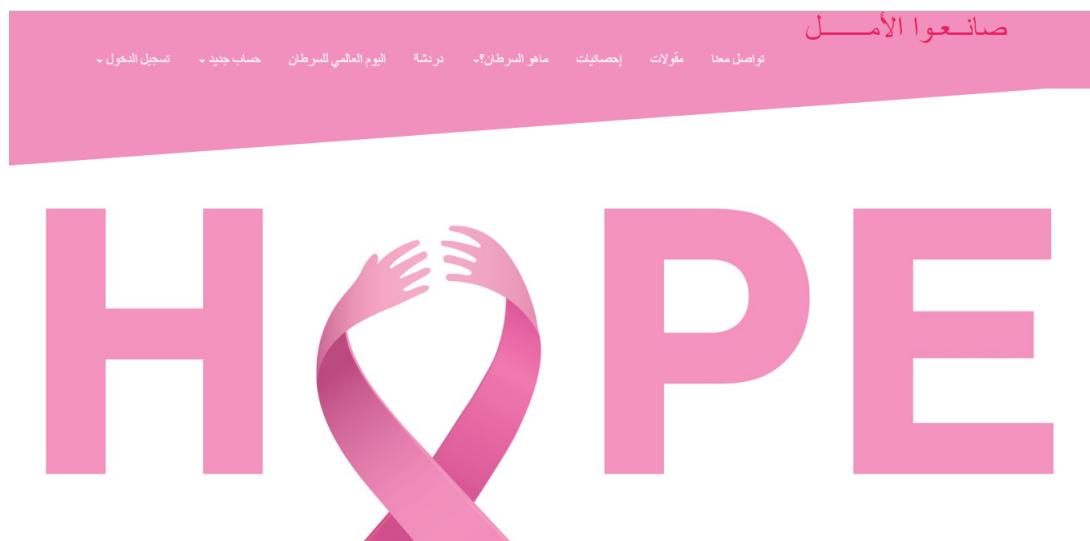


Figure 1.1: Home Page



Figure 1.2: About website

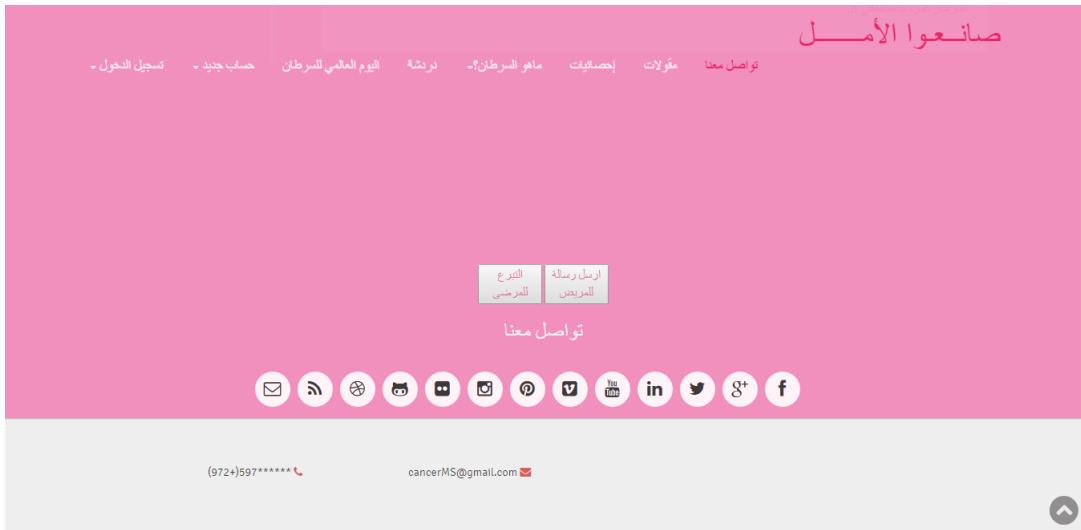


Figure 1.3: Communication with us



Figure 1.4: some says about cancer

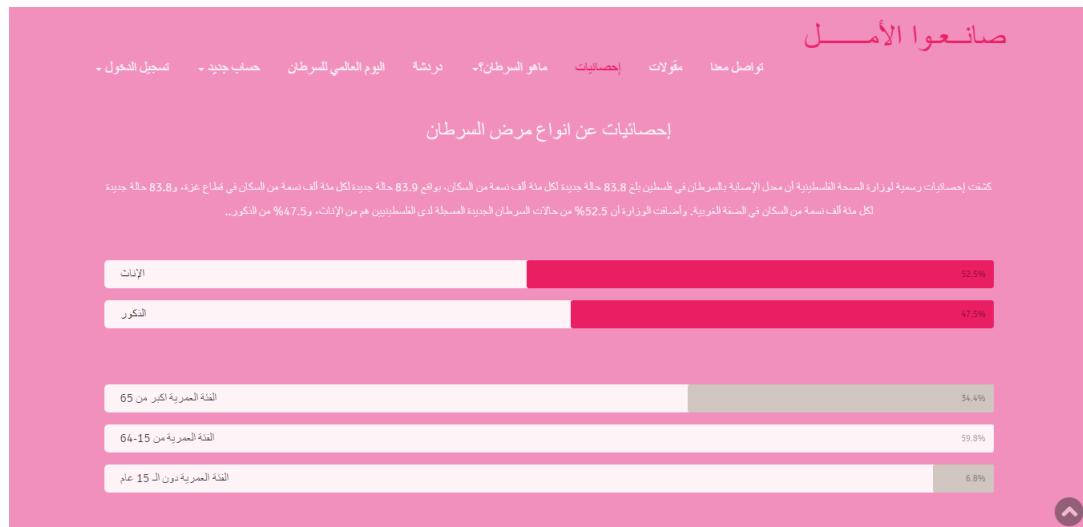


Figure 1.5: Statistics according to the types of cancer

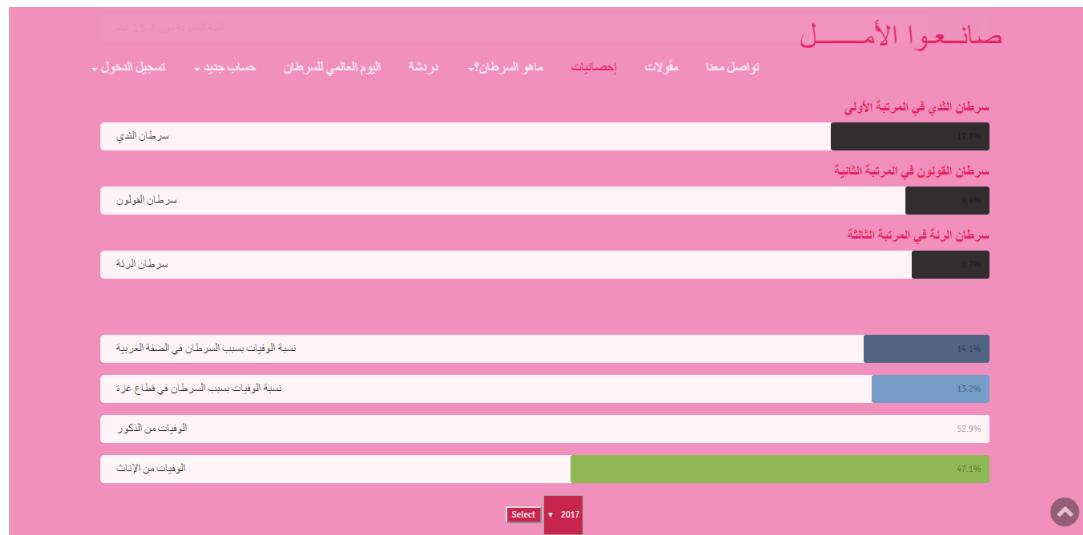


Figure 1.6: Cancer Statistics



Figure 1.7: Types and causes of cancer

# طرق الوقاية من مرض السرطان

كيف تحمي نفسك وعائلتك من الإصابة بالسرطان !!

## الإقلاع عن التدخين اجعل بيئتك بيئة بلا تدخين

حيث إنّ تدخين سيجارة واحدة يزيد من فرصة الشخص للإصابة بها، وخاصة سرطان الرئة، فعند ترك التدخين والابتعاد عنه سوف ينخفض من فرص انتشاره هذه الحالياً في الجسم وتقلّبه، كما يغير التدخين السلي خظيرًا جدًا على حياة الأشخاص الذين يستنشقون رائحة الدخان، ومن الممكن إصابة بالعديد من السرطانات، لذا ينبعي الابتعاد عن



Figure 1.8: Ways to prevent cancer

## الحد من شرب الكحول قلل كميات تناول الكحول، أو يفضل عدم تناوله من الأساس

قد يعرض الجسم للإصابة بالعديد من الأمراض ومنها السرطان، تناول الكحول يزيد من فرص الإصابة بالسرطان، وخاصة سرطان الكبد، لذا ينبعي الإقلاع عنه بشكل نهائي.



## الحرص على إجراء فحوصات الطبية الشخص نفسه للتأكد من خلوه من السرطان

والهدف منها الكشف المبكر عن وجود أي خلايا غريبة بالجسم، والعمل على معالجتها منذ البداية، فما أن يشتبه السرطان في الجسم، ويصعب علاجه، وتحتاج تلك الفحوصات



Figure 1.9: Ways to prevent cancer

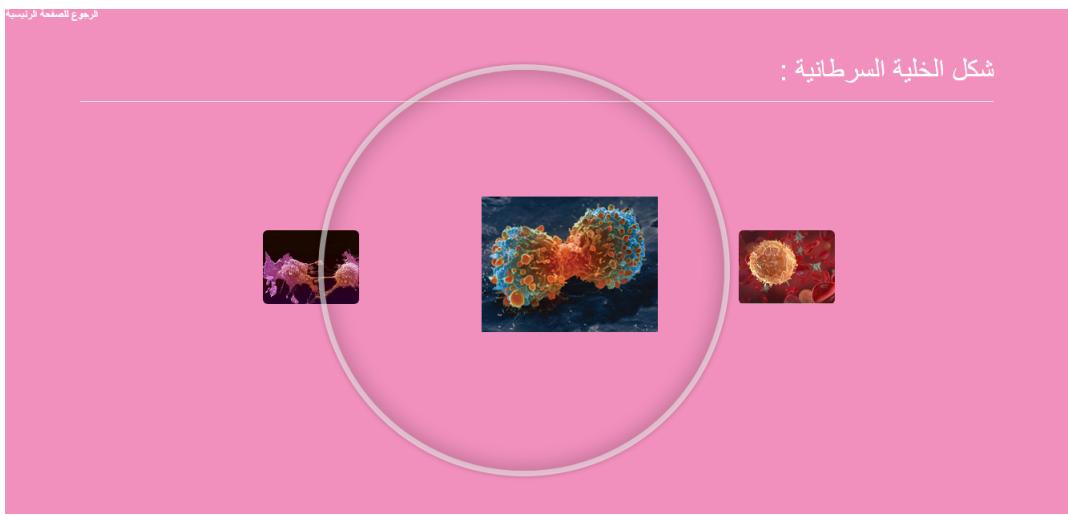


Figure 1.10: Cancer cell form



Figure 1.11: Definition of Cancer



Figure 1.12: Breast cancer

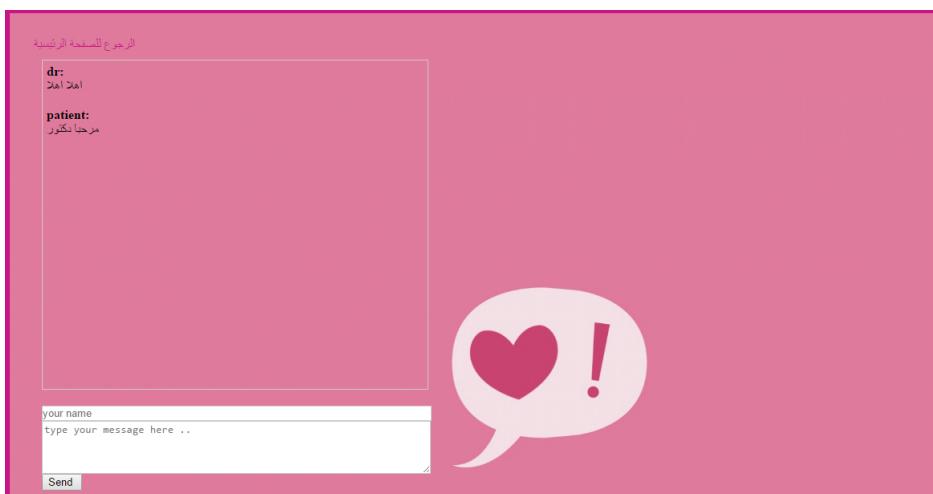


Figure 1.13: private chat for doctor and patient

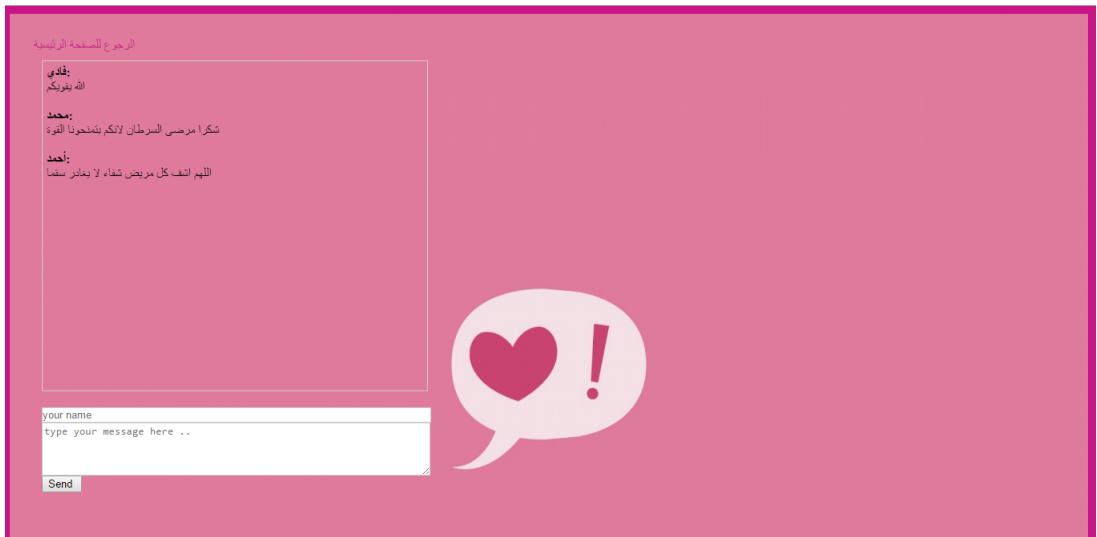


Figure 1.14: chat for everyone



Figure 1.15: Send Message for patient

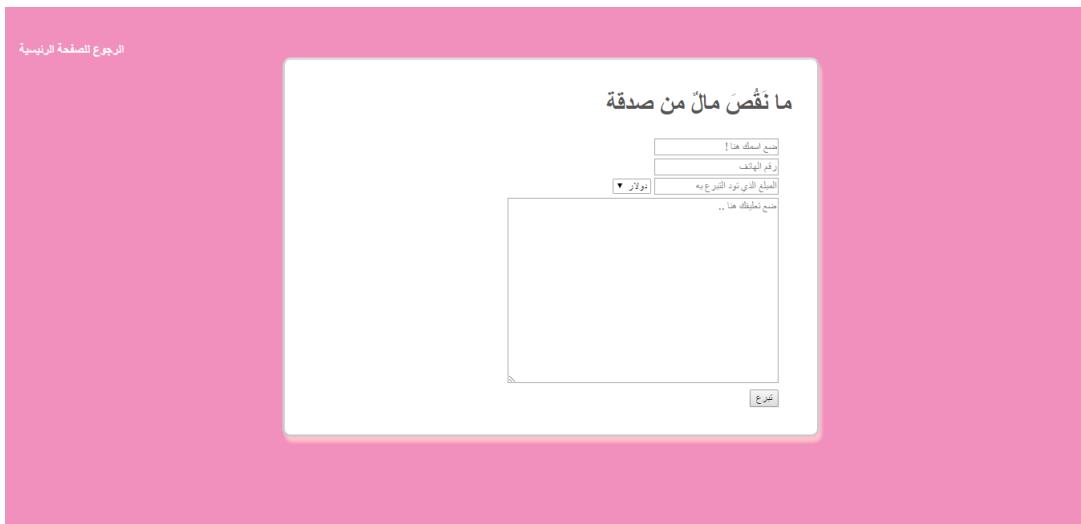


Figure 1.16: Donate

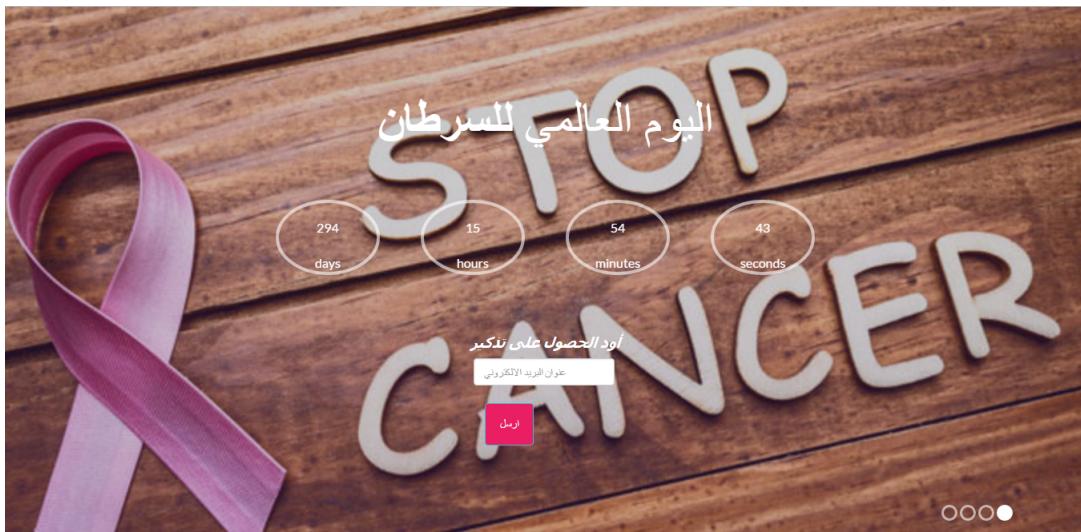


Figure 1.17: World Cancer Day

معلومات التسجيل للمريض

الإسم الرباعي *	full name
اسم المستخدم *	username
كلمة المرور *	password
تأكيد كلمة المرور *	confirm your password
رقم الملف *	file number
رقم الهاتف *	Phone
عنوان البريد الإلكتروني *	email address
الجنس *	الجنس ذكر
العنوان *	address
تحذّث عن نفسك قليلاً *	
قل شيئاً	

Figure 1.18: New account for patient

مراجع شخصي

بيانات المريض

Name: *	Full Name
ID Number: *	ID number
Email: *	Email
Password: *	password
Confirm Password: *	(confirm password)
Gender: *	الجنس أنثى
Work:	you job
Say Sth About you:	
Mobile No. :*	

Figure 1.19: New account for medical staff



Figure 1.20: Login page

This screenshot displays a doctor's profile page. On the left, there is a placeholder for a profile picture showing a female doctor with a stethoscope. To the right, the name "sara" is displayed in bold black text, followed by "الإسم" (Name). Below the name are two lines of smaller text: "رقم الملف/الرقم التعريفي: 114" and "رقم الجوال/العمل: dr". There are five small circular icons below these lines, each containing a different social media or communication symbol. Further down, there are two white rectangular boxes. The left box is titled "ملاحظات يومية:" (Daily Notes) and contains a large empty text area with the placeholder text "مليئاً لا شيء". The right box is titled "اقتباس رانع:" (Inspiring Quotation) and contains a quote in Arabic: "إن التقوى المشهود لها ليست مسيرة دروبهن ولا عصابة متشتتة ولا زاوية ملتحدة إنها علم و عمل ودين". At the very bottom of the page, there are two small navigation links: "إغلاق" (Close) and "تعديل" (Edit).

Figure 1.21: Doctor 's Profile



Figure 1.22: Doctor 's Profile

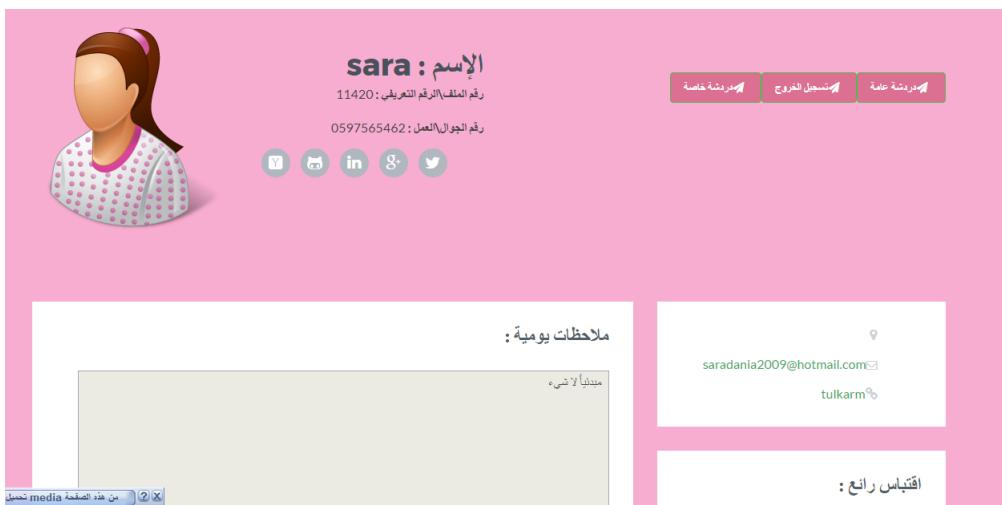


Figure 1.23: patient's Profile



Figure 1.24: Restore password



Figure 1.25: Restore password

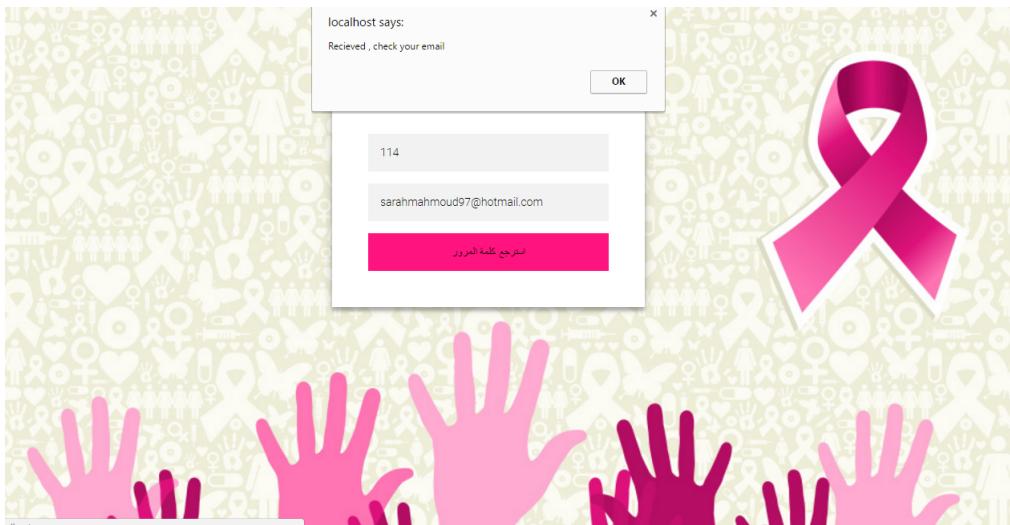


Figure 1.26: Restore password



Figure 1.27: Restore password

## **Chapter 2**

### **Introduction**

In our life , we may met a cancer patient , either young or old , or at least all of us hear about one of these militants , and surely we saw how much it is difficult for them to live normally , because cancer is one of the most dangerous diseases in the life , in some cases and sometimes , cancer patients can't stand up and go to see the doctors in hospital , so , it's our responsibility to keep them safe and relax as we can , because of that , out idea began and we decided to create a we project to let the doctors and patients communicate from their own positions , so that the doctor can tell the patient when he must come to check his status and his health , also to tell him the meetings date for chemotherapy and other things . Another reason that we take in mind is that in western world , there are many websites that talk about cancer and cancer patients , but in arab world , it's rare to find that websites , so it's also our responsibility to increase people's Knowledge ratio about cancer and it's statistics.

## **Chapter 3**

# **Functional Requirements**

- Normal people (visitors of our project) can send an email to patients or doctors .
- Any visitor for our website (either normal people or medical staff themselves) can donate for the patients to help their parents do all possible ways until the patient recover his good health.
- The doctor can create account in our website as a doctor , and patient can do the same but as a patient .
- Statistics of the number of cancer patients every year .
- The system users can communicate and talk to each others using the public chat , and the messages stored in database to let all chat users see what others say.
- All the website users can access the public pages , and know many informations about cancer and the statistics of cancer patients' statistics.
- There are many possible ways to let the website visitors keep in touch with the system controller .
- The controller should control the whole activities in the website.

## **Chapter 4**

# **Non-Functional Requirements**

- Security

the private data of the doctors and patients can't be seen by normal visitors , the only one who can see the information is it's owner , also no one can enter the private chat between doctors and patients , the accessible pages are only the public pages which talk about the disease , and also include public chat , donation page and the page of sending a message.

- Safety the messages sent by the normal user goes to the system email , in order to keep the patients safe and not break them.

# **Chapter 5**

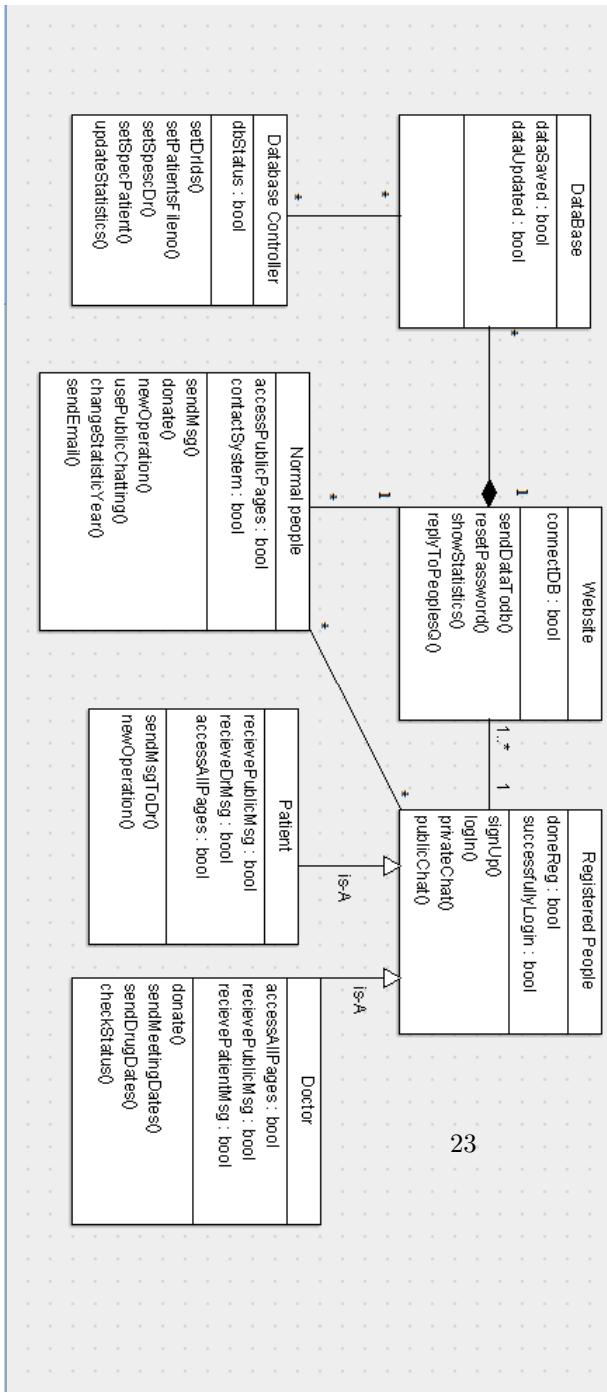
## **System Detailed Requirements**

- Statistics of Cancer patients in palestine , every year , the number of cancer patients changed , as number of dead people because of this killer is changed too , so we were very careful to show the visitors of our website that ratios and let them know how danger does this disease make.
- Normal people (visitors of our project) can send an email to patients or doctors , but in this case , the email sent to the system email and the controller choose the suitable ones to let the patients and doctors see , so that any impolite or unimportant messages didn't send directly to patients or doctors, to keep the patient's psychology safe and unbreakable.
- The doctor can create account in our website as a doctor , and patient can do the same but as a patient,after that they can login into their profiles , the profile of each doctor and patient is accessed by them only , no one can open them and see the private data in them , also there is a private chat between doctors and patients only , no one can open this chat and see what they are talking about , doctor can communicate with patient using emails because the doctor's profile consists of all patients' emails or by using the private chat.

# Chapter 6

## Diagrams

### 6.1 Class Diagram for our system



## 6.2 Usecase Diagram for our system

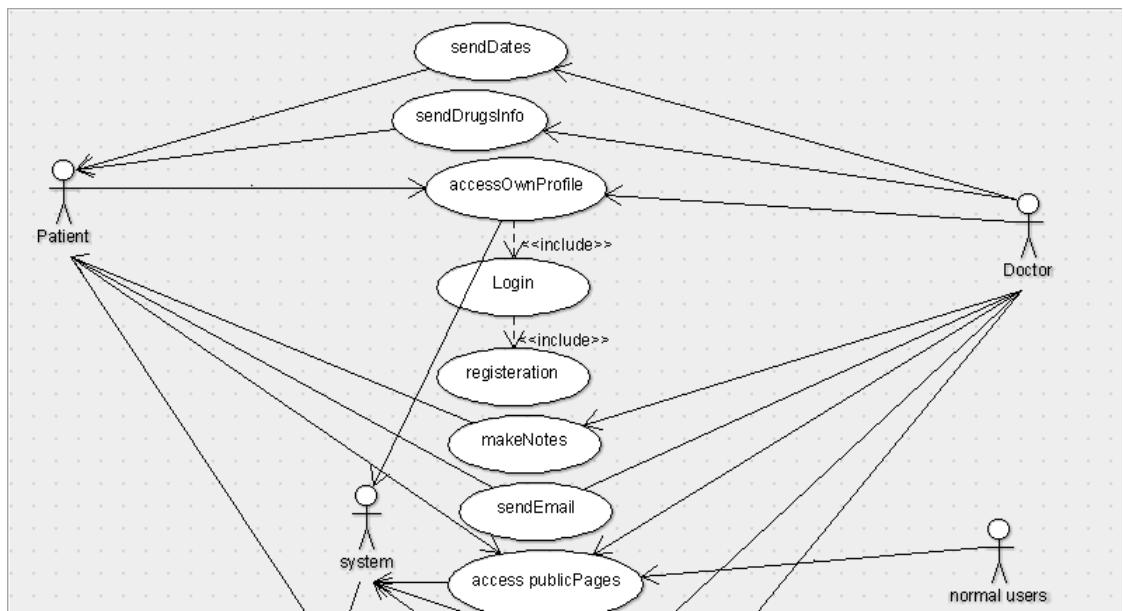
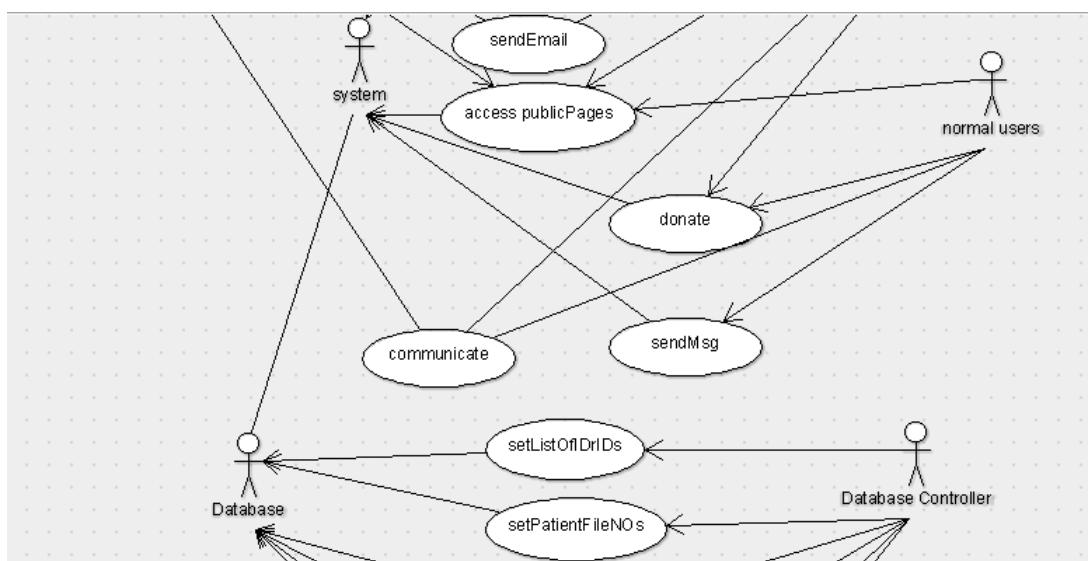
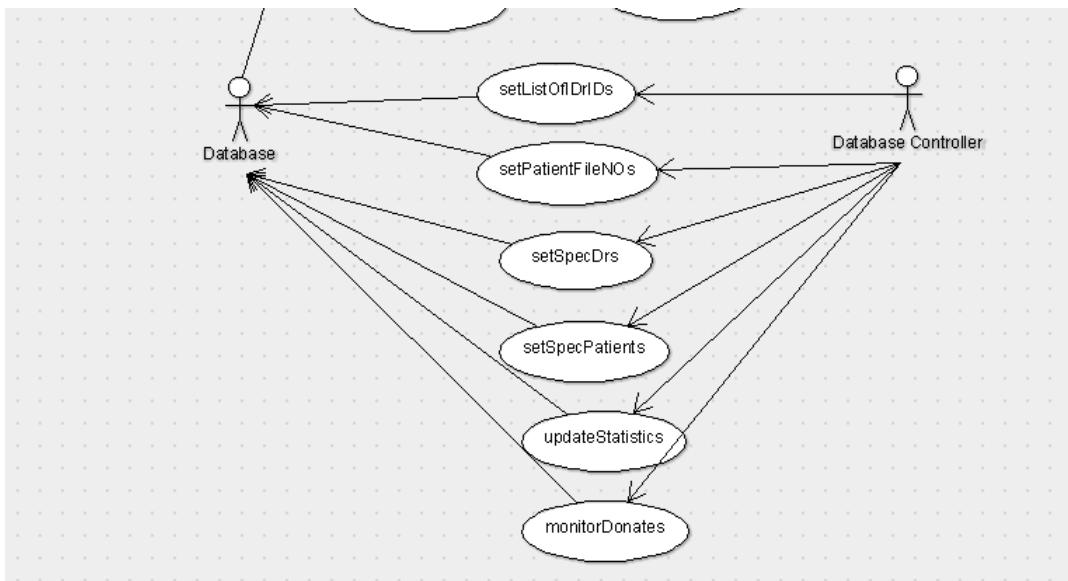


Figure 6.2: usecase Diagram for our system





### 6.3 Sequence1 Diagram

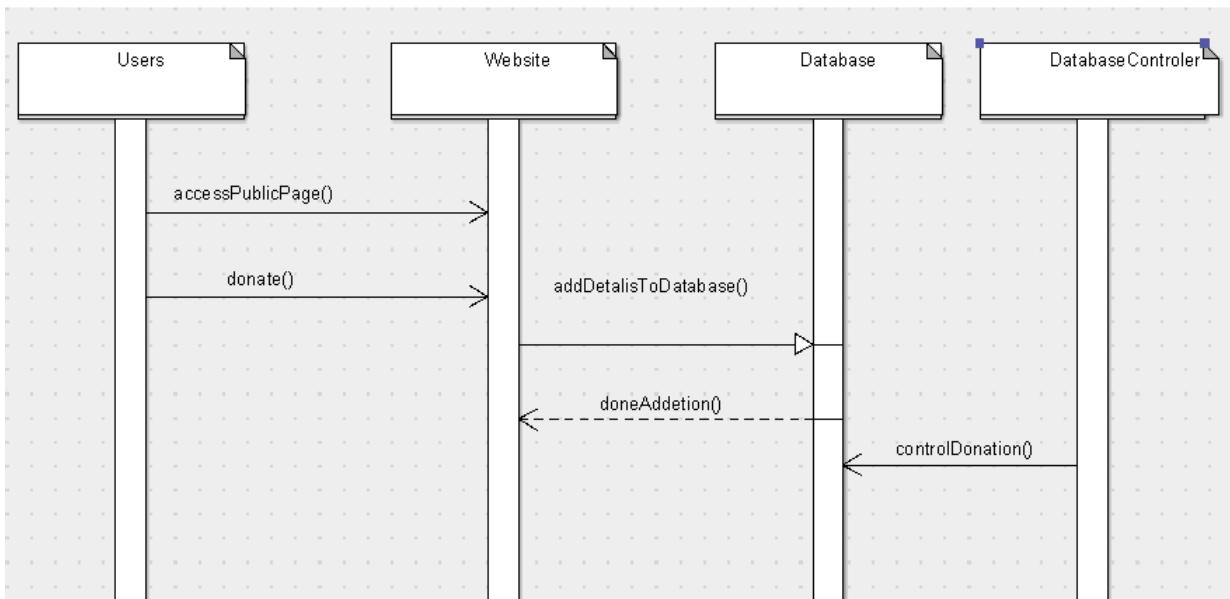


Figure 6.3: sequence Diagram for donation

## 6.4 Sequence2 Diagram

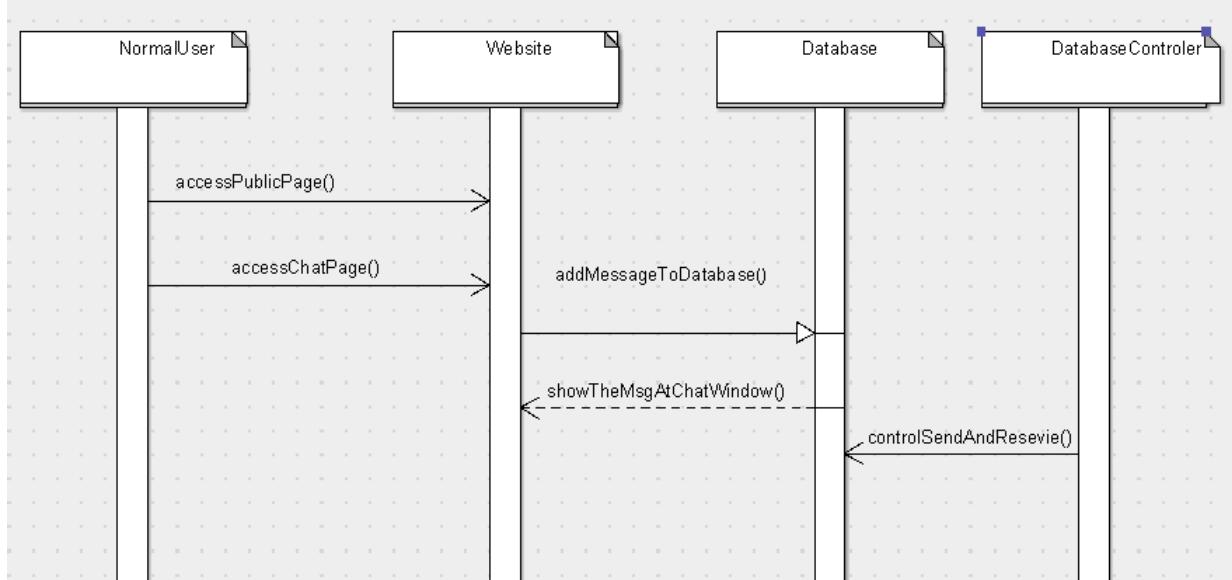


Figure 6.4: sequence Diagram for chating

## 6.5 Sequence3 Diagram

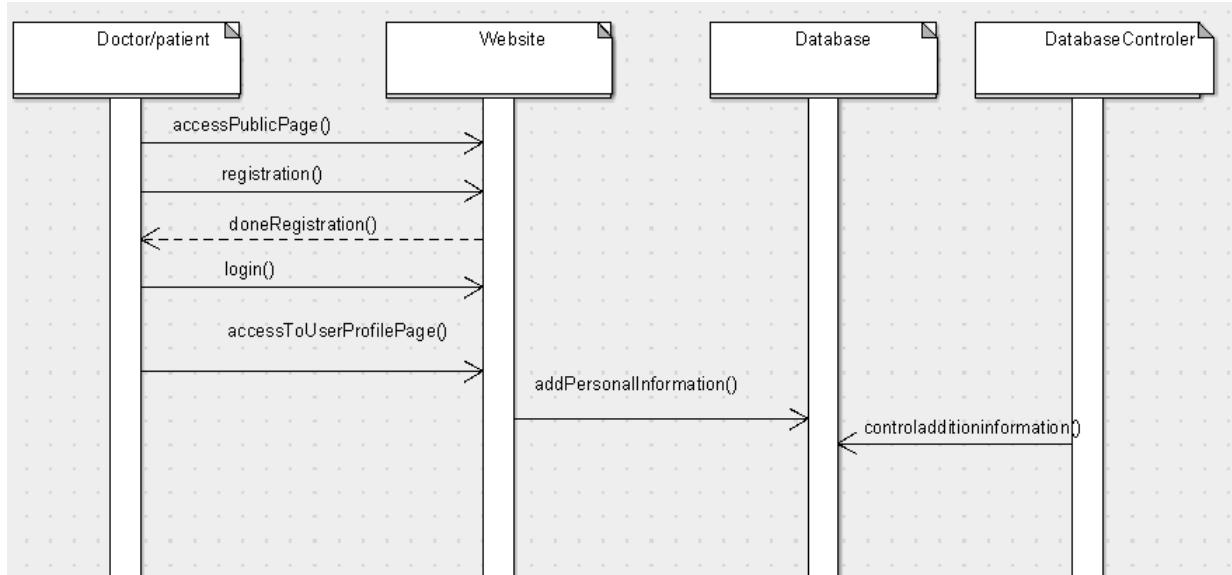


Figure 6.5: sequence Diagram for userProfile

# Chapter 7

# Project Management

We have done this project during this chapter as shown in the table :

Task Name	Duration	Start	Finish
Visit the hospital	2 days	Wed 3/15/17	Thu 3/16/17
Functional Requirements gathering	3 days	Wed 3/15/17	Fri 3/17/17
Functional Requirements studying	2 days	Fri 3/17/17	Mon 3/20/17
Design use case diagram	1 day	Tue 3/21/17	Tue 3/21/17
Design class Diagram	1 day	Wed 3/22/17	Wed 3/22/17
Design Sequence Diagram	1 day	Thu 3/23/17	Thu 3/23/17
Finish the first version of our report	2 days	Fri 3/24/17	Sun 3/26/17
Design HTML/CSS/JS pages(whole design)	7 days	Sat 3/18/17	Mon 3/27/17
break for 2nd exams	8 days	Thu 3/30/17	Mon 4/10/17
start programming the dynamic pages using php and mySQL	1 day	Sun 3/12/17	Sun 3/12/17

Tasks Over Time Distribution

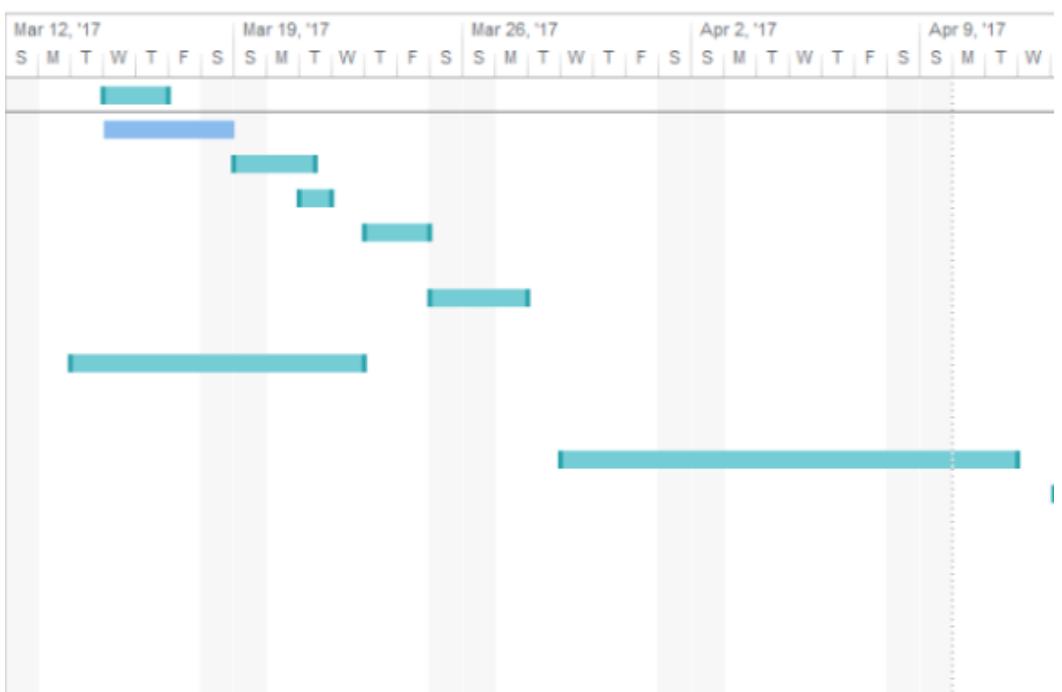
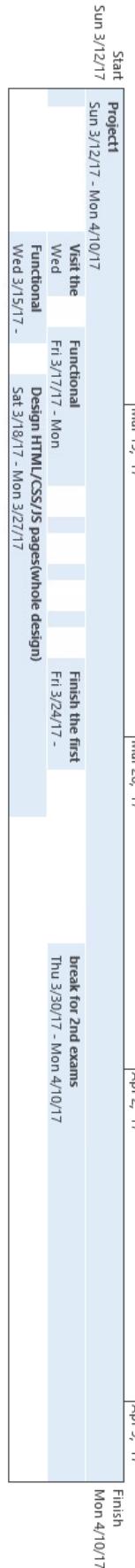


Figure 7.1: project - time bar



29

Figure 7.2: Tasks Over Period

# Chapter 8

# Development Tools

Here we will introduce the developing tools that we will use in design, implement, test the website.

- Designing tools:
  - ArgoUML
- Microsoft Project 2013.
- Database :
  - MYSQL
  - phpMyadmin
- Web Developing: Programming languages:
  - HTML5
  - CSS
  - JAVASCRIPT
  - PHP
  - JQuery
  - BOOTSTRAP
  - Ajax
- Server:
  - Xampp(Local Server).

## Chapter 9

# Client - Server Architecture

Client-server architecture (client/server) is a network architecture in which each computer or process on the network is either a client or a server. Servers are powerful computers or processes dedicated to managing disk drives (file servers), printers (print servers), or network traffic (network servers). Clients are PCs or workstations on which users run applications. Clients rely on servers for resources, such as files, devices, and even processing power. Another type of network architecture is known as a peer-to-peer architecture because each node has equivalent responsibilities. Both client/server and peer-to-peer architectures are widely used, and each has unique advantages and disadvantages. Client/server architecture is a producer-consumer computing architecture where the server acts as the producer and the client as a consumer. The server houses and provides high-end, computing-intensive services to the client on demand. These services can include applications access, storage, file sharing, printer access and/or direct access to the server's raw computing power.

Client/server architecture works when the client computer sends a resource or process request to the server over the network connection, which is then processed and delivered to the client. A server computer can manage several clients simultaneously, whereas one client can be connected to several servers at a time, each providing a different set of services. In its simplest form, the Internet is also based on client/server architecture where the Web server serves many simultaneous users with Web page and or website data.

Client/server architecture is a computing model in which the server hosts, delivers and manages most of the resources and services to be consumed by the client. This type of architecture has one or more client computers connected to a central server over a network or Internet connection. This system shares computing resources.

Client/server architecture may also be referred to as a networking computing model because all the requests and services are delivered over a network.

Advantages of Client Server Networks over Peer to Peer Networks :

- Centralization : Unlike P2P, where there is no central administration, here in this architecture there is a centralized control. Servers help in administering the whole set-up. Access rights and resource allocation is done by Servers.
- Proper Management : All the files are stored at the same place. In this way, management of files becomes easy. Also it becomes easier to find files.
- Back-up and Recovery possible : As all the data is stored on server its easy to make a back-up of it. Also, in case of some break-down if data is lost, it can be recovered easily and efficiently. While in peer computing we have to take back-up at every workstation.
- Upgradation and Scalability in Client-server set-up : Changes can be made easily by just upgrading the server. Also new resources and systems can be added by making necessary changes in server.
- Accessibility : From various platforms in the network, server can be accessed remotely.
- As new information is uploaded in database , each workstation need not have its own storage capacities increased (as may be the case in peer-to-peer systems). All the changes are made only in central computer on which server database exists.
- Security : Rules defining security and access rights can be defined at the time of set-up of server.
- Servers can play different roles for different clients.

Disadvantages of Client Server Architecture v/s P-2-P Technology :

- Congestion in Network :Too many requests from the clients may lead to congestion, which rarely takes place in P2P network. Overload can lead to breaking-down of servers. In peer-to-peer, the total bandwidth of the network increases as the number of peers increase.
- Client-Server architecture is not as robust as a P2P and if the server fails, the whole network goes down. Also, if you are downloading a file from server and it gets abandoned due to some error, download stops altogether. However, if there would have been peers, they would have provided the broken parts of file.
- Cost : It is very expensive to install and manage this type of computing.
- You need professional IT people to maintain the servers and other technical details of network.

# Chapter 10

## Database

We design 3 Databases using MySQL as a platform.

- Chat2 it contain one table called
  - chat : contain Message , MSG\_ID, sender.
- registrationdb , it contain 4 tables called :
  - doctors: contain all information about doctor
  - patients : contain all information about patients
  - specdr : contain all information about patient
  - specpat : contain all information about doctor
- statistics , it contain 2 tables called :
  - statistics :contain the year and the percentage of disspread the cancer
  - donation : contain name , phone and amount of donation

The screenshot shows the MySQL Workbench interface for the 'chat' database. The title bar reads 'Server: 127.0.0.1 » Database: chat » Table: chat'. Below the title bar is a toolbar with buttons for Browse, Structure, SQL, Search, Insert, Export, and Import. The 'Structure' button is highlighted. Below the toolbar is a navigation bar with 'Table structure' and 'Relation view' tabs, where 'Table structure' is selected. The main area displays the table structure in a grid format:

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	MSG_ID	int(11)			No	None	AUTO_INCREMENT	Change
2	Sender	varchar(100)			No	None		Change
3	Message	text			No	None		Change

Figure 10.1: chat table

← Server: 127.0.0.1 » Database: registrationdb » Table: doctors

[Browse](#) [Structure](#) [SQL](#) [Search](#) [Insert](#) [Export](#) [Import](#) [Privileges](#)

[Table structure](#) [Relation view](#)

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	ID	varchar(20)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
2	drname	varchar(60)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
3	hosname	varchar(60)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
4	dremail	varchar(50)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
5	drpass	varchar(40)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
6	work	varchar(50)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
7	description	varchar(500)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
8	gender	varchar(7)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
9	address	varchar(50)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
10	mobile	varchar(20)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
11	studing	varchar(100)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	

Figure 10.2: doctor table

← Server: 127.0.0.1 » Database: registrationdb » Table: patients

[Browse](#) [Structure](#) [SQL](#) [Search](#) [Insert](#) [Export](#) [Import](#) [Privileges](#)

[Table structure](#) [Relation view](#)

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	fileno	varchar(20)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
2	name	varchar(60)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
3	email	varchar(60)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	
4	pass	varchar(20)			No	None	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">Primary</a> <a href="#">Unique</a>	

Figure 10.3: patient table

Server: 127.0.0.1 » Database: registrationdb » Table: specdr

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	patname	varchar(30)			No	None		Change  Drop  Primary  Unique
2	patfileno	varchar(20)			No	None		Change  Drop  Primary  Unique
3	patstatus	varchar(100)			No	None		Change  Drop  Primary  Unique
4	patemail	varchar(50)			No	None		Change  Drop  Primary  Unique

Figure 10.4: specdr table

Server: 127.0.0.1 » Database: registrationdb » Table: specpat

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	drName	varchar(30)			No	None		Change  Drop  Primary
2	drMobile	varchar(20)			No	None		Change  Drop  Primary
3	drEmail	varchar(30)			No	None		Change  Drop  Primary

Check all    With selected: Browse Change Drop Primary Unique

Figure 10.5: specpat table

Server: 127.0.0.1 » Database: statistics » Table: statistics

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	year	int(5)			No	None		Change  Drop  Primary  Unique
2	male	float			No	None		Change  Drop  Primary  Unique
3	female	float			No	None		Change  Drop  Primary  Unique
4	perA65	float			No	None		Change  Drop  Primary  Unique
5	perB15	float			No	None		Change  Drop  Primary  Unique
6	perBTW	float			No	None		Change  Drop  Primary  Unique
7	qolon	float			No	None		Change  Drop  Primary  Unique
8	thady	float			No	None		Change  Drop  Primary  Unique
9	ri2a	float			No	None		Change  Drop  Primary  Unique
10	westBank	float			No	None		Change  Drop  Primary  Unique
11	gaza	float			No	None		Change  Drop  Primary  Unique
12	maleDied	float			No	None		Change  Drop  Primary  Unique
13	femaleDied	float			No	None		Change  Drop  Primary  Unique

Figure 10.6: statistics table

Server: 127.0.0.1 » Database: statistics » Table: donation

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	name	varchar(30)			No	None		Change  Drop  Primary
2	phone	varchar(20)			No	None		Change  Drop  Primary
3	amount	varchar(20)			No	None		Change  Drop  Primary
4	comment	varchar(100)			No	None		Change  Drop  Primary

Check all    With selected:  Change Drop Primary Unique

Figure 10.7: donation table

# **Chapter 11**

## **References**

- [http://www.webopedia.com/TERM/C/client<sub>s</sub>erver<sub>a</sub>rchitecture.html](http://www.webopedia.com/TERM/C/client_server_architecture.html)
- <http://www.ianswer4u.com/2011/05/client-server-network-advantages-and.htmlaxzz4fdXexCmz>

### **Acceptance Test**

After we finish this project, we presented it to a group of friends to give their views on the design of some pages as well as we tried all the clicks to make sure they work properly, and we have encountered many problems have been reformed