

A WEB BASED PROJECT: SEARCH A SPECIFIC DOCTOR

BY

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This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science in Computer Science and Engineering

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APPROVAL

This Project/internship titled “Search a Specific Doctor” submitted by Md Fazlay Rabby Shah, ID No: 153-15-6695 and Khandaker Tipu Sultan, ID No: 151-15-5419 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 13 September 2019.

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First we express our heartiest thanks and gratefulness to almighty God for His divine blessing makes us possible to complete the final year project successfully.

We really grateful and wish our profound our indebtedness to **Supervisor Rezwana Sultana, Lecturer**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of web development to carry out this project. Her endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior draft and correcting them at all stage have made it possible to complete this project.

We would like to express our heartiest gratitude to Dr. Syed Akhter Hossain, Professor and Head, Department of CSE, for his kind help to finish our project and also to other faculty member and the staff of CSE department of Daffodil International University.

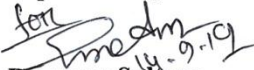
We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.

DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Rezwana Sultana, Lecturer**, Department of CSE Daffodil International University and co-supervised of **Ahmed Al Marouf, Lecturer**, Department of CSE Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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ABSTRACT

The main purpose of this project is to develop a website called Search a Specific Doctor where patient/visitor can search a specific doctor. Sometimes we see that patient live a specific location but in that location they cannot find a specialist doctor as they want. They go to Dhaka to show specialist doctor. For this reason they loss their time and money. If they find their specialist doctor in their location they can save their time and money. But in our country doctor information is not available everywhere. We hope that through our website they can find doctor by location, name and specialist. We know that it is very difficult to collect accurate doctor information all over the country. That's why we create a system that user can add doctor information which is verified by us. We hope that by using this system we can collect accurate information by user.

User can find their desired doctor easily by our advanced search system. We use HTML, CSS, JavaScript, AJAX, Bootstrap for our front-end design and for back-end we use PHP, Mysql.

TABLE OF CONTENTS

CONTENTS	PAGE
Acknowledgement	ii
Abstract	iv
List of figures	vii
List of tables	viii
CHAPTER 1: Introduction	1-3
1.1 Introduction	1
1.2 Motivation	1
1.3 Objectives	1
1.4 Expected Outcome	2
1.5 Report Layout	2
CHAPTER 2: Background	4-5
2.1 Introduction	4
2.2 Related Works	4
2.3 Comparative Studies	4
2.4 Scope of the Problem	4
2.5 Challenges	5
CHAPTER 3: Requirement Specification	6-14
3.1 Business process modeling	6
3.2 Requirement Collection and Analysis	6
3.3 Use Case Modeling	11
3.4 Logical Data Model	12
3.5 Design Requirements	13

CHAPTER 4: Design Specification	15-18
4.1 Front-end Design	15
4.2 Back-end Design	16
4.3 Interaction Design and UX	16
4.4 Design Requirements	17
CHAPTER 5: Implementation and Testing	18-33
5.1 Implementation of Database	18
5.2 Implementation of Front-end Design	19
5.3 Implementation of Interaction	23
5.4 Testing Implementation	25
5.5 Test Results and Reports	28
CHAPTER 6: Conclusion and Future Scope	33-33
6.1 Discussion and Conclusion	33
6.2 Scope for Further Developments	33
REFERENCES	34
APPENDIX	36

LIST OF FIGURES

FIGURES	PAGE
Figure 3.1.1: Business Process Model	6
Figure 3.3.1: Use Case Modeling	11
Figure 3.4.1: Logical Data Model ER Diagram	13
Figure 5.1.1: Implementation of Database	18
Figure 5.2.1: Front-End design	19
Figure 5.2.2: Back-End design	21
Figure 5.3.1: Page Interaction	24
Figure 5.4.1: Login Page Testing	25
Figure 5.4.2: SignUp Page Testing	26
Figure 5.4.3: Doctor Search Page Testing	27
Figure 5.4.4: Add Doctor Details Page Testing	27

LIST OF TABLES

CONTENTS	PAGE
Table 3.2.1: Functional Requirements	7
Table 3.2.2: Data Requirements	7
Table 3.2.3: Speed and Latency Requirements	8
Table 3.2.4: Precision and Accuracy Requirements	8
Table 3.2.5: Capacity Requirements	9
Table 3.2.6: Reliability Requirements	9
Table 3.2.7: Availability Requirements	10
Table 3.2.8: Robustness or Fault-Tolerance Requirement	10
Table 3.3.1: Authenticate User	11
Table 3.3.2: Add Doctor Information	12
Table 4.1.1: Design Requirements	17
Table 5.5.1: SignUp	28
Table 5.5.2: Test case of SignUp	29
Table 5.5.3: Login	29
Table 5.5.4: Test case of Login	30
Table 5.5.5: Doctor Search	30
Table 5.5.6: Test case of Doctor Search	31
Table 5.5.7: Insert Doctor's Details	31
Table 5.5.8: Test case of Insert Doctor's Details	32

CHAPTER 1

Introduction

1.1 Introduction

In this system people can find easily their expected doctor. We know that in Bangladesh it is very difficult to find specific doctor .Sometimes lack of accurate information we find charlatan. That's why they are facing a lot of health problem. They lost their money and time. If they find right information they will not face this kind of problem.

For this reason we create such a system that people can find easily their needed doctor. Our system is accurate and reliable. We hope that people can get help by using this system.

This project is focused on how to “Search A Specific Doctor” which is an web based online application. To ensure easier, reliable and faster service we have build this website user friendly. People can easily search doctor by name, specialist or location within few moments.

1.2 Motivation

Bangladesh is a densely populated country. Most of the people here use internet. So we hope that search a specific doctor will create high demand. Almost all feel comfortable to get information from online. But most of the time they can not find as they want. Our project search a specific doctor will be helpful for those people who find a specialist doctor.

It is the time of information technology so we try to built this type of online based web application. We have discovered some problems that people can't find specific doctor what they want. We think this project future demand will increase. So we want to work with this project.

1.3 Objectives

We want to develop this project for create a more user friendly interface than common doctor search web based application. By this project we want to reduce

patient/visitors harassment and able to better competition on market place on doctor search web application. The objectives of our project as follows -

- The admin will maintain all type of functionality.
- Investigate and solve the limitation of this system.
- Designing and developing a complete system.
- Project plan will be prepared.
- Built this to reduce suffer to our country people.
- Testing the system before publishing.
- Recheck the system before releasing.

1.4 Expected Outcome

Patient/visitors can search doctor by doctor Name, location and Specialist. By this project they can easily collect doctor information by hitting search any time anywhere. This web application will play vital role in our countries people health development. Expected outcome is as follows -

- User hit search to find doctor easily.
- User can give doctor information after login.
- The user can sign up and review doctor.
- Doctor information will be accurate which is verified by us.
- Admin can modify whole system.

1.5 Report Layout

Layout includes such things as the chapters objective details. Report layout of our project are given below-

Chapter 1: Introduction

We have discussed about short description about our project.

Chapter 2: Background

We have discussed about how we make our project fulfilled. We also describe about the related work, the scope and Challenges of this project.

Chapter 3: Requirement Specification

Discussed project design requirement like BPM, requirements, use Case model and their description and Logical Relational Database Model.

Chapter 4: Design Specification

Discussed external shape of our project like Front-end and Back-end design, UI and UX and their requirements.

Chapter 5: Implementation and Testing

Discussed outcome result of our project like Database Implementation, front-end designs and interactions and the test results of the project.

Chapter 6: Conclusion and Future Scope

Discussed about project discussion and conclusion for further developments.

CHAPTER 2

Background

2.1 Introduction

Bangladesh is well densely populated country. In our country, every family have at least one sick person. We need to consultants for various kind of diseases. By this system we can easily find a specialist doctor. Background of the project is more important issue to complete the project easily. “Search a specific Doctor” is a system that provides accurate information to find the medical doctor easier for the patient.

2.2 Related Works

There are some website we found which are related to our system -

- Doctorsbd: Doctorsbd is a Medical and Health portal in Bangladesh and gateway of doctors and patients. Doctors can access the web portal from anywhere.
- Doctorrola: This is an online platform for doctors appointments in Bangladesh. Find and book an appointment a nearby doctor easily.
- Doctor webmd: Find a Family doctor near and get education, training, health insurance, contact and practice information.

2.3 Comparative Studies

Our project is more user friendly and easier than the others. Many web project information is fake or under construction but our website is reliable to use. Our website produced accurate information.

2.4 Scope of the Problem

It is quite difficult to work with such project. But we decide to complete this project. We need to interact with PHP, Mysql, Ajax, HTML, CSS, Bootstrap. The main problem of our project is server side work and collection of accurate data. We need to work hard to make this project successful.

2.5 Challenges

These are our main challenges -

- Collection of data: It is difficult to collect accurate doctor information.
- Lack of Accountability: This project qualities can shine when each member of the project takes responsibility for achieving project success.
- Ensure security.
- Doctor profile verification by admin.
- Web site Up-to-date.
- Make this project user friendly.

CHAPTER 3

Requirement Specification

3.1 Business process modeling

Search a Specific doctor focused on the quality of Web Development for a Business process Model. Business process management and systems engineering is the activity of an venture, so that the current process will be analysed and developed. The BPM model describe in the following diagram -

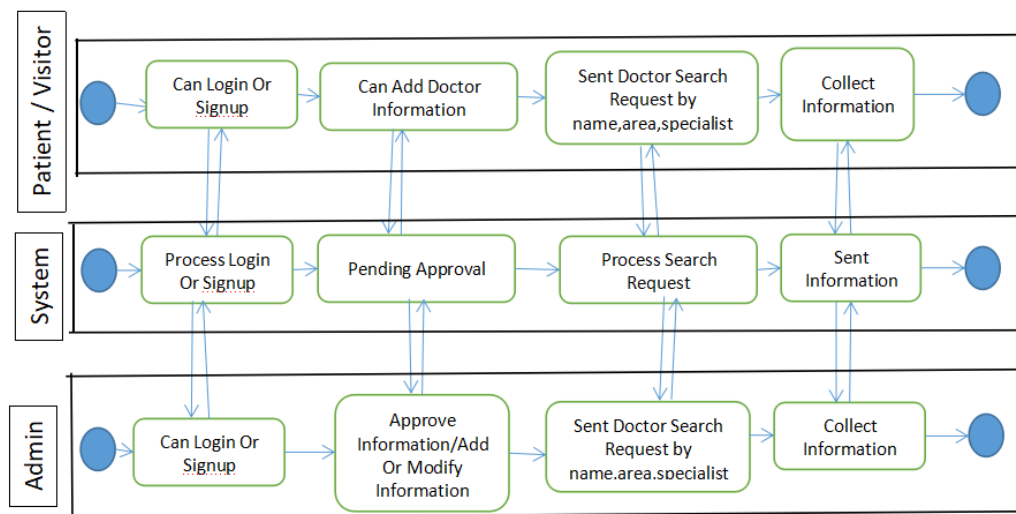


Figure 3.1.1: Business Process Model

In this above business process model there are three processes named admin,system and patient. Where patient can login or signup, can add doctor information, sent doctor search request, collect information. System can process login or signup request from patient or admin, pending approval from patient or admin, process search request, sent information to patient or doctor. Admin can login or signup, approve information added by patient, sent doctor search request by category and collect information.

3.2 Requirement Collection and Analysis

In every project, collecting the requirement starting work is indicating the vital requirements and also collecting the requirements. Because without requirement we cannot draw a graphical view of a project. Graphical view is very important for a project to implement every single task.

3.2.1 Functional Requirements

Table functional requirements like functional requirements id, functional requirement name, description and priority values are given below-

Table 3.2.1: Functional Requirements

Functional Requirement ID	Functional Requirement Name	Description	Priority
FR_01	SignUp	Patient/Visitor Can SingUp By Using this System.	High
FR_02	Login	Patient/Visitor/Admin Can SingUp By Using this System.	High
FR_03	Search Doctor	Patient/Visitor/Admin Can Search Doctor By Using this System.	High
FR_04	Approve Doctor Add	Admin can Approve or Disapprove.	Low
FR_05	Manage Doctor	Admin Can Manage Doctor By Using this System.	Low

3.2.2 Data Requirements

Table data requirements like data requirements id, description and priority values are given below-

Table 3.2.2: Data Requirements

Data Requirement ID	Description	Priority
DR_01	Patient/Visitor name,age,email,mobile,address.	High

DR_02	Doctor name,degree,specialist,location,contact,work,photo	High
-------	--	------

3.2.3 Performance Requirements

i. Speed and Latency Requirements

Table speed and latency requirements like speed and latency requirements id, description and priority values are given below-

Table 3.2.3: Speed and Latency Requirements

Speed and Latency Requirements ID	Description	Priority
SLR_01	When patient/visitor send doctor add request to the system, database should send information to admin.	High
SLR_02	When Admin Accept Doctor Add Request, it will shown by server in real-time.	High
SLR_03	Patient/Visitor Can search doctor By Name,,Specialist,,Area/Location.	High

ii. Precision and Accuracy Requirements

Table precision and accuracy requirements like precision and accuracy requirements id, description and priority values are given below-

Table 3.2.4: Precision and Accuracy Requirements

Precision and Accuracy Requirements ID	Description	Priority
--	-------------	----------

PAR_01	The input data should be accurate when Patient/Visitor or Admin provide data to the System.	High
PAR_02	All data should be in place accurately where it is associated.	Low

iii. Capacity Requirements

Table capacity requirements like capacity requirements id, description and priority values are given below-

Table 3.2.5: Capacity Requirements

Capacity Requirements ID	Description	Priority
CR_01	The Website documents size must able to load at hosting site.	High
CR_02	The Mysql database size must be able to store the system data.	High
CR_03	Request per second upto 1000.	High

3.2.4 Dependability Requirements

i. Reliability Requirements

Table reliability requirements like reliability requirements id, description and priority values are given below-

Table 3.2.6: Reliability Requirements

Reliability Requirements ID	Description	Priority
-----------------------------	-------------	----------

RR_01	All confidential data must have to be encrypted.	Medium
RR_02	All data should collect from users by permission and by accepting privacy policy.	Low
RR_03	No one can use user's data for any other purpose except system needs.	Low

ii. Availability Requirements

Table availability requirements like availability requirements id, description and priority values are given below-

Table 3.2.7: Availability Requirements

Availability Requirements ID	Description	Priority
AR_01	The system should work 24 hours a day.	Medium
AR_02	The system should provide the desired data to the user in time.	Low

iii. Robustness or Fault-Tolerance Requirement

Table 3.2.8: Robustness or Fault-Tolerance Requirement

Table robustness or fault-tolerance requirements like robustness or fault-tolerance requirements id, description and priority values are given below-

Robustness or Fault-Tolerance Requirement ID	Description	Priority
--	-------------	----------

FTR_01	If the system has been crashed, it should not be more than an hour.	Low
--------	---	-----

3.3 Use Case Modeling

A use case is a method that is used in system analysis to identify, clarify and organize system requirements. It is a sequence between system and user. Use case model for this system is given below -

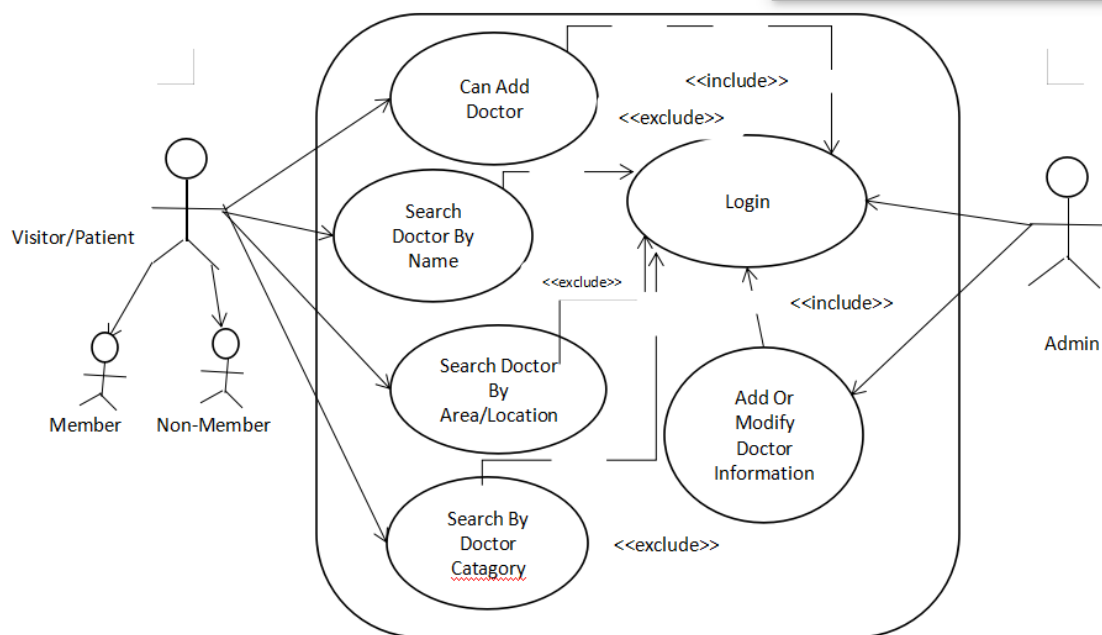


Figure 3.3.1: Use Case Modeling

Here are two actor interact with system named visitor and admin. Visitor can be member or non-member. Here visitor can add doctor, search doctor by category. Where admin can add or modify doctor, view doctor after login.

3.3.1 Use Case Modeling Description

Authenticate Patient/Visitor: Authentication is a process that's allow a device to verify the identity of someone who connect to the system.

Table authenticate user like use case name and authenticate user values are given below-

Table 3.3.1: Authenticate User

Use Case Name	Authenticate User
Scenario	Patient/Visitor <u>Can Register.</u>
Actor	1. Patient/Visitor 2. Admin
Brief Description	Patient can search doctor by name, specialist, area.

i. Add Doctor Information

Table add doctor Information like use case name and authenticate user values are given below-

Table 3.3.2: Add Doctor Information

Use Case Name	Authenticate User
Scenario	Add or modify Doctor
Main Success Scenario	1. Patient/visitor can search doctor by Name. 2. Patient/visitor can search doctor by Specialist. 3. Patient/visitor can search doctor by Area/Location.
Actor	1. Patient/Visitor 2. Admin

3.4 Logical Data Model

Logical Data Model represents set of data. Logical Data model for this system is given below -

3.4.1 Entity Relationship Diagram (ERD)

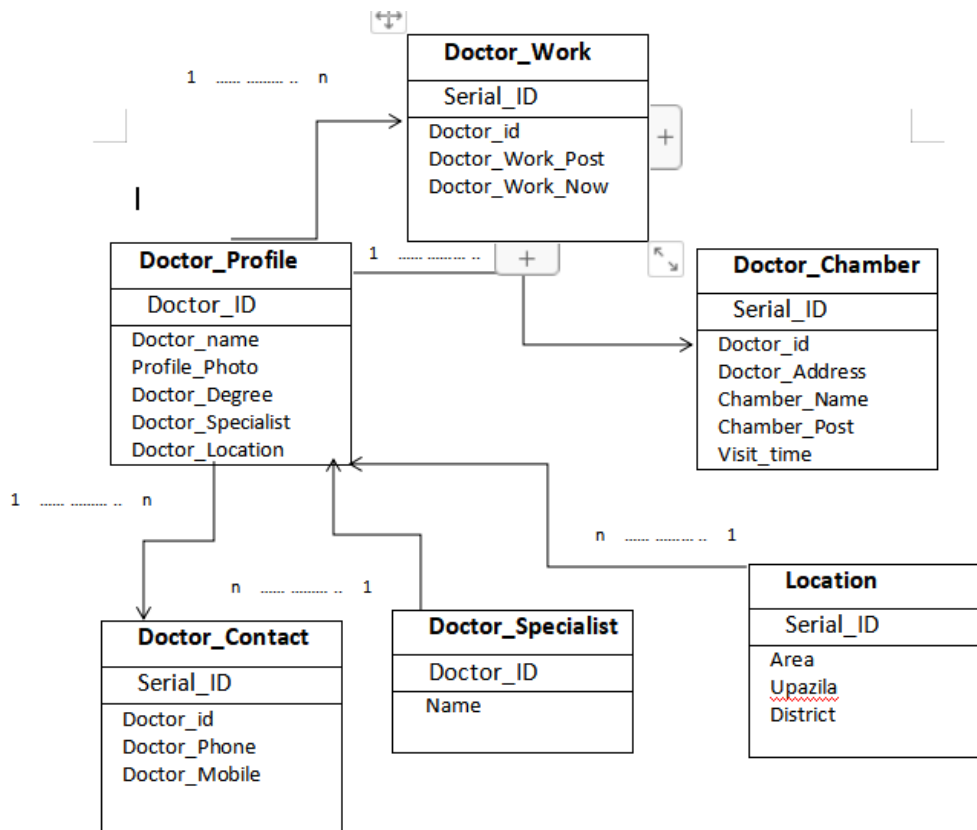


Figure 3.4.1: Logical Data Model ER Diagram

In this above figure logical data model is shown. This model have those database table named doctor_work, doctor_profile, doctor_chamber, doctor_contact, doctor_specialist and location. All the table have their primary id and attribute are shown above. Doctor_work and doctor_profile has many to one relationship. Doctor_profile and doctor_chamber has one to many relationship. Doctor_profile and doctor_contact has one to many relationship. Doctor_profile to doctor specialist and location table has many to one relationship.

3.5 Design Requirements

- Admin can add, modify or delete doctor information.
- Patient/visitor can add doctor detail by login.
- They can sign up and search doctor.
- They also search doctor without login.
- They can view doctor profile information and doctor review.
- They can add review by login.

- Admin can verify doctor information added by patient/visitor.
- Admin can update anything related to this project.

CHAPTER 4

Design Specification

4.1 Front-end Design

Front-end design involves creating the HTML, CSS and presentational JavaScript code that makes up a user interface. We use those technology for front-end design -

i. HTML

HTML is stand for Hyper Text Markup Language which is actually helps us to set a structure of a system. We use HTML in our system for doing markup.

ii. CSS

CSS is stand for Cascading Style Sheet which is actually help to present a system nicely by give color, border, margin and padding. We can give margin, padding, border of any HTML by CSS. We use CSS in our project for styling.

iii. Bootstrap

Bootstrap is one of the coolest HTML, CSS and JS framework which is used for developing responsive, mobile-first websites. Bootstrap actually reduce the work of a developer. We can design a system smartly using Bootstrap. We use Bootstrap to make our project user friendly.

iv. JavaScript

JavaScript is like a scripting or programming language which helps to implement complex things on web pages. Many desktop and server programs use JavaScript. To develop a integrative website we need to use JavaScript. We use JavaScript framework Bootstrap in our system.

v. AJAX

AJAX is stand for asynchronous JavaScript and XML which is used to create asynchronous web applications.

With Ajax, web applications send and retrieve data from a server simultaneously without refreshing the existing page. We use AJAX for doctor search without page refreshing.

4.2 Back-end Design

The back-end is also called server-side is basically website works, bring up to date and changes. This refers to everything the user can't see in the browser. We use those technology for Back-end design -

i. PHP

PHP is stand for Hypertext pre-processor which is a server side programming language. It is very popular language in new generation developers in web. Because this language is very flexible to use with HTML. Almost all major website is use PHP. As our system is a web based system for that reason we use PHP for our Back-end work.

ii. MySQL

MySQL is stand for relational database management system (RDBMS). It is open source software. There are many more popular organization who are using MySQL for efficiency and low costing. It is is very flexible to use with PHP. We use MySQL query in our project to manage our database .

4.3 Interaction Design and UX

Admin Page Design:

- Doctor Information (Add, Modify Or delete)
- Verify Information (Added By User)
- Security Information (Login As Admin)
- Reset

User Page Design:

- Sign up and Login

- Add doctor information (Add, View and Search)
- View doctor Review
- Can Add Review

User Experience Design (UX):□

User Experience Design (UX) is often used interchangeably with terms such as User Interface Design and Usability. Our project still in private so this time we don't have any information right now.

4.4 Design Requirements

Table 4.4.1: Design Requirements

Table design requirements like website program required and computer program required values are given below-

Website Program Required	Computer Program Required
I. Functionality or feature set	I. Website Hosting
II. Capacity (how many and how big are the things it can work with).	II. Web Host Performance (Processor Speed, Uptime, Memory, Entry Processes, Request Handle).
III. User interface (Mobile, Desktop)	III. Client Side Scripting(HTML, CSS, JavaScript, JQuery) and Server Side Scripting(MySQL, PHP).
IV. Customizability	
V. Speed, responsiveness	
VI. Ability to communicate with database.	
VII. Type of error handling (Error message Show, Success message Show).	
VIII. Programming language	

CHAPTER 5

Implementation and Testing

5.1 Implementation of Database

Implementation of database is described below -

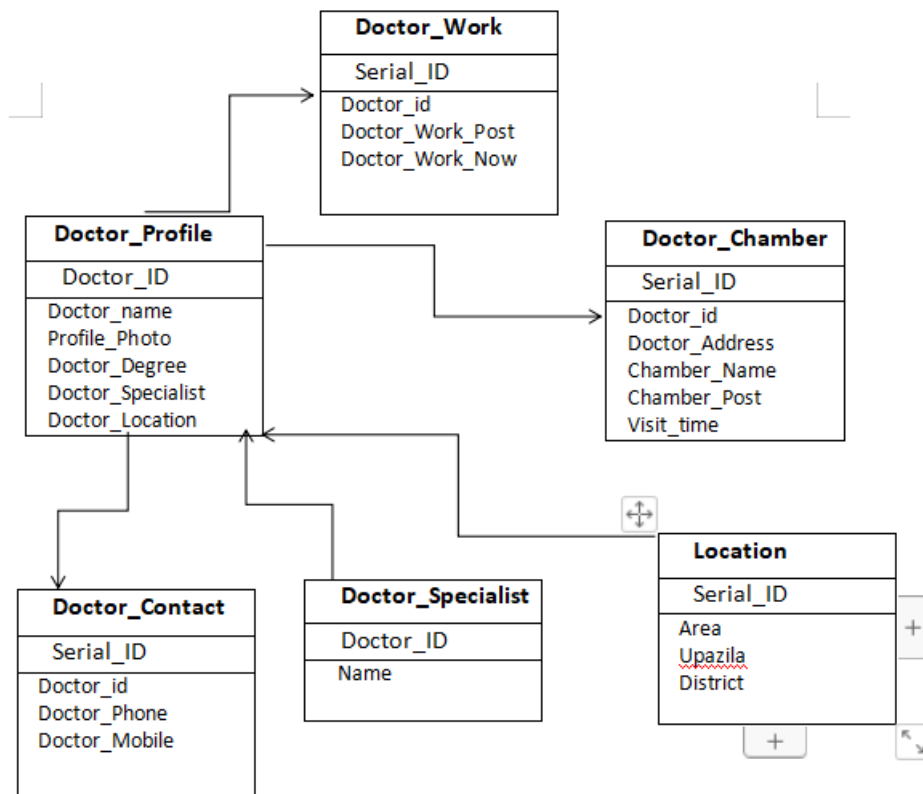


Figure 5.1.1: Implementation of Database

In this above figure implementation of database is shown. This model have those database table named doctor_work, doctor_profile, doctor_chamber, doctor_contact, doctor_specialist and location. All the table have their primary id and attribute are shown above.

5.2 Implementation of Front-end Design

5.2.1 Implementation of Front-end Design

Implementation of Front-end design is described below -

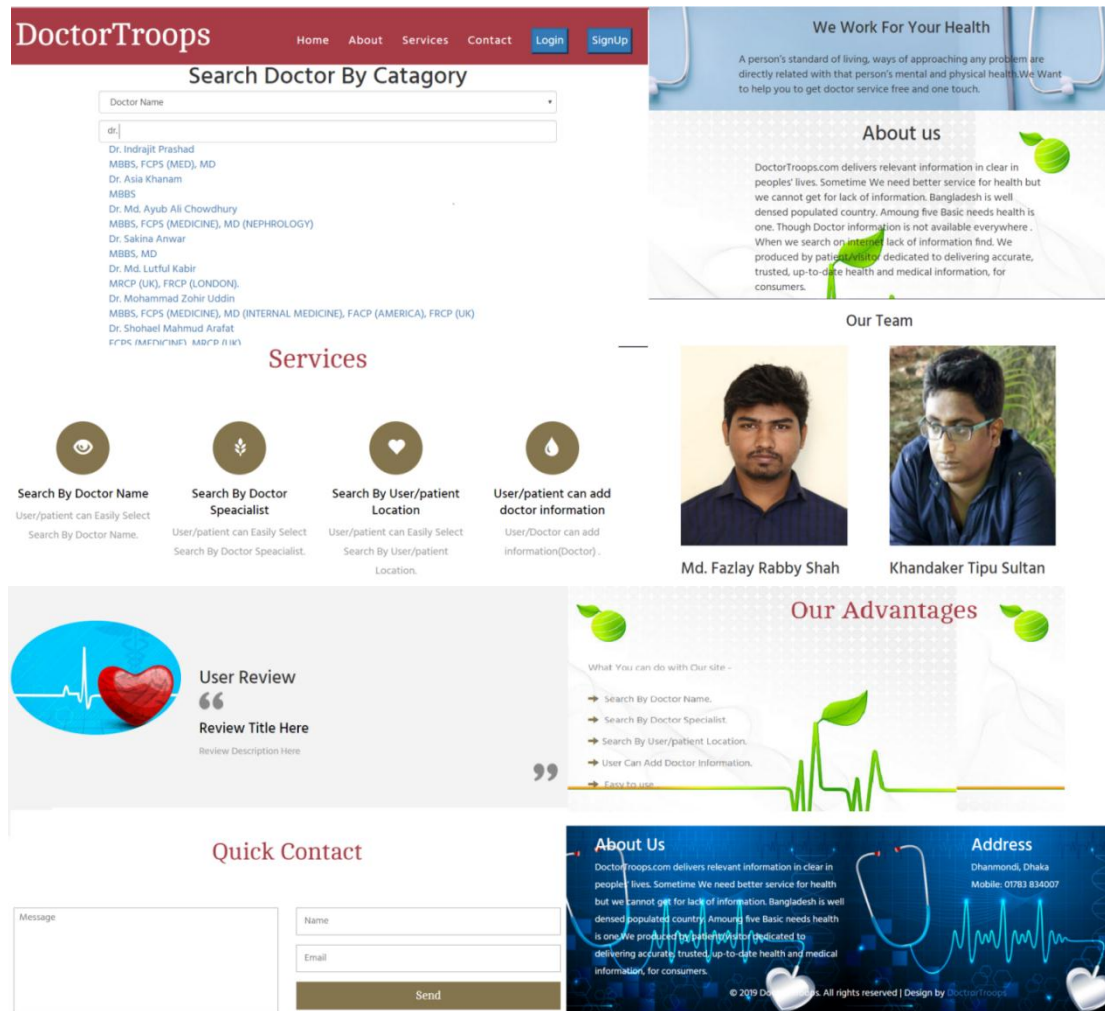


Figure 5.2.1(i): Font-End design (Index Page)



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Figure 5.2.1(ii): Font-End design (Index Page)



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Figure 5.2.1(iii): Font-End design (Index Page)

5.2.2 Implementation of Back-end Design

Implementation of Back-end design is described below -

Doctor Profile Information Add

Doctor Photo
 No file chosen

Doctor Name

Doctor Degree

Doctor Specialist

Contact Number

+29000	01969000000	
+29000	+29000	<input type="button" value="x"/>

Doctor Service

Work Now	Work Post	
Work Now	Work Post	<input type="button" value="x"/>
Work Now	Work Post	<input type="button" value="x"/>

Doctor Chamber Information

Chamber Address	Work Now	Work Post	Chamber Visit	
Chamber Address	Work Now	Work Post	Chamber Visit	<input type="button" value="x"/>

Location

Figure 5.2.2(i): Back-End design (Doctor Add Page)

Admin Panel Home Add Doctor View Doctor Pending Approval(1) Other Menu ▾

Photo	#ID	Doctor_Name	Doctor_Degree_obtained	Doctor_Specialist	Area/Location	Contact_Info	Service_Info	Chamber_Info	Action
	1	md. fida hasan lohani	b.u.ms (dhaka univercity) , bhs (upper)	Addiction Psychiatrist	tejgaon circle ,dhaka	View Contact	View Service	View Chamber	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
	2	chanchal kumar ghosh	mbbs, fcps (medicine), md (gasto)	Gastroenterology	dhanmondi.dhaka	View Contact	View Service	View Chamber	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
	3	dr. indrajit prashad	mbbs, fcps (med), md	Endocrinology	dhanmondi.dhaka	View Contact	View Service	View Chamber	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
	4	dr. asia khanam	mbbs	Nephrology (Kidney)	dhanmondi.dhaka	View Contact	View Service	View Chamber	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
	5	dr. md. ayub ali chowdhury	mbbs, fcps (medicine), md (nephrology)	Nephrology (Kidney)	dhanmondi.dhaka	View Contact	View Service	View Chamber	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
	6	dr. sakina arwar	mbbs, md	Medicine	dhanmondi.dhaka	View Contact	View Service	View Chamber	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

Figure 5.2.2(ii): Back-End design (View Doctor Page)

Admin Panel Home Add Doctor View Doctor Other Menu ▾

Phone Number Mobile Number

Add Information

#S ID	Doctor ID	Phone No	Mobile No	Action
1	1	91266256-7	01712-738731	Add Delete
2	1		01717-351631	Add Delete
3	1		01747-444254	Add Delete

Admin Panel Home Add Doctor View Doctor Other Menu ▾

Work Now Work Post

Add Information

#S ID	Doctor ID	work now	work post	Action
1	1	natural medical division, the ibne sina pharmaceutical industry ltd.	consultant	Add Delete

Admin Panel Home Add Doctor View Doctor Pending Approval(1) Other Menu ▾

Chamber Address Work Now Work Post Chamber Visit

Add Information

#S_ID	Doctor_ID	Chamber_Address	Chamber_work_now	Chamber_work_post	Visit time	Action
1	1	bari no-47,road- 9/a,dhanmondi satmosjid road,dhaka-1209	diagnostic and imaging center	consultant	10am-1pm & 4pm-9pm	Add Delete

Admin Panel Home Add Doctor View Doctor Other Menu ▾

Doctor Name

Doctor Degree

Doctor Degree

Add Information

Photo	#ID	Doctor Name	Doctor Degree obtained	Doctor Specialist	Area/Location	Contact Info	Service Info	Chamber Info	Action
	1	md. fida hasan lohani	b.u.m.s (dhaka univercity) , bhs (upper)	Addiction Psychiatrist	tajgaon circle ,dhaka	View Contact	View Service	View Chamber	Edit Delete
	2	chanchal kumar ghosh	mbbs, fcps (medicine), mcd (gastro)	Gastroenterology	dhanmondi,dhaka	View Contact	View Service	View Chamber	Edit Delete

Admin Panel Home Add Doctor View Doctor Pending Approval(1) Other Menu ▾

Pending Approval

Photo	#ID	Doctor Name	Doctor Degree obtained	Doctor Specialist	Area/Location	Contact Info	Service Info	Chamber Info	Take Action
	50	dr. shohael mahmud arafat	fcps (medicine), mrcp (uk)	Acupuncture	dhanmondi,dhaka	View Contact	View Service	View Chamber	Approve Reject

Figure 5.2.2(iii): Back-End design (Pending approval Page)

Server: 10.2.1.124:3306 » Database: u843860722_doctr

Structure | SQL | Search | Query | Export | Import | Operations | Routines | Events | Triggers | Designer

Filters

Containing the word:

Table	Action	Rows	Type	Collation	Size	Overhead
doctor_chamber	Browse Structure Search Insert Empty Drop	41	InnoDB	utf8mb4_unicode_ci	16 K B	-
doctor_contact	Browse Structure Search Insert Empty Drop	71	InnoDB	utf8mb4_unicode_ci	16 K B	-
doctor_profile	Browse Structure Search Insert Empty Drop	41	InnoDB	utf8mb4_unicode_ci	16 K B	-
doctor_specialist	Browse Structure Search Insert Empty Drop	185	InnoDB	utf8mb4_unicode_ci	16 K B	-
doctor_work	Browse Structure Search Insert Empty Drop	48	InnoDB	utf8mb4_unicode_ci	16 K B	-
location	Browse Structure Search Insert Empty Drop	538	InnoDB	utf8mb4_unicode_ci	48 K B	-
6 tables	Sum	828	InnoDB	utf8mb4_unicode_ci	128 K B	9 B

Server: 10.2.1.124:3306 » Database: u843860722_doctr » Table: doctor_chamber

Browse | Structure | SQL | Search | Insert | Export | Import | Operations | Triggers

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	sid	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	id	varchar(20)	utf8mb4_unicode_ci		No	None			Change Drop More
3	address	varchar(300)	utf8mb4_unicode_ci		No	None			Change Drop More
4	work_now	varchar(100)	utf8mb4_unicode_ci		No	None			Change Drop More
5	work_post	varchar(200)	utf8mb4_unicode_ci		No	None			Change Drop More
6	visit_time	varchar(200)	utf8mb4_unicode_ci		No	None			Change Drop More
7	added	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()	Change Drop More

Server: 10.2.1.124:3306 » Database: u843860722_doctr » Table: doctor_profile

Browse | Structure | SQL | Search | Insert | Export | Import | Operations | Triggers

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	name	varchar(50)	utf8mb4_unicode_ci		No	None			Change Drop More
3	profile_photo	varchar(300)	utf8mb4_unicode_ci		No	None			Change Drop More
4	degree	varchar(200)	utf8mb4_unicode_ci		No	None			Change Drop More
5	specialist	varchar(20)	utf8mb4_unicode_ci		No	None			Change Drop More
6	area	varchar(200)	utf8mb4_unicode_ci		No	None			Change Drop More
7	approval	varchar(100)	utf8mb4_unicode_ci		No	None			Change Drop More
8	added	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()	Change Drop More

Server: 10.2.1.124:3306 » Database: u843860722_doctr » Table: doctor_work

Browse | Structure | SQL | Search | Insert | Export | Import | Operations | Triggers

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	sid	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	id	varchar(20)	utf8mb4_unicode_ci		No	None			Change Drop More
3	work_post	varchar(100)	utf8mb4_unicode_ci		No	None			Change Drop More
4	work_now	varchar(300)	utf8mb4_unicode_ci		No	None			Change Drop More
5	added	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()	Change Drop More

Figure 5.2.2(iv): Back-End design (MySQL database)

5.3 Implementation of Interaction

This page interaction improves the user experience and it helps the us to keep visitor on page. The page showing search doctor by name, specialist, location instead of creating separate page for each purpose. Implementation of page interaction is described below -

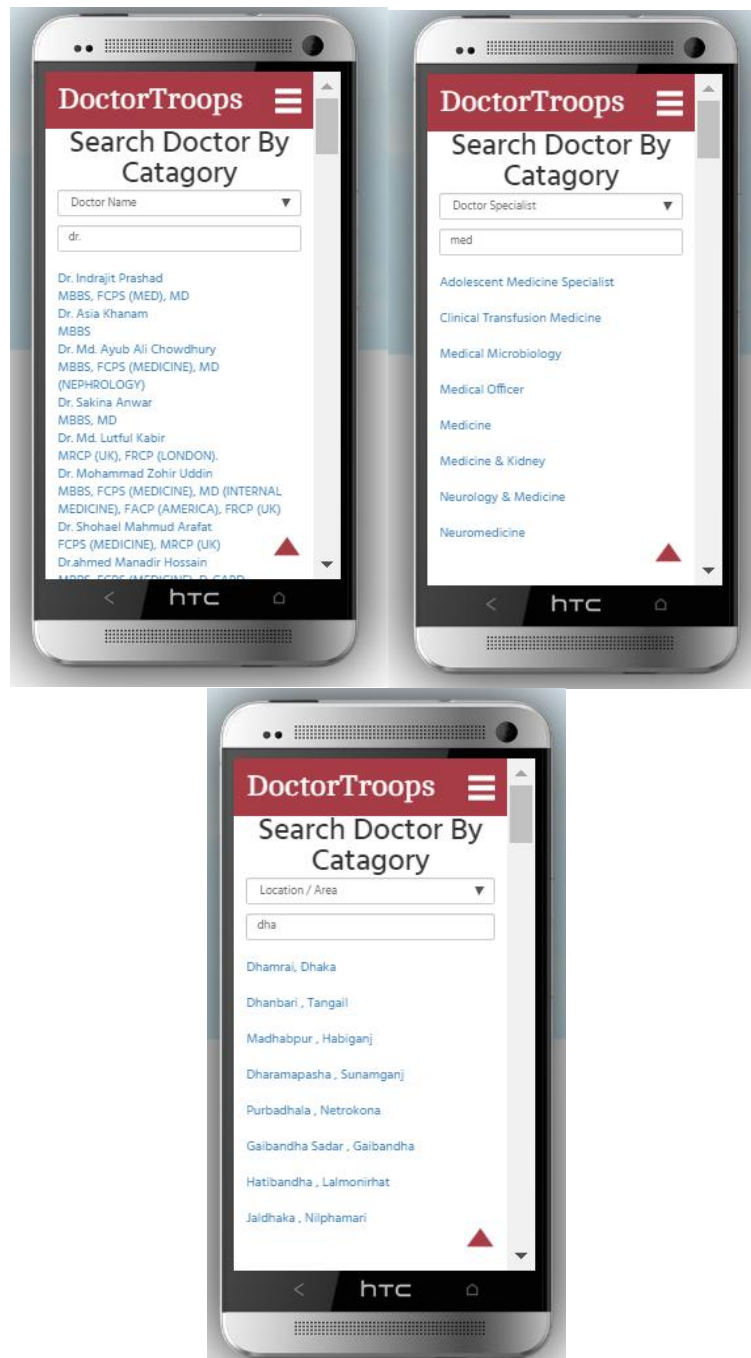


Figure 5.3.1: Page Interaction

On this above scenario implementation of page interaction is shown. Here we can see that when user search by a word or name in index page it will show relevant result without page reloading or move to another page.

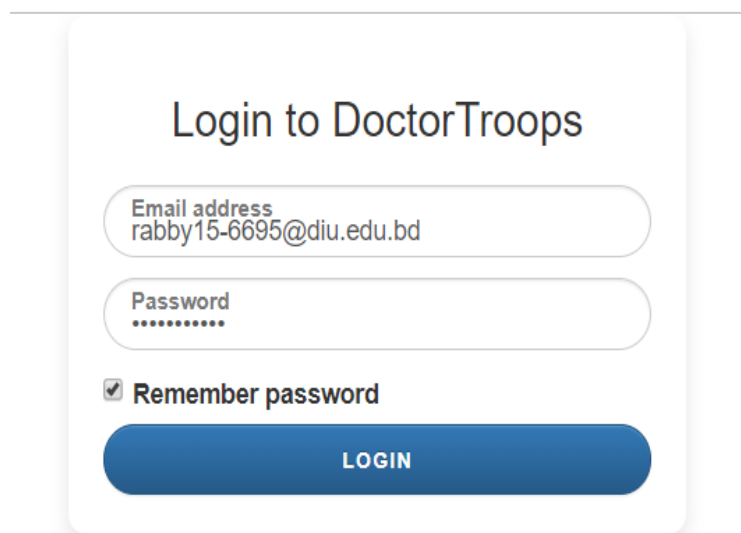
If we search “ dr. ” then it will show matching result. This UX search show best matching string result. User can get his needed information easily by this system.

Applied principles -

- Error prevention
- Consistency and standards
- GK Deep

5.4 Testing Implementation

Testing implementation login is given below -



The image shows a login form for DoctorTroops. The form is titled "Login to DoctorTroops". It contains two input fields: "Email address" with the value "rabby15-6695@diu.edu.bd" and "Password" with masked characters. Below the password field is a checked checkbox labeled "Remember password". At the bottom of the form is a blue button labeled "LOGIN".

Figure 5.4.1: Login Page Testing

This figure show us login page of doctortroops. Email address and password are given to login.

Testing implementation signup is given below -

SignUp to DoctorTroops

Name
Rabby Shah

Email address
rabby15-6695@diu.edu.bd

Password
.....

Confirm Password
.....

Phone Number
01783834007

Age
23

Address
Parbatipur, Dinajpur

SIGNUP

Figure 5.4.2: SignUp Page Testing

This figure show us signup page of doctortroops. Name, email address, password, phone number, age and address are given to signup.

Testing implementation search is given below -

Search Doctor By Category

Doctor Name

- Md. Fida Hasan Lohani
B.U.M.S (DHAKA UNIVERCITY) , BHS (UPPER)
- Dr. Md. Ayub Ali Chowdhury
MBBS, FCPS (MEDICINE), MD (NEPHROLOGY)
- Dr. Md. Lutful Kabir
MRCP (UK), FRCP (LONDON).
- Dr. Md. Kamrul Ahsan
D-ORTHO (DU) MS (ORTHO) SPECIALTY: SPINE SURGERY(ORTHOPAEDIC SPINE SURGERY)
- Dr. Md. Abdul Muqueet
MD (NEPHROLOGY), 2007, BSMMU
- Dr. Md. Rashadul Kabir
MBBS, BCS (HEALTH), MD (MEDICINE) MSMMU
- Major (dr.) Md. Abdullah Al-mamun

Figure 5.4.3: Doctor Search Page Testing

This figure show us index page of doctortroops. Search doctor by a name and showing relevant result.

Testing implementation add doctor is given below -

All Information has been inserted Successfully.

[Admin Panel](#) [Home](#) [Add Doctor](#) [View Doctor](#) [Pending Approval\(1\)](#) [Other Menu](#) ▼

Doctor Profile Information Add

Doctor Photo
 No file chosen

Doctor Name

Doctor Degree

Doctor Specialist
 ▼

Contact Number

Phone Number	Mobile Number
<input type="button" value="Add More"/>	

Doctor Service

Work Now	Work Post
<input type="button" value="Add More"/>	

Doctor Chamber Information

Chamber Address	Work Now	Work Post	Chamber Visit
<input type="button" value="Add More"/>			

Location
 ▼

Figure 5.4.4: Add Doctor Details Page Testing

This figure show us add doctor page of doctortroops. Add doctor by giving name, photo, degree, specialist, contact number,service, doctor chamber information and location.

5.5 Test Results and Reports

Testing is a process, to evaluate the functionality of a application with an intent to find whether the developed met the specified requirements or not.

5.5.1 Features to be tested

- i. SignUp
- ii. Login
- iii. Doctor Search and
- iv. Insert Doctor's Details.

5.5.2 Testing Strategies:

i. Sign Up

Table signup like test case and test case name values are given below-

Table 5.5.1: Sign Up

Test Case: TC_01	Test Case Name: Testing the Sign Up panel.
System: Search-A-Specific-Doctor	Requirements ID: RQ_01 (Sign Up)
Designed by: Rabby Shah and Tipu Sultan	Design Date: 22.05.19

Executed by: Rabby Shah and Tipu Sultan	Execution Date: 22.05.19
Short Description: This field will handle the sign up functionality of the system.	
Precondition: Open the application.	

Table test case attribute like steps, action, input, result and pass/fail values are given below-

Table 5.5.2: Test case of Sign Up

Steps	Action	Input	Result	Pass/Fail
01	Enter all information in sign up page.	Name, Email, password, age, contact number, address.	sign up	pass
02	Invalid Email or Invalid Contact Number in sign up page.	Name, Email, password, age, contact number, address.	Sign Up	fail

ii. Login

Table login attribute like test case and test case name values are given below-

Table 5.5.3: Login

Test Case: TC_02	Test Case Name: Testing the Login panel.
System: Search-A-Specific-Doctor	Requirements ID: RQ_02 (Login)
Designed by: Rabby Shah and Tipu Sultan	Design Date: 28.05.19

Executed by: Rabby Shah and Tipu Sultan	Execution Date: 28.05.19
Short Description: This field will handle the Login functionality of the system.	
Precondition: Open the application.	

Table login attribute like steps, action, input, result and pass/fail values are given below-

Table 5.5.4: Test case of Login

Steps	Action	Input	Result	Pass/Fail
				1
01	Enter all information in Login page.	Email, password	Login	pass
02	Invalid Email or Valid password in Login page.	Email, password	Login	fail
03	Valid Email or invalid password in Login page.	Email, password	Login	fail

iii. Doctor Search

Table doctor search attribute like test case and test case name values are given below-

Table 5.5.5: Doctor Search

Test Case: TC_03	Test Case Name: Testing the Doctor Search panel.
System: Search-A-Specific-Doctor	Requirements ID: RQ_03 (Doctor Search)

Designed by: Rabby Shah and Tipu Sultan	Design Date: 08.06.19
Executed by: Rabby Shah and Tipu Sultan	Execution Date: 08.06.19
Short Description: This field will handle the Doctor Search functionality of the system.	
Precondition: Open the application.	

Table doctor search attribute like steps, action, input, result and pass/fail values are given below-

Table 5.5.6: Test case of Doctor Search

Steps	Action	Input	Result	Pass/Fail
01	Enter information in Doctor Search Page.	String	Doctor Search	pass
02	Invalid information in Doctor Search Page.	String	Doctor Search	fail

iv. Insert Doctor's Details

Table insert doctor details attribute like test case and test case name values are given below-

Table 5.5.7: Insert Doctor's Details

Test Case: TC_04	Test Case Name: Testing the Insert Doctor's Details panel.
System: Search-A-Specific-Doctor	Requirements ID: RQ_04 (Insert Doctor's Details)

Designed by: Rabby Shah and Tipu Sultan	Design Date: 13.06.19
Executed by: Rabby Shah and Tipu Sultan	Execution Date: 13.06.19
Short Description: This field will handle the Insert Doctor's Details functionality of the system.	
Precondition: Open the application.	

Table insert doctor test case attribute like steps, action, input, result and pass/fail values are given below-

Table 5.5.8: Test case of Insert Doctor's Details

Steps	Action	Input	Result	Pass/Fail
01	Enter Valid information in Insert Doctor's Details Page.	Name, degree, contact, photo, specialist, work_now, chamber.	Doctor Search	pass
02	Invalid information in Insert Doctor's Details Page.	Name, degree, contact, photo, specialist, work_now, chamber.	Doctor Search	fail

CHAPTER 6

Conclusion and Future Scope

6.1 Discussion and Conclusion

We have successfully executed the system named “Search a Specific Doctor”. We have been provide a system which is running on the server named project.doctortroops.com. Patient can easily to find their needed doctor which make their life easier and more comfortable. We will upgrade and add new features to this project day by day.

6.2 Scope for Further Developments

- Communication between User and Admin.
- User Notification.
- Payment gateway.
- Add a new feature of real time.
- In future we will make android apps for handy use.

REFERENCES

1. Learn about HTML, available at <<[<<https://www.w3schools.com/html>>](https://www.w3schools.com/html)>>, last accessed on 03 August 2019 at 11am.
2. Learn about CSS, available at <<[<<https://www.w3schools.com/css>>](https://www.w3schools.com/css)>>, last accessed on 05 August 2019 at 2pm.
3. Learn about JavaScript, available at <<[<<https://www.w3schools.com/js/default.asp>>](https://www.w3schools.com/js/default.asp)>>, last accessed on 05 August 2019 at 11pm.
4. Learn about Bootstrap, available at <<[<<http://getbootstrap.com/>>](http://getbootstrap.com/)>>, last accessed on 09 August 2019 at 09.18am.
5. Add doctor information, available at <<[<<https://www.ibnsinatrust.com/find_a_doctor.php>>](https://www.ibnsinatrust.com/find_a_doctor.php)>> , last accessed on 11 August 2019 at 7.37pm.
6. Add doctor information, available at <<[<<http://labaidgroup.com/specialized/doctor>>](http://labaidgroup.com/specialized/doctor)>>, last accessed on 11 August 2019 at 1.12pm.
7. Learn about PHP, available at <<[<<http://www.php.net/>>](http://www.php.net/)>>, last accessed on 12 August 2019 at 09.30am.
8. Learn about AJAX, available at <<[<<https://www.w3schools.com/js/js_ajax_intro.asp>>](https://www.w3schools.com/js/js_ajax_intro.asp)>>, last accessed on 13 August 2019 at 9.30pm.
9. Learn about SQL, available at <<[<<https://www.w3schools.com/sql/default.asp>>](https://www.w3schools.com/sql/default.asp)>>, last accessed on 14 August 2019 at 08.30am.
10. Learn Business processing model, available at <<[<<https://youtube.com>>](https://youtube.com)>>, last accessed on 15 August 2019 at 2.30pm.

11. Learn Entity relationship diagram, available at <<<https://youtube.com>>>, last accessed on 17 August 2019 at 3.00pm.
12. Learn Use Case Model, available at <<<https://youtube.com>>>, last accessed on 18 August 2019 at 6.35pm.
13. Information Access, available at <<<https://www.wikipedia.org>>>, last accessed on 20 August 2019 at 7.37pm.

APPENDIX

Project Reflection

From Fall 2018 semester we had started our journey to develop a system which helps the general public where they can easily find their required doctor . This system develops “search a specific doctor”. We use the latest technology and model to prepare this system. Doing all the necessary task, finally we met to the goal and complete our task. We will keep going to upgrading our system and add new functionalities.