Project Title: Hospital Management System

Course: COMP1181

Submitted to: **Masud Karim**

Project Supervisor,

Daffodil International Academy

Submitted by: Fatema Akter

ID: 000990797

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Executive Summary:

The proposed system is ***"hospital management system*** the hospital name is "***Jahan Ara Clinic (PVT.) LTD***". The system purpose is providing help desk. It has three panels to main system. One is user panel and one is doctor panel and other admin panel. Admin panel manage the department and employee help desk. Customer panel manage to their appointment. And doctor manage doctor department. "***Jahan Ara Clinic (PVT.) LTD***" is one of the best hospitals in Bangladesh. It is very famous hospital in Bangladesh. It is situated house#2&4, rode#1, uttara model town, Dhaka-1230, Bangladesh. Hospitals currently use a manual system for the management and maintenance of serious information. The current system requires many paper forms, with data stores spread during the hospital management communications. Regularly information is incomplete, or does not follow management principles. Forms are often lost in transit between departments requiring a inclusive auditing process to ensure that no vital information is lost. Multiple copies of the same information exist in the hospital and may lead to inconsistencies in data in various data stores. A important part of the process of any hospital involves the purchase, management and timely recovery of great volumes of information. This information typically involves; patient personal information and medical history, staff information, doctor scheduling, staff scheduling, operating theater scheduling and various facilities waiting lists. All of this information must be managed in a resourceful and cost wise method so that an institution's resources may be successfully utilized ***"hospital management system"***will automate the management of the hospital manufacture it more capable and error free. It aims at standardizing data, consolidating data ensuring data integrity and reducing inconsistencies. The whole project is developing by using DSDM Atem. It helps to build a system correctly and reduce the risk of the system.

Acknowledgement

At the beginning I would like to render thanks to the almighty Allah. And so I would wish to show my special thanks, gratitude to my teacher Masud karim well as all other teachers. Thanks to Greenwich University, who afforded me this tremendous task? I did a great deal of research and I came to know about so many recalls and it helped to increase my knowledge.

Once more, I would wish to give thanks all of them who helped me to complete this project.

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Chapter 1- Introduction:

Hospital are the important part of our lives, providing best medical services to people suffering from different ailments, which may be due to change in climatic situation, emotional trauma stress, increased work-load etc. It is essential for the hospitals to keep track of its day-to-day activities & records of its patients, doctors, nurses and other staff personals that keep the hospital running smoothly & successfully. But keeping track of all the activities and their records on paper is very unwieldy and error prone. It also is very wasteful and a time-consuming process Observing the continuous increase in people and number of community visiting the hospital. Recording and maintaining all these records is highly variable, incompetent and error-prone. It is also not economically & technically feasible to maintain these records on paper. therefore keeping the working of the manual system as the basis of our project. We have developed an automated description of the manual system, named as ***"hospital management system ."***The main aim of our project is to provide a paper-less hospital up to 90%. It also aims at providing low-cost reliable automation of the accessible systems. The system also provides exceptional security of data at every level of user-system communication and also provides healthy & reliable storage and backup facilities.The project is designed to build up hospital help desk from hospital management system. The project titled is ***"hospital management system".***for "***Jahan Ara Clinic (PVT.) LTD***". The clinic is using manual system for data storing, like-clients', patients and doctor. The hospital management used paper based system. At the present the hospital authority decided to develop a hospital management system for help desk. The hospital management is suffering miss contact regarding for client and doctor schedule maintenance. The software will be helped to make decision for schedule as their alarm for the hospital management of ***"Jahan Ara Clinic (PVT.) LTD".*** In the project I would like to introduce a web base client's appointment their doctor time and schedule store in the software. Their appointment will get by the mail or self phone SMS.

Chapter 2- Initial study:

Project proposal:

Aim/Objective of the project:

My aim to be provided reliable system for patients to easy their treatments. The aim is including:

- Admin see all information which the data keeping in database
- The patient appointment process make easier and the patient have Opportunity for chose doctor
- all the patient have opportunity for chose day if doctor available
- The website have keep system which all patient details record
- It is to help technical management of hospital and advancement of health care systems so as to make it rational, responsive and cost efficient, both to customer and providers.
- To help the development of high class of hospital care in the society and the country so as to provide an acceptable environment to the patient and also to the doctors for clinical research.
- To help a discussion for exchange of ideas and information along with the health planners, administrators, academicians and general public or development of hospital and health services.
- To develop norms and principles for authorization of the organization of health care and accept means of continuous assessment of such institutions so as to get better leading the quality of health care.
- To update the knowledge and skills of personnel involved in health administration for the management of these institutions through continuing education programmers.
- To create parameters of standards of teaching and training in the field of hospital administration and accreditation of such institutions.
- To promote research in the field of hospital administration and disseminate research findings among the users.

(/health-fitness-articles, n.d.)

Advantage of the project:

General advantage:

- Easily data mange
- Easily user queries manage
- Online appointment system
- Know all information by online
- Keep all the data records, like-
    - doctor information
    - patients information
    - nurse
    - account

Technical and management advantage:

- search system
- online payment system
- communicate with admin
- Any complain against of hospitals or doctor then they can communicate with hospital management.

Background of the project:

Hospital management system the hospital name is "***Jahan Ara Clinic (PVT.) LTD***". "***Jahan Ara Clinic (PVT.) LTD***" is one of the best services hospitals in Bangladesh. It is situated house#2&4, rode#1, uttara model town, Dhaka-1230, Bangladesh. The hospital provide service as the below-

- ICU & HDU
- Haemodialysis
- Ultrasonography
- Digital X-Ray
- Echocardiography 2D & M.Mode
- Resting E.C.G3/6 Channel
- Endoscopy
- Phototherapy
- Pathology (Microbiology, Serology, Immunology, Bacteriology, Histopathology & Cytology)
- Vaccination
- Infant Incubator
- Specialized Consultant Service
- Health Scan Program
- 24 Hrs Ambulance Service
- Heart Care & Hypertension Clinic
- Diabetic Clinic
- 24 Hrs Outdoor & Emergency Service

There are many kinds of department in this hospital. Like-

- Medicine
- Surgery
- Gynecology & obstetrics
- Nephrology
- Eye
- ENT
- Neuro medicine
- Orthopedics

- Pediatrics
- Plastic surgery
- Physiotherapy
- Dental

The hospital has all the services. The software will be providing all the services and the software will be have select categories service option. If any patients or clients need service then they click on that option. And the software show on all information. Than they can chose appointment for doctor or other service.

Chapter 3- Literature Review:

Discussion on problem domain based on published article:

Hospital management system is an online system. But they cannot provide online appointment system. So the hospital need update their information system for patients.

There are many problem arise in online filed. When the hospital develops their online information system they can face many problems. Including these problems:

Paper base work:

"***Jahan Ara Clinic (PVT.) LTD***" system is still paper base. For that the hospital information are not secure. If any third person or any other hospital staffs see paper they had known hospital ideas and they known hospital information. After other hospital update their hospital management system and business process by those ideas. It is very harmful for the hospital. For well secure the hospital needed website. So that online system is very important in this hospital.

Time wasted:

At the present situation every things is online base. But the hospital system is still old. The hospital provides best treatments but service is very poor. For that day by day the hospital lost their patient. The hospital current system is paper base. But some staff using computer for record data by excel. But it is not online base. Every human being needs doctor when they are sick. But some time our family member is so busy their own work. If the hospital will be online base then we can appointment by online. But the hospital is not online base for the reason the client or patient need high time for treatments. Because if any client or patient need appointment than they going to hospital. Then we get appointment if the doctor is available. Other witch we going to another day in hospital when the doctor will be available. Otherwise another hospital will be visited for appointment. For the reason we need high time completed this process .but we don't have available time for long process in the present life. Because everybody is busy their won work. It is vary lengthy process for in the present life. For this process complete the time is too wasted. If we want to save our time and we want to known all information so, we need website which we known all information by the online. If we want to easy life, then we need online hospital management system.

Maintained cost:

"***Jahan Ara Clinic (PVT.) LTD***" is still paper base system. For the reason the client or patients need high cost. Because there is no any option get information in online about hospital. So the patient going to hospital for gets information. If the doctor was not available than the client or patient came back home. And if they will be gated information then they go another day. The patients need high cost for complete this process. If the patients gets all information in online then the patient are benefited and they save money and time. So every hospital needs online management system (Help desk). Online hospital management help desk system is very important thing for our everyday life. Because any one sick suddenly. The system is very important for regularly patient. They needs update information in hospital for patient. If we find out all formation by the online than we get current information in hospital. So we maintained our cost easily.

Appointment **problem**:

For the paper base system, the client or patient need physically meet for appointment. Coues if any patients needed appointment for treatments they going to hospital get appointment. That means if any patients need appointment for doctor treatment or doctors suggestion they meet physically hospital. There are no other options without it. So that online system is the best process for the every person .the system will be easy our life and save our money and time. In the present situation if we are feel sick than we are going to doctor directly without appointment. For that, some time we don't get available doctor. For the reason I think if our hospital management help desk system will be online base than we get all information from online easily. We known all the information easily and our needed specialized information collected by online.

Re-work:

Whereas "*Jahan Ara Clinic (PVT.) LTD*" is paper base so; the hospital staff will be re-working. If the hospital was website then the staff does not need re-working for one subject. Whereas the hospital doesn't any software for data record so, they working hard and again and again same work. It is one of the most **problems** in current system.

Schedule miss match:

Whereas "*Jahan Ara Clinic (PVT.) LTD*" is paper base so, the hospital do not have any software for data record. For the reason the doctor schedule is miss match. First person enter last serial number and last person enter first serial number. If the hospital will have software for schedule maintained then the client wasn't face this problem.

Customer Disappointment:

When the customer was face many problem for different thing then customer are disappointed about this. There are many reason, the customer are disappointed. Like-schedule miss match, do not get any information without come in hospital, time wasted, appointment problem etc. for the reason the customer are very dissatisfaction. It is one of the problems in hospital. For that there are many customer are leave hospital for this reason.

Harmful Popularity:

Whereas "*Jahan Ara Clinic (PVT.) LTD*" is popular hospital in Bangladesh. So that the hospital need many side followed about their hospital. Whereas there are many customer are disappointed about this hospital. And for the reason many customer leave this hospital, it is harmful for hospital popularity. For that day by day the hospital lost their image and their popularity. It is very harmful for hospital.

Discussion on problem solutions based on published article:

The main function of the proposed system scope:

Solution Doctor specializes:

The main function of the scope, the website have different department. Which the patients selected department won chose. There are many kinds of department in this hospital website. Such as-

- Medicine
- Surgery
- Gynecology & obstetrics
- Nephrology
- Eye
- ENT
- Neuro medicine
- Orthopedics
- Pediatrics
- Plastic surgery
- Physiotherapy
- Dental

Keep all Information:

Solution Doctor:

The main function of the scope, the website have keep doctor information system. Here the software keeps all the doctors record and doctor details. All doctors' details found easily for this website. If we want to be contact any doctors for appointment or suggestion than we found doctor information by this website. Which doctors are available in which day that information too collected by this website. The software will be easy our life. Any time we gather information from online by this website.

Solution Patient:

One of the most parts in this software, the patient's information. Which the all patient information have keeping. Which there are many type of information are keeping in that software. Like- patient's appointment, patients discharge information patient's payment information etc. For this software if any patient information is missing than we found easily information from this software. This process is much benefited for this hospital.

Solution Admin:

The software have keeping nurse information system. There have, which nurse are appoint for which department. Every department has individual nurse. Which department is witch nurse all information is keeping by the software? If any person need nurse information then they are collected easily information by the software. Because all the nurse details were have keeping in this software.

Solution Appointment:

The software have keeping nurse information system. There have, which nurse are appoint for which department. Every department has individual nurse. Which department is witch nurse all information is keeping by the software? If any person need nurse information then they are collected easily information by the software. Because all the nurse details were have keeping in this software.

Solution Save time:

Everybody needs treatment when they are sick. So it is very important thing for our life. in the present situation every family will have some sick person. So they need treatment for their sickness .but time is very important thing in the present situation. Some time we are busy, but suddenly sick our family member. Then we need doctor for treatment. We are going to doctor without appointment. For the result some time the doctor are not availed that time. If we get all information in online then we don't face this problem. So our time is wasted and our work is incomplete and do not get any treatment. If the all information we get by online and we going to hospital than we save our time. Do not wasted time for completed this process.

Minimization cost:

If we need appointment for treatment then we going to hospitals for appointment. If the doctor was available that time then we get treatment otherwise we not get any treatment. It is so lengthy process for any patients. It is the most problems for emergency patients. If we know all information at home and then we decide our decision then we going to hospital. So, we save our time and cost minimization. So, online information system will be easy our life. Hospitals management system is very important for human being.

Comparison with similar hospital:

There are many type of hospital management system are available in online. They have some strength and weakness feature. Describe about similar system strength and weakness below**:**

Uttara adhunik medical college and hospital:

Uttara Adhunik Medical College And Hospital Is Online Information System. It Will Be Provide Different Type Of Service, Like-Doctor Information, Doctor Visit, Admission Fee, Etc.

There have much type of strength and weakness in this hospital. Including this:

Strength:

- The hospital has very Special expertise for different department.
- Reputation is one kinds of strength side. Where everybody knows this hospital, it is very famous in uttara. So reputation is major part for hospital.
- The hospital servicing Cost is reasonable. The hospital provides service within a reasonable price. It is advantage for patients. So it is one of most important part of the hospital.
- The hospital has different type of Technology for their different treatment. The hospital use digital technology for their different test like-x-ray, Surgery, Gynecology & obstetrics, Nephrology, Eye, ENT, Neuro medicine, Orthopedics and Dental etc.it is one of the most important parts for the hospital.

Weakness:

- The hospital has limited service line. Which they cannot provide available service for the customer. So it is weakness for hospital. So the hospital need update their service line.
- They have marketing deficiencies. So the hospital need update their marketing. it is one of the weakness for this hospital.

- The hospital has staff Management problem. There is no any available staff for all time service or for backup staffing. So it is weakness of the hospital. The hospital need more staff for their service and backup staffing.

Opportunities:

- The hospital cannot provide all type of service so it is opportunities for hospital .they can provide new technology within new service.
- There are many type of hospital in uttara. Which they have very famous but this hospital have Lack of dominant competition. So it is opportunities for hospital. They can increase their dominant competition.
- The hospital does not have any marketing system. So it is one of the opportunities of the hospital. They can provide marketing system and where they gather popularity .so new markets or service is very important for this hospital. It is big opportunities of the hospital.

Threats:

- When the hospital increased their competition then they can flow their quality and service price. Because it is very important for the hospital .if they maintained their service quality and service price so they can loss their reputation. So it is threats for the hospital.
- If the hospital change their insurance plan but it is not working. They can loss their reputation and market place. So they can need flow their before changing.
- The hospital one of most important threats will be adverse govt. policies. If the govt. change then they can face many problem because may be new govt. adverse new policies for the hospital. So it is big threats for the hospital.
- Economic slowdowns will be threats of the hospital. So the hospital need collected all time information of the economic slowdowns. It will be big problem of the hospital.

Uttara cresent hospital:

Strength:

- The hospital servicing Cost is realistic. The hospital provides service within a realistic price. It is benefit for patients. So it is one of the majority significant parts of the hospital.
- The hospital has diverse type of Technology for their different management. The hospital use digital technology for their different test like- Nephrology, x-ray, Surgery, ENT, Neuro medicine, Orthopedics, Gynecology & obstetrics, Eye, and Dental etc. it is one of the the majority significant parts for the hospital.
- The hospital has extremely individual expertise for different area.
- One kinds of strength side is Reputation. Where everyone knows this hospital, it is awfully famous in uttara. So reputation is main fraction for hospital.

Weakness:

- The hospital has staff managing trouble. There is no several accessible staff for all time service or for backup staffing. So it is weakness of the hospital. The hospital wants additional staff for their service and support staffing.
- The hospital has incomplete service line. Which they cannot give available service for the patients. So it is weakness for hospital. So the hospital need update their service line.
- They have marketing deficiency. So the hospital should update their marketing. It is one of the weaknesses for this hospital.

Opportunities:

- The hospital does not have any advertising system. So it is one of the opportunities of the hospital. They can provide advertising system and where they gather round popularity .so new markets or service is very significant for this hospital. It is large opportunities of the hospital.
- The hospital cannot give all type of service so it is opportunities for hospital .they can offer new service within new technology.

- There is a lot of hospital in uttara. Which they have incredibly well-known but this hospital has Lack of leading competition. So it is opportunities for hospital. They can augment their dominant competition.

Threats:

- The hospital one of the majority significant threats will be adverse govt. policies. If the govt. change then they can countenance many trouble because may be new govt. adverse new policies for the hospital. So it is big threats for the hospital.
- Economic slowdowns will be threats of the hospital. So the hospital want collected all time information of the economic slowdowns. It will be large trouble of the hospital.
- When the hospital betters their competition then they can flow their class and service cost. Because it is incredibly significant for the hospital .if they maintain their service quality and service cost so they can failure their reputation. So it is threats for the hospital.
- If the hospital modify their insurance plan but it is not working. They can loss their staff, reputation and market place. So they can need should flow before changing.

Medical college for women and hospital:

Strength:

- The hospital servicing Cost is rational. The hospital provides service within a logical cost. It is advantage for patients. So it is one of mainly vital part of the hospital.
- The hospital has very particular capability for different section.
- Standing is one kinds of strength side. Where each one knows this hospital, it is incredibly famous in uttara. So reputation is most important part for hospital.
- The hospital has unusual type of Technology for their dissimilar management. The hospital use digital technology for their different test like-x-ray, Surgery, Gynecology & obstetrics, Nephrology, Eye, ENT, Neuro medicine, Orthopedics and Dental etc. it is one of the most important parts for the hospital.

Weakness:

- The hospital has partial service line. Which they cannot present accessible service for the patients. So it is weakness for hospital. So the hospital want bring up to date their service line.
- The hospital has staff managing crisis. There is no any presented staff for all time service or for backup staffing. So it is weakness of the hospital. The hospital need more staff for their service and backup staffing.
- They have promotion deficiency. So the hospital necessitate bring up to date their advertising. It is one of the weaknesses of this hospital.

Opportunities:

- The hospital cannot give all type of service so it is opportunities for hospital .they can provide new technology within new service.
- The hospital does not have several marketing system. So it is one of the major opportunities for the hospital. They can make available marketing system and where they assemble popularity .so new markets or service is incredibly significant for this hospital. It is big opportunities of the hospital.
- There are many type of hospital in uttara. Which they have very famous but this hospital have Lack of dominant competition. So it is opportunities for hospital. They can increase their dominant competition.

Threats:

- If the hospital change their insurance plan but it is not working. They can loss their reputation and market place. So they can need flow their before changing.
- The hospital one of most important threats will be adverse govt. policies. If the govt. change then they can face many problem because may be new govt. adverse new policies for the hospital. So it is big threats for the hospital.
- When the hospital increased their competition then they can flow their quality and service price. Because it is incredibly vital for the hospital .if they maintain their service feature and service cost so they can loss their reputation. So it is threats for the hospital.
- Economic slowdowns will be threats of the hospital. So the hospital should collect all time information of the economic slowdowns. It will be huge trouble of the hospital.

Academic challenge of this project:

"*Jahan Ara Clinic (PVT.) LTD*" hospital system is running manually. For keeping information they are use paper and some computer. But there are no any information in online. It is big problem for patients. So it is challenge to develop online information system. In the present situation many kinds of hospital used website for hospital management system. So it is more challenge for me. But maximum hospital does not fully develop their help desk information system.so I will try my best of full fill up information for hospital management system (help desk). For the hospital information development system I have achieved knowledge by different book and different website. I have Analysis different website for implementation with real project. Most important change to turn into a good system analysis by throwing the real project. This is a most important challenge to develop the project within due time and also fulfill the hospital requirements. I have many problem faces for the project completed. So it is so challenging for me.

Recommended approach:

Following all the more than investigate analysis there are different feature or functionality used in the system competently, where user can happy with that. Make the hospital management system which will get better the entire difficulty and challenges. It will be simple to way in from any preferable strategy. Throughout progress developer need to meeting point on actual company goals or core functionality. There will be move forward search ability where admin can search any type of doctor, and the service will be relevant. The systems require allowing the admin to manage all the doctor appointment. Admin can also manage add doctor. Hospital management system is an online system, which the hospital has different login system. Such as-patients login system, admin login and doctor login by URL. Patients Login System Which the Patients cans registration for appointment and they can login for doctor appointment. Then they can apply appointment. The admin manage add doctor and all the doctor and patient information view. And the doctor views all type of appointment list and their schedule.

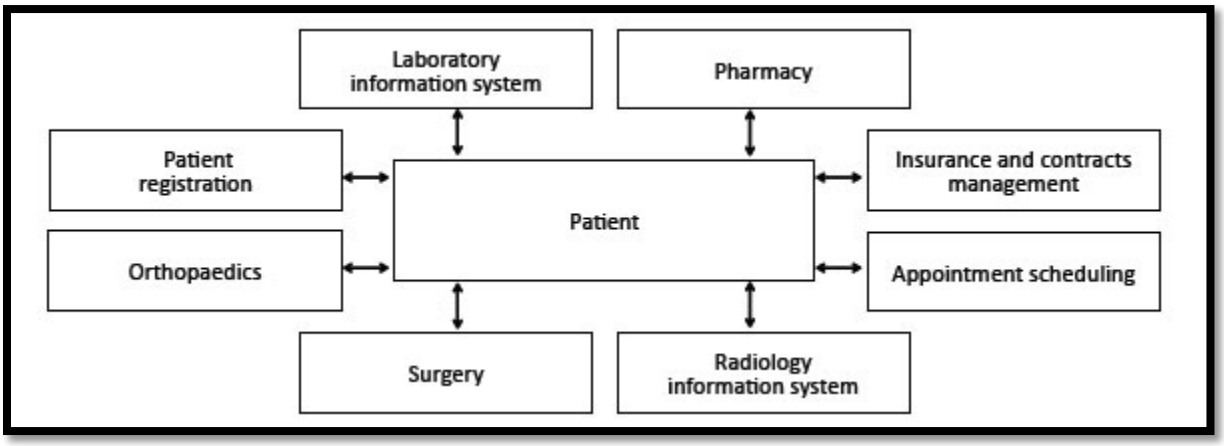

Figure- recommendation approach

(/search?q=what+is+aim+of+hospital+management+system&ie, n.d.)

Chapter 4- methodology:

DSDM Metrology:

Dynamic Systems Development Method (DSDM) Atern is an agile project Delivery construction for business solutions .The fundamental reason of DSDM Atern is to present a arrangement for the progress and action of business-supporting solution which are deliver with high speed, high quality and within tight timescales .Typically, ready solutions are deliver into the operational environment within three to six months and may be much sooner than this. Delivery are planned to be business-value driven, recurring and incremental. DSDM Atern uses the follow type techniques:

- Modeling and prototyping
- Moscow prioritization
- Facilitated workshops
- Iterative development
- Time boxing. It also depends on
- Business involvement throughout the project
- Empowered, multi-skilled teams

It was always documented that the approach is as appropriate to any company change project whether or not there is an IT factor. DSDM Atern is appropriate to ALL types of project.

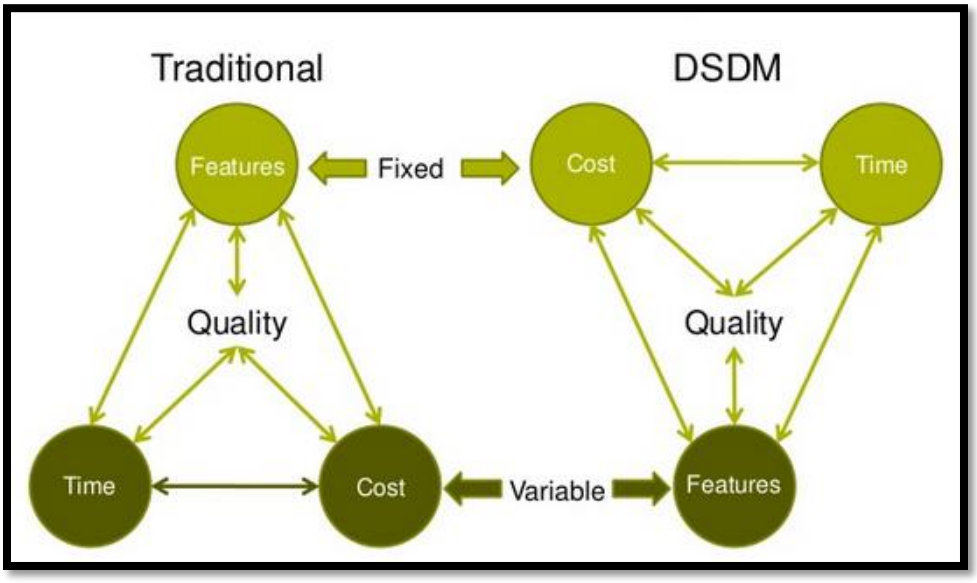

Figure- DSDM Atern approach

The philosophy of DSDM Atern is that any development necessity be:

- Aligned to clearly-defined strategic goals
- Focused on early delivery of real benefits to the business

This is most excellent achieved while key stakeholders recognize the company objectives, are authorize to an suitable level and work together with explanation developers and each other in order to deliver the right solution, in the decided timescales, according to priorities set by the company .In order to increase the profit of on time and on budget deliveries, stakeholders must be organized to deliver a 'fit for purpose solution in increments, and believe that change is expected, as thoughtful of the supplies and the solution develop .

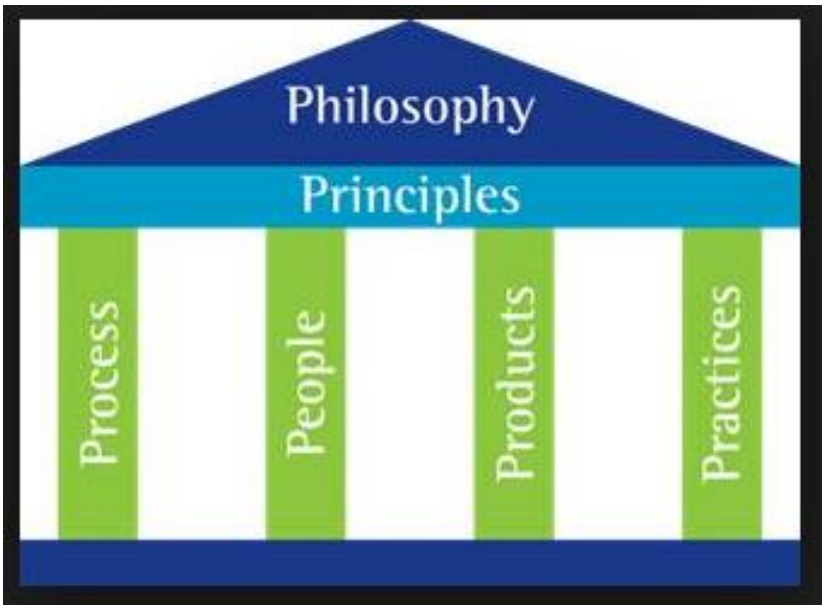

Figure-DSDM Atern philosophy

What to use:

The DSDM Atern defines principles which are basic to the winning request of the approach .negotiation any principle weaken DSDM Atern's basic philosophy and represent a risk to the on time and on-budget delivery of the right solution.

The communal values of DSDM Atern's principles enable business to deliver most excellent value company solutions collaboratively and every time.

DSDM Atern's Principles are:

- Focus on the business need.
- Deliver on time
- Collaborate
- Never compromise quality.
- Build incrementally from firm foundations.
- Develop iteratively.
- Communicate continuously and clearly.
- Demonstrate control

Why to use:

Risk Mitigation: A project risk is somewhat that may occur and, if it does, it will encompass a harmful effect. The following diagram shows a typical risk management process. This process ensures that all project risks are recognized, assess and manage. It also helps to control project risk proactively. This is done by reducing the chance of a risk taking place. Identify emergency plans where wanted and at times explanatory that a risk is usual. Countermeasures mitigation must be measured for every risk. The environment and extent of the countermeasure will depend on the nature of the risk and on the contact appraisal carried out. Countermeasures must be famous in the Risk Log and included in the Delivery Plan and/or Time box Plans, Also as particular events to avoid or reduce the risk or throughout re-balancing the MoSCoW priorities in order to contract with risk. Possibility plans should be connected to exact risks. So in a Time box where important risk has been identified, it is sensible to amplify the quantity of Should Have and Could Have requirements provided that extra incident for the certain delivery of the Must Have requirements There is a sensitivity to that risk management is a Project Manager liability. The whole group should be alert of the risks, even although the Project supervisor may drive risk management. Since the focus of the development is on delivering a company solution and the risks could affect the achievement of the project, a choice to cancel a

project, particularly during the near the beginning stages, is intermittently complete based on an incorrectly high level of risk.

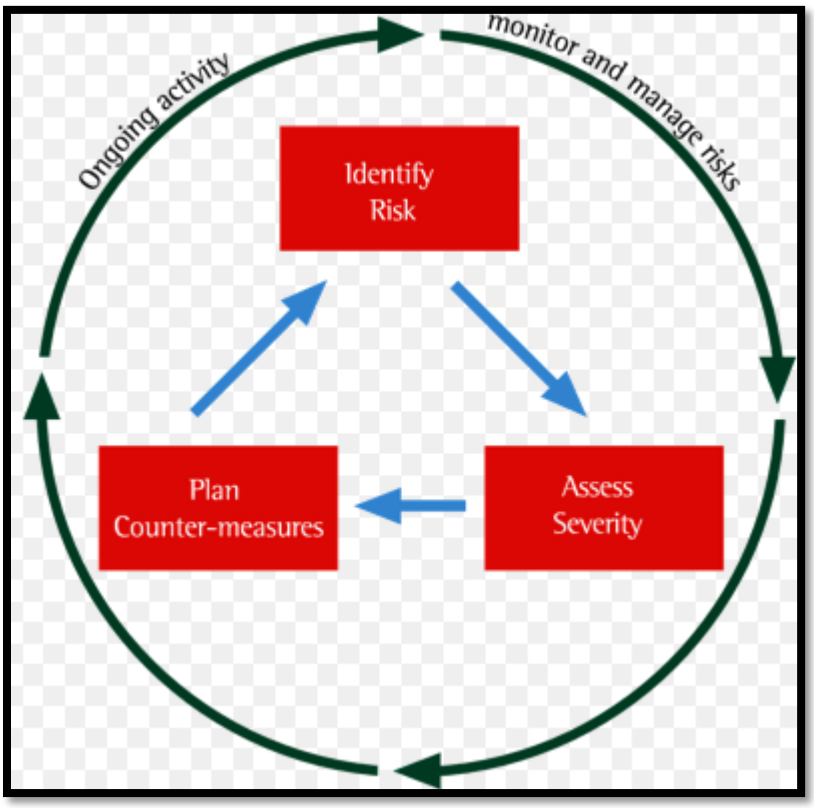

Figure- risk management

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Focus on the business need

The overriding assignment goal is to deliver what the company needs, at the right Time and for the right price. In order to fulfill this principle, DSDM Atern teams need to discover the true company priorities .MoSCoW prioritization of supplies ensure that the least working separation to be deliver by the development is clear. DSDM Atern role include the Business Sponsor, who owns the business casing and recognize the justification for the project .They also comprise a Business Visionary, who carry the company Sponsor's vision and aim for the development to the answer growth Team on a incessant foundation all through the scheme . Business and end-user legislature, who know how the development needs to carry the exact business areas, work with the scheme all through and are empower to create decision right during the project lifecycle.

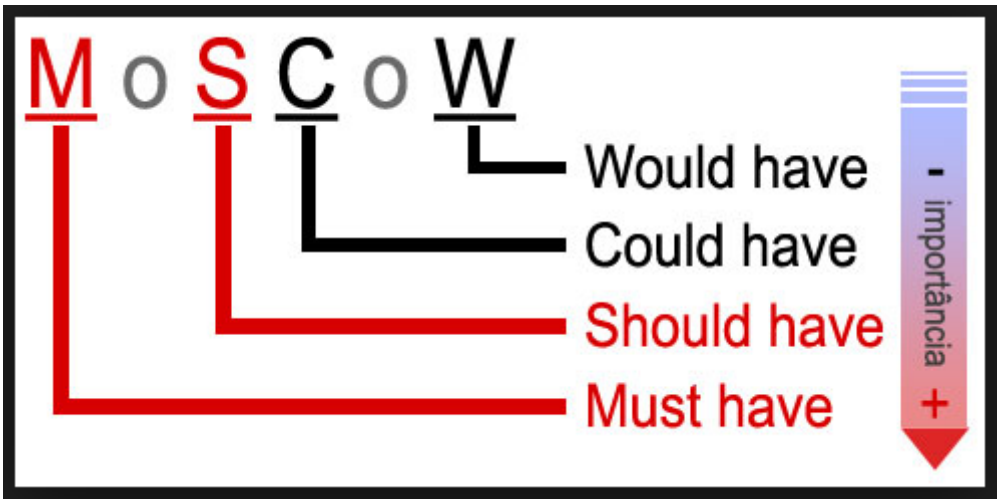


Figure- MoSCoW rules

Deliver on time

Delivering on time is often serious for a project. Delayed delivery can weaken the business case, particularly where marketplace opportunity or lawful deadline are concerned. Delayed delivery also use property which may be wanted for other projects. Resources being utilized further than the date that has been allowable for in the production case add to the cost and may annul the business case. DSDM Atern team have to Time box the work and keep a clear focus on business priority .In order to realize on time delivery, it really helps if the clarification growth team establish a standing for opportune and expected deliveries .This way the people concerned in the Time boxes will be expecting their participation to be wanted at the times intended and will not be so disposed to double volume their time in the faith that these workshops never occur when the development supervisor says they will .

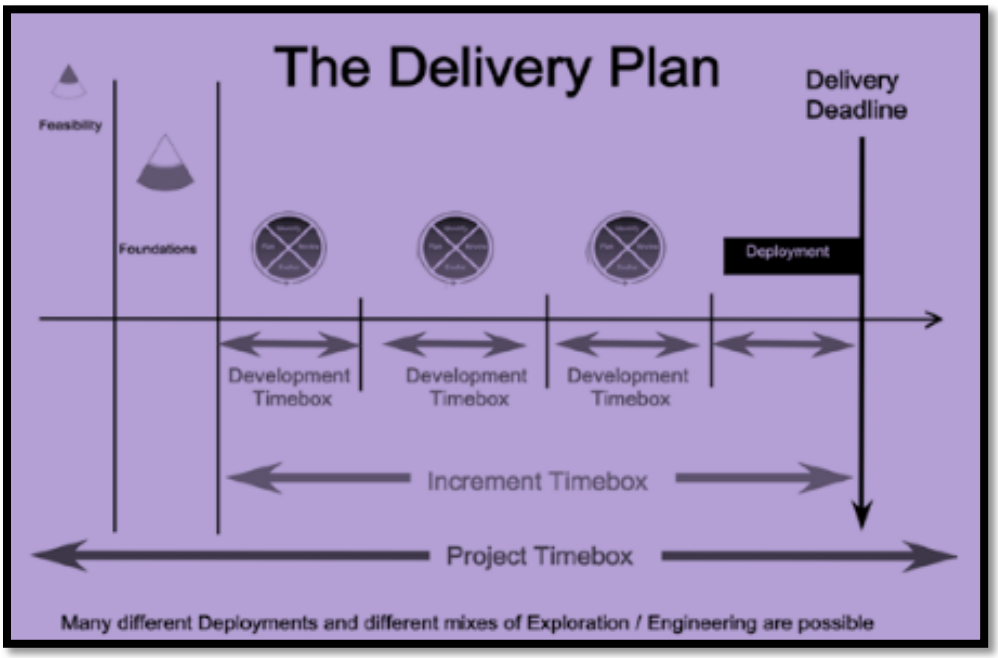


Figure- time boxing

Collaborate

Teams require making a one-team civilization between all stakeholders and to dynamically help and honor their promise to each other. In order to fulfill this code, DSDM Atern team need to engross the correct community and skills from an assortment of discipline all through the project. They also need clear empowerment to take suitable decision inside the team. Obvious roles are definite to help with this. Facilitate Workshops allow stakeholders to allocate their information successfully with other member of the project team. A mutual and co-operative come up to of all parties is needed. There are no winner on a failed project.

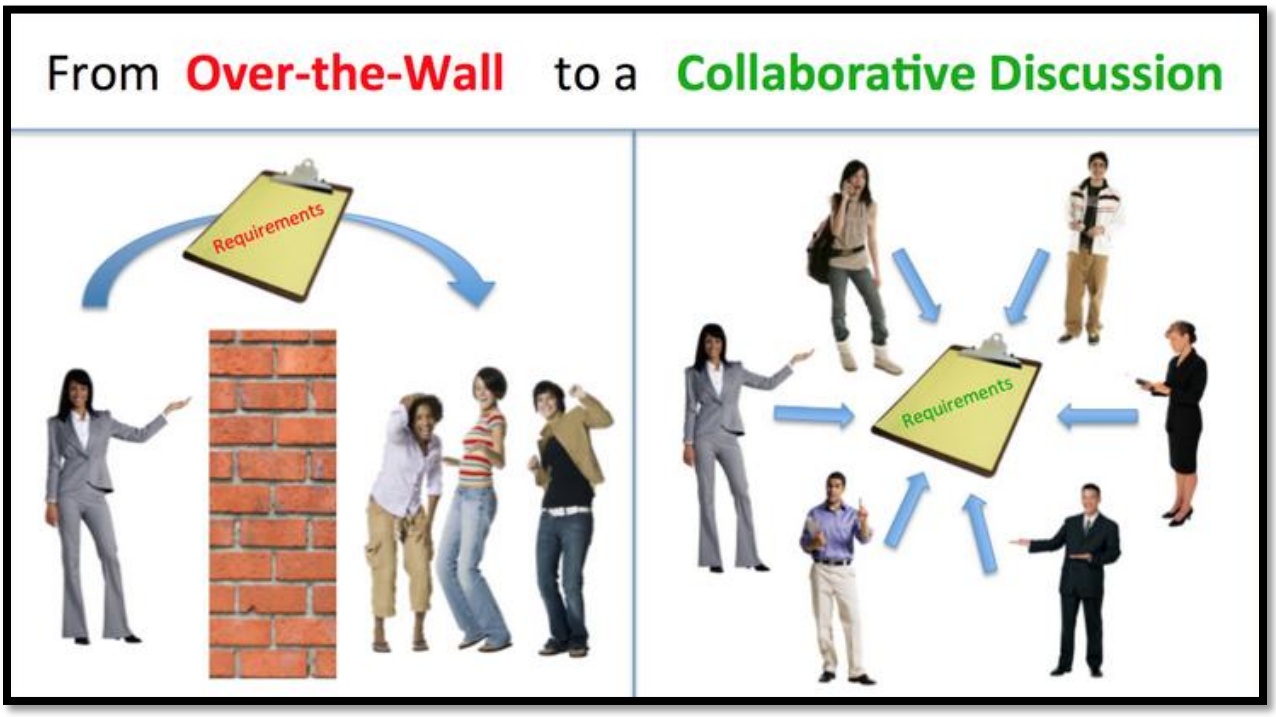


Figure- collaboration

Never compromise quality

In DSDM Atern, the level of excellence to be deliver should be decided at the create. An answer has to be fit for reason, not over-engineered, but of the correct level of class to satisfy the company need. DSDM Atern team need to essay and test suitably and build in worth by invariable review .Testing happen all through the lifecycle. Test-driven method may result in a test being on paper before the deliverable is truly created .MoSCoW prioritization and a risk-based move toward are used to make sure that difficult is suitable.

Build incrementally from firm foundations

This has two distinct aspects:

- Build incomplete, small chunks (increments) In order to deliver real Business profit early

- Build from firm foundations: set up enough accepting of the requirements and the answer space to moderate risk.

DSDM Atern backer incremental growth, with Time boxes focused on finished products. This encourages stakeholder self-assurance and promotes knowledge and development of the answer as increments are delivered and put into use. DSDM Atern teams will do now sufficient investigation and enough design up-front to make strong foundations, decided by suitable stakeholders, and endeavor for early delivery of company profit.

Develop iteratively:

Projects function within a varying world. To effort to lock this modify out of a project will result in a solution which no longer meets the current needs. DSDM Atern allow for modify throughout a project and uses Iterative Development to join on a correct company solution. In order to tolerate for change, DSDM factory from a high-level report of supplies and facial appearance, and only engage with the full supplies just in go forward of shop that exacting element of the answer. It will then agree to iteration, below control and within Time boxes, so that the Atern teams can be original, research, learn, and evolve a improved solution. The idea of Iterative Development is fixed down to the lowest level of Time boxing. The solution aspect will develop as the team learn more about it .User taking part allows the team to frequently confirm that the correct answer is being built.

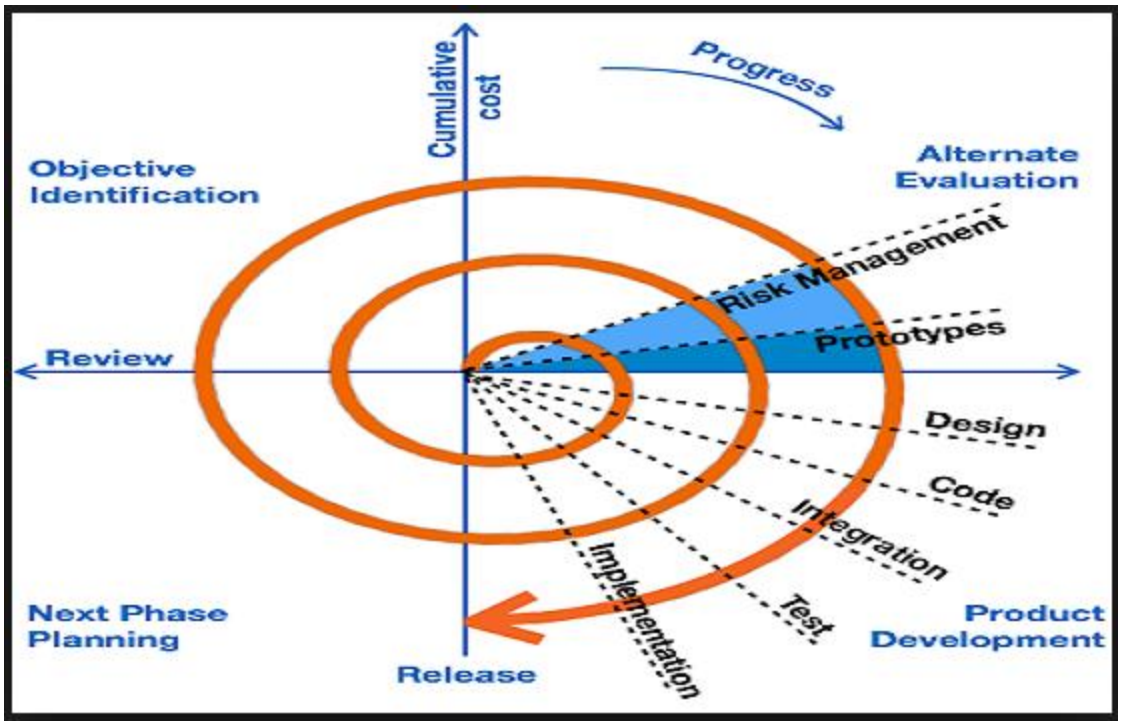


Figure- develop iteratively

Communicate continuously and clearly

Poor message is often cited as the biggest single reason of project failure .DSDM Atern technique are specially designed to get better communication efficacy for both teams and individuals .DSDM Atern teams use well-off communication techniques, such as reproduction and prototyping, to make early instance of the answer able to be seen .They also use facilitate workshops to endorse participation and buy-in and manage stakeholder prospect throughout the project. Suitable certification is wanted and this ought to be kept lean and timely. Relaxed face-to-face communication should be used where suitable.

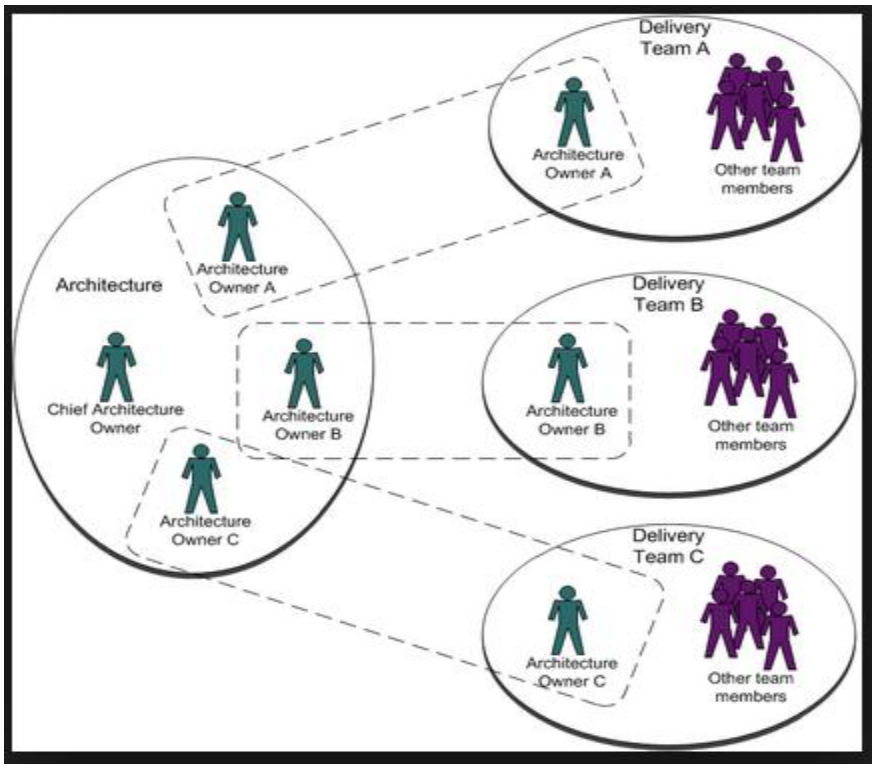


Figure- communication clearly

Demonstrate control

In spite of its suppleness, an Atern project should not be out of manage .It is necessary to be able to show the standing of the project at all times .A DSDM Atern team wants to be practical when keep an eye on and scheming progress . DSDM Atern teams should use a correct level of requirement. Make plans able to be seen to appropriate stakeholders and measure development through delivery of finished products rather than behavior .The team will also assess lifelong project viability based on the company objectives.

Sections of methodology:

DSDM Attern projects are finished by running and follow a life cycle which is called different section in DSDM Atern project and these are- pre-project, feasibility, foundations, exploration, engineering, deployment and post-project. The drawn representation of this cycle is-

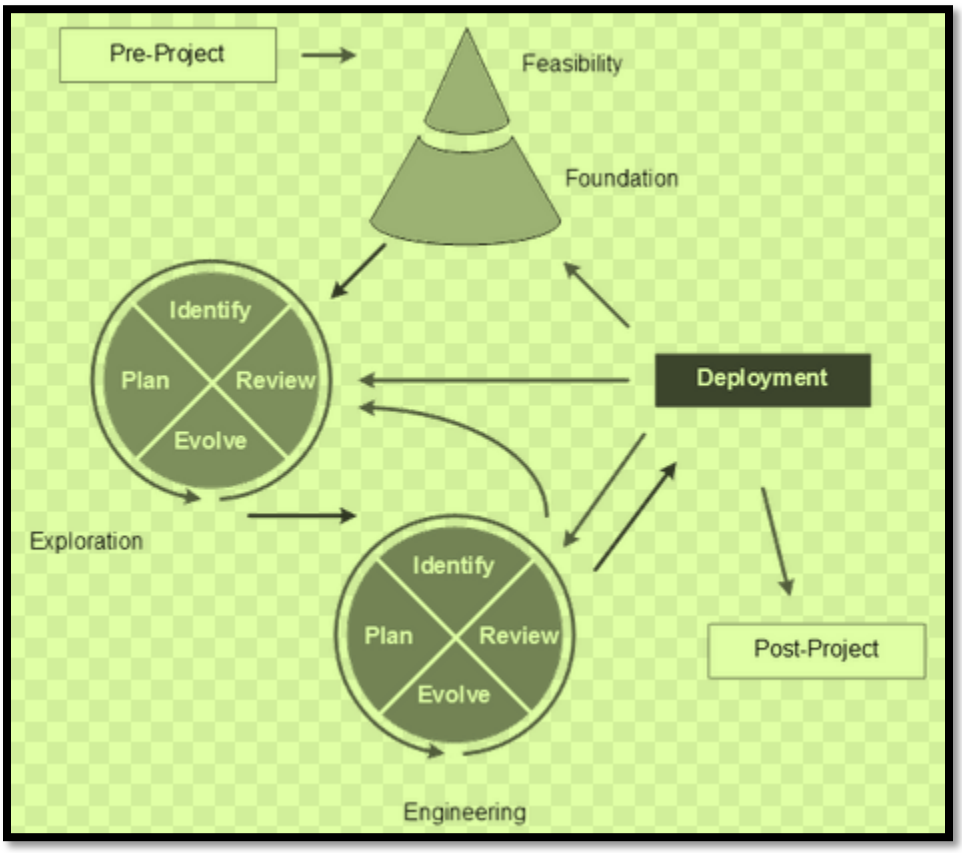


Figure- per-project

Pre-project: In pre-project phase, project objectives are make clear and scheme suggestion is formal. At this phase an extremely uneven prototype of the first ideas for one project is made which facilitate project owner that what will do.

Objectives:

- To confirm term of reference
- To do plan and meet income for next feasibility phase
- To define the company needs

Feasibility: In feasibility phase, choice is complete up whether the project is possible with business and technological perspective or not. In this phase unusual types of model techniques

are used like- scope and project model, outline company case, feasibility prototype, proof of concept etc. particulars in sequence about strategy, risks, and costs will build up in this section

Objectives:

- To find out explanation based on term of references
- To plan time box based on timescale
- To produce Feasibility appraisal and Outline plan
- To recognize the profit from proposed project

Foundations: In foundation phase, a project is visibly in progress from firm underpinning with three types of viewpoint like- business, management and solution. High level system representation, end-to-end diagram, a solution prototype etc. are the major model arrangement in this phase.

Objectives:

- To come across high level requirements based on MoSCow prioritization system
- To set up the way how worth will be assured
- To evidence time box and control risk what are linked with one project
- To outline unusual types of planned solution for one exact problem

Exploration: In exploration phase, the foundation crop are conventional from this, the member will give a foundation for the project from which one task can develop. In this phase full system model, commerce model, plan model and example solution can be made to investigate the scheme in detail and create a solution.

Objectives:

- To develop the details of the supplies
- To provide near the beginning view of the answer to suitable business owner
- To describe all foundation crop into model
- To describe all types of functional solution

Engineering: The products of exploration are incrementally evolved to complete the full doing well manufactured goods. Knowledge and module form and a working prototype is typically shaped in this phase which are technological, precise and thorough.

Objectives:

- To refine the solution from the previous phase
- To expand any parts of one product as needed for successful operating
- To support the evolving solution in live operation

Deployment: In use phase the solution move into the live setting which ensures that the manufactured goods are fully performance and prepared to sell or use. Working and implement account of last prototype, non-implementable representation like drawing etc. are created in this section.

Objectives:

- To discharge the answer into live commerce setting
- To evaluation the generally task show
- To analysis the in general technological show of the whole project
- To offer significant and essential certification to owner and users to prepare ad learn to use this explanation.

Post-project: This phase takes place after the use phase and in this phase the show of the explanation touching the commerce values and wants. Model is old in this phase to analyze and appreciate the system solution

Objectives:

- To charge whether the profit likely from the task have really appear

Success factors:

There are a number of achievement factors for DSDM Atern that the business should have in place-

- A helpful profitable association between suppliers, clientele and solution developers should be located where result developer is from same association or from different business.

- Incremental delivery is necessary in order to increase a near the beginning return on asset without risk within time, budget and perfect quality. And in this development business needs to be acquiescent.
- Simple contact by Solution Developer to dealing role though each unusual role will be co-located at their own committed place. But every day break will not be allowable in DSDM Atern approach.
- Explanation maturity team stability is a significant achievement factor in DSDM Atern as one project will be set at risk if the team members are exchange in and out incessantly. Every so often specialist can be call as needed but growth team should stay steady.
- Acceptance of the DSDM Attern viewpoint before opening work. All the roles populace like business sponsor, senior organization should recognize the DSDM Attern philosophy with value by concord in order to deliver on time in budget product. (/solution/hospital-help-desk-software, n.d.)

Implementation plans:

Chapter 5- : planning

Project planning is part of project management, which relate to the use of schedules such as Gantt charts to plan and subsequently statement development within the project environment. Initially, the project scope is defined and the proper methods for implementation the project are determined. Project planning is a control for stating how to whole a project within a certain timeframe, usually with defined stages, and with designated resources. One outlook of project planning divides the activity into:

- Setting objectives
- Planning the schedule
- Making supporting plans
- Identifying deliverables

The content and plan of the project is depending ahead on project type and chosen methodology, and DSDM Attern methodology used in the project so following contents should be recovered.

(definition/project-planning, n.d.)

Project plan

Management plan/work breakdown structure (WBS)

A work breakdown structure (WBS) is a key project deliverable that organizes the team's work into controllable sections. The Project Management Body of Knowledge (PMBOK) defines the work break structure as a "deliverable leaning hierarchical breakdown of the work to be executed by the project team." The lowest level of the WBS must be reliable and decided at the beginning of the making of the WBS. The WBS provides the basis for all project management work, including planning, resource allocation, cost and effort estimation, and scheduling.

Creating a WBS:

- dealings activities impartially when the work is done
- enable the description of the whole scope of work
- provide the capability to allocate work to people accountable for moving out the work
- set up a manage baseline
- describe, bring together and reports information at the suitable level required
- Describe the dealings between work, organization and cost.

(/the-work-breakdown-structure-wbs/, n.d.)

Resource allocation (H/W, S/W. model, documentation)

WBS	Name Of Task	Duration Time	Start Time	Finish Time
1.	**Hospital Management System**	**70 day**	**01-09-2017**	**09-11-2017**
2.	Introduction	1day	**01-09-2017**	**01-09-2017**
2.1	Initial Study	6 day	02-09-2017	07-09-2017
2.2	Literature Review	3 day	08-09-2017	10-09-2017
2.3	Methodology	4 day	11-09-2017	14-09-2017
2.4	Planning	7 day	15-09-2017	21-09-2017
2.5	Feasibility	4 day	22-09-2017	25-09-2017
2.6	Foundation	4 day	26-09-2017	29-09-2017
2.7	Exploration	3 day	30-09-2017	02-10-2017
2.8	Engineering	8 day	03-10-2017	10-10-2017
2.9	Deployment / Development	12 day	11-10-2017	22-10-2017
2.10	Testing	4 day	23-10-2017	26-10-2017
2.11	Implementation	4 day	27-10-2017	30-10-2017
2.12	Critical Appraisal And Evaluation	4 day	31-10-2017	03-11-2017
2.13	Lessons Learned	3 day	04-11-2017	06-11-2017
2.14	Further Scope And Review	3 day	07-11-2017	09-11-2017

Figure- table for hospital management system time and data

Time duration/time boxing

WBS	Name Of Task	Duration Time	Start Time	Finish Time
1.	**Hospital management system(help desk)**	**70 day**	**01-09-2017**	**09-11-2017**
2.	**Per-project**	**14 day**	01-09-2017	14-09-2017
2.1	Project proposal	2 day	01-09-2017	02-09-2017
2.2	Introduction	1 day	03-09-2017	03-09-2017
2.3	Initial study	4 day	04-09-2017	07-09-2017
2.4	Literature Review	3 day	08-09-2017	10-09-2017
2.5	Methodology	4 day	11-09-2017	14-09-2017

Figure- table for per-project time boxing

WBS	Name Of Task	Duration Time	Start Time	Finish Time
1.	**Hospital management system(help desk)**	**70 day**	**01-09-2017**	**09-11-2017**
2.	**Planning**	**15 day**	**15-09-2017**	**29-09-2017**
2.1	Project plan	2 day	15-09-2017	16-09-2017
2.2	Test plan	2 day	17-09-2017	18-09-2017
2.3	Risk management	1 day	19-09-2017	19-09-2017
2.4	Change management plan	1 day	20-09-2017	20-09-2017
2.5	Quality Management	1 day	21-09-2017	21-09-2017
2.6	Feasibility	4 day	22-09-2017	25-09-2017
2.7	Foundation	2 day	26-09-2017	27-09-2017
2.8	Meeting and Report	2 day	28-09-2017	29-09-2017

Figure- table for planning time boxing

WBS	Name Of Task	Duration Time	Start Time	Finish Time
1.	**Hospital Management System(Help Desk)**	**70 day**	**01-09-2017**	**09-11-2017**
2.	**Engineering**	**11 day**	**30-09-2017**	**10-10-2017**
2.1	New System Module	2 day	30-09-2017	01-10-2017
2.2	Use Case	1 day	02-10-2017	02-10-2017
	Class Diagram	1 day	03-10-2017	03-10-2017
2.3	ERD Diagram	1 day	04-10-2017	04-10-2017
2.4	Sequence Diagram	1 day	05-10-2017	05-10-2017
2.5	Component Diagram	1 day	06-10-2017	06-10-2017
2.6	Deployment Diagram	1 day	07-10-2017	07-08-2017
2.7	Exploration	3 day	08-10-2017	10-10-2017

Figure- table for engineering time boxing

WBS	Name Of Task	Duration Time	Start Time	Finish Time
1.	**Hospital Management System(Help Desk)**	**70 day**	**01-09-2017**	**09-11-2017**
2.	**Deployment**	**12 day**	**11-10-2017**	**22-10-2017**
2.1	Design	2 day	11-10-2017	12-10-2017
2.2	Development	7 day	13-10-2017	19-10-2017
2.3	Meeting	1 day	20-10-2017	20-10-2017
2.4	Testing	1 day	21-10-2017	21-10-2017
2.5	Report	1 day	22-10-2017	22-10-2017

Figure- table for deployment time boxing

WBS	Name Of Task	Duration Time	Start Time	Finish Time
1.	**Hospital Management System(Help Desk)**	**70 day**	**01-09-2017**	**09-11-2017**
2.	**Implementation**	**18 day**	**23-11-2017**	**09-11-2017**
2.1	System Implementation	4 day	23-10-2017	26-10-2017
2.2	Critical Appraisal	4 day	27-10-2017	30-10-2017
2.3	Testing	4 day	31-10-2017	03-10-2017
2.4	Lessons Learned	2 day	04-10-2017	05-10-2017
2.5	Further Development	2 day	06-11-2017	07-11-2017
2.6	Meeting	1 day	08-11-2017	08-11-2017
2.7	Report	1 day	09-11-2017	09-11-2017

Figure- table for implementation time boxing

Activity network diagram:

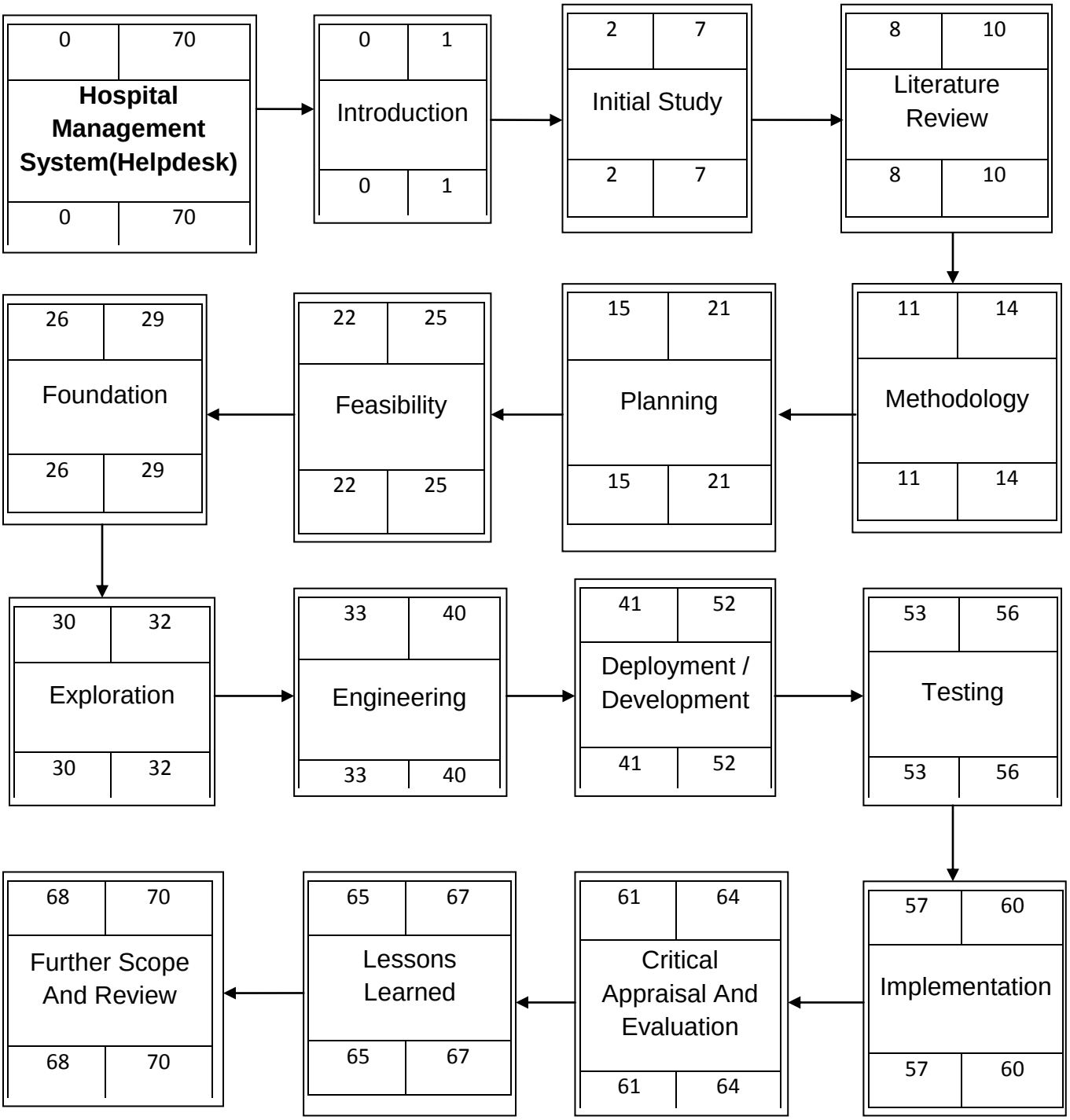


Figure- activity diagram

Critical path

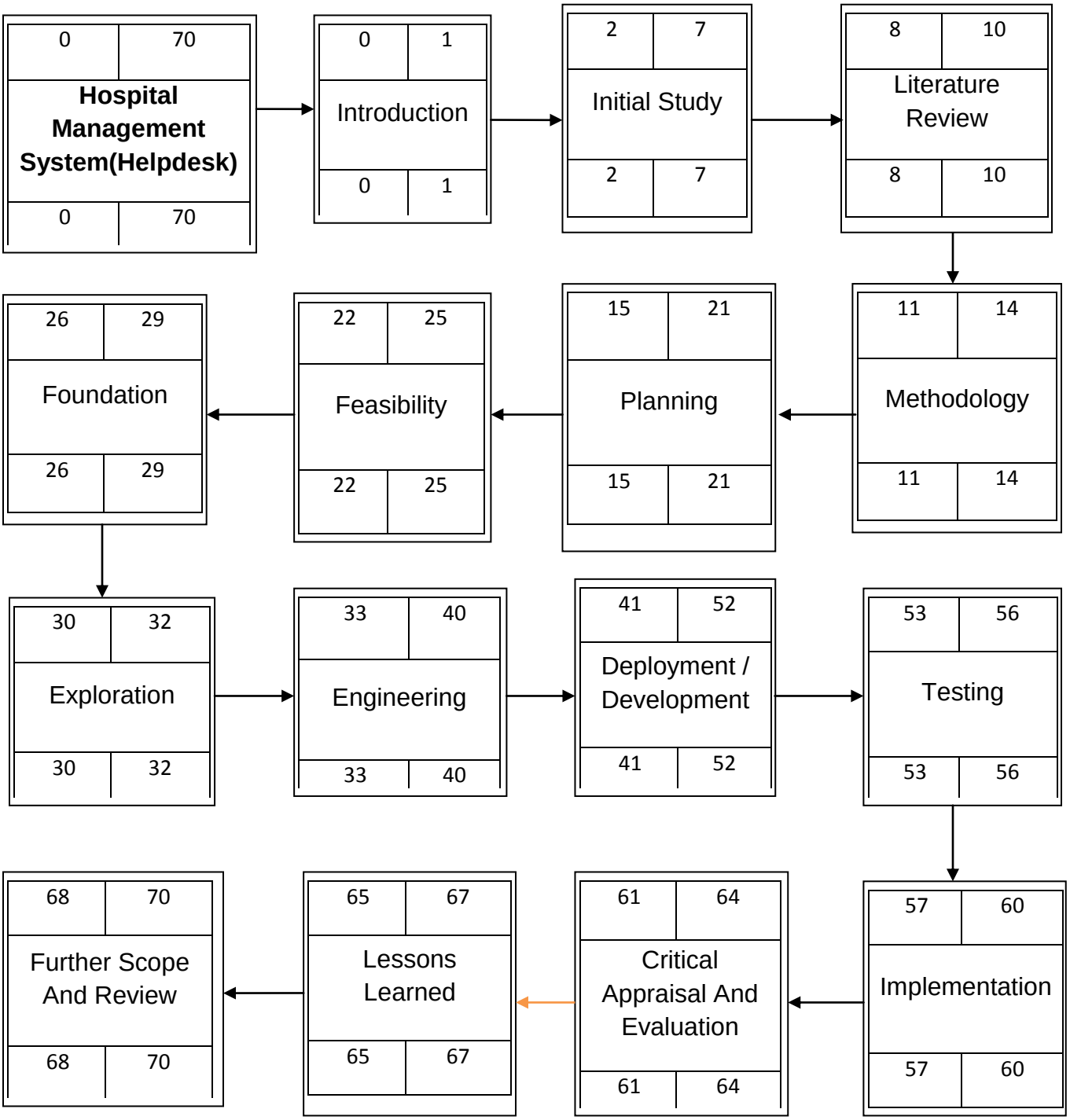


Figure- activity diagram with critical path

Gantt chart:

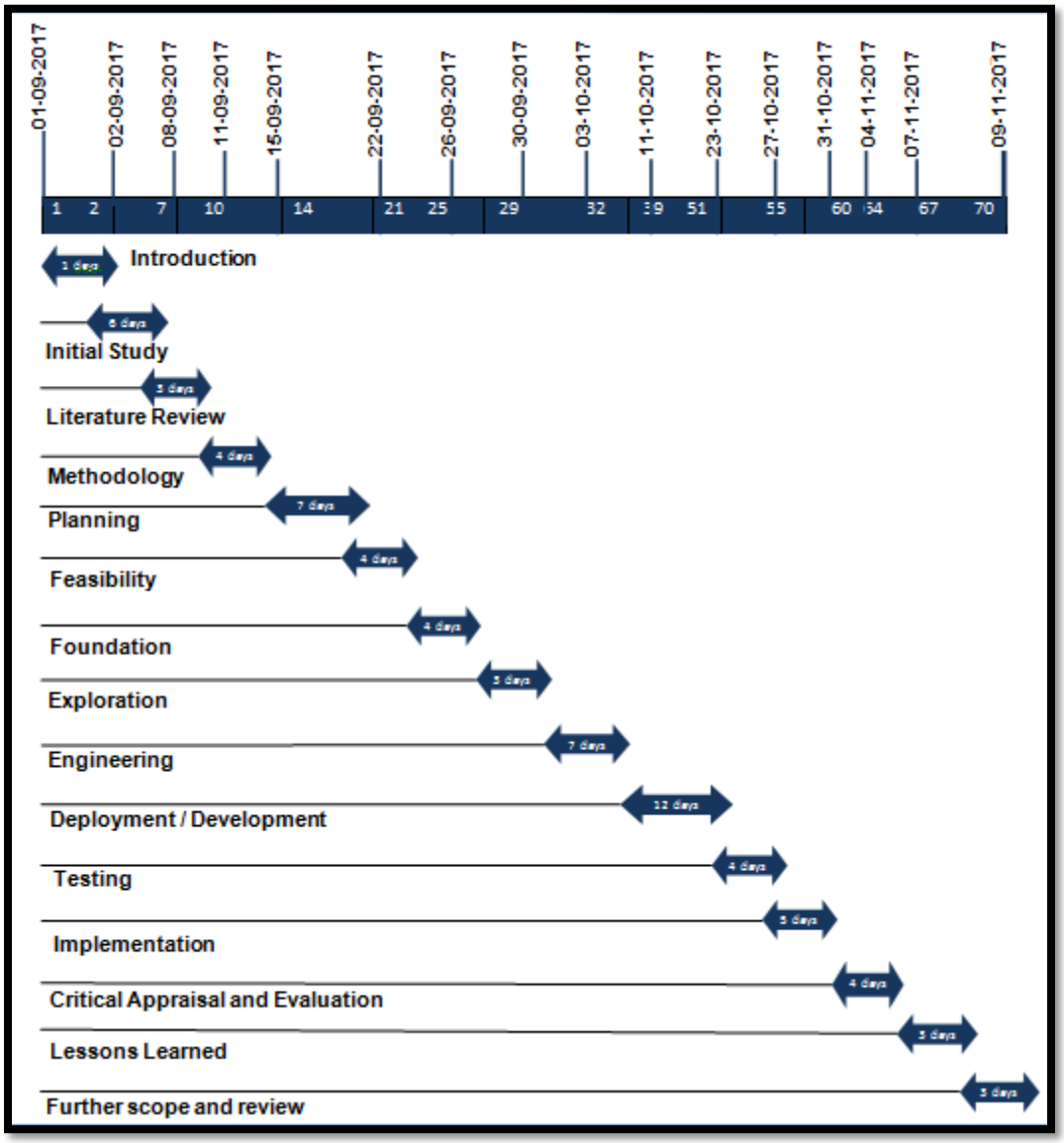


Figure- grant chart for full system

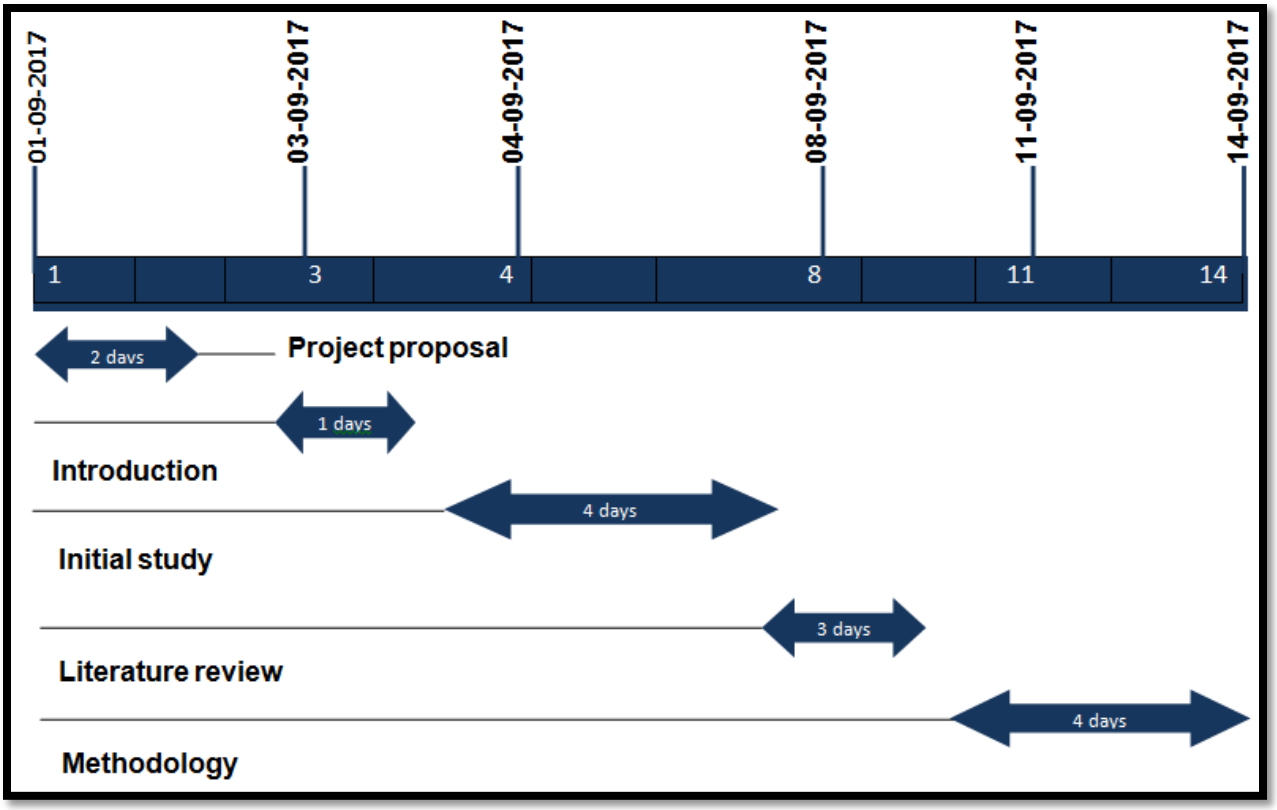


Figure- grant chart for per-project

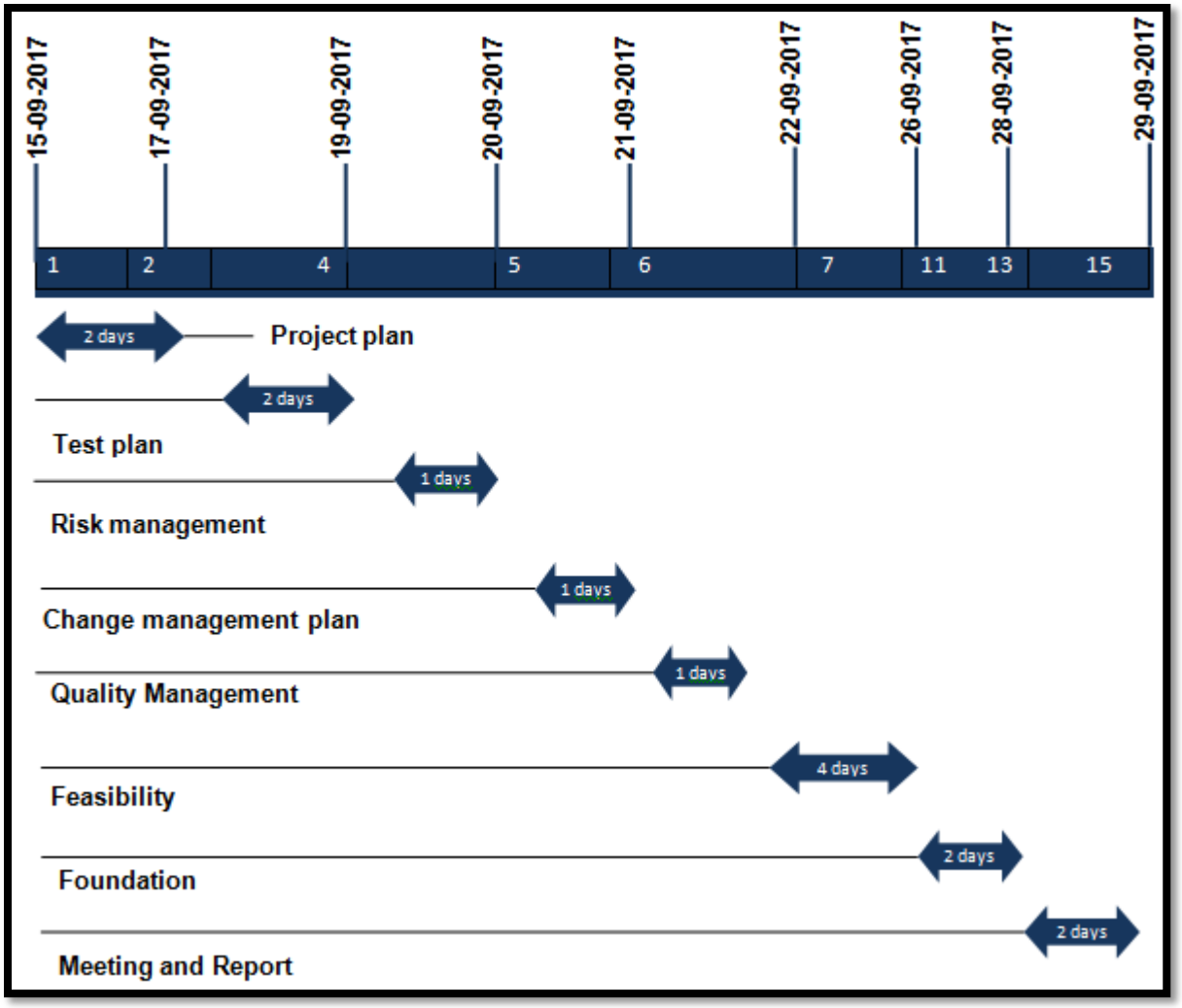


Figure- grant chart for planning

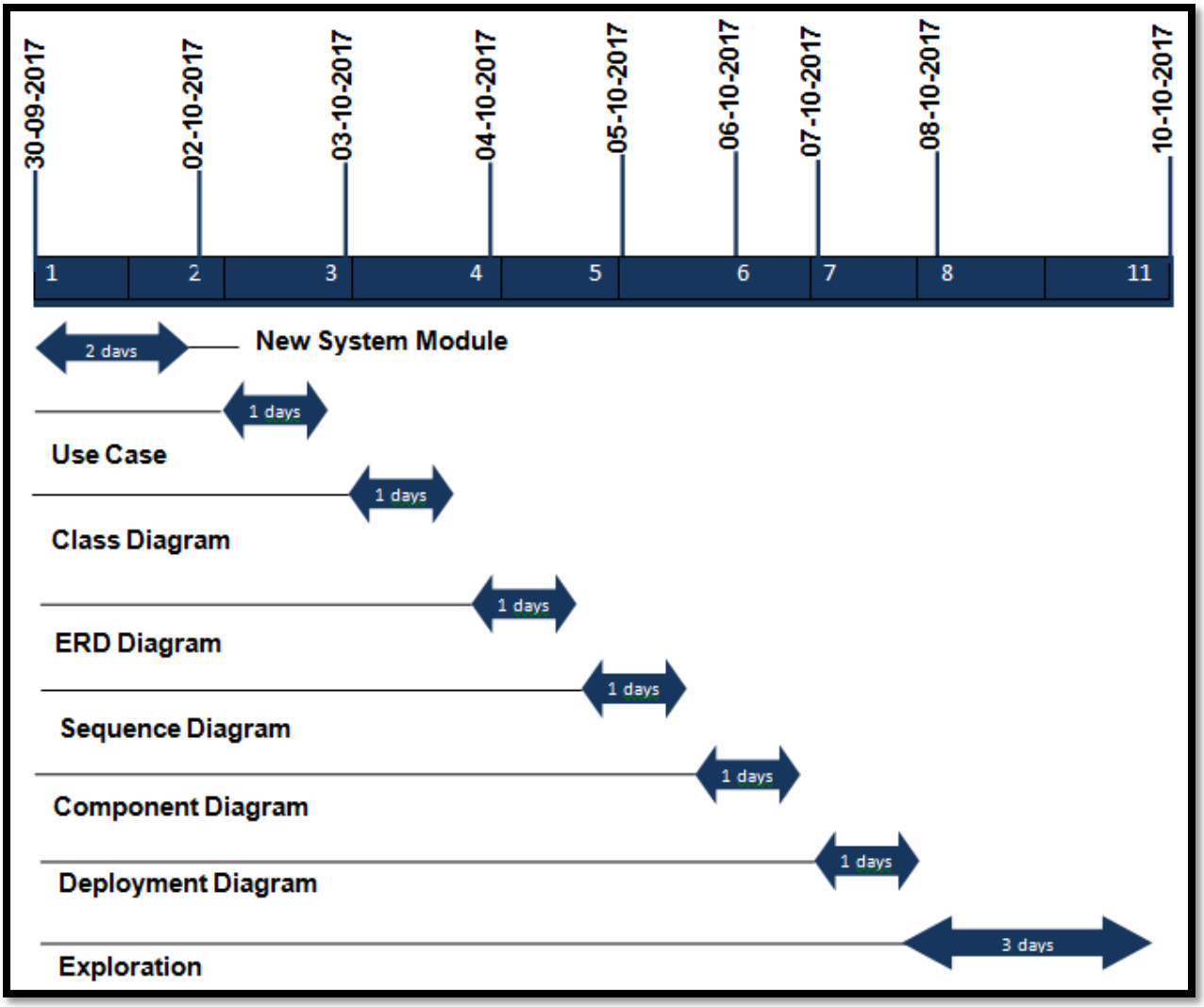


Figure- grant chart for engineering

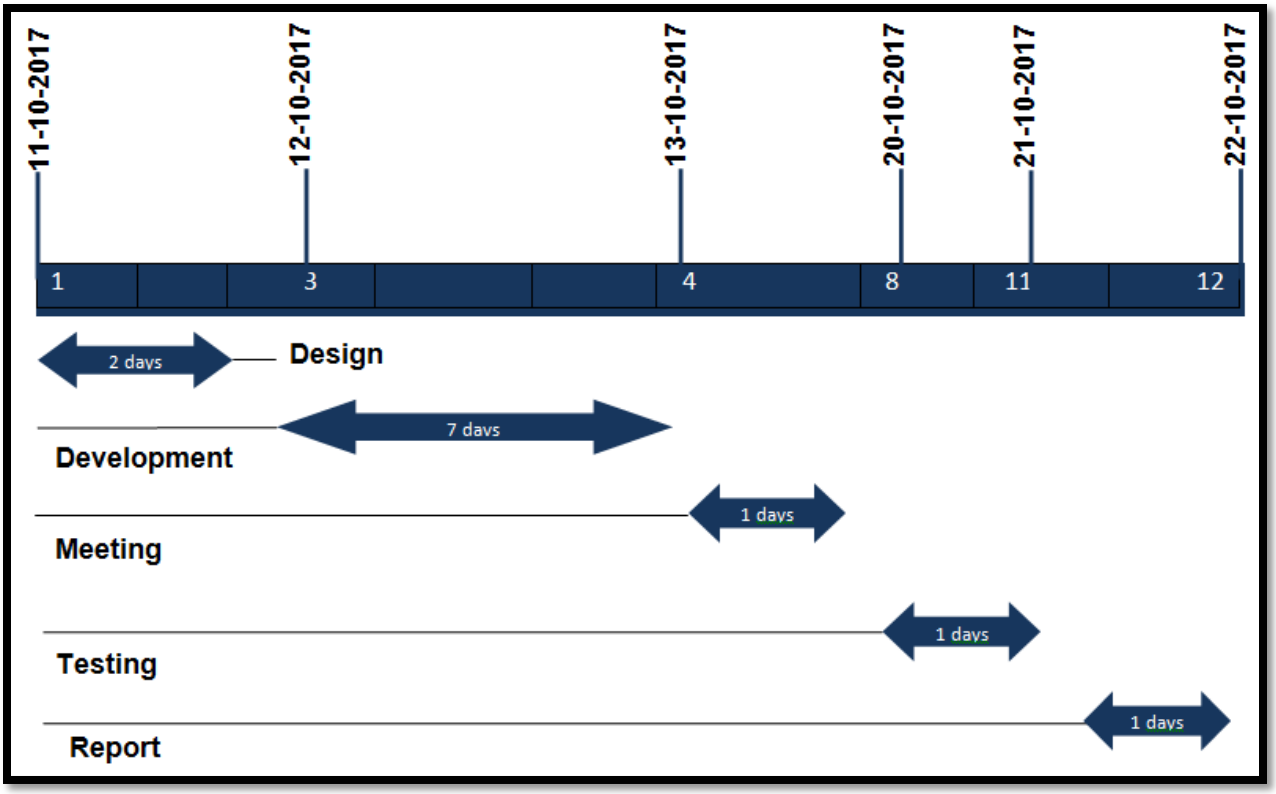


Figure- grant chart for deployment

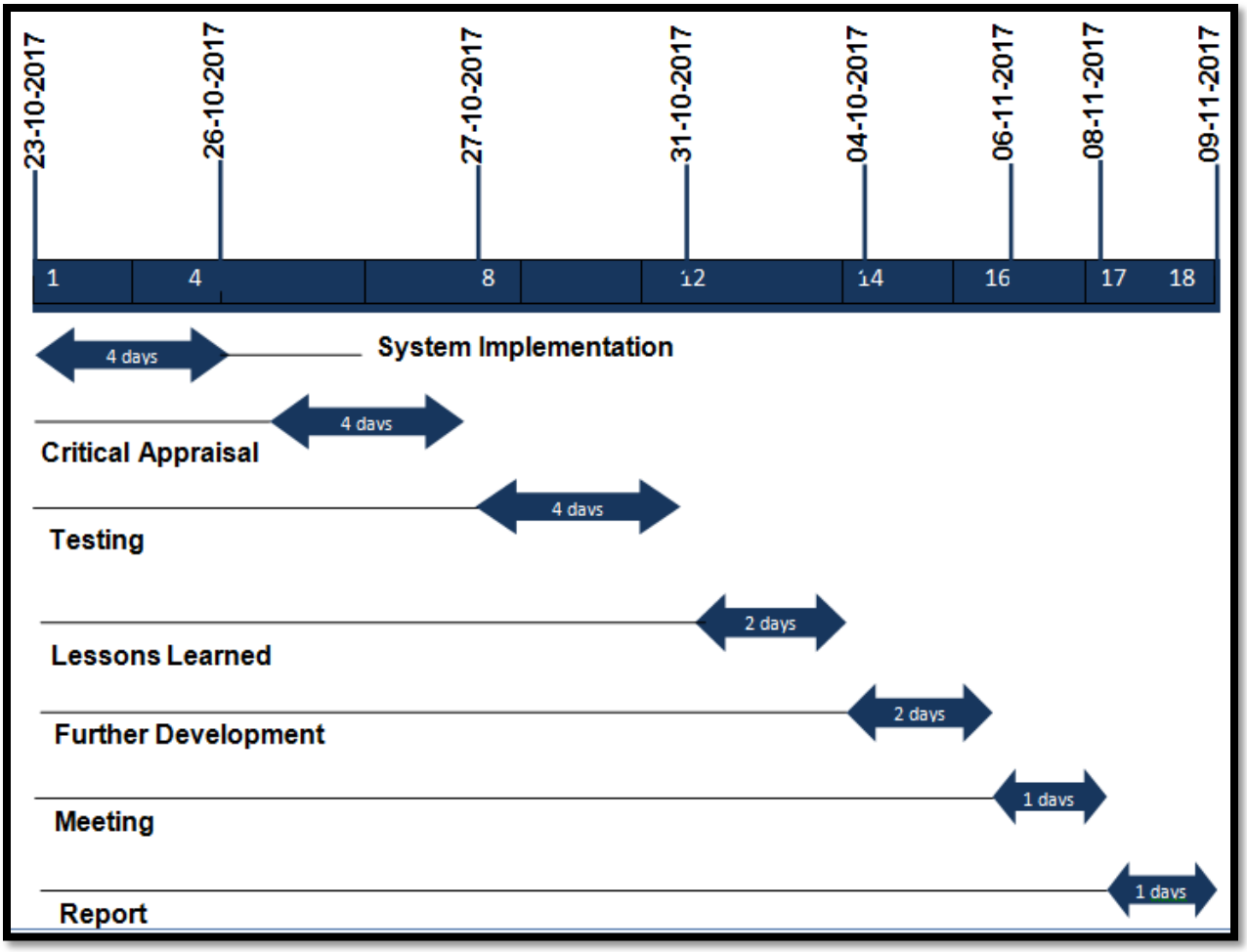


Figure- grant chart for implementation

Test plan:

Test part is the incredibly significant for the software system. Because it is the one technique for know the system run properly or not. For the explanation the testing is the awfully vital part for the system. So I have a number of test plans for our program. There are a lot of type of software testing but here I have a few testing is selected for our program.

Testing against time boxes:

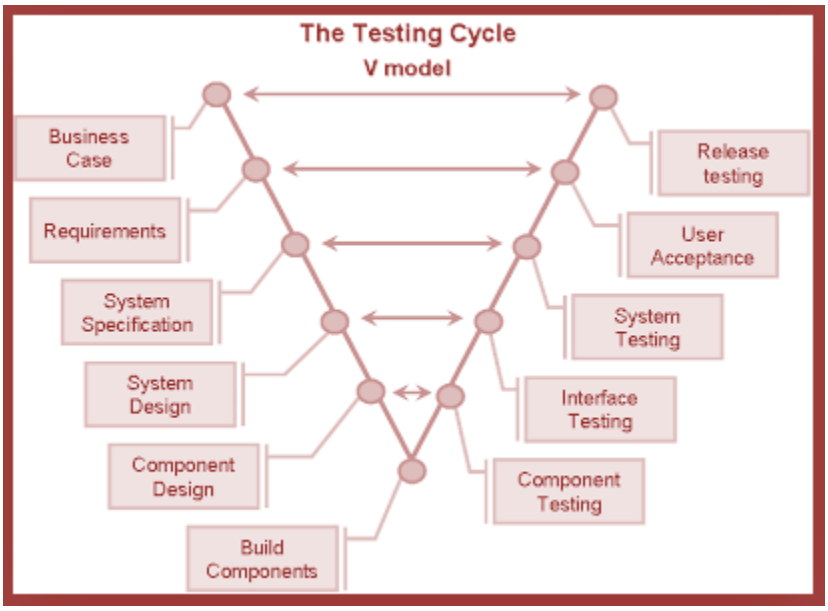


Figure- testing cycle system

Required tests: Including this:

- Test Plan Acceptance
- Test Case
- Unit Testing
- Module Testing
- Integration Testing
- Acceptance Testing
- Security Testing
- Usability testing

Here describing all type of testing. Including this:

Test Plan Acceptance/ User acceptance testing:

User acceptance testing if not known as Beta, request, or End-User Testing, is frequently measured the last stage in the web growth procedure, the one previous to last fitting of the software on the client site, or final sharing of it.

Following some steps User acceptance testing, inclosing this:

- Executing test cases and documenting
- Bug fixing
- Planning
- Designing test cases
- Selection of testing team

(user-acceptance-testing-uat, n.d.)

Test case

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
01	Unit Testing	Admin login	pass	Run successfully
		User login	pass	Run successfully
		User registration	pass	Run successfully
		Doctor login	pass	Run successfully
02	Module Testing	Login code	pass	Run successfully
		Registration code	pass	Run successfully
		Logout code	pass	Run successfully
		Appointment history code	pass	Run successfully
03	Integration Testing	Admin panel	pass	Run successfully
		Doctor panel	pass	Run successfully
		User panel	pass	Run successfully
04	Acceptance Testing	Appointment validation	pass	Run successfully
		Login validation	pass	Run successfully
		Doctor list appointment	pass	Run successfully
05	Security Testing	Copying URL	pass	Run successfully
		Invalid access	pass	Run successfully
06	Usability testing	Doctor	pass	Run successfully
		Patient	pass	Run successfully
		Edit profile	pass	Run successfully

Figure- table for test case

Unit testing:

Unit testing is a software progress in which the least testable parts of a request, called units, are independently and separately scrutinize for good action. Unit testing can be done physically but is frequently automatic.

Module Testing:

A common basis of perplexity for new software testers is the disparity between unit testing and module testing. In universal, unit tests are a set of tests on paper by a developer throughout the software growth process.

Integration Testing:

Integration testing, also recognized as integration and testing is a software expansion process which plan units are mutual and tested as group in several ways. In this context, a unit is clear as the least testable part of a request.

Acceptance Testing

Acceptance Testing is a level of the software difficult where a system is experienced for suitability. The purpose of this test is to assess the system's fulfillment with the business necessities and charge whether it is acceptable for delivery.

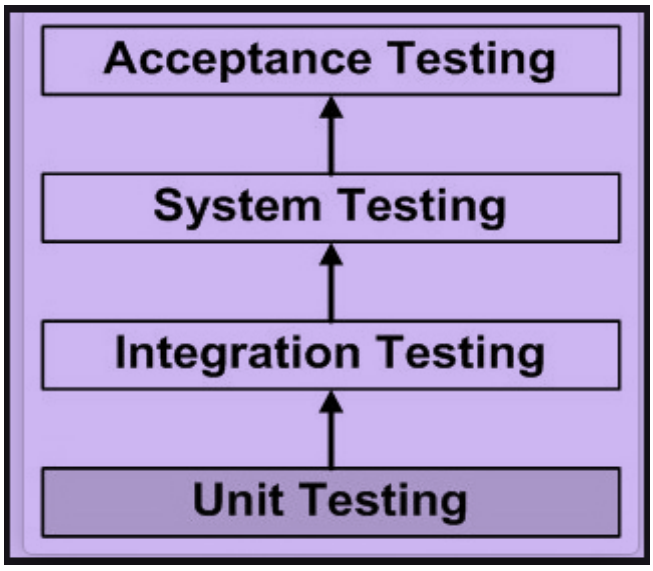


Figure- acceptance testing

Security Testing

Security testing is a growth intended to make known flaws in the safety mechanism of an in order system that protect data and maintain functionality as intended. Typical security supplies may include specific basics of privacy, integrity, verification, availability, authorization and non-repudiation.

Usability testing

Usability testing is a method to see how simple to use amazing is by testing it with real users. Users are asked to total tasks, classically while they are life form experiential by a canvasser, to see where they meet problems and knowledge confusion.

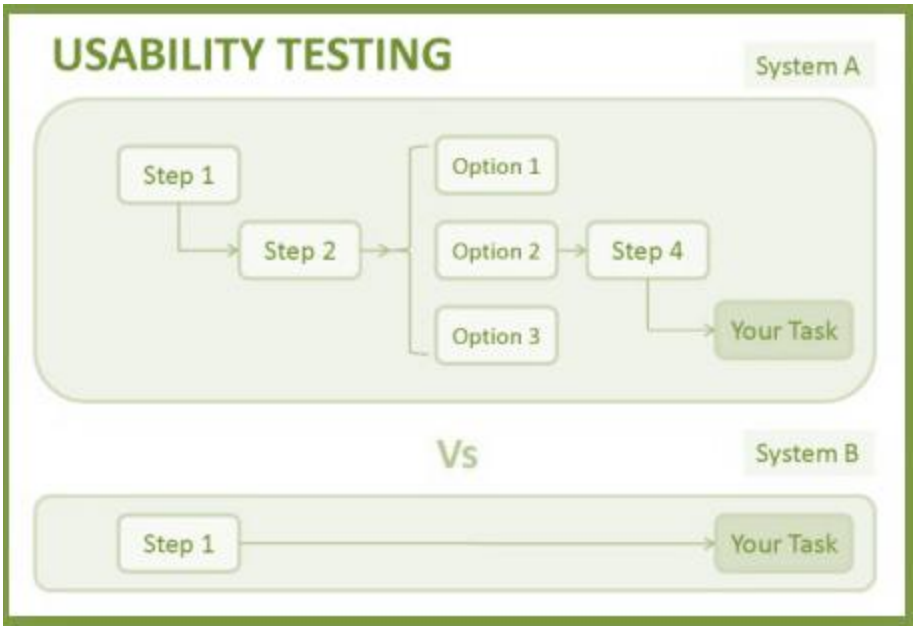


Figure- usability testing

Risk management:

Risk management is the recognition, assessment, and prioritization of risks followed by synchronized and economical request of resources to minimize, monitor, and control the probability or impact of unlucky events or to maximize the realization of opportunity. Risk management's object is to assure doubt does not turn aside the try from the business goals.

Risk identification

Risk recognition is the primary and the majority significant step. It involves a swap of opinions about every step of the project. What contingency can influence the agenda and work process of a scheme? The recognition procedure must comprise non-performance by project subcontractors and supplier, labor dispute, utility outages and usual disaster.

Some risk management process. Like-

Identify the Risk. Our team uncovers, recognize and explain risks that might affect your project or its outcome.

Analyze the risk. Once risks are recognized you decide the probability and result of every risk.

Evaluate or Rank the Risk. We assess or rank the risk by formative the risk size, which is the mixture of likelihood and result.

Treat the Risk. This is also referred to as Risk reply preparation. Throughout this step you assess your maximum rank risks and set out a plan to treat or adjust these risks to realize satisfactory risk level.

Monitor and Review the risk. This is the step where you take your scheme Risk list and use it to check, path and appraisal risks.

(project-risk-management-methods-43768.html, n.d.)

Risk assessment:

They must then be assessing as to their possible severity of collision and to the likelihood of incidence. These quantities can be also simple to measure, in the container of the value of a lost building, or not possible to know for sure in the case of an improbable event, the likelihood of rate of which is unidentified.

(/wiki/Risk_management, n.d.)

Risk precaution/action plan:

Risk is about doubt. If you put a structure approximately that doubt, then you efficiently de-risk your project. And those resources you can shift much more self-assuredly to attain your project goals. By identify and organization a complete list of project risks, unlikable surprises and barrier can be abridged and fair-haired opportunity exposed.

(risk-management-process, n.d.)

Change Management

Change management is the regulation that guides how we prepare, provide and carry persons to productively accept modify in order to drive managerial victory and outcome. While all change are unique and all persons are exclusive, decades of investigate show there are events we can get to power populace in their person transition.

Three Levels of Change Management

- Individual Change Management
- Organizational/Initiative Change Management
- Enterprise Change Management Capability

(hange-management/what-is-change-management, n.d.)

Factors that might cause change

Change in factors like standard income and preference can reason an entire command curvature to move right or left. This cause a higher or lower quantity to be demanded at a given price, Demand curves relate the prices and quantities demanded assuming no other factors change.

DSDM Atern welcomes change:

DSDM Atern follows in the project as teaching, so alter is forever reception in the scheme growth. DSDM always welcome the change and make an efficient likely explanation for the change. This section is discussing how to preserve the change within the project.

Change workshop:

Facilitated workshop can be helpful for any project growth during changes.

- It helps to create rapid and excellence choice
- By the user the public development may brighten up
- Find out the issue and make clear the supplies
- Build team sprint during task growth.

Key Decision takers of change:

The key choice taker is accountable for any change in the scheme growth; here are the key choice takers.

- Business manager
- Developer
- Project manager

Quality Management:

Quality management ensures that an association, product or examine is reliable. It has four main components, quality assurance, quality control, quality planning, and quality development. Quality management is listening carefully not only on manufactured supplies and service quality but also on the capital to attain it.

Maintain quality rules:

- Total Quality Management (TQM)
- Quality control (QC)
- Quality assurance (QA
- Quality management (QM)

Quality Plan and measuring meter: including this-

- confirm the security in the system
- make sure usability of the system
- acceptance user
- user interface of the acceptance
- Is the doctor met user expectation
- computer system performance

Chapter 6- feasibility:

A feasibility study is performed by a corporation when they would like to know whether a project is probable given certain situation. Feasibility study are undertake under many conditions to discover out whether a corporation has sufficient change for a task, to find out whether the manufactured goods being produced will sell, or to see if there are sufficient human resources for the project. A good viability study will show the strength and deficit previous to the project is planned or budget for.

There are many different types of feasibility studies. Including-

- Technical Feasibility
- Schedule Feasibility
- Economic Feasibility
- Cultural Feasibility
- Legal/Ethical Feasibility
- Resource Feasibility
- Operational Feasibility
- Marketing Feasibility
- Real Estate Feasibility

(project-planning/, n.d.)

Cost Benefit Analysis:

No	Name	Cost
01	Web hosting	8000
02	Domain	4000
03	Two HP laptops(500 GB, 4 GB RAM, core i5 3.2GHZ) for administrator	70000
04	Windows seven	10000
05	Yearly maintenance cost	20000
06	Antivirus	6000
07	Web hosting	8000
08	SQL server 2008	10000

Figure- cost benefit

DSDM – good or not for this project –PAQ:

DSDM is good for a small and large project it help to make a structure step by step. Atern philosophy and principle do something as a teaching for the project. It divides a large functionality into small chunks which create easier the project to build up. DSDM allow changing throughout progress and also difficult the project after each function finished, so that it can help to create the organization professionally. It reduces the risk to manufacture a responsibility system.

Chapter 7- foundation:

Problems are identification:

To recognize difficulty locale data meeting technique will help. Data get together technique is important to expand the infirmary organization system, data meeting technique will help to make the organization effectively and efficiently, it may help to supplement the usability and ease of use of the system. Data meeting techniques meet lots of in sequence from dissimilar sources which can help to recognize problem areas. There are some data assembly techniques use to gather information such as-

Interview:

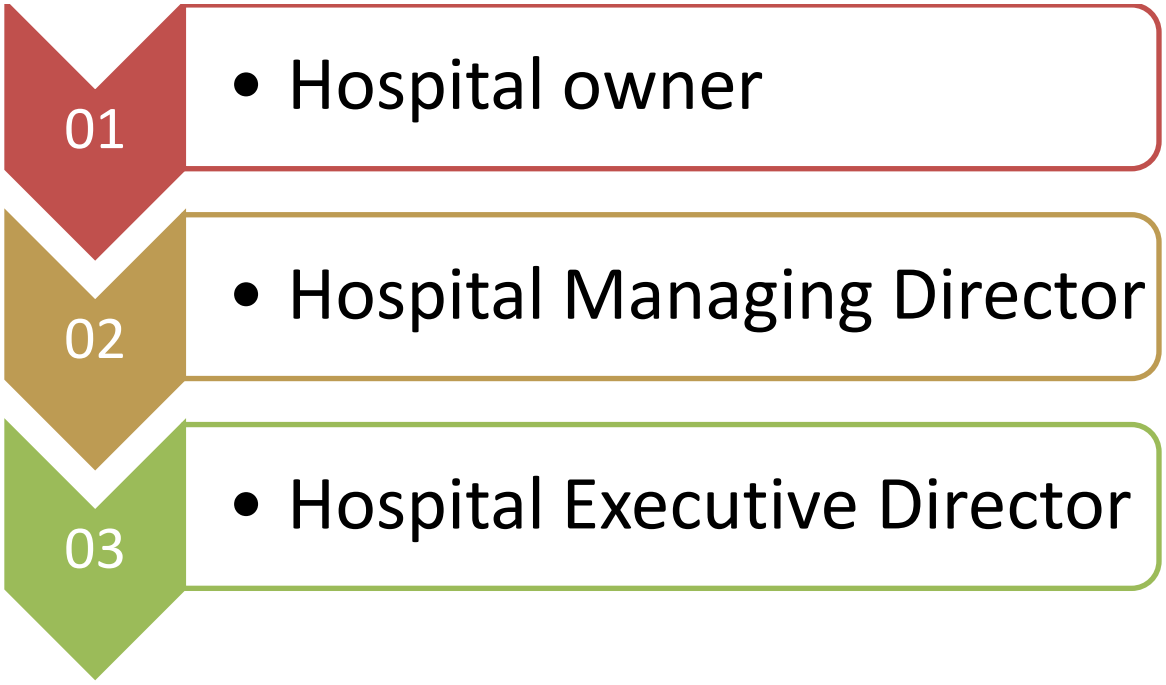
Identify which interviews are needed:

List of person:

SL. No	Designation	Person Name
01	Hospital owner	Md. Masud Karim
02	Hospital Managing Director	Md. Abdul Hannan
03	Hospital Executive Director	Md. Kamal Hossain

Figure- table for identify person

Sequence of the interview:



Observation:

Sl. No	Interview Name	Designation of the interview	Day	Date
01	Md. Masud Karim	**Hospital owner**	**Sunday**	28-09-2017

Sl. No	Interview Name	Designation of the interview	Day	Date
02	Md. Abdul Hannan	**Hospital Managing Director**	**Thursday**	29-09-2017

Sl. No	Interview Name	Designation of the interview	Day	Date
03	Md. Kamal Hossain	**Hospital Executive Director**	**Monday**	30-09-2017

Questionnaires:

Questionnaires for hospital owner (Md. Masud Karim**)**

Qus1: Hello, how are you sir?

Ans: I am fine .thank you.

Qus2: How long are you starting this hospital?

Ans: I am starting since 20 years.

Qus3: How do you find the working environment?

Ans: The working environment is very good

Qus4: Do you get all the support you require for advertising:

Ans: Yes, a lot.

Qus5: For the advertising what type of information you needed?

Ans: I need the information about appointment, doctor, nurse, department, patients etc.

Qus6: How do you collect this information?

Ans: individual staff gives me the individual information.

Qus7: what is the service the hospital provides?

Ans: the hospital providing a different type of treatment.

Qus8: what do you think if you need a website?

Ans: I think we need a website because our hospitals are paper base for that we don't manage every site properly.

Questionnaires for hospital managing director (Md. Abdul Hannan**)**

Qus1: Hello, how are you sir?

Ans: I am fine, thank you.

Qus2: How long are you in this hospital?

Ans: I am here since 10 years.

Qus3: How do you find the working environment?

Ans: The working environment is very excellent

Qus4: How do you collect this information?

Ans: individual staff gives me the individual information.

Qus7: what is the service the hospital provides?

Ans: the hospital provides different type of treatment.

Qus8: what do you think if you need a website?

Ans: I think we need a website because our hospital is paper base for that we don't manage every site properly.

Questionnaires for hospital Executive Director (Md. Kamal Hossain)

Qus1: Hello sir, how are you?

Ans: I am fine .thank you.

Qus2: How long are you in this shop?

Ans: I am here since 8 years.

Qus3: Do you have any ideas to improvement the hospital?

Ans: Yes

Qus4: what type of website you need?

Ans: I need online appointment system website because our hospital document is paper base.

Qus5: what do you think about your hospital?

Ans: as our attention is to produce the company in bigger, so we need a better system.

Rich Picture:

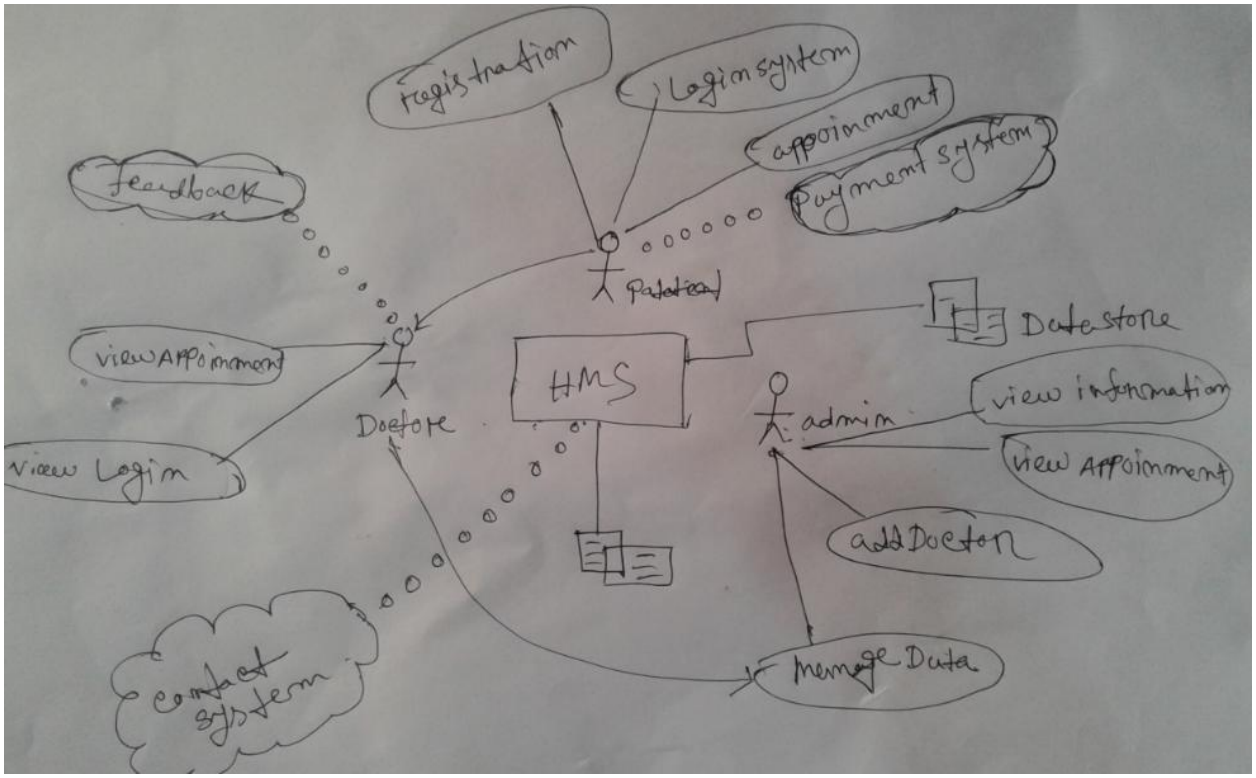


Figure- rich picture

BPMN (Business Process Modeling and Notation) (separated by important modules):

For admin:

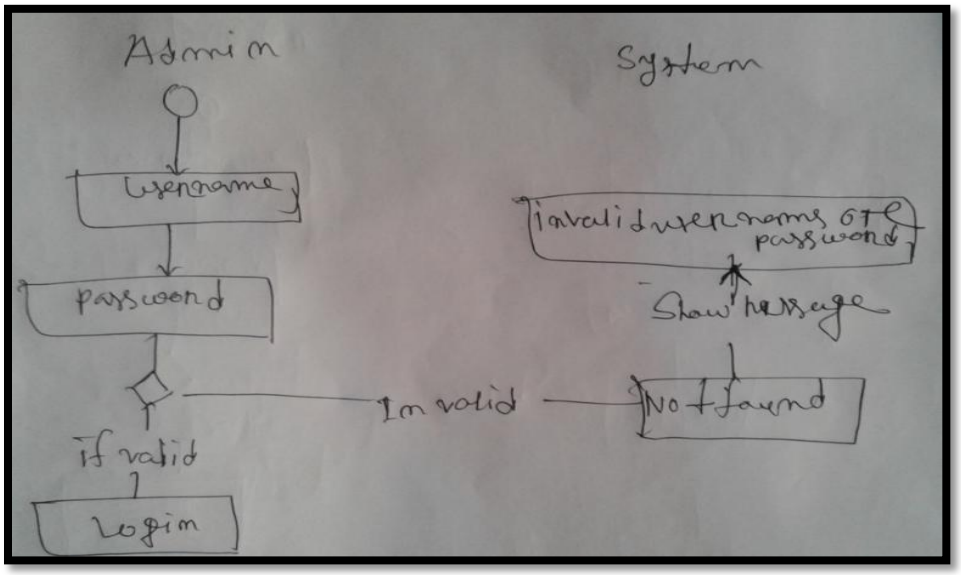


Figure- design for admin

For doctor:

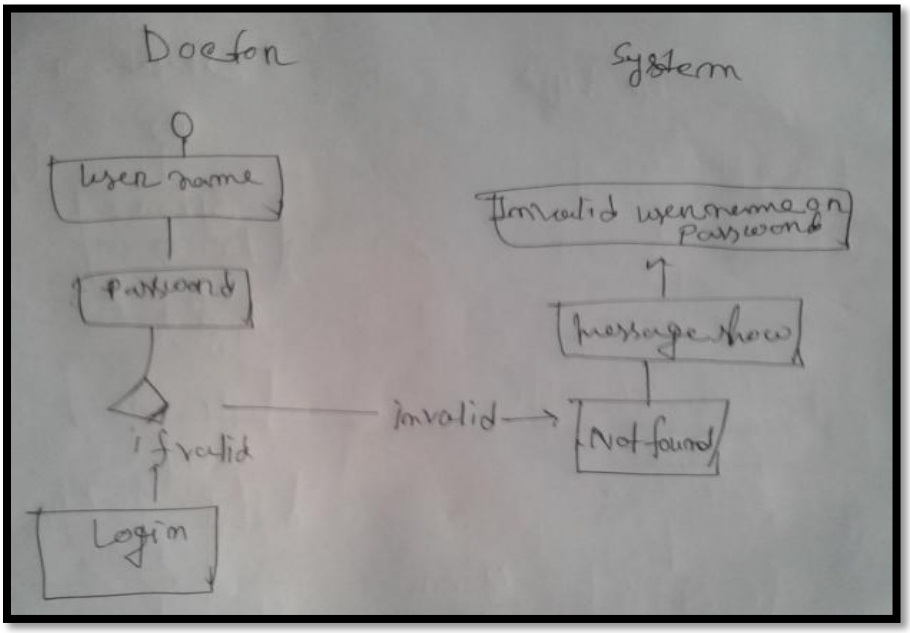


Figure- design for doctor

For user:

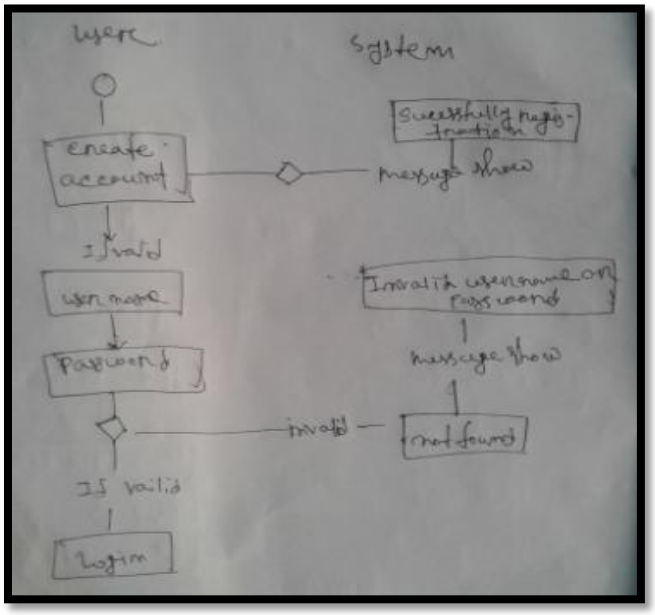


Figure- design for user

For system:

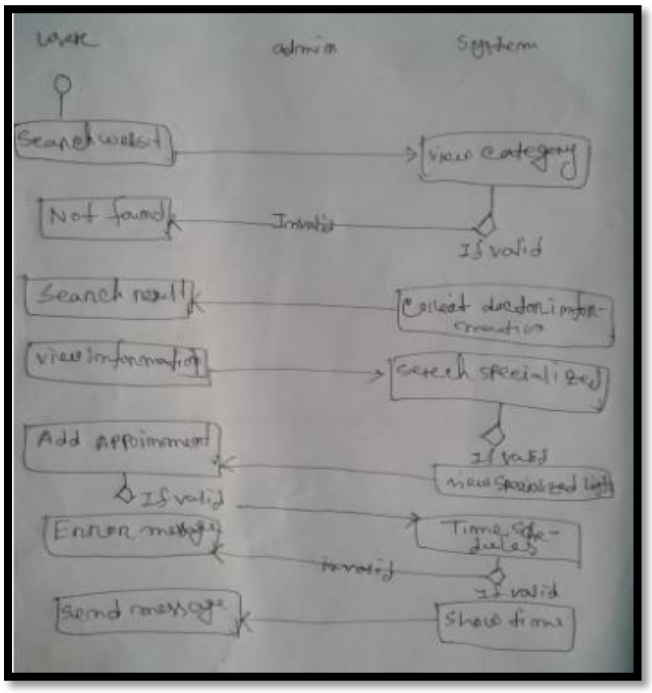


Figure- design for system

Specific problem area identification and description:

Possible Solution:

Overall Requirement List:

Requirement list is a phrase that defines the system functionality. Every company wants or goals are a must of a system. There are two type of requirement, like-functional and nonfunctional. Functional requirement list:

Functional requirement for Admin:

- Admin hospital management panel
- Admin can login
- Admin can add doctor
- Admin can view appointment
- admin can manage doctor
- admin can manage patients
- admin can edit profile
- admin can update information
- admin can total view of information

Category for doctor specialized

- Cancel appointment
- Select doctor
- Search option for finding doctor

Functional requirement for patient:

- Patients penal
- Patient can login
- Patients can registration
- Patient can appointment
- Patient can edit profile
- Patient update information

Functional requirement for doctor:

- Doctor panel
- Doctor can login
- Doctor can view appointment
- Doctor can cancel appointment
- Doctor edit information
- Update information

Nonfunctional requirement list:

- Doctor limitation
- Secure the password by encryption

What Technology to be implemented (Client/Web/Standalone)

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.

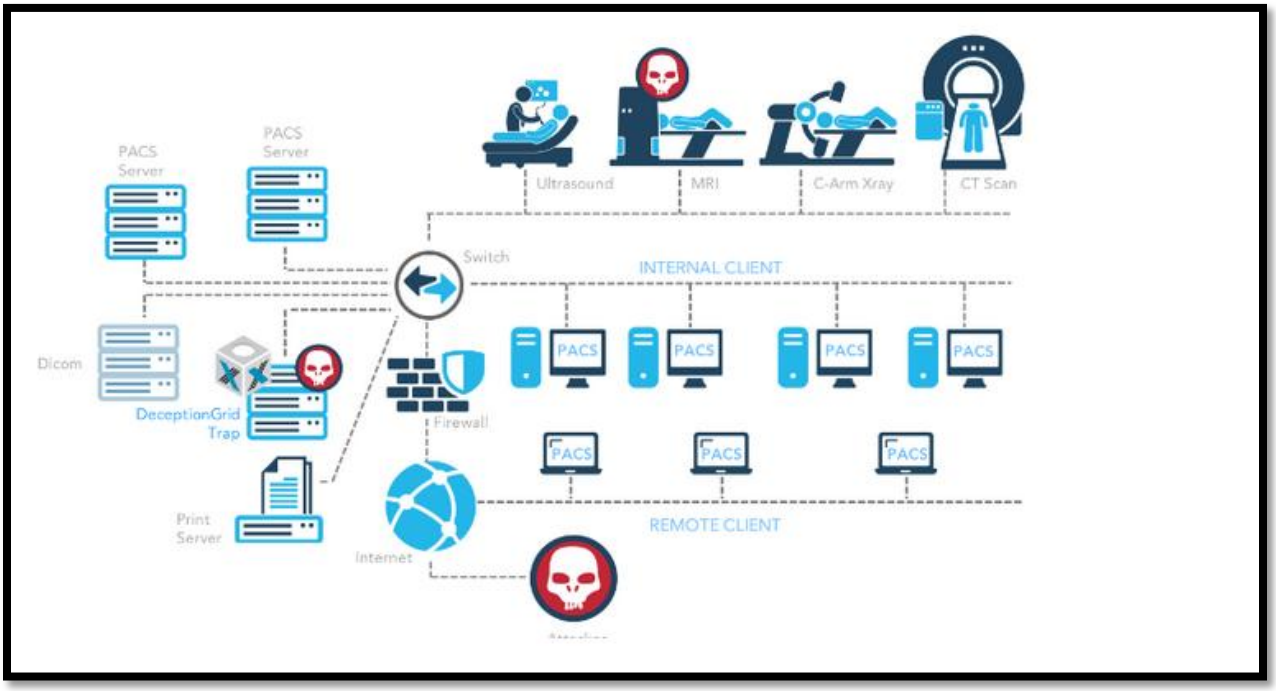


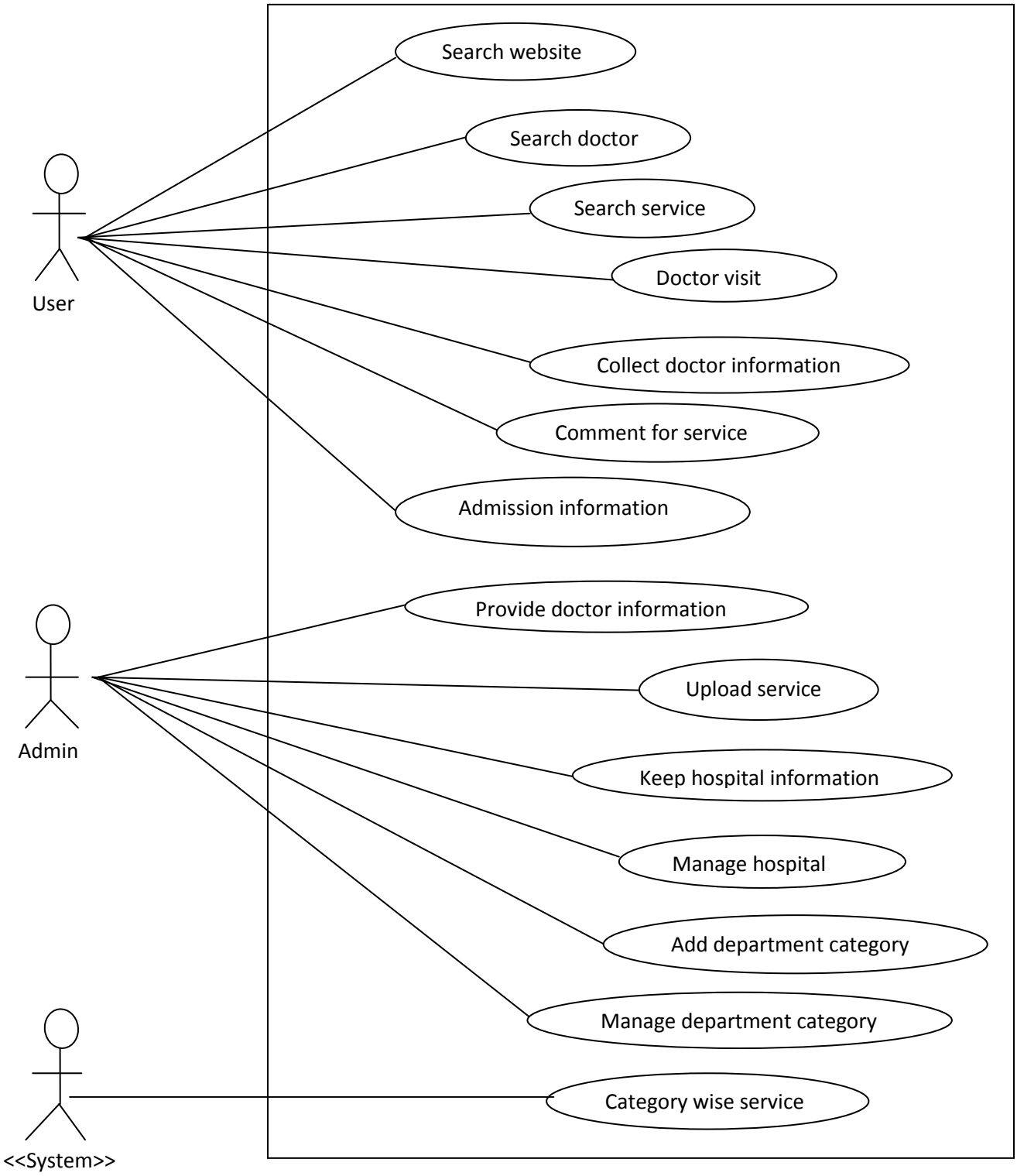
Figure- design for technology

Recommendations and Justifications:

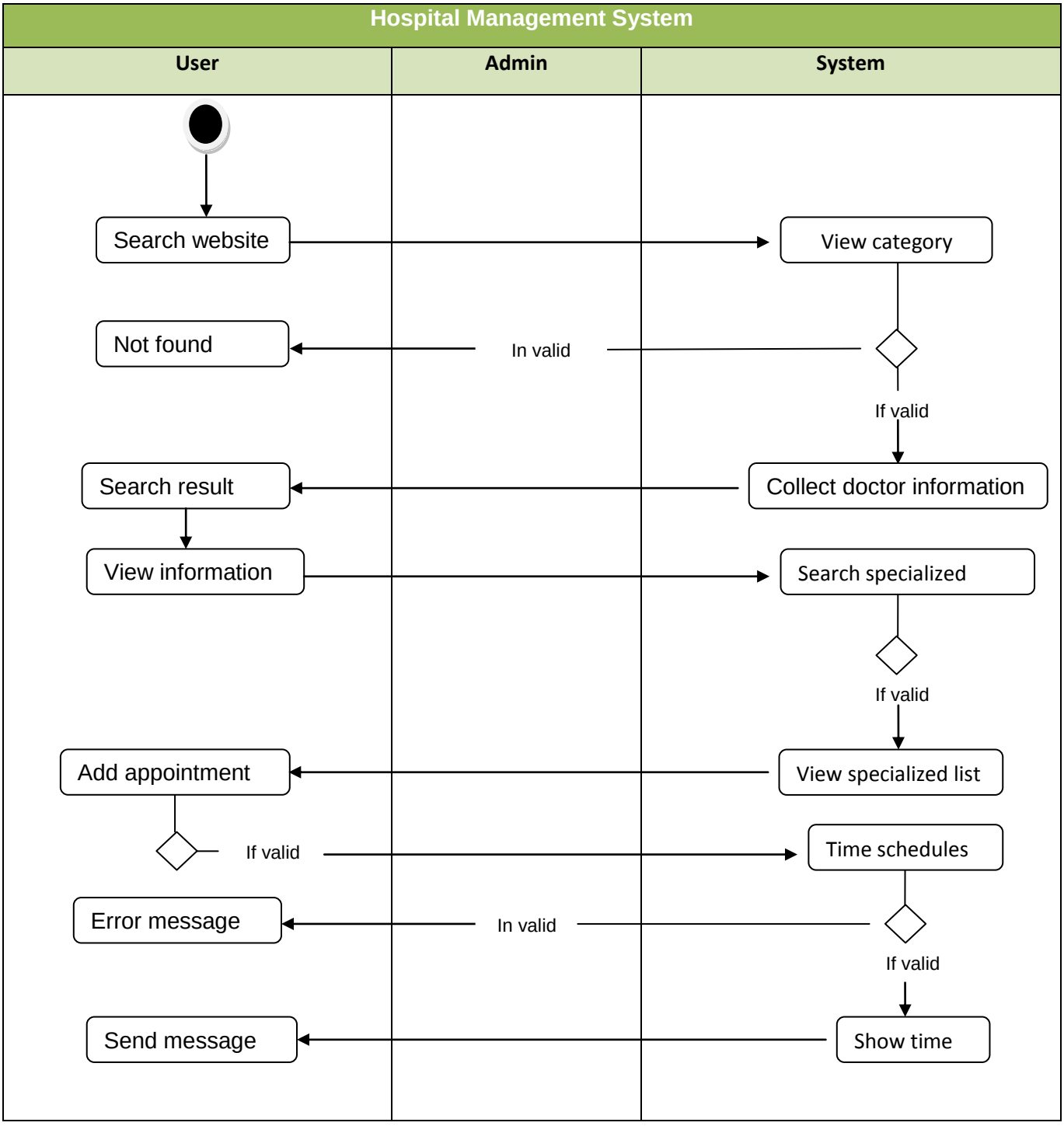
This is for system hospital management system. It is good for hospitalmanagement

Chapter 8- exploration:

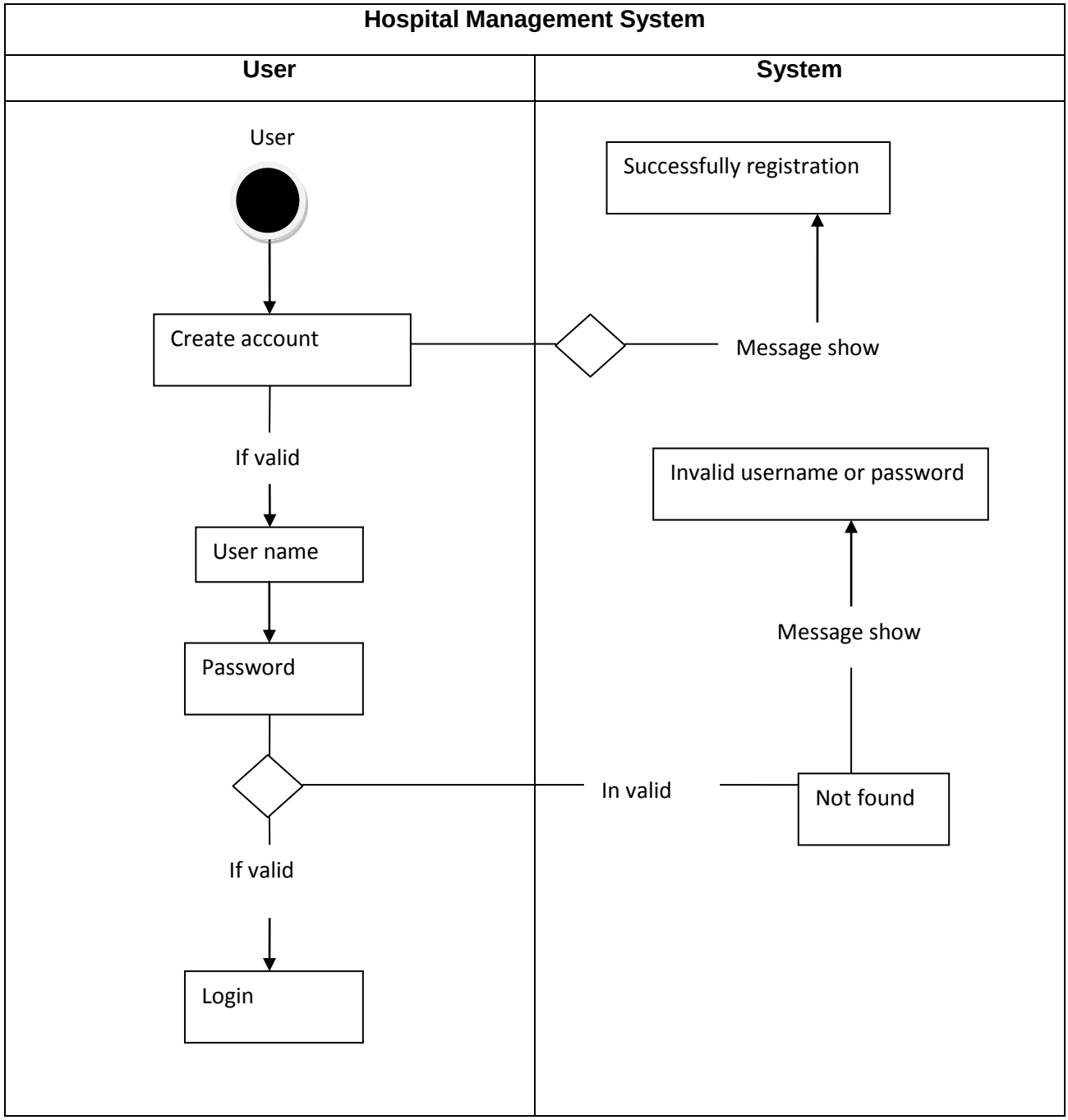
Old System Use Case:



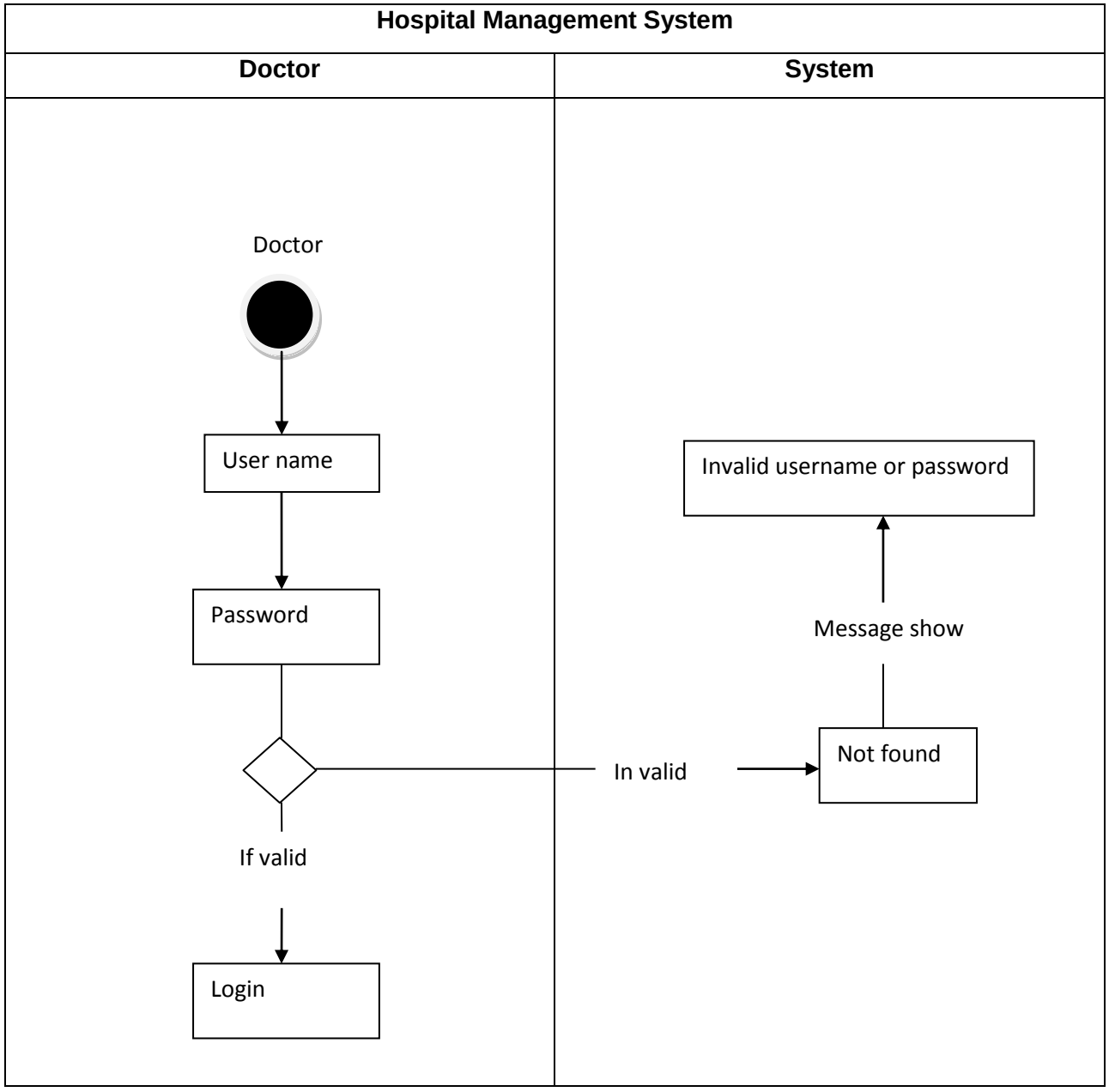
Activity Diagram:



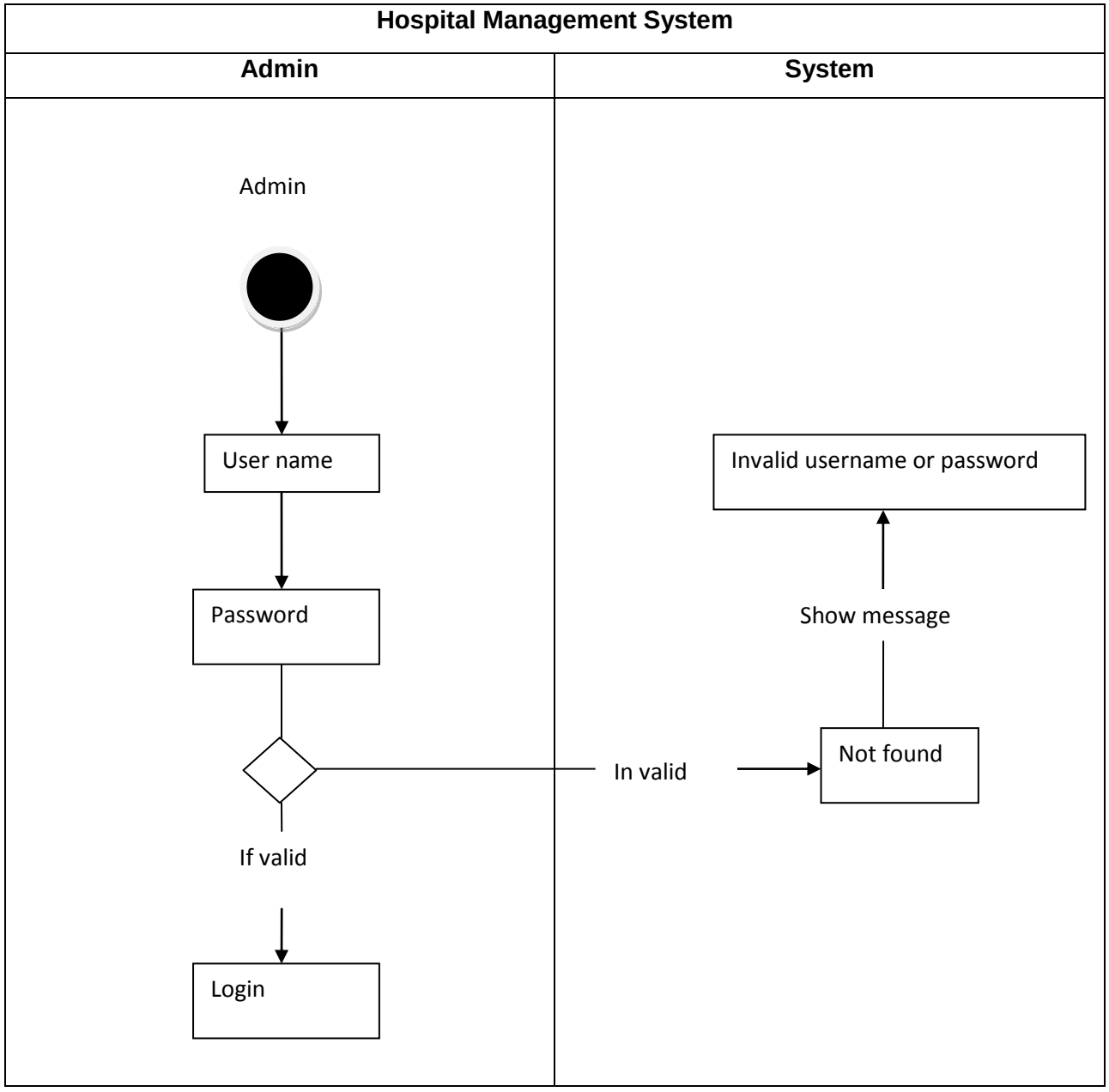
Full System Activity Diagram:



Full System Activity Diagram:



Full System Activity Diagram:



Requirement Catalogue:

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M1**
Functional Requirement: Admin hospital management panel			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M2**
Functional Requirement: Admin can login			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M3**
Functional Requirement: Admin can add doctor			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M4**
Functional Requirement: Admin can view appointment			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M5**
Functional Requirement: admin can manage doctor			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M6**
Functional Requirement: admin can manage patients			
Non functional requirement:			
Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M7**
Functional Requirement: admin can edit profile			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M8**
Functional Requirement: admin can update information			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M9**
Functional Requirement: admin can total view of information			
Non functional requirement:			

Source: admin	**Sing off: category for doctor specialized**	**Priority:** must	**Requirement-ID:M10**
Functional Requirement: Cancel appointment			
Non functional requirement:			

Source: admin	**Sing off: category for doctor specialized**	**Priority:** must	**Requirement-ID:M11**
Functional Requirement: Select doctor			
Non functional requirement:			

Source: admin	**Sing off: category for doctor specialized**	**Priority:** must	**Requirement-ID:M12**
Functional Requirement: Search option for finding doctor			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M13**
Functional Requirement: Patients penal			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M14**
Functional Requirement: Patient can login			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M15**
Functional Requirement: Patients can registration			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M16**
Functional Requirement: Patient can appointment			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M17**
Functional Requirement: Patient can edit profile			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M18**
Functional Requirement: Patient update information			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M19**
Functional Requirement: Doctor panel			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M20**
Functional Requirement: Doctor can login			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M21**
Functional Requirement: Doctor can view appointment			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M22**
Functional Requirement: Doctor can cancel appointment			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M23**
Functional Requirement: Doctor edit information			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M24**
Functional Requirement: Update information			
Non functional requirement:			

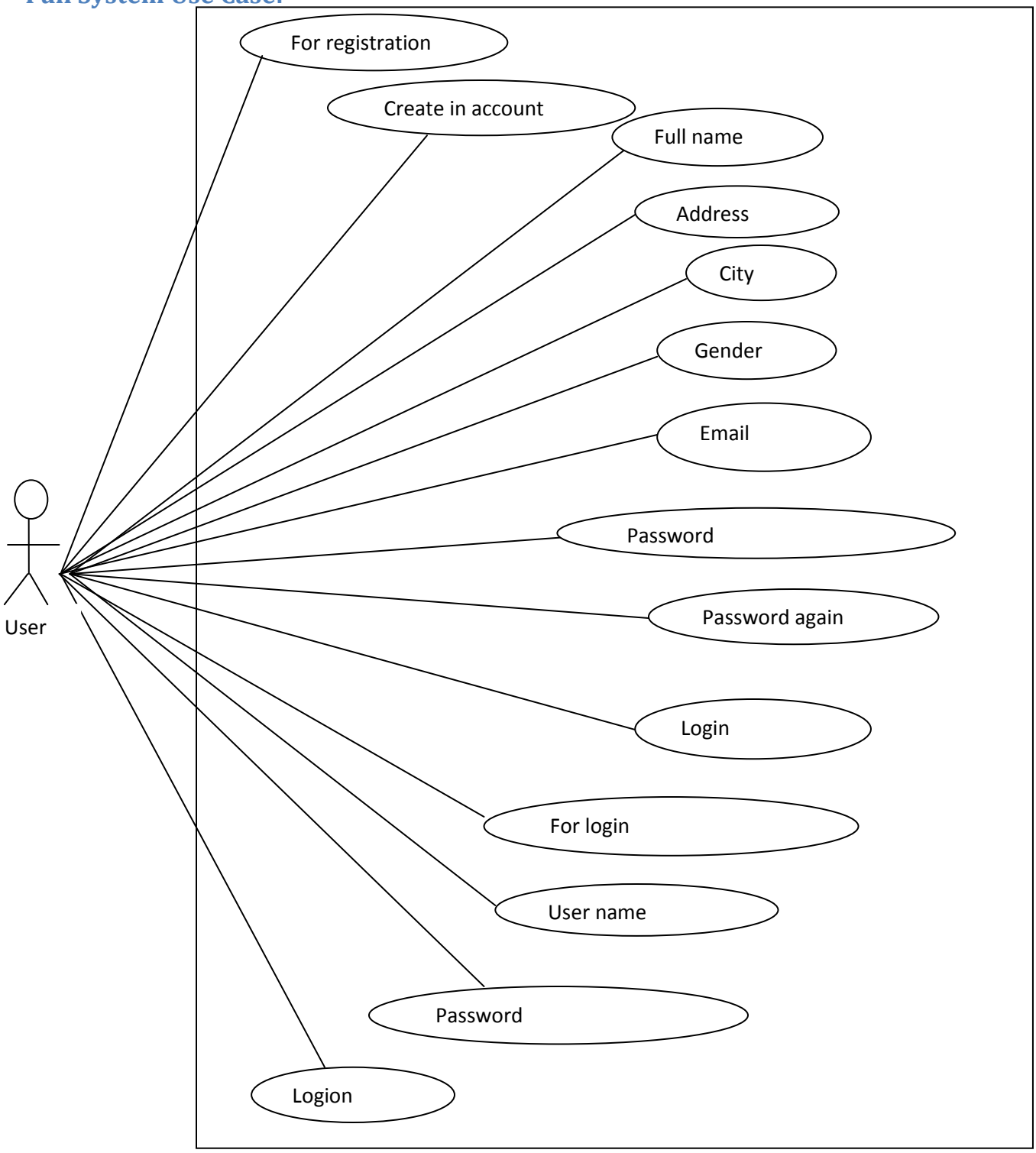
Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M25**
Functional Requirement:			
Non functional requirement: Doctor limitation			

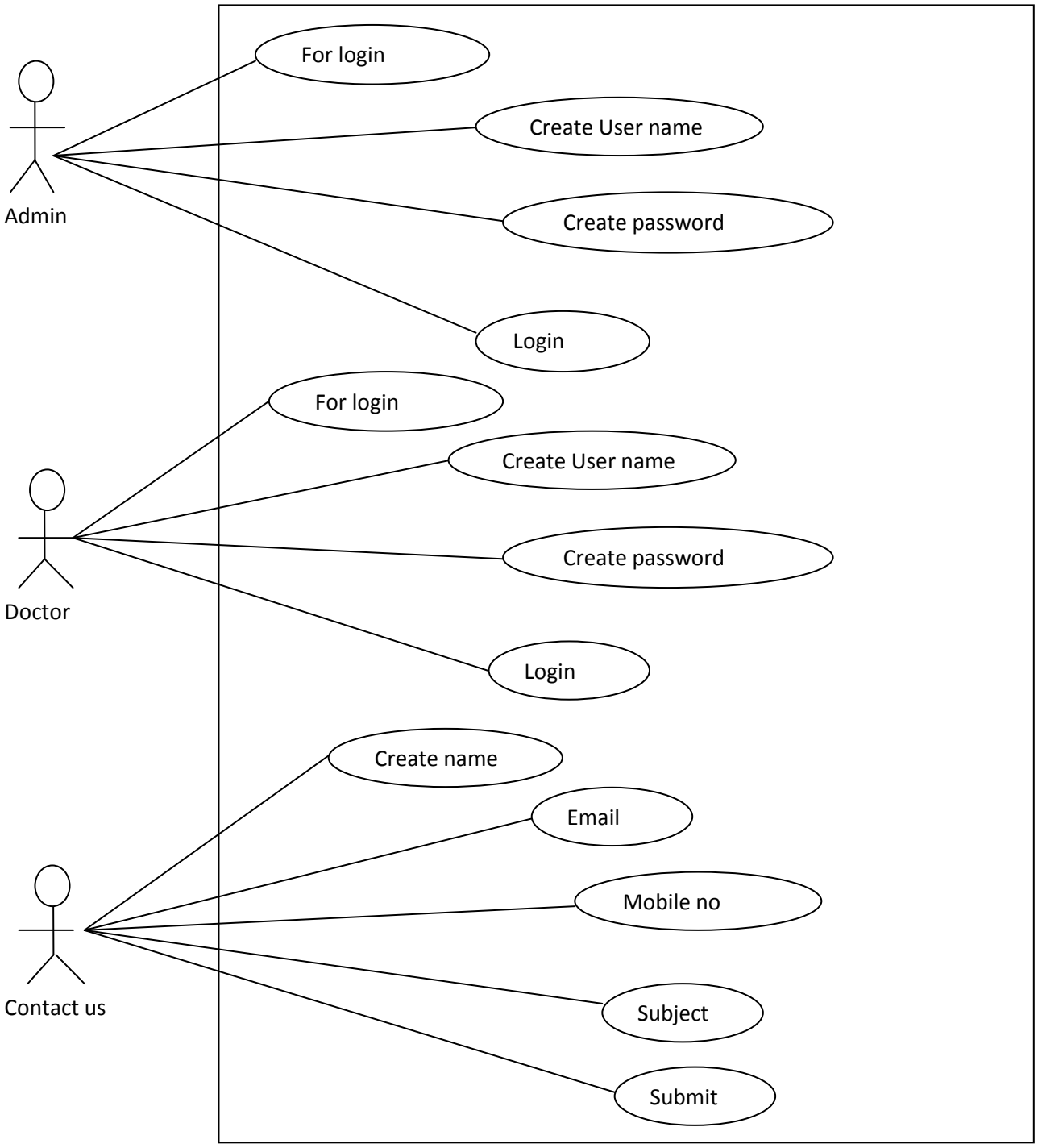
Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M26**
Functional Requirement:			
Non functional requirement: Secure the password by encryption			

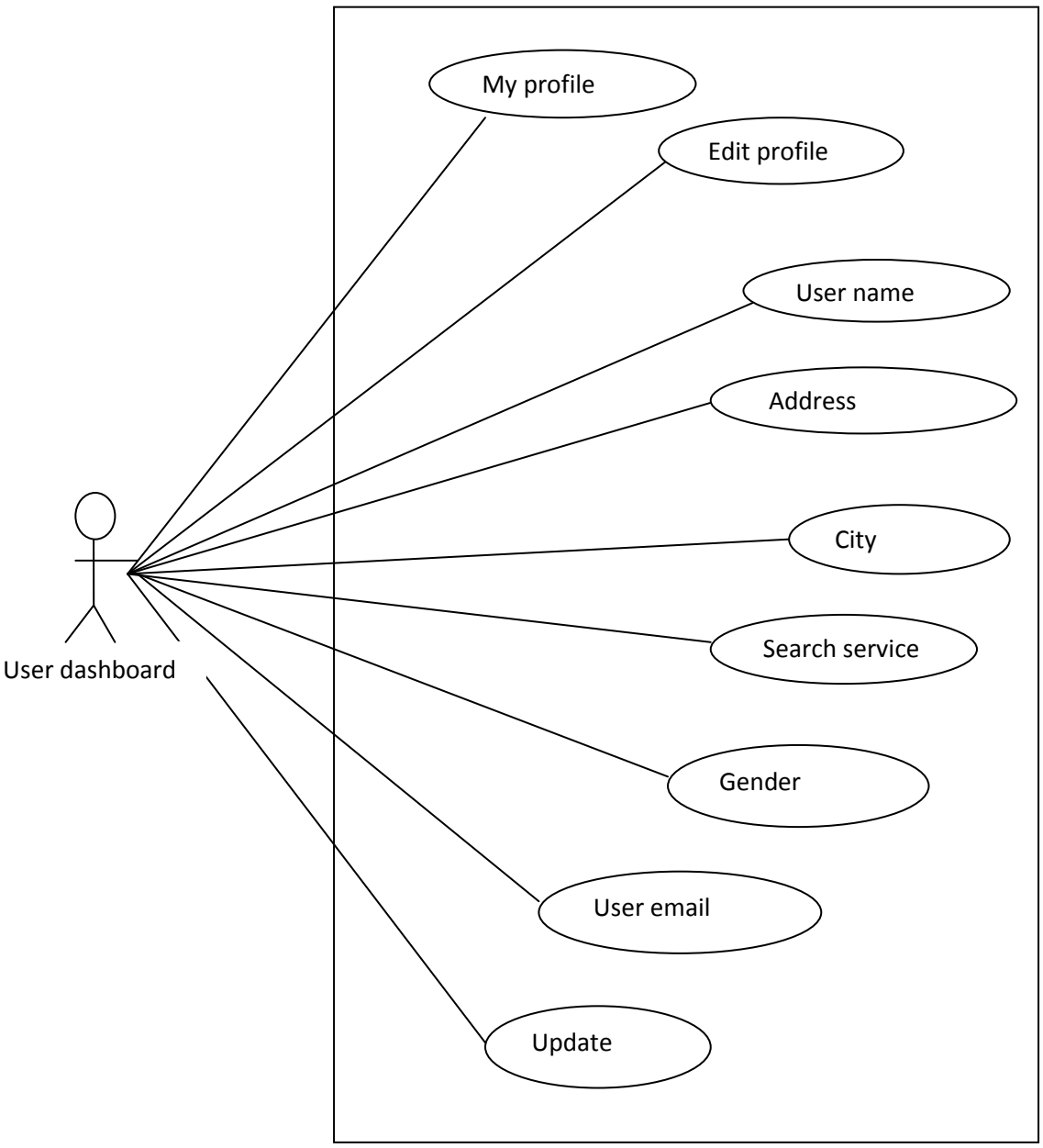
Chapter 9- Engineering:

New System Modules: Use Case

Full System Use Case:




For login
Create User name
Create password
Login
Admin
For login
Create User name
Create password
Login
Doctor
Create name
Email
Mobile no
Subject
Submit
Contact us


My profile
Edit profile
User name
Address
City
Search service
Gender
User email
Update
User dashboard

Class Diagram:

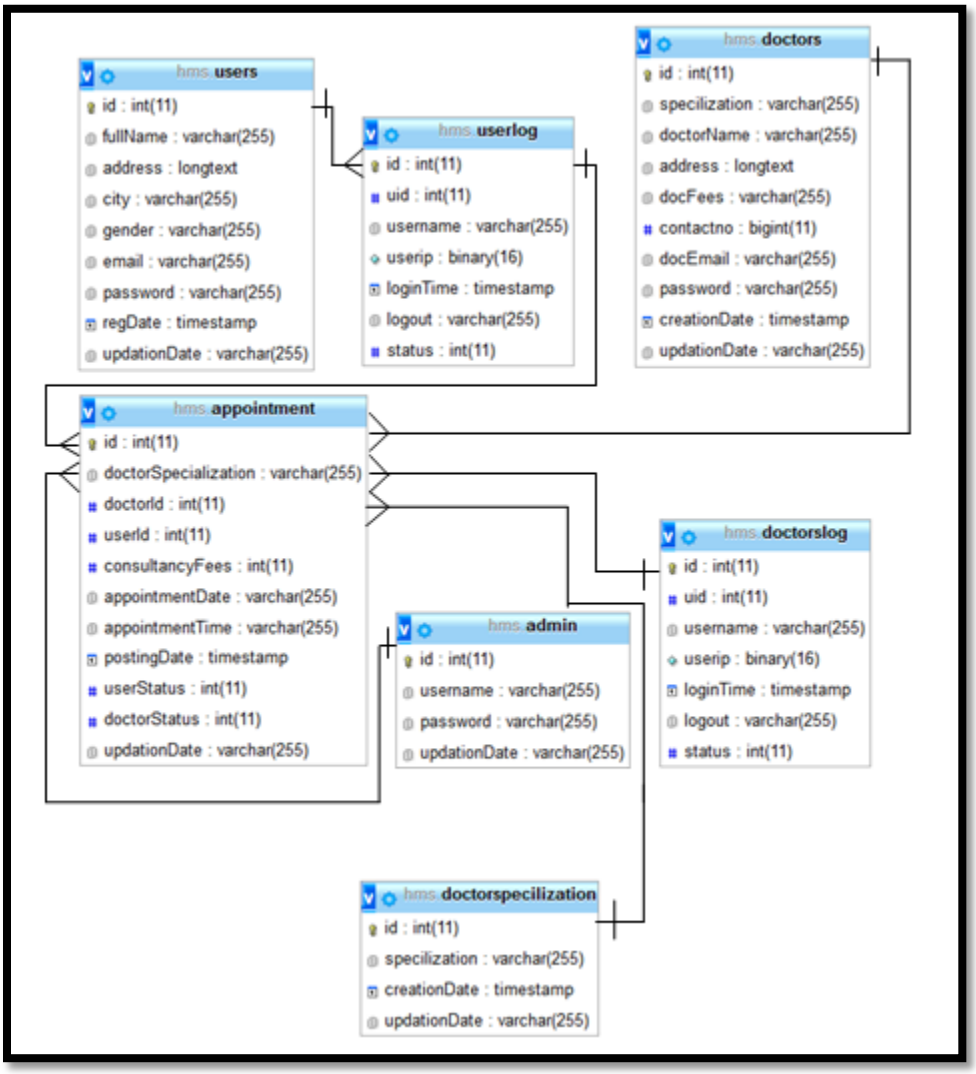


Figure- design for class diagram

Peter Chen EERD Diagram:

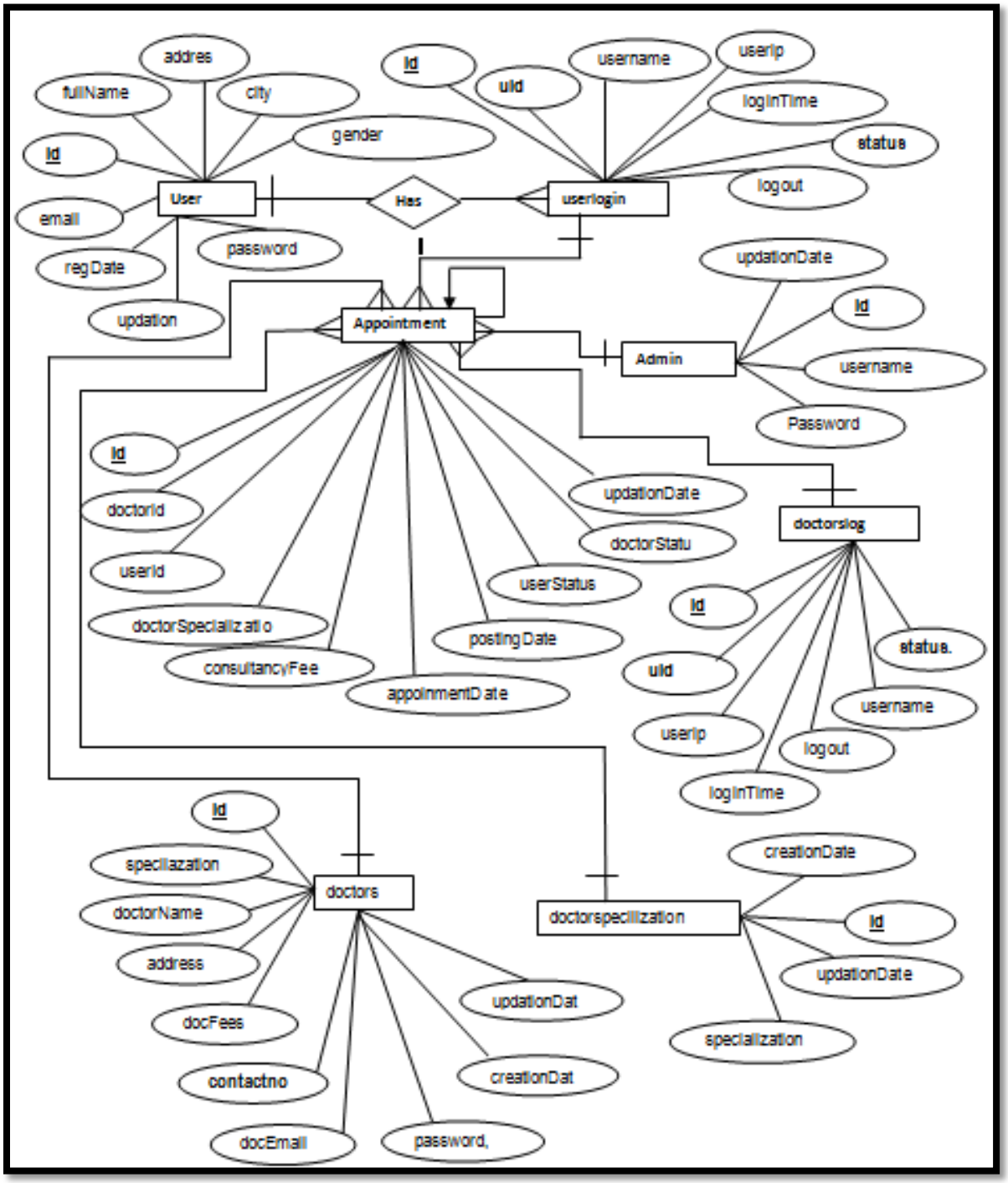
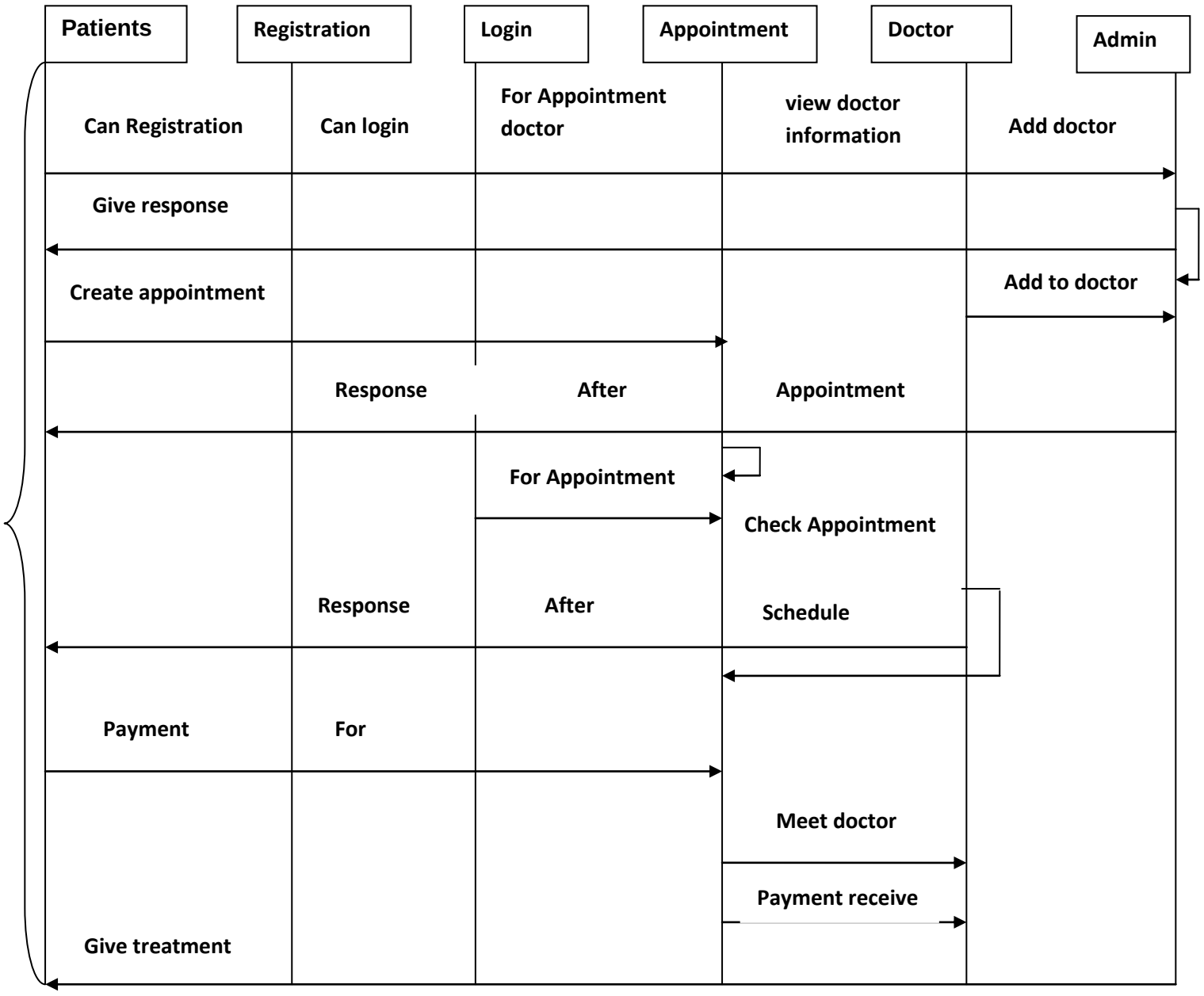
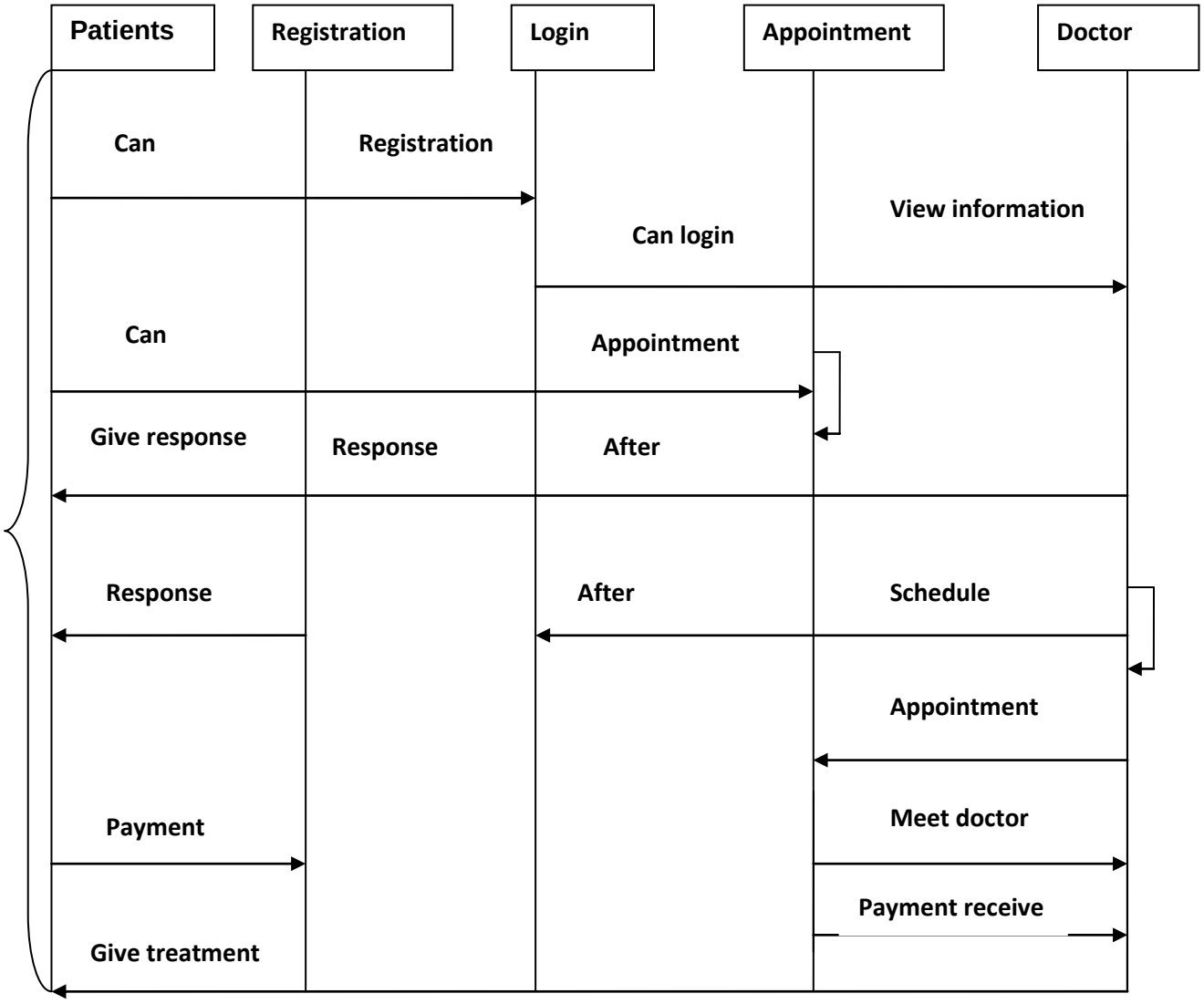


Figure- design for EERD Diagram

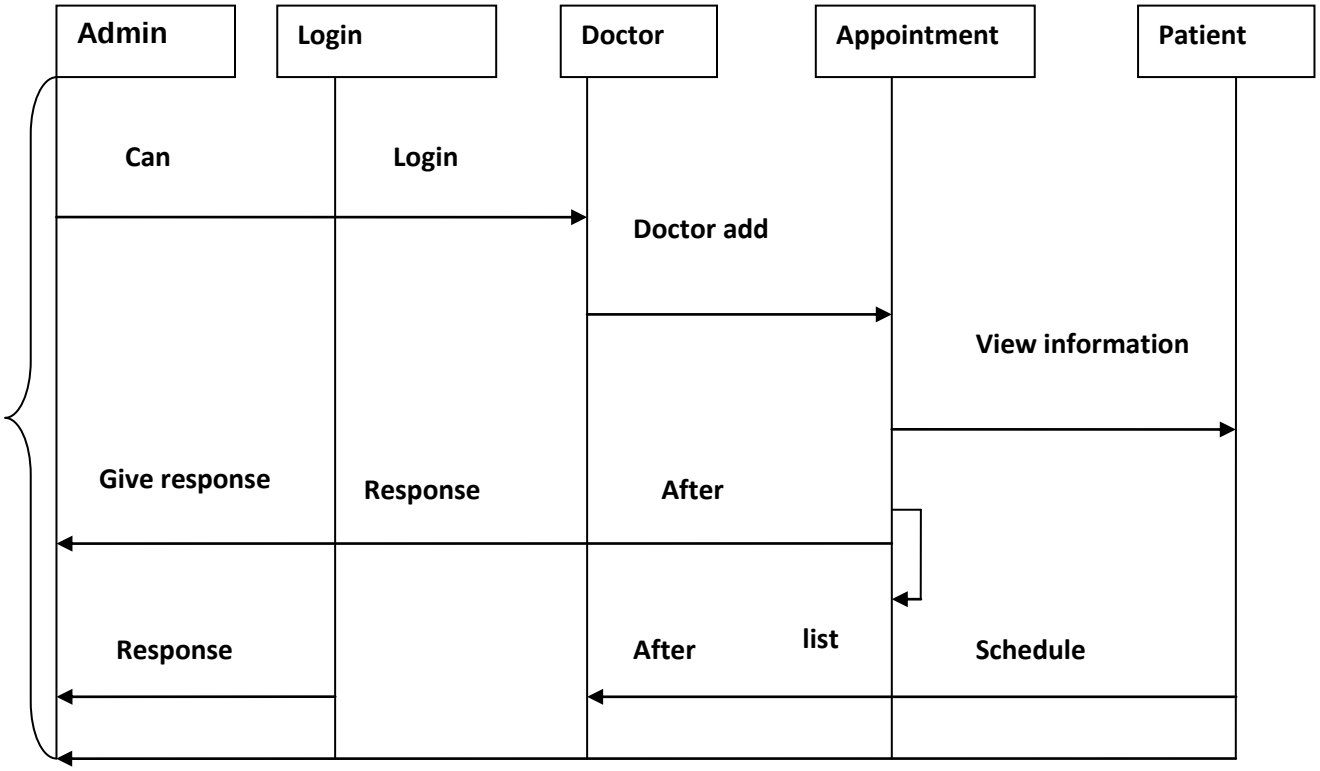
Sequence Diagram for full system:



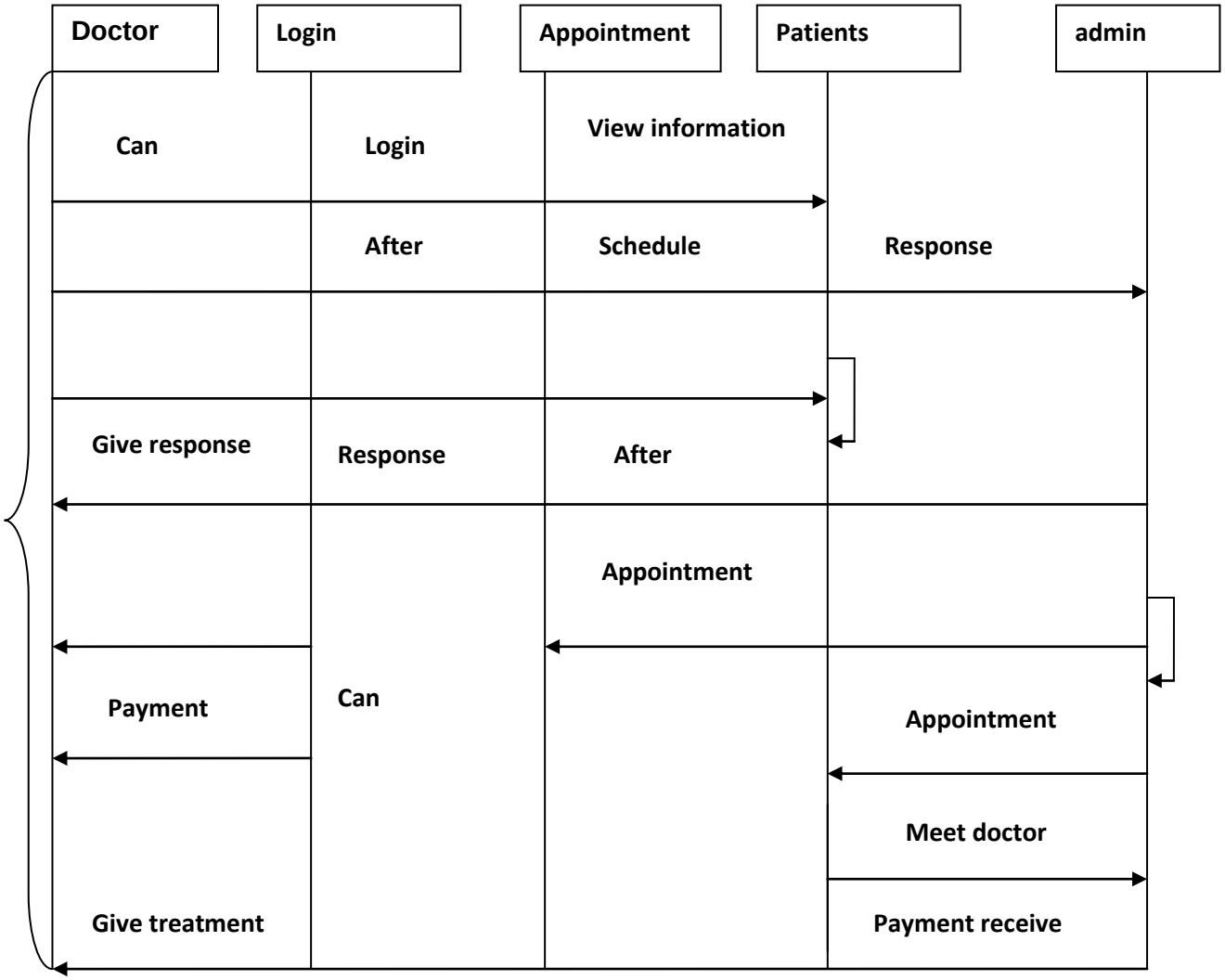
Sequence Diagram for patients:



Sequence Diagram for admin:



Sequence Diagram for doctor:



Component Diagram:

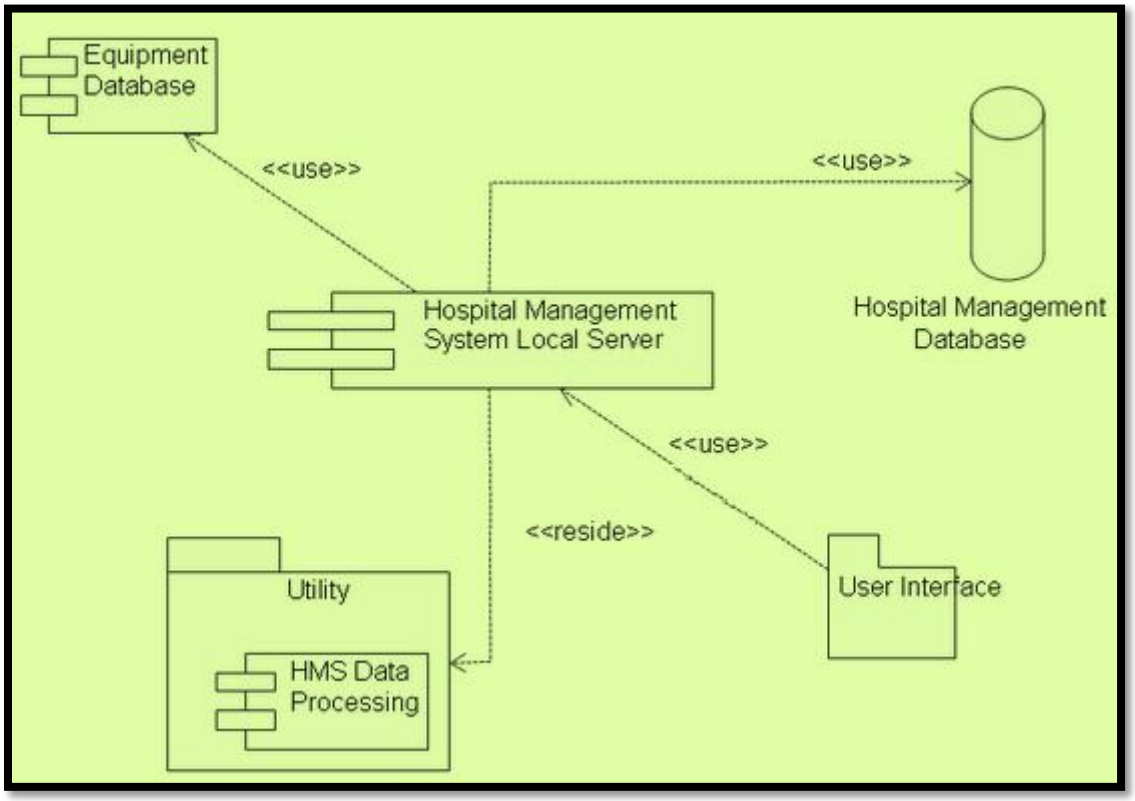


Figure- component diagram

Deployment Diagram:

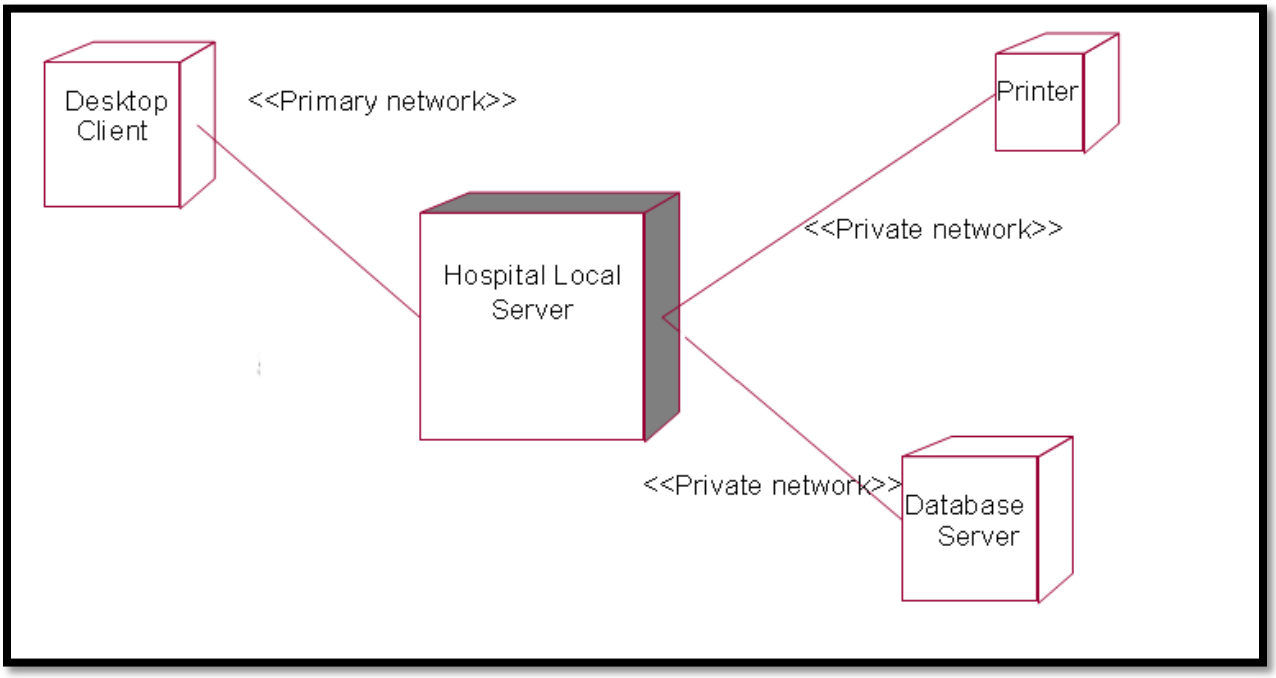


Figure- deployment diagram

System Interface Design / Prototype:

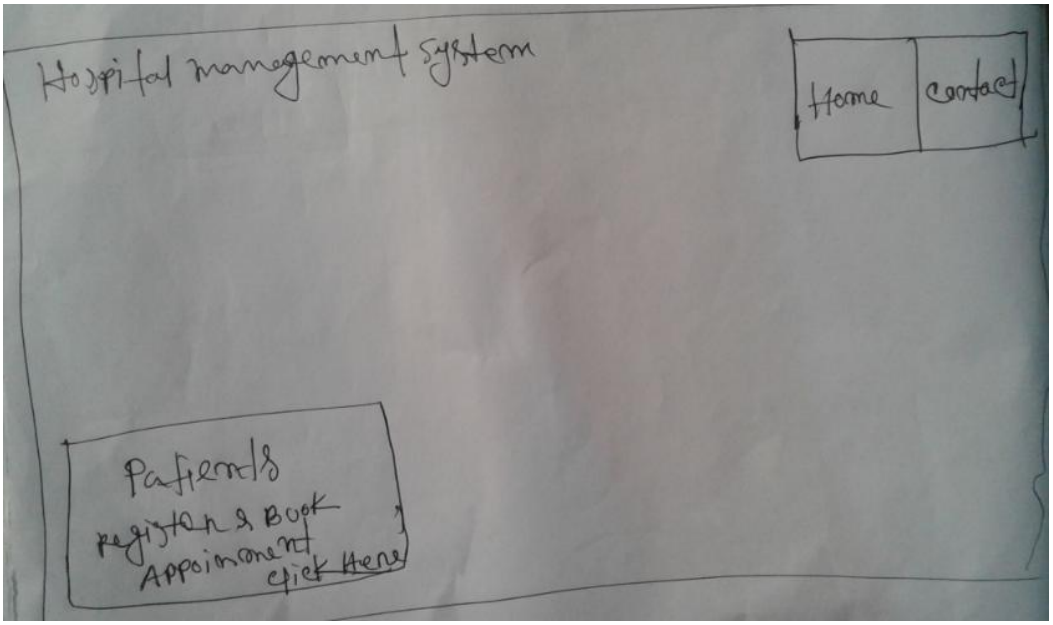


Figure- design for home page

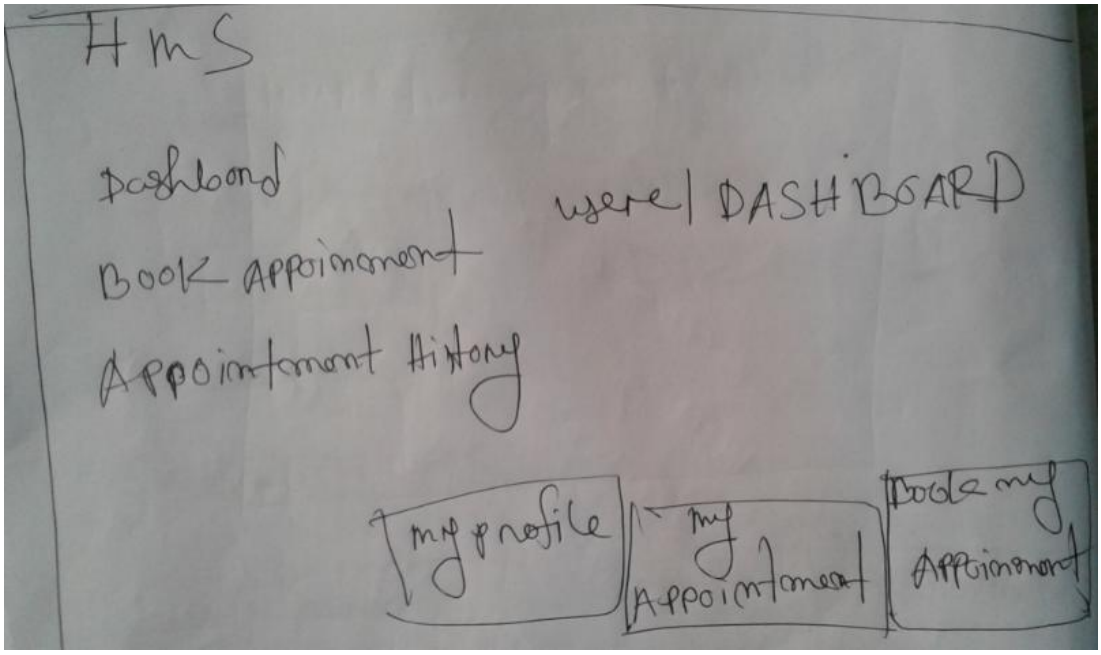


Figure- design for user dashboard

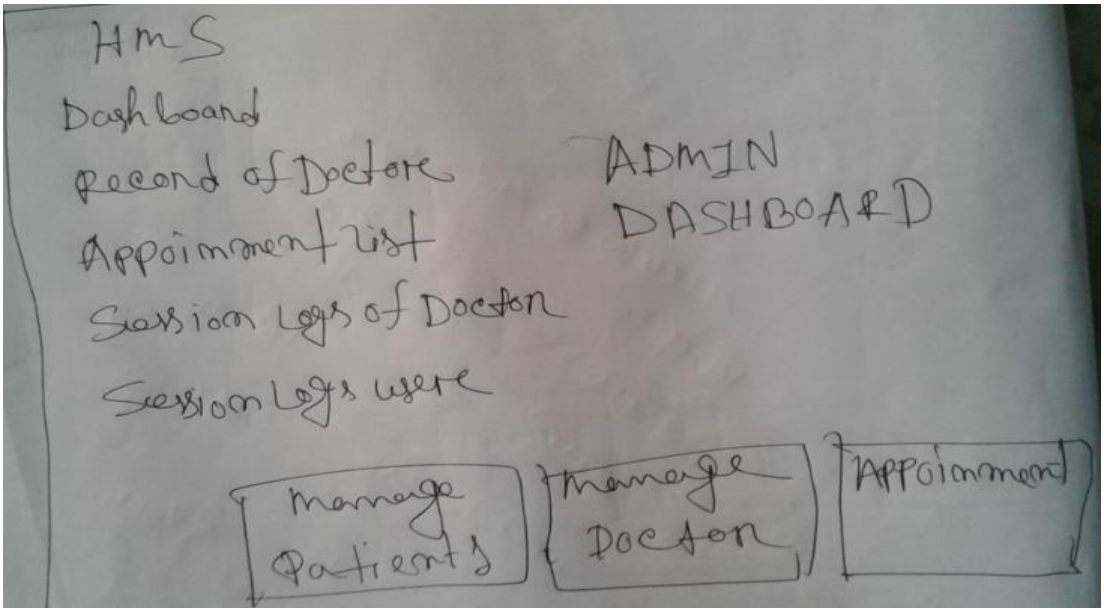


Figure- design for admin dashboard

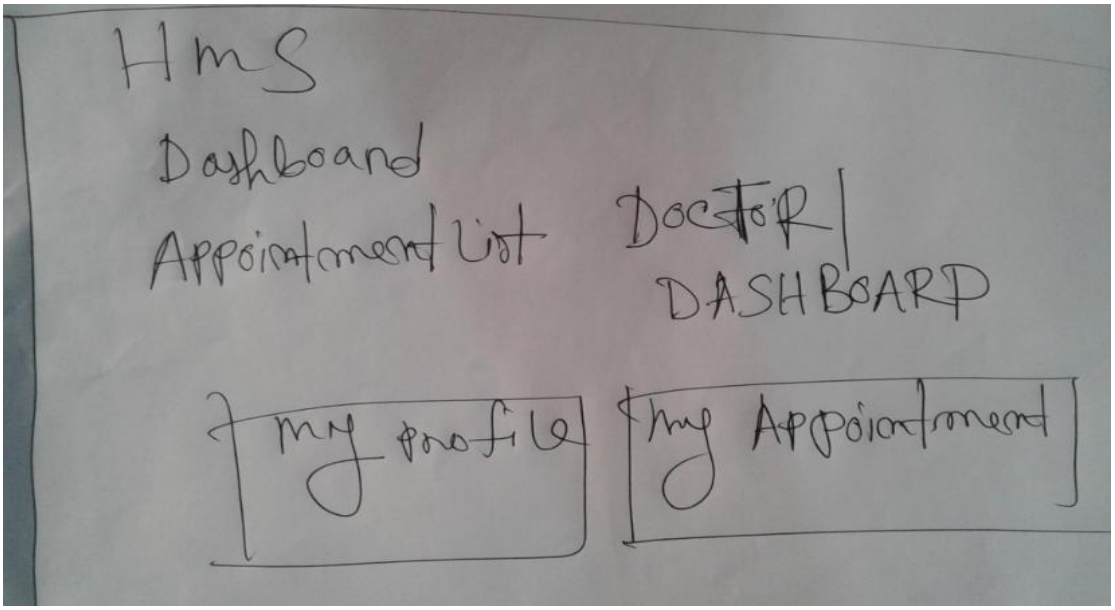


Figure- design for doctor dashboard

Chapter 10- deployment/development:

Code for appointment-hostory.php

```php
<?php
session_start();

include('include/config.php');
include('include/checklogin.php');
check_login();
if(isset($_GET['cancel']))
        {
            mysql_query("update appointment set userStatus='0' where id = '".$_GET['id']."'");
            $_SESSION['msg']="Your appointment canceled !!";
        }
?>
```

Code for book-appoinment.php

```php
<?php
session_start();

include('include/config.php');
include('include/checklogin.php');
check_login();

if(isset($_POST['submit']))
{

$specilization=$_POST['Doctorspecialization'];
$doctorid=$_POST['doctor'];
$userid=$_SESSION['id'];
$fees=$_POST['fees'];
$appdate=$_POST['appdate'];
$time=$_POST['apptime'];
$userstatus=1;
$docstatus=1;

    $query=mysql_query("insert into appointment(doctorSpecialization,doctorId,userId,consultancyFees,appointmentDate,appointmentTime,userStatus,doctorStatus)
    if($query)
    {
        echo "<script>alert('Your appointment successfully booked');</script>";
    }

}
?>
```

Code for Check-password.php

```php
<?php
session_start();
include('include/config.php');
include('include/checklogin.php');
check_login();
date_default_timezone_set('Asia/Kolkata');
$currentTime = date( 'd-m-Y h:i:s A', time () );
if(isset($_POST['submit']))
{
$sql=mysql_query("SELECT password FROM  users where password='".md5($_POST['cpass'])."' && email='".$_SESSION['login']."'");
$num=mysql_fetch_array($sql);
if($num>0)
{
 $con=mysql_query("update users set password='".md5($_POST['npass'])."', updationDate='$currentTime' where email='".$_SESSION['login']."'");
$_SESSION['msg1']="Password Changed Successfully !!";
}
else
{
$_SESSION['msg1']="Old Password not match !!";
}
}
?>
```

Code for Check_availability.php

```php
<?php
require_once("include/config.php");
if(!empty($_POST["email"])) {
    $email= $_POST["email"];

        $result =mysql_query("SELECT email FROM users WHERE email='$email'");
        $count=mysql_num_rows($result);
if($count>0)
{
echo "<span style='color:red'> Email already exists .</span>";
 echo "<script>$('#submit').prop('disabled',true);</script>";
} else{

    echo "<span style='color:green'> Email available for Registration .</span>";
 echo "<script>$('#submit').prop('disabled',false);</script>";
}
}


?>
```

Code for Checklogin.php

```php
<?php
function check_login()
{
if(strlen($_SESSION['login'])==0)
    {
        $host = $_SERVER['HTTP_HOST'];
        $uri  = rtrim(dirname($_SERVER['PHP_SELF']), '/\\');
        $extra="../admin.php";
        $_SESSION["login"]="";
        header("Location: http://$host$uri/$extra");
    }
}
?>
```

Code for Dashboard

```php
<?php
session_start();

include('include/config.php');
include('include/checklogin.php');
check_login();

?>
```

Code edit-profile.php

```php
<?php
session_start();
include('include/config.php');
include('include/checklogin.php');
check_login();
if(isset($_POST['submit']))
{
    $fname=$_POST['fname'];
$address=$_POST['address'];
$city=$_POST['city'];
$gender=$_POST['gender'];

$sql=mysql_query("Update users set fullName='$fname',address='$address',city='$city',gender='$gender' where email='".$_SESSION['login']."'");
if($sql)
{
echo "<script>alert('Your Profile updated Successfully');</script>";

}
}
?>
```

Code for get_doctor.php

```php
<?php
include('include/config.php');
if(!empty($_POST["specilizationid"]))
{

 $sql=mysql_query("select doctorName,id from doctors where specilization='".$_POST['specilizationid']."'");?>
 <option selected="selected">Select Doctor </option>
 <?php
 while($row=mysql_fetch_array($sql))
    {?>
  <option value="<?php echo htmlentities($row['id']); ?>"><?php echo htmlentities($row['doctorName']); ?></option>
  <?php
}
}


if(!empty($_POST["doctor"]))
{

 $sql=mysql_query("select docFees from doctors where id='".$_POST['doctor']."'");
 while($row=mysql_fetch_array($sql))
    {?>
 <option value="<?php echo htmlentities($row['docFees']); ?>"><?php echo htmlentities($row['docFees']); ?></option>
  <?php
}
}

?>
```

Code for Getfee.php

```php
<?php $mysql_hostname = "localhost";
$mysql_user = "root";
$mysql_password = "";
$mysql_database = "hms";
$bd = mysql_connect($mysql_hostname, $mysql_user, $mysql_password) or die("Could not connect database");
mysql_select_db($mysql_database, $bd) or die("Could not select database");
if($_GET['action']=='doctorid'){
    $docinfo=$_POST['docinfo'];
    $query= mysql_query("select * from doctors where doctorName=$docinfo");
    $array=mysql_fetch_array($query);
    echo $array['docFees'];

    }
    ?>
```

Code for Logout.php

```php
<?php
session_start();
include('include/config.php');
$_SESSION['login']=="";
date_default_timezone_set('Asia/Kolkata');
$ldate=date( 'd-m-Y h:i:s A', time () );
mysql_query("UPDATE userlog  SET logout = '$ldate' WHERE uid = '".$_SESSION['id']."' ORDER BY id DESC LIMIT 1");
session_unset();
$_SESSION['errmsg']="You have successfully logout";
?>
<script language="javascript">
document.location="./user-login.php";
</script>
```

Code for Registration.php

```php
<?php
include_once('include/config.php');
if(isset($_POST['submit']))
{
$fname=$_POST['full_name'];
$address=$_POST['address'];
$city=$_POST['city'];
$gender=$_POST['gender'];
$email=$_POST['email'];
$password=md5($_POST['password']);
$query=mysql_query("insert into users(fullname,address,city,gender,email,password) values('$fname','$address','$city','$gender','$email','$password')");
if($query)
{
    echo "<script>alert('Successfully Registered. You can login now');</script>";

}
}
?>
```

Code for User –login.php

```php
<?php
session_start();
error_reporting(0);
include("include/config.php");
if(isset($_POST['submit']))
{
$ret=mysql_query("SELECT * FROM users WHERE email='".$_POST['username']."' and password='".md5($_POST['password'])."'");
$num=mysql_fetch_array($ret);
if($num>0)
{
$extra="dashboard.php";//
$_SESSION['login']=$_POST['username'];
$_SESSION['id']=$num['id'];
$host=$_SERVER['HTTP_HOST'];
$uip=$_SERVER['REMOTE_ADDR'];
$status=1;
$log=mysql_query("insert into userlog(uid,username,userip,status) values('".$_SESSION['id']."','".$_SESSION['login']."','$uip','$status')");
$uri=rtrim(dirname($_SERVER['PHP_SELF']),'/\\');
header("location:http://$host$uri/$extra");
exit();
}
else
{
$_SESSION['login']=$_POST['username'];
$uip=$_SERVER['REMOTE_ADDR'];
$status=0;
mysql_query("insert into userlog(username,userip,status) values('".$_SESSION['login']."','$uip','$status')");
$_SESSION['errmsg']="Invalid username or password";
$extra="user-login.php";
$host  = $_SERVER['HTTP_HOST'];
$uri  = rtrim(dirname($_SERVER['PHP_SELF']),'/\\');
header("location:http://$host$uri/$extra");
exit();
}
}
?>
```

(/hospital-management-system.php, n.d.)

Possible problem break down:

Front-end design:

- Design the front-end page for user, doctor and admin
- create routing to cooperate

Design the database for the system

- Whole database design
- Entity and attributes analysis, identify and business goal
- Create relationship with database tables.

Registration/ Login system:

- login and registration system create secure
- encryption password
- login system testing
- user access level create

Appointment operation:

- Appointment information view
- Add appointment

Patient's information:

- create appointment
- Create login
- View information

Admin information:

- Add doctor specialization
- View doctor
- Login secure

Doctor information:

- Doctor view appointment
- Login doctor

Prioritization while developing:

Prioritization-1 patient panel: All patient are view this panel.

Prioritization-2 doctor panel: All doctor are view this panel.

Prioritization-3 admin panel: all information are view this panel. Like doctor, patients

Prioritization-4 appointment panel: all appointment is view this panel.

Prioritization-5 registration panel: registration information views this panel.

Prioritization-6 login panel: login information views this panel.

Prioritization-7 contact panel: contact information views this panel.

Prioritization-8 view profile edit panel: profile edit view this panel.

Developing PC confirmation:

Hardware/software item	Capacity	Manufacture
Processor core i3	2.40GHz	Intel
Mother-board		Intel
HDD	750GB	Samsung
RAM	4.00GB	Gigabyte
Keyboard	Standard	A4-Tech
Mouse	1000 DP	HP
UPS	750VA	AVRX750UF
Printer	1200*600	HP
Operating system	Windows XP professional	Microsoft
Antivirus software	16	Kaspersky

Figure- table for pc conformation

Task, Duration and dependences:

No	Task	Duration	Dependences
T1	Initial study	8 Days	
T2	Feasibility study	6 Days	T1
T3	Requirement analysis	7 Days	T2
T4	System analysis and specification	10 Days	T1,T2,T3
T5	System design	10 Days	T4
T6	System development	12 Days	T5
T7	System Testing	5 Days	T6
T8	System Implementation	7 Days	T7
T9	Further scope and review	5 Days	T8

Task, Duration and dependences:

No	Task	Duration	Dependences
T1	Introduction	2 Days	
T2	Initial Study	10 Days	T1
T3	Literature Review	Days	T2
T4	Methodology	10 Days	T1,T2,T3
T5	Planning	10 Days	T4
T6	Feasibility	8 Days	T5
T7	Foundation	5 Days	T6
T8	Exploration	7 Days	T7
T9	Engineering	5 Days	T8
T10	Deployment / Development	15 Day	T9
T11	Testing	5 Day	T10
T12	Implementation	7 Day	T11
T13	Critical Appraisal and Evaluation	4 Day	T12
T14	Lessons Learned	3 Day	T13
T15	Further scope and review	3 Day	T14

Chapter 11- Testing:

Test plan: Including this:

- Unit Testing
- Module Testing
- Integration Testing
- Acceptance Testing
- Security Testing
- Usability testing
- Database testing

Here describing all type of testing. Including this:

Test Plan Acceptance/ User acceptance testing:

User acceptance testing if not known as Beta, request, or End-User Testing, is frequently measured the last stage in the web growth procedure, the one previous to last fitting of the software on the client site, or final sharing of it.

Following some steps User acceptance testing, inclosing this:

- Executing test cases and documenting
- Bug fixing
- Planning
- Designing test cases
- Selection of testing team

Test case:

Unit testing:

Unit testing is a software progress in which the least testable parts of a request, called units, are independently and separately scrutinize for good action. Unit testing can be done physically but is frequently automatic.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
01	Unit Testing	Admin login	pass	Run successfully
		User login	pass	Run successfully
		User registration	pass	Run successfully
		Doctor login		

Admin login:

This page show on before login.

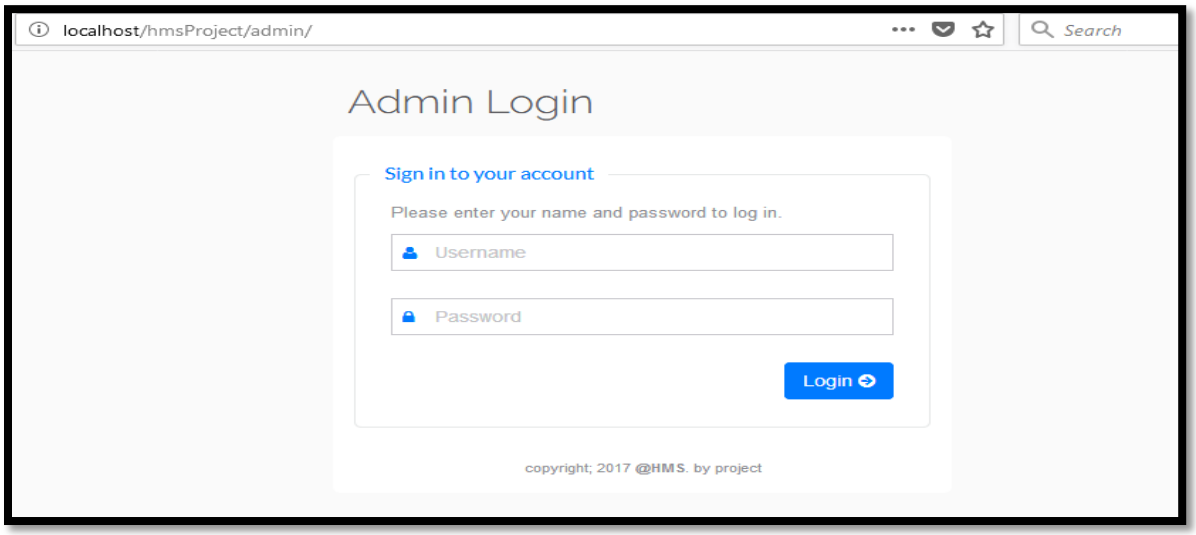


Figure- admin login

This page for when admin login. Where user name is admin and password is Test@12345

Figure- admin login

After login this page is show on.

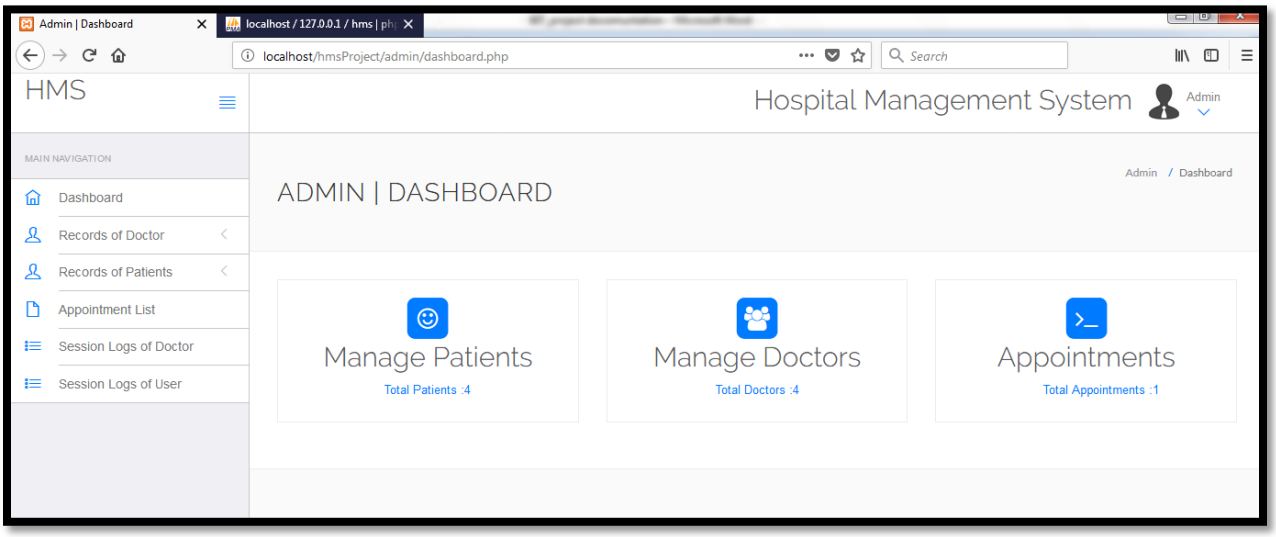


Figure- design for admin dashboard

When logout this page.

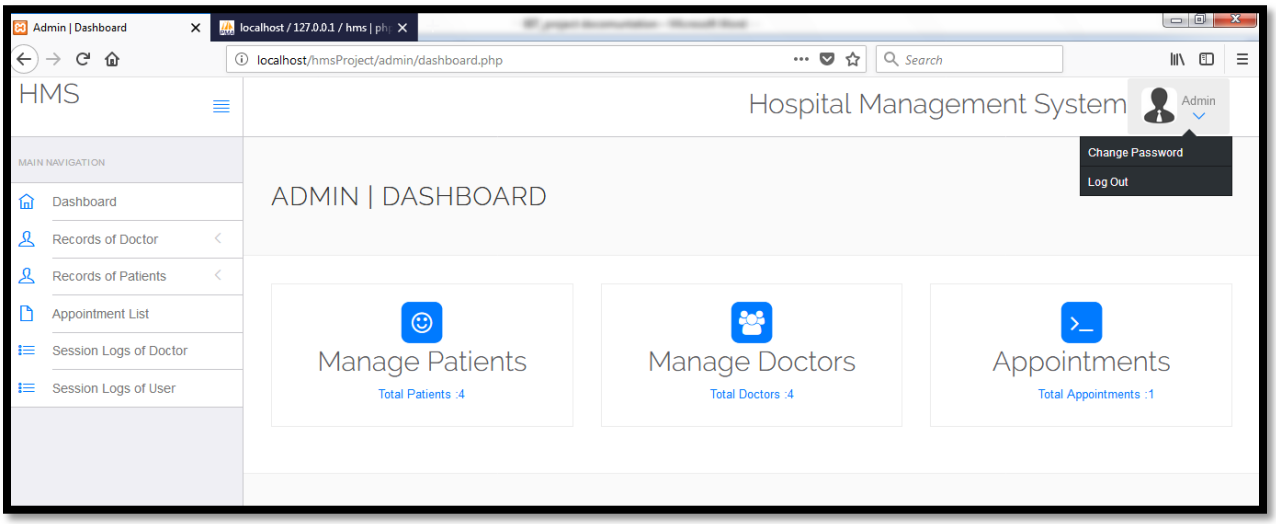


Figure- design for admin dashboard

User login:

User login page before login.

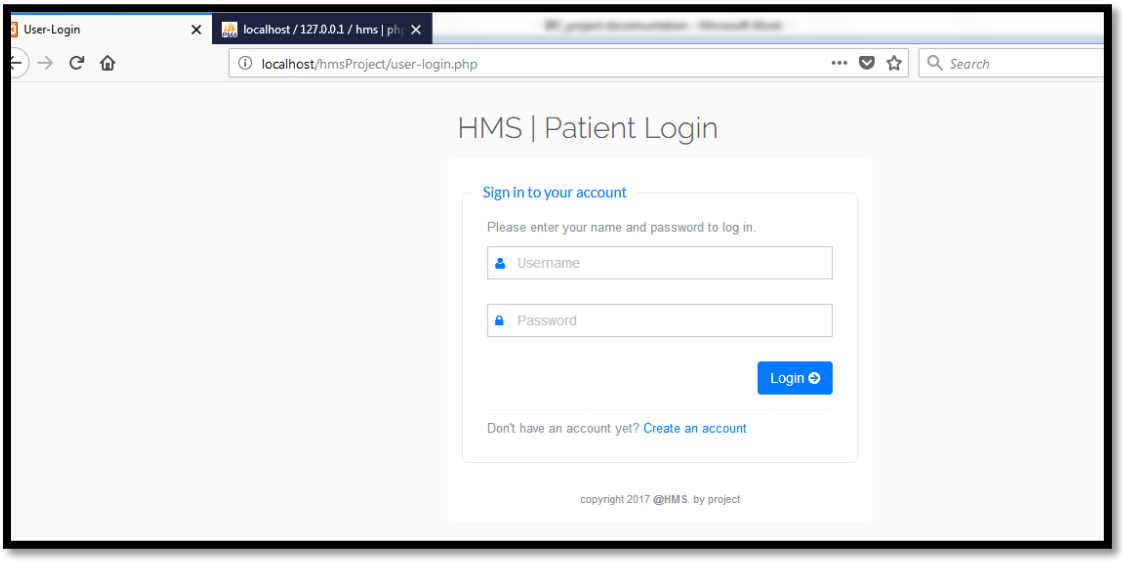


Figure- user login

When patients login this page is show on.

Figure- user login

After login this page is show on.

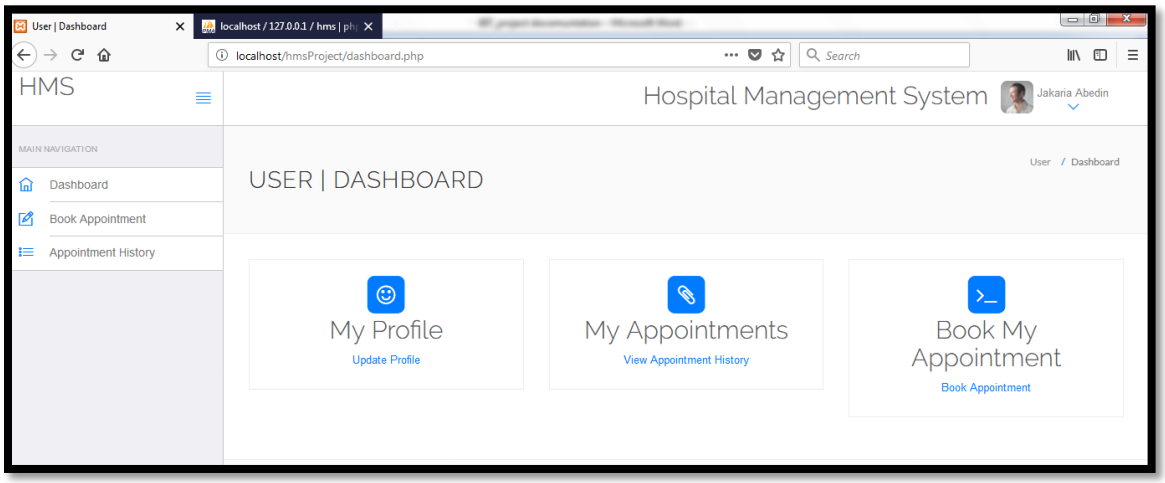


Figure- design for user dashboard

When user logout

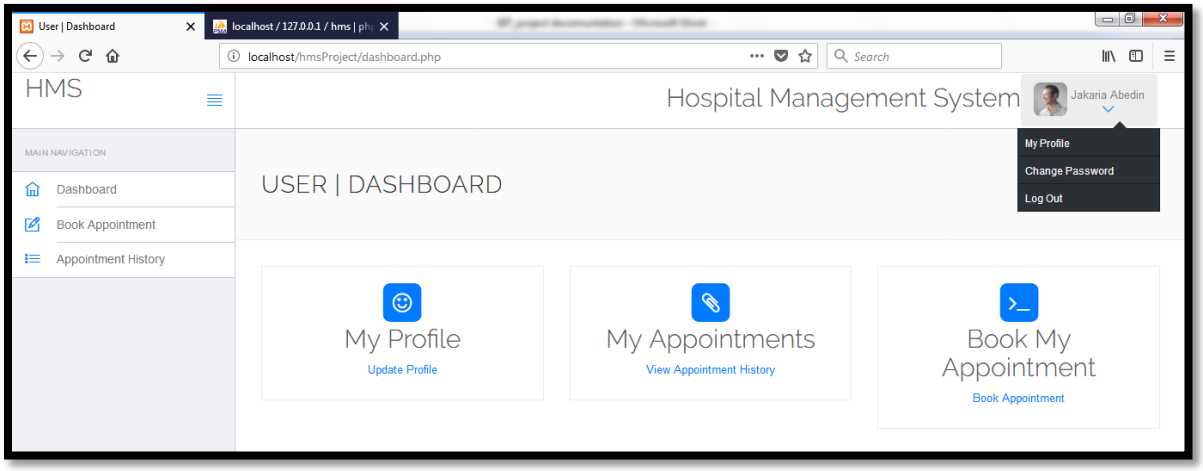


Figure- design for user dashboard

User registration:

This page for before registration

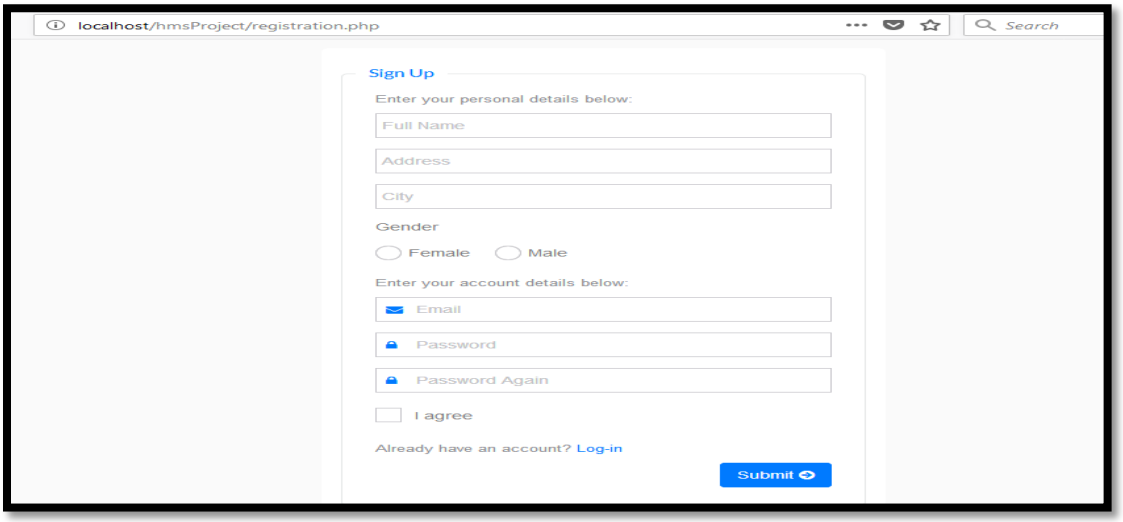


Figure- registration page

Registration with from fillip this page is show on.

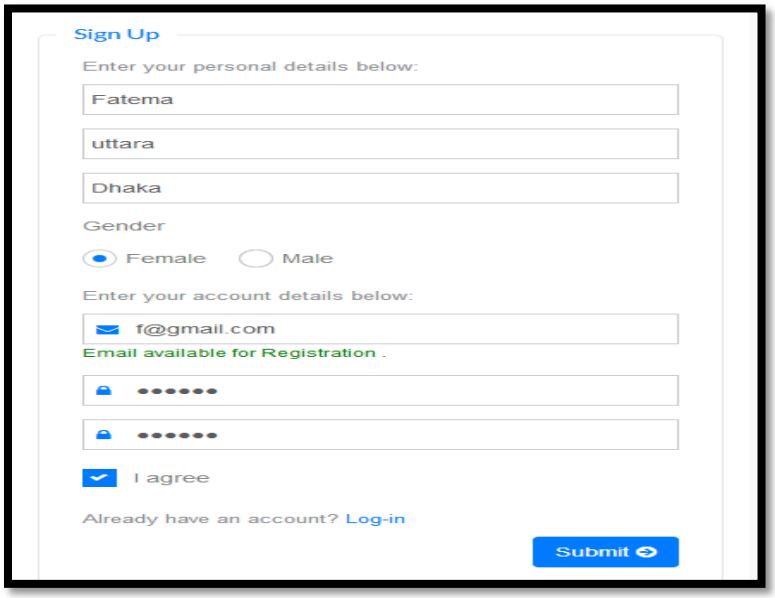


Figure- sing up

Then Registration successfully this message is show on.

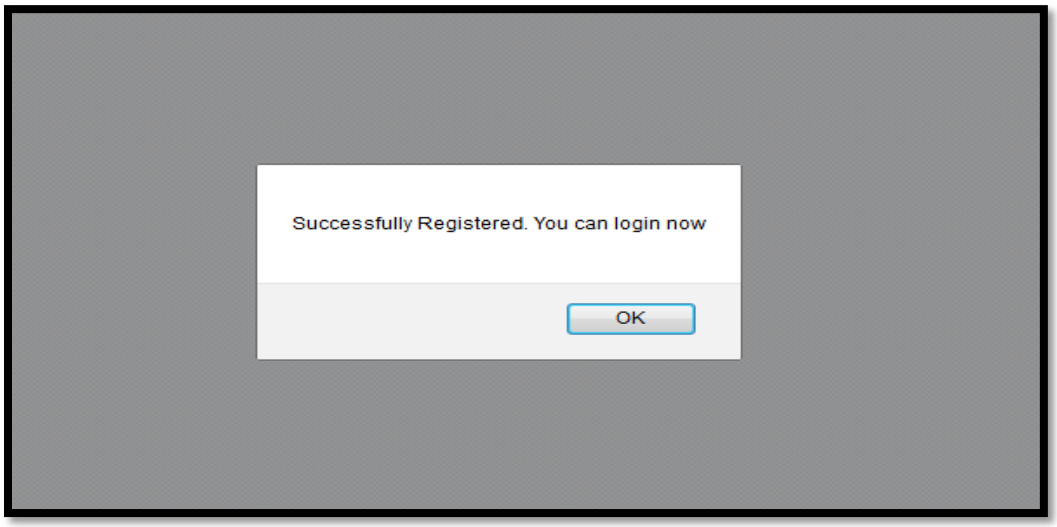


Figure- successfully registration

Doctor login:

This page for before doctor login

Figure- doctor login

This page is show for doctor login. Which username is mu@gmail.com and password 123456?

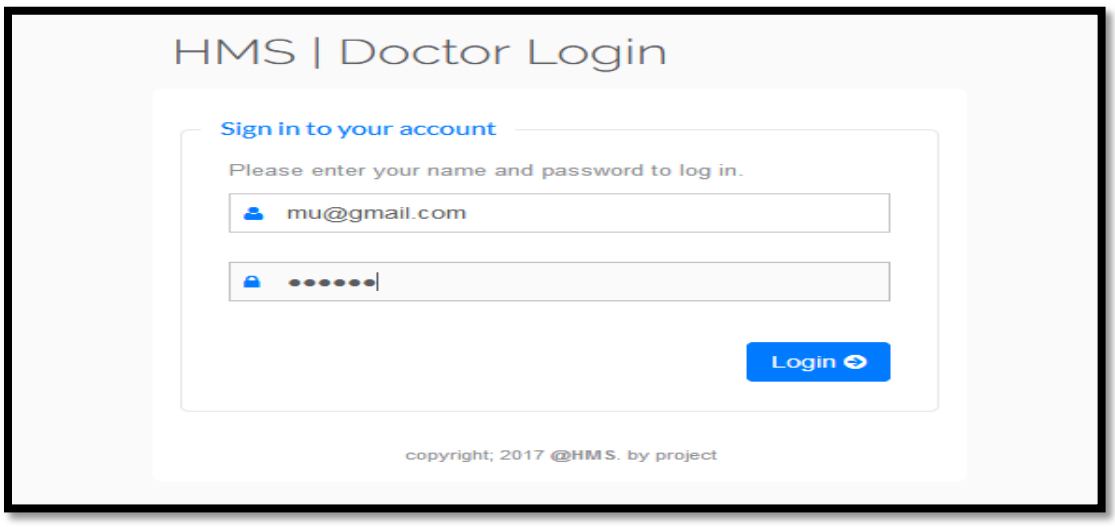


Figure- doctor login

This page for after login

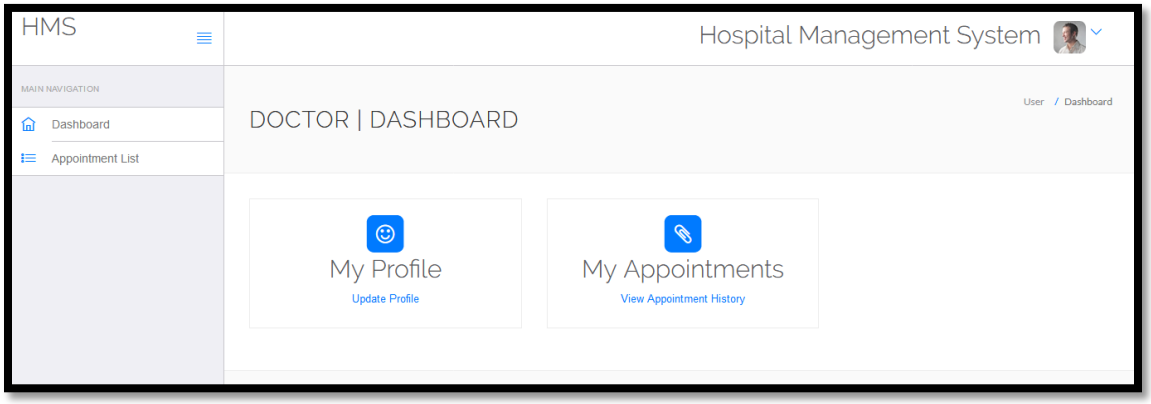


Figure- login

This page for show logout

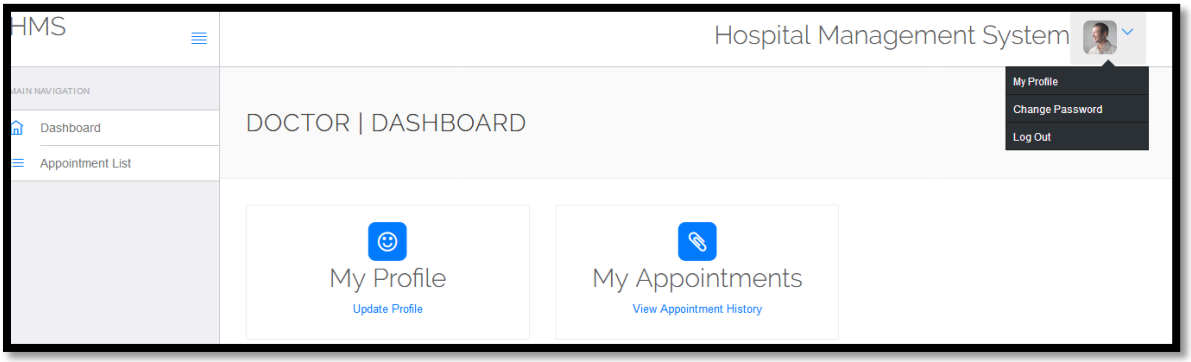


Figure- logout

Module Testing:

A common basis of perplexity for new software testers is the disparity between unit testing and module testing. In universal, unit tests are a set of tests on paper by a developer throughout the software growth process.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
02	Module Testing	Registration code	pass	Run successfully
		User Login code	pass	Run successfully
		Logout code	pass	Run successfully

Registration code**:**

This code for registration

```php
<?php
include_once('include/config.php');
if(isset($_POST['submit']))
{
$fname=$_POST['full_name'];
$address=$_POST['address'];
$city=$_POST['city'];
$gender=$_POST['gender'];
$email=$_POST['email'];
$password=md5($_POST['password']);
$query=mysql_query("insert into users(fullname,address,city,gender,email,password) values('$fname','$address','$city','$gender','$email','$password')");
if($query)
{
    echo "<script>alert('Successfully Registered. You can login now');</script>";

}
}
?>
```

Figure- registration

Output page:

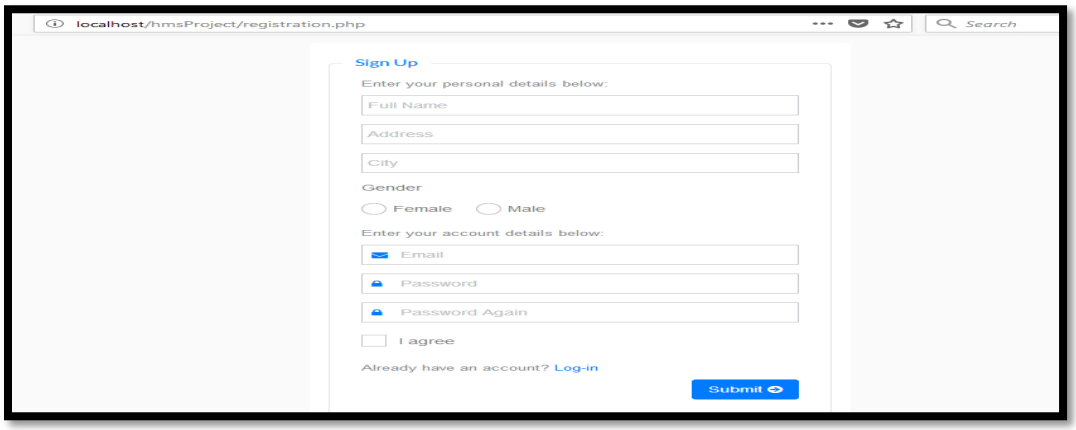


Figure- output

User Login code:

Code for user login

```php
<?php
session_start();
error_reporting(0);
include("include/config.php");
if(isset($_POST['submit']))
{
$ret=mysql_query("SELECT * FROM users WHERE email='".$_POST['username']."' and password='".md5($_POST['password'])."'");
$num=mysql_fetch_array($ret);
if($num>0)
{
$extra="dashboard.php";//
$_SESSION['login']=$_POST['username'];
$_SESSION['id']=$num['id'];
$host=$_SERVER['HTTP_HOST'];
$uip=$_SERVER['REMOTE_ADDR'];
$status=1;
$log=mysql_query("insert into userlog(uid,username,userip,status) values('".$_SESSION['id']."','".$_SESSION['login']."','$uip','$status')");
$uri=rtrim(dirname($_SERVER['PHP_SELF']),'/\\');
header("location:http://$host$uri/$extra");
exit();
}
else
{
$_SESSION['login']=$_POST['username'];
$uip=$_SERVER['REMOTE_ADDR'];
$status=0;
mysql_query("insert into userlog(username,userip,status) values('".$_SESSION['login']."','$uip','$status')");
$_SESSION['errmsg']="Invalid username or password";
$extra="user-login.php";
$host  = $_SERVER['HTTP_HOST'];
$uri  = rtrim(dirname($_SERVER['PHP_SELF']),'/\\');
header("location:http://$host$uri/$extra");
exit();
}
}
?>
```

Figure- code

Output

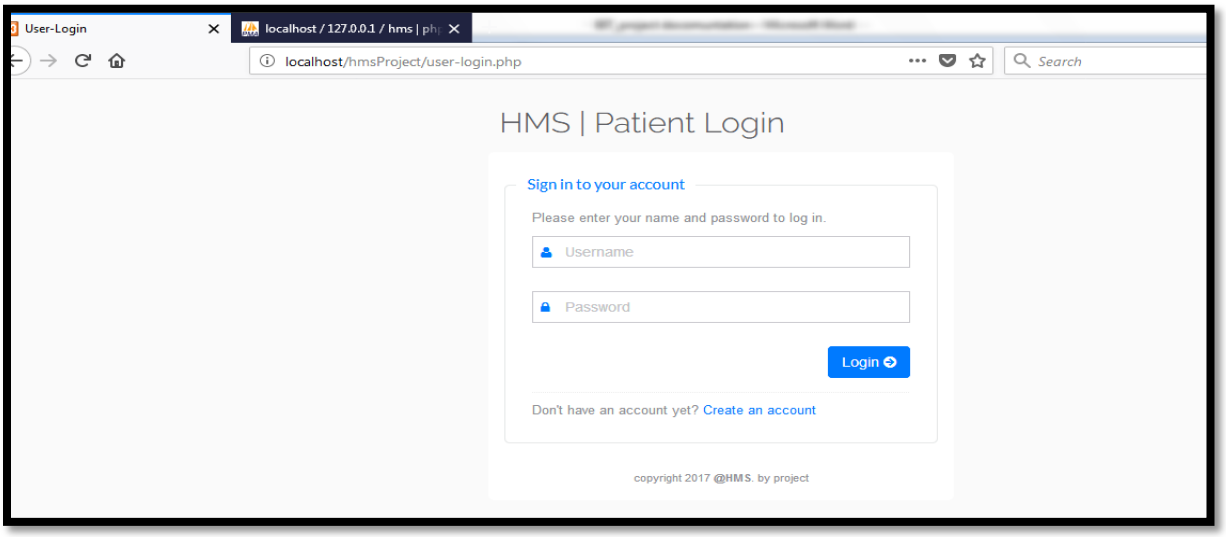


Figure- user login

Logout code:

Code for logout:

```php
<?php
session_start();
include('include/config.php');
$_SESSION['login']=="";
date_default_timezone_set('Asia/Kolkata');
$ldate=date( 'd-m-Y h:i:s A', time () );
mysql_query("UPDATE userlog  SET logout = '$ldate' WHERE uid = '".$_SESSION['id']."' ORDER BY id DESC LIMIT 1");
session_unset();
$_SESSION['errmsg']="You have successfully logout";
?>
<script language="javascript">
document.location="./user-login.php";
</script>
```

Figure- code

Output

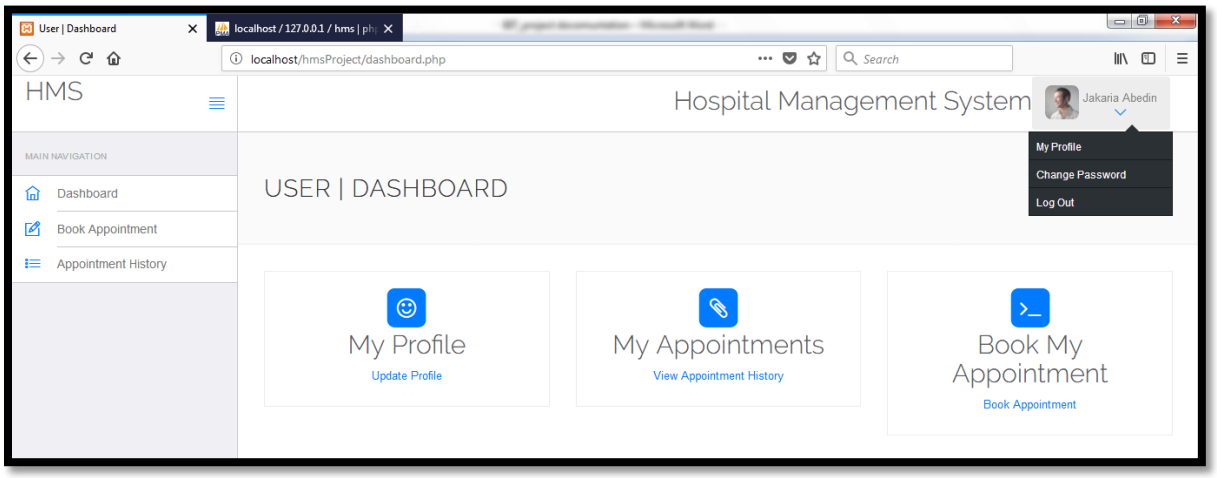


Figure- user dashboard

Integration Testing:

Integration testing, also recognized as integration and testing is a software expansion process which plan units are mutual and tested as group in several ways. In this context, a unit is clear as the least testable part of a request.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
03	Integration Testing	Admin panel	pass	Run successfully
		Doctor panel	pass	Run successfully
		User panel	pass	Run successfully

Admin panel:

Show in admin panel page

Figure- manage patients

This page for doctor manage

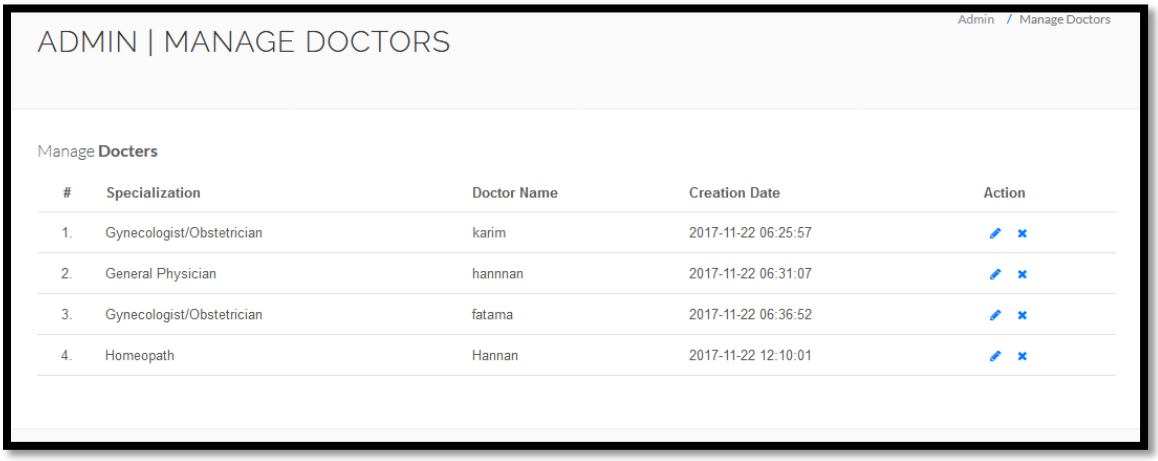


Figure- manage doctor

This page for patients' history page

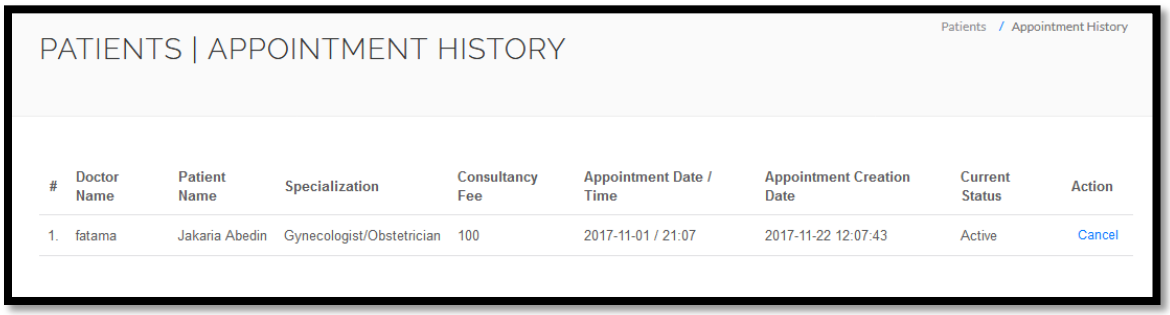
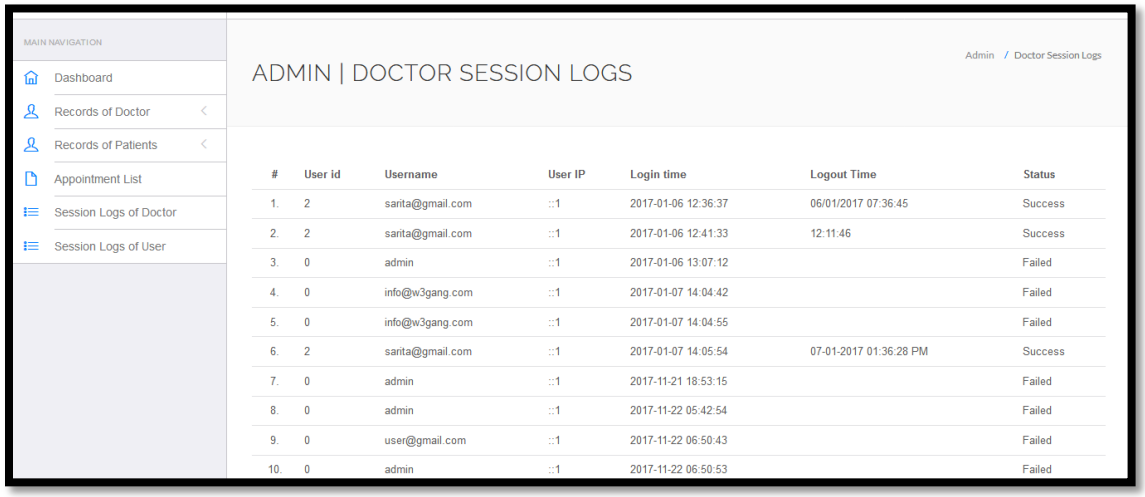


Figure- appointment history

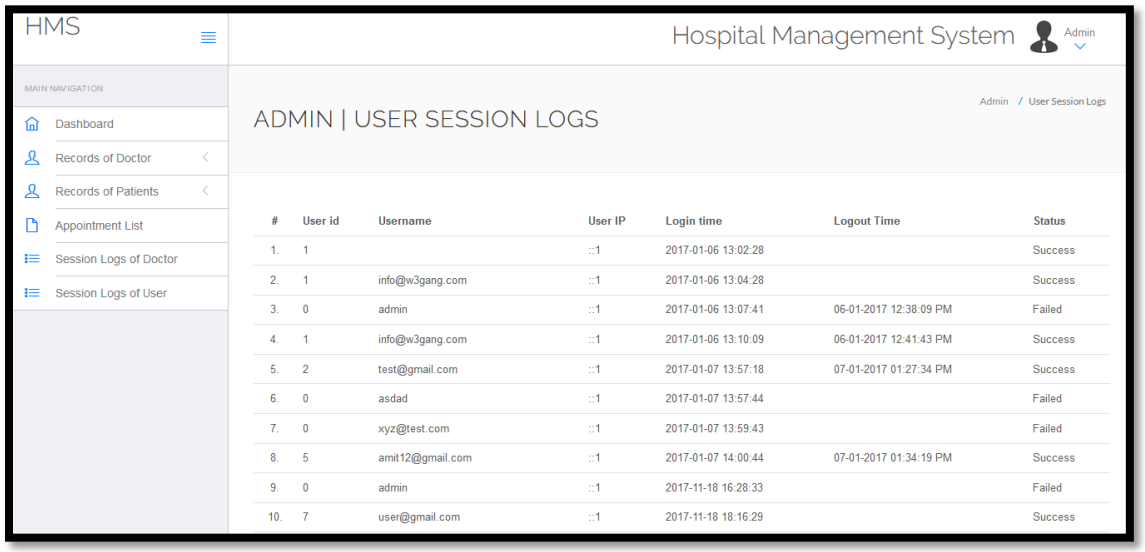
This page for doctor session logs



#	User id	Username	User IP	Login time	Logout Time	Status
1.	2	sarita@gmail.com	::1	2017-01-06 12:36:37	06/01/2017 07:36:45	Success
2.	2	sarita@gmail.com	::1	2017-01-06 12:41:33	12:11:46	Success
3.	0	admin	::1	2017-01-06 13:07:12		Failed
4.	0	info@w3gang.com	::1	2017-01-07 14:04:42		Failed
5.	0	info@w3gang.com	::1	2017-01-07 14:04:55		Failed
6.	2	sarita@gmail.com	::1	2017-01-07 14:05:54	07-01-2017 01:36:28 PM	Success
7.	0	admin	::1	2017-11-21 18:53:15		Failed
8.	0	admin	::1	2017-11-22 05:42:54		Failed
9.	0	user@gmail.com	::1	2017-11-22 06:50:43		Failed
10.	0	admin	::1	2017-11-22 06:50:53		Failed

Figure- doctor session log

This page for use session logs



#	User id	Username	User IP	Login time	Logout Time	Status
1.	1		::1	2017-01-06 13:02:28		Success
2.	1	info@w3gang.com	::1	2017-01-06 13:04:28		Success
3.	0	admin	::1	2017-01-06 13:07:41	06-01-2017 12:38:09 PM	Failed
4.	1	info@w3gang.com	::1	2017-01-06 13:10:09	06-01-2017 12:41:43 PM	Success
5.	2	test@gmail.com	::1	2017-01-07 13:57:18	07-01-2017 01:27:34 PM	Success
6.	0	asdad	::1	2017-01-07 13:57:44		Failed
7.	0	xyz@test.com	::1	2017-01-07 13:59:43		Failed
8.	5	amit12@gmail.com	::1	2017-01-07 14:00:44	07-01-2017 01:34:19 PM	Success
9.	0	admin	::1	2017-11-18 16:28:33		Failed
10.	7	user@gmail.com	::1	2017-11-18 18:16:29		Success

Figure- session logs

Doctor panel:

This page for edit doctor

Figure- edit page

This page for after update

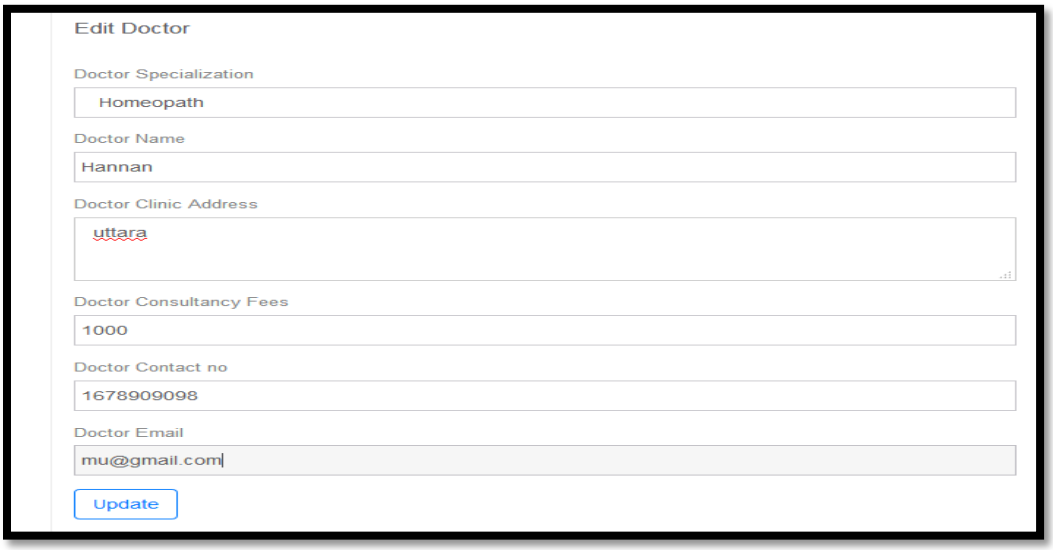


Figure- update

This page for doctor details update successfully.

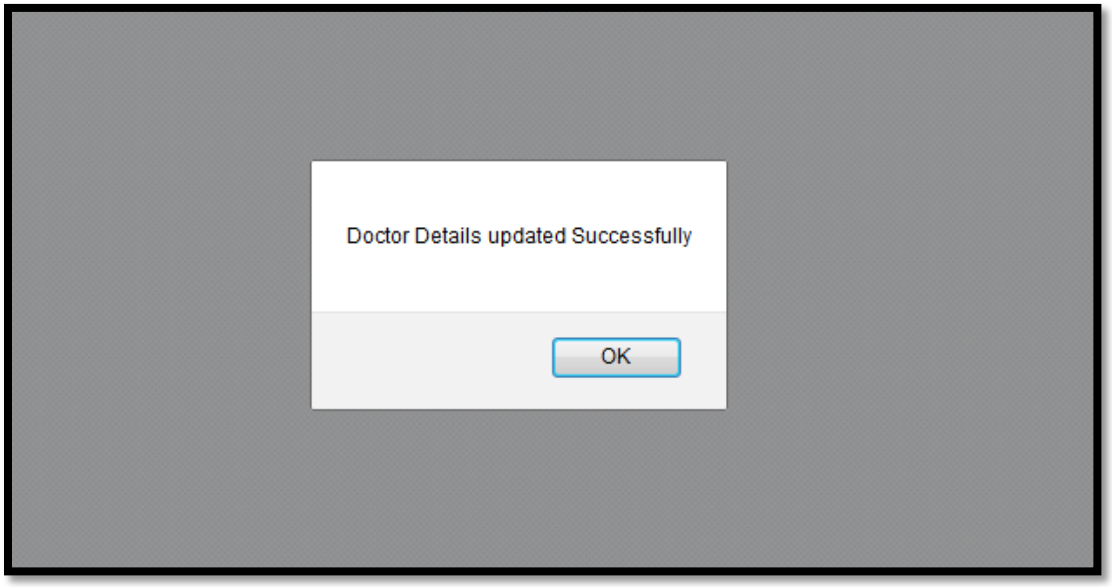


Figure- update sucessfully

User panel:

This page for user edits profile

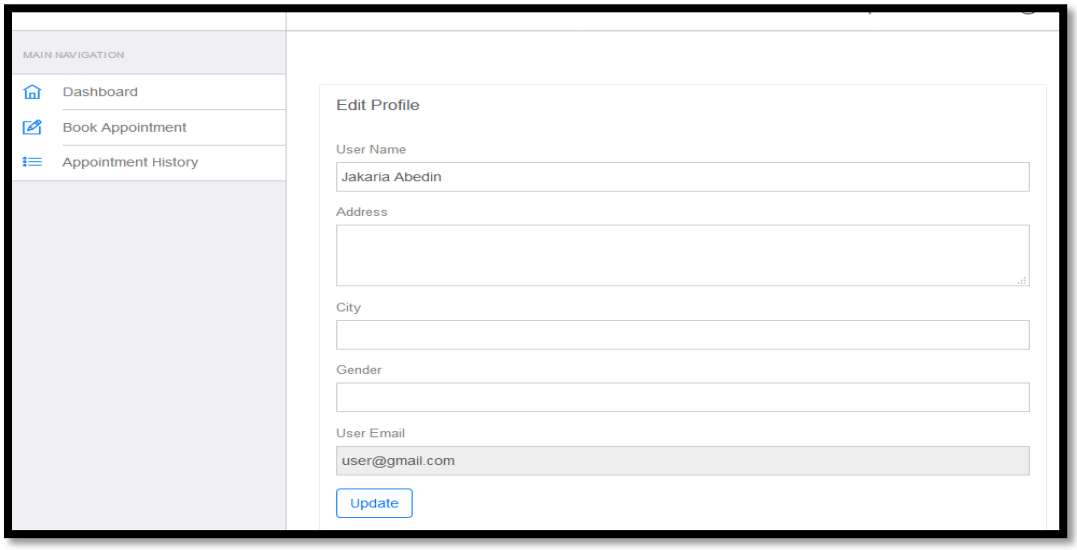


Figure- edit profile

This page for after update information

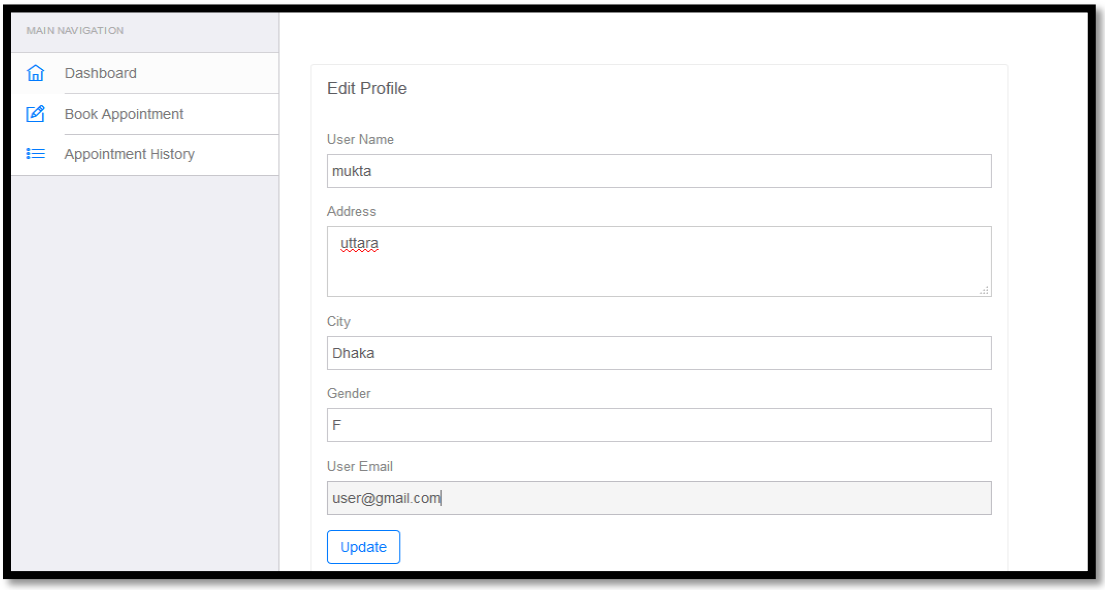


Figure- update information

Profile update successfully this message is show on

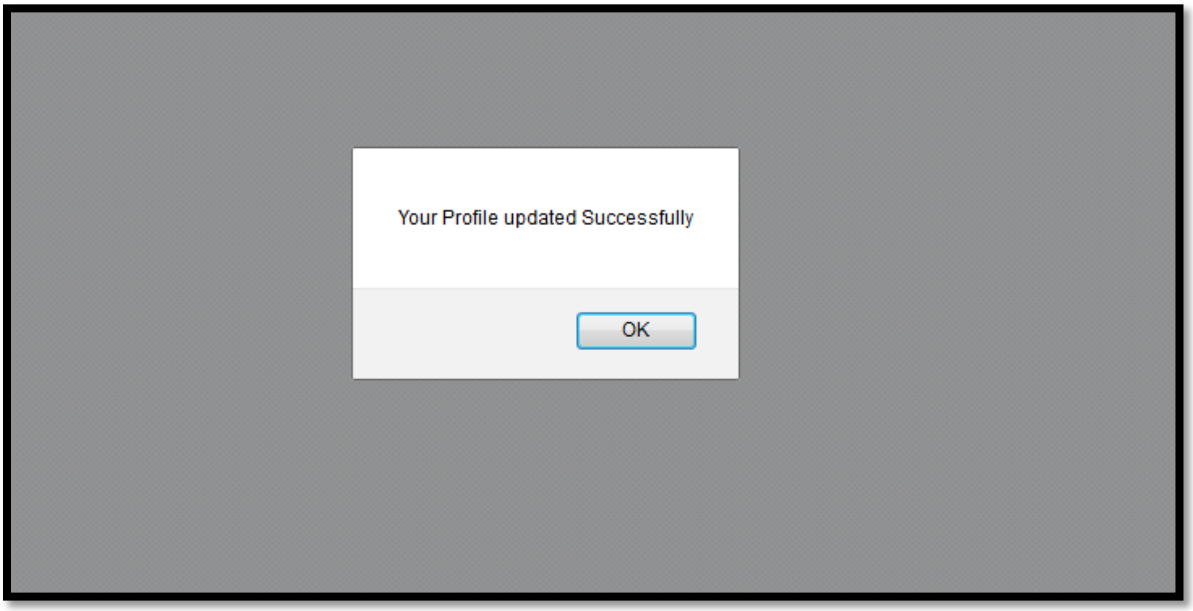


Figure- profile update

This page is for user appointment history

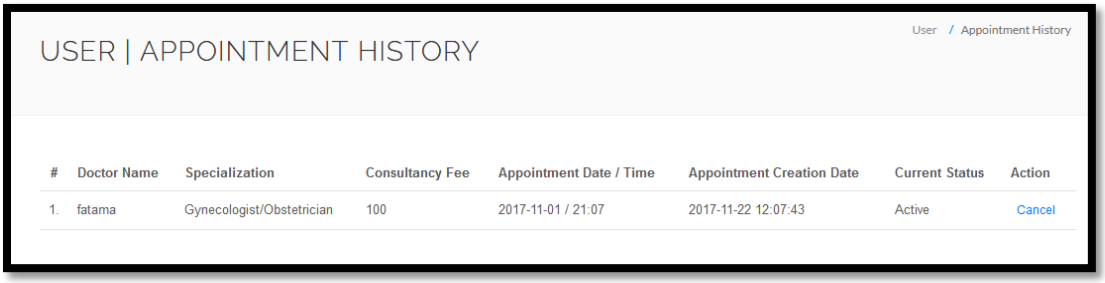


Figure- appointment history

This page for book appointment

Figure- book appointment

This page is show for appointment successfully booked

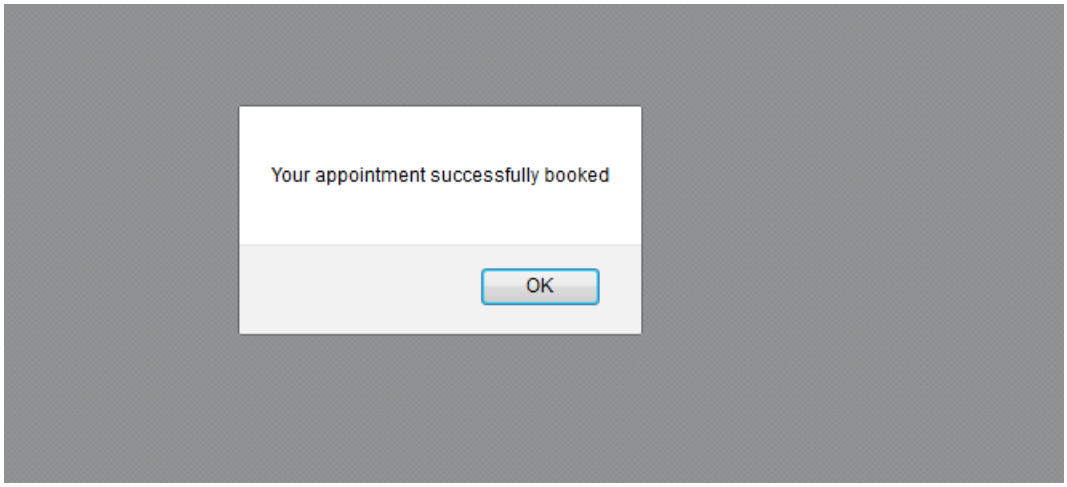


Figure- successfully booked

Acceptance Testing

Acceptance Testing is a level of the software difficult where a system is experienced for suitability. The purpose of this test is to assess the system's fulfillment with the business necessities and charge whether it is acceptable for delivery.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
04	Acceptance Testing	Login validation	pass	Run successfully
		appointment list	pass	Run successfully

Login validation

Patient validation test, this page is show when wrong username and password are input.

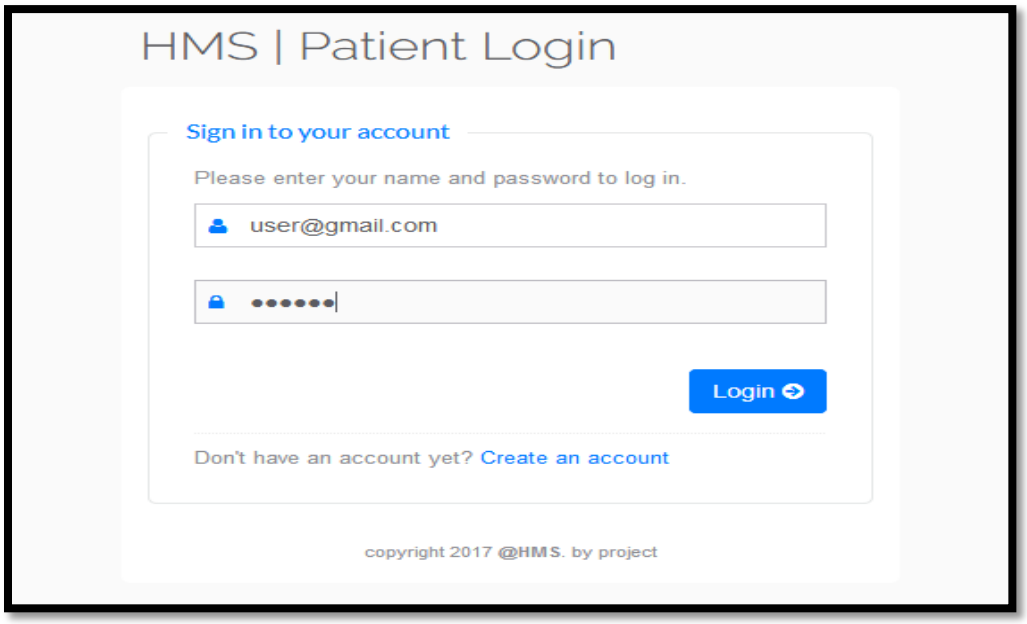


Figure- login validation

Invalid username and password are show in this page

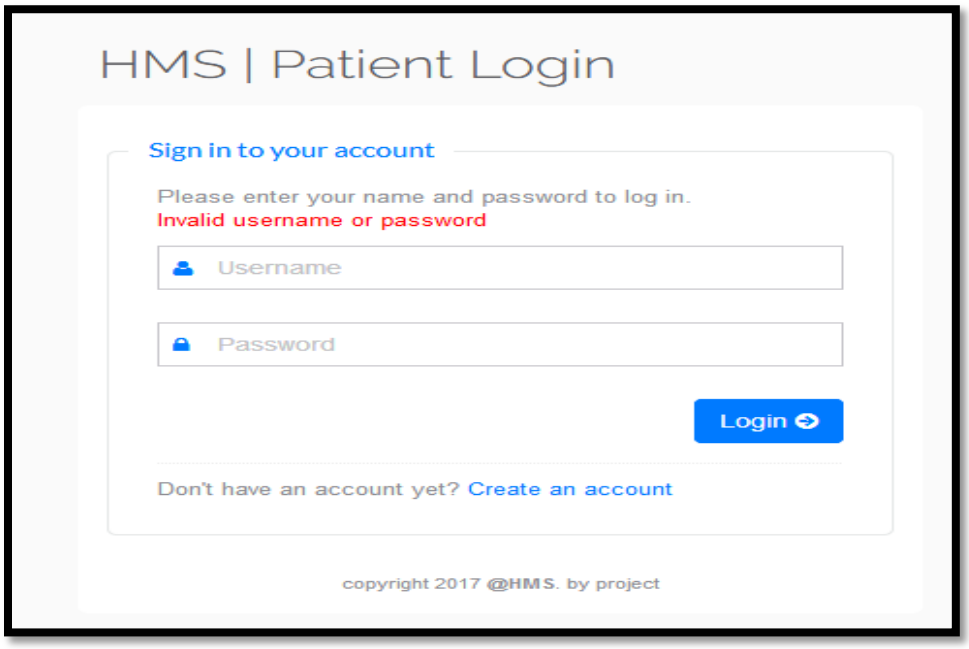


Figure- invalid username or password

Appointment list

This page for appointment list

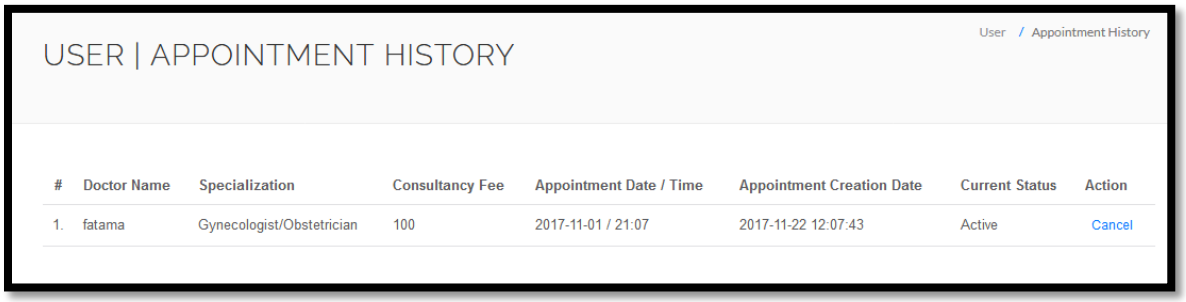


Figure- appointment list

Security Testing

Security testing is a growth intended to make known flaws in the safety mechanism of an in order system that protect data and maintain functionality as intended. Typical security supplies may include specific basics of privacy, integrity, verification, availability, authorization and non-repudiation.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
05	Security Testing	Copying URL	pass	Run successfully
		Invalid access	pass	Run successfully

Copying URL:

For URL test admin. This page is show on this filed is required

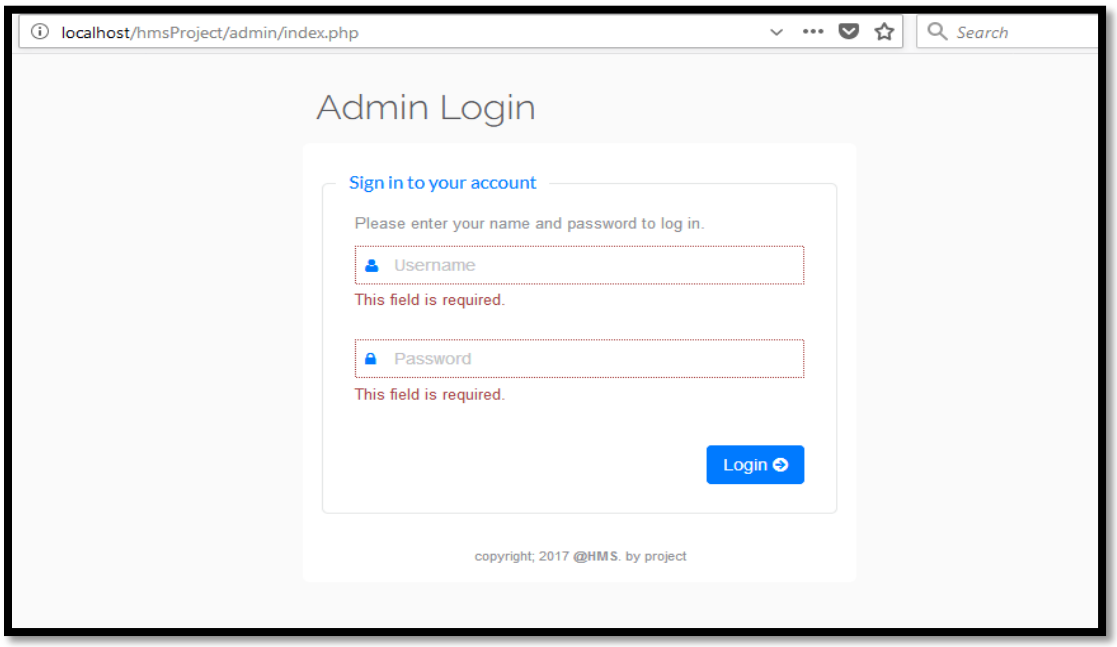


Figure- URL check

Invalid access:

This page for patient invalid access

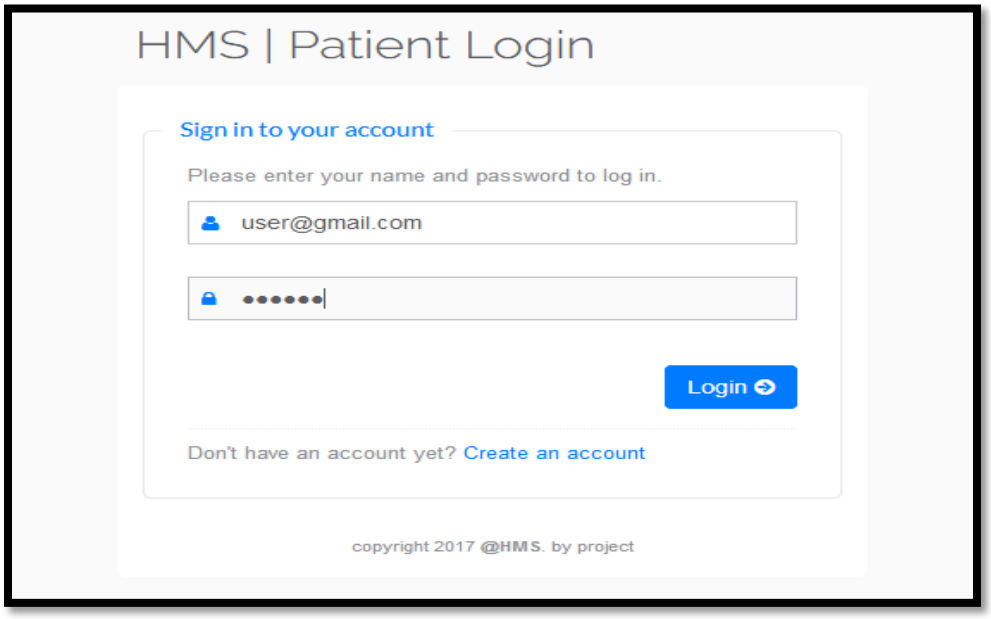


Figure- invalid access

Show on invalid username and password

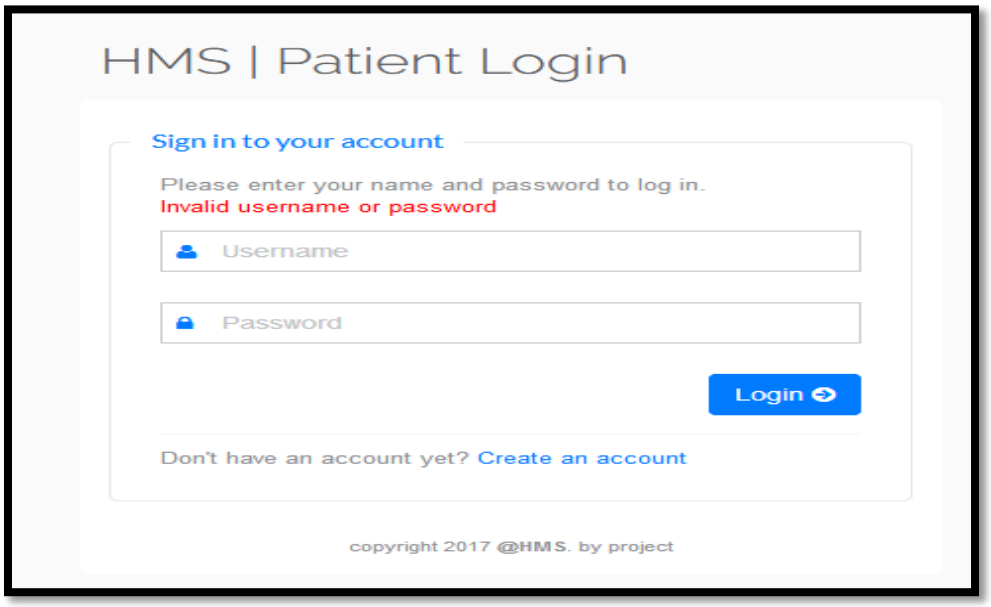


Figure- invalid username and password

Usability testing

Usability testing is a method to see how simple to use amazing is by testing it with real users. Users are asked to total tasks, classically while they are life form experiential by a canvasser, to see where they meet problems and knowledge confusion.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
06	Usability testing	Doctor Edit profile	pass	Run successfully
		Book appointment	pass	Run successfully

User Edit profile:

For Edit profile

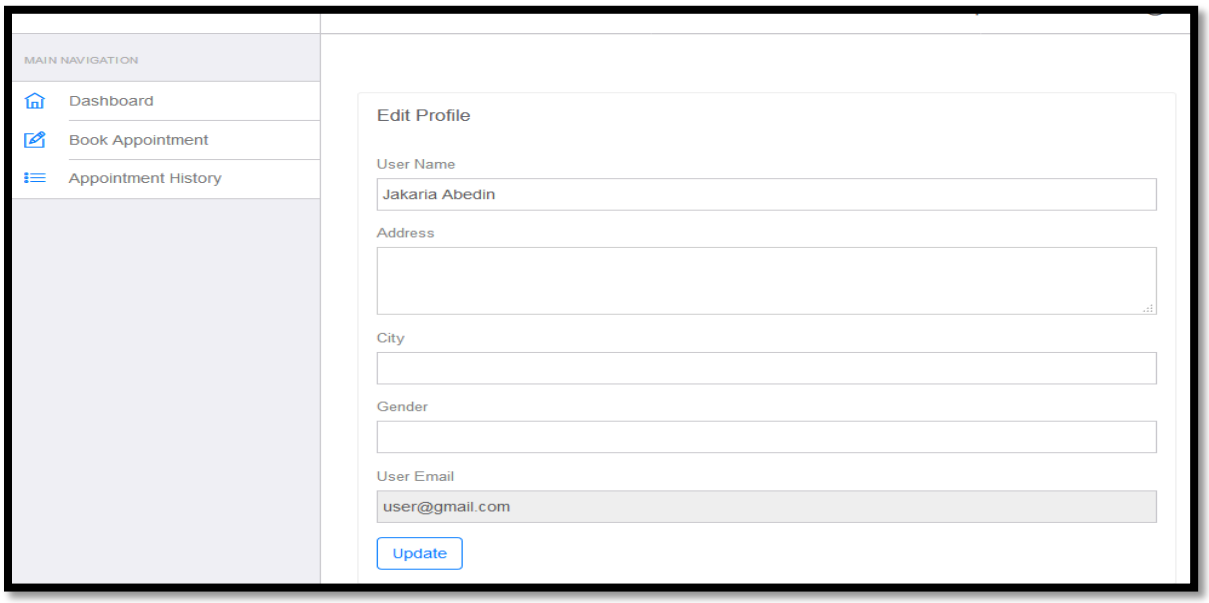


Figure- edit profilr

After edit profile

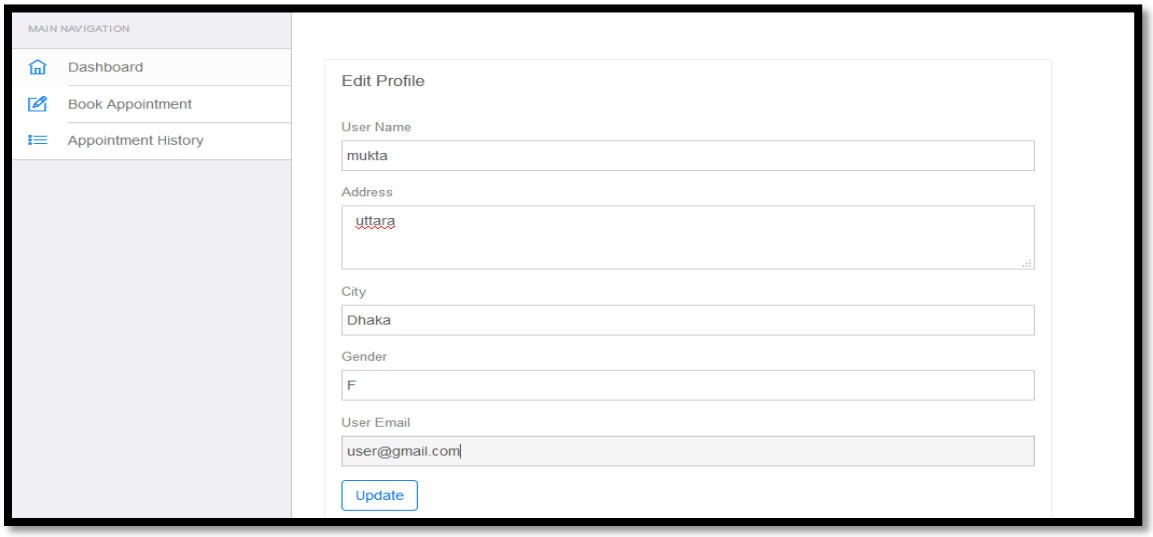


Figure- edit profile

Profile update successfully

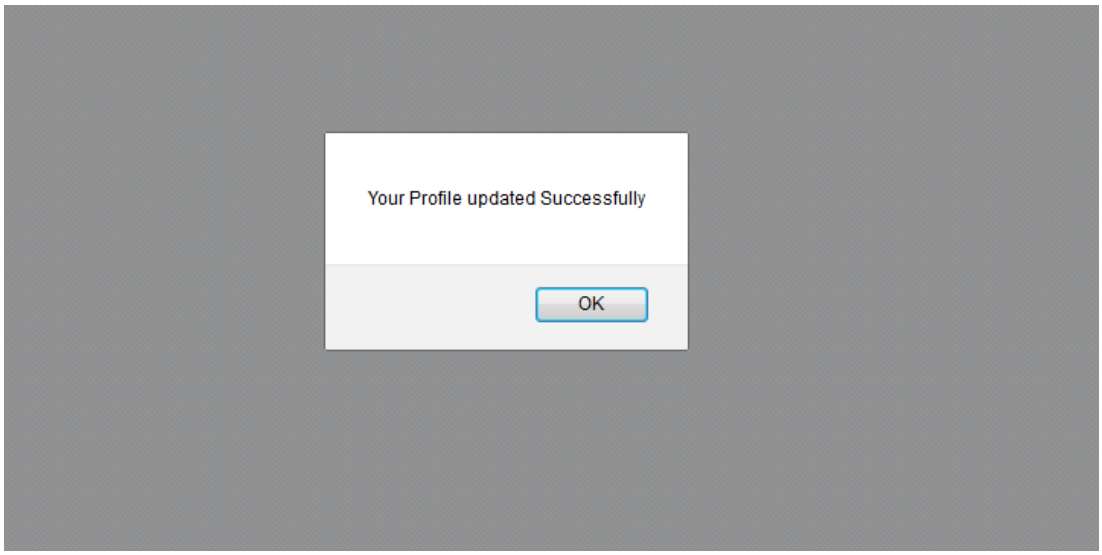


Figure- successfully update

Book appointment:

This page for book appointment

Figure- book appoinment

This page for appointment successfully booked

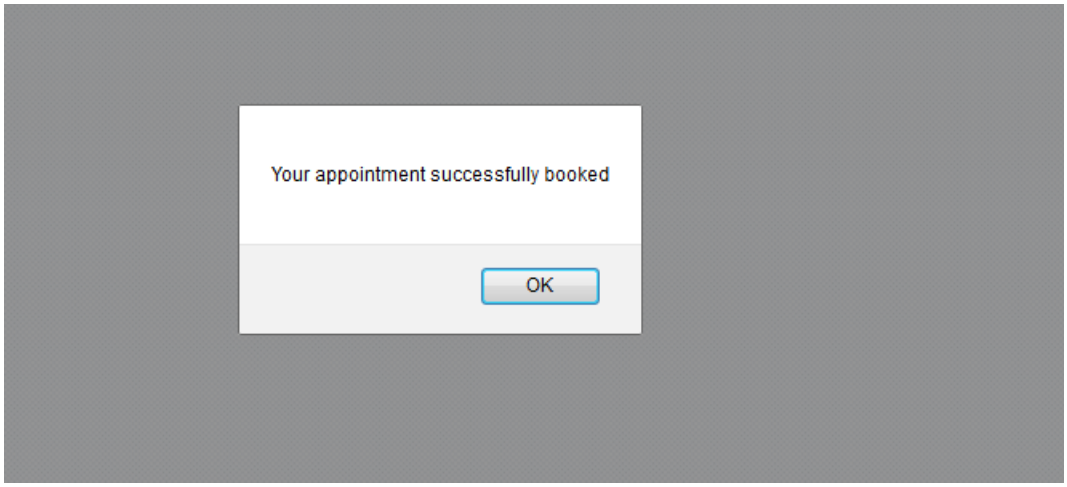


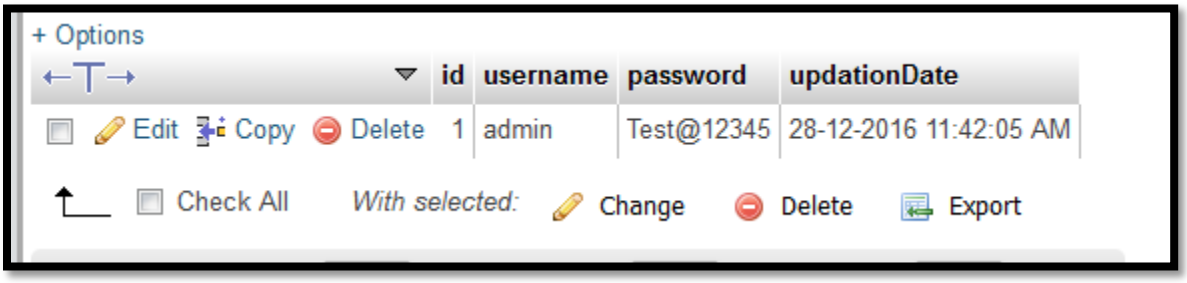
Figure- successfully booked

Database testing:

It involves the testing of file rational views which are leaving to carry database refactoring. It perform unit testing of record functions, views etc. It validates database tables, data models, database schema etc. It checks system of Referential reliability.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
07	Database testing	Admin For login	pass	Run successfully
		For appointment	pass	Run successfully

For admin login:



For appointment:

Chapter 12- Implementation:

Training:

No	Training title	Description	Duration
01	System access	Training for how to the system access and how to run system	2 hours
02	Book appointment	Tanning for how to book appointment	1 hours
03	Manage doctor information	Training for how to manage doctor information	1 hours
04	Manage user information	Training for how to manage user information.	1 hours
05	View patient appointment	Training for how to view patient's information.	1 hours
06	Edit profile	Training for how to update user or doctor information.	
07	Report of total appointment list	Training for how to manage total information of the appointment system.	2 hours

Big Bang:

It allows any business to implement new system immediately. It is instant exchange approach, when everyone linked with the new system and its function on the given date. Everyone start using the new system and skillful their day to day task.

Parallel implementation:

Parallel implementation is the older system and the new system run parallel in the business, so that users of the systems find recognizable with the new system and the in the meantime they can do their usual task using the older one. But for the hospital management system big bang completion is applied so that stakeholders can contract used to with the new system right away. They can be profit when it is run in the actual world as soon as possible.

Load Balancing:

For load balancing there are quite a few technique uses in the system. So that it cut the load of a function and user can skillful a task simply.

AJAX techniques: Ajax technique used in the system to stability the load of the pages. It can sync data with file without page reloaded. When a task is finished by AJAX it immediate answers and reduces the server load time and increase the presentation of the server.

Chapter 13- critical appraisal and evolution:

Objective that could be met:

My aim to be provided reliable system for patients to easy their treatments. The aim is including:

- Admin see all information which the data keeping in database
- The patient appointment process make easier and the patient have Opportunity for chose doctor
- all the patient have opportunity for chose day if doctor available
- The website have keep system which all patient details record
- It is To help technical management of hospital and advancement of health care systems so as to make it rational, responsive and cost efficient, both to customer and providers.
- To help the development of high class of hospital care in the society and the country so as to provide a acceptable environment to the patient and also to the doctors for clinical research.
- To help a discussion for exchange of ideas and information along with the health planners, administrators, academicians and general public or development of hospital and health services.
- To develop norms and principles for authorization of the organization of health care and accept means of continuous assessment of such institutions so as to get better leading the quality of health care.
- To update the knowledge and skills of personnel involved in health administration for the management of these institutions through continuing education programmers.
- To create parameters of standards of teaching and training in the field of hospital administration and accreditation of such institutions.
- To promote research in the field of hospital administration and disseminate research findings among the users.

Success Factor:

The hospital management system project has been finished by following DSDM Attern methodology. First of all in the Pre-Project section execute to be recognized what is the system? What is all about? What work it will be complete for the stakeholders and their patients, what is setting of the project, known problem area along with possible solution, and then started to analysis the existing system.

Problem area:

Paper base work:

"***Jahan Ara Clinic (PVT.) LTD***" system is still paper base. For that the hospital information are not secure. If any third person or any other hospital staffs see paper they had known hospital ideas and they known hospital information. After other hospital update their hospital management system and business process by those ideas. It is very harmful for the hospital. For well secure the hospital needed website. So that online system is very important in this hospital.

Time wasted:

At the present situation every things is online base. But the hospital system is still old. The hospital provides best treatments but service is very poor. For that day by day the hospital lost their patient. The hospital current system is paper base. But some staff using computer for record data by excel. But it is not online base. Every human being needs doctor when they are sick. But some time our family member is so busy their own work. If the hospital will be online base then we can appointment by online. But the hospital is not online base for the reason the client or patient need high time for treatments. Because if any client or patient need appointment than they going to hospital. Then we get appointment if the doctor is available. Other witch we going to another day in hospital when the doctor will be available. Otherwise another hospital will be visited for appointment. For the reason we need high time completed this process .but we don't have available time for long process in the present life. Because everybody is busy their won work. It is vary lengthy process for in the present life. For this process complete the time is too wasted. If we want to save our time and we want to known all information so, we need website which we known all information by the online. If we want to easy life, then we need online hospital management system.

Maintained cost:

"***Jahan Ara Clinic (PVT.) LTD***" is still paper base system. For the reason the client or patients need high cost. Because there is no any option get information in online about hospital. So the patient going to hospital for gets information. If the doctor was not available than the client or patient came back home. And if they will be gated information then they go another day. The patients need high cost for complete this process. If the patients gets all information in online then the patient are benefited and they save money and time. So every hospital needs online management system (Help desk). Online hospital management help desk system is very important thing for our everyday life. Because any one sick suddenly. The system is very important for regularly patient. They needs update information in hospital for patient. If we find out all formation by the online than we get current information in hospital. So we maintained our cost easily.

Appointment problem:

For the paper base system, the client or patient need physically meet for appointment. Coues if any patients needed appointment for treatments they going to hospital get appointment. That means if any patients need appointment for doctor treatment or doctors suggestion they meet physically hospital. There are no other options without it. So that online system is the best process for the every person .the system will be easy our life and save our money and time. In the present situation if we are feel sick than we are going to doctor directly without appointment. For that, some time we don't get available doctor. For the reason I think if our hospital management help desk system will be online base than we get all information from online easily. We known all the information easily and our needed specialized information collected by online.

Re-work:

Whereas "*Jahan Ara Clinic (PVT.) LTD*" is paper base so; the hospital staff will be re-working. If the hospital was website then the staff does not need re-working for one subject. Whereas the hospital doesn't any software for data record so, they working hard and again and again same work. it is one of the most problem in current system.

Schedule miss match:

Whereas "*Jahan Ara Clinic (PVT.) LTD*" is paper base so, the hospital do not have any software for data record. For the reason the doctor schedule is miss match. First person enter last serial

number and last person enter first serial number. If the hospital will have software for schedule maintained then the client wasn't face this problem.

Customer dissatisfaction:

When the customer was face many problem for different thing then customer are disappointed about this. There are many reason, the customer are disappointed. Like-schedule miss match, do not get any information without come in hospital, time wasted, appointment problem etc. for the reason the customer are very dissatisfaction. It is one of the problems in hospital. For that there are many customer are leave hospital for this reason.

Harmful Popularity:

Whereas "*Jahan Ara Clinic (PVT.) LTD*" is popular hospital in Bangladesh. So that the hospital need many side followed about their hospital. Whereas there are many customer are disappointed about this hospital. And for the reason many customer leave this hospital, it is harmful for hospital popularity. For that day by day the hospital lost their image and their popularity. It is very harmful for hospital.

Overcome:

The hospital needs focus on the entire site. So it is very important for project. Need all the functionality fulfill then the hospital overcomes their problem.

Further development:

In this system I have keep some functionality for further development. Including this system-

- Notification system
- Communication system like-messaging or phone number
- Online payment system
- Password recovery system
- Online payment system by card
- Contact us system

Chapter 14- Lessons Learned:

New skill to be learned:

I have learned many skills up developing software's and have learned many latest things from this hospital filed. It would help to achieve qualified knowledge as it is real life software. There are many kinds of planned. Including this:

- To gain knowledge about hospital function
- Knowledge apply to get together a real project
- Get together knowledge to contact with a new people
- A lot of knowledge gain in analysis and designing
- Gain Communication development for new place
- Problem identify
- Gain similar methodology, like- SSDM, DSDM, RUP, etc.

What have I learned: in this project completed I have used some function for document, and some development language and some platform development. Which I have learned all these are very well. Including-

For Project documentation:

- Microsoft word
- Microsoft paint
- Microsoft excel

For Software development:

- HTML and CSS3 for scripting
- HTML5 and PHP for validation
- PHP for performing functions
-
- MySQL server for database
- Supporting Browser

For Development Platform:

- Windows XP Professional
- Windows 2000 Professional

Chapter 15- conclusion:

The purpose of this investigate was to online appointment System "***Jahan Ara Clinic (PVT.) LTD***". with to build up the planned system and to apply and review. The study not only this hospital use but also can be implemented for any other hospital management system in Bangladesh. It provides a very actually influential users level safety. The system is very interactive and user responsive in nature. In future we will build the system new flexible to give somewhere to stay more user stress in the system.

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Appendix-A

Requirement Catalogue:

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M1**
Functional Requirement: Admin hospital management panel			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M2**
Functional Requirement: Admin can login			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M3**
Functional Requirement: Admin can add doctor			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M4**
Functional Requirement: Admin can view appointment			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M5**
Functional Requirement: admin can manage doctor			

Non functional requirement:

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M6**
Functional Requirement: admin can manage patients			
Non functional requirement:			
Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M7**
Functional Requirement: admin can edit profile			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M8**
Functional Requirement: admin can update information			
Non functional requirement:			

Source: admin	**Sing off: admin**	**Priority:** must	**Requirement-ID:M9**
Functional Requirement: admin can total view of information			
Non functional requirement:			

Source: admin	**Sing off: category for doctor specialized**	**Priority:** must	**Requirement-ID:M10**
Functional Requirement: Cancel appointment			

Non functional requirement:

Source: admin	**Sing off: category for doctor specialized**	**Priority:** must	**Requirement-ID:M11**
Functional Requirement: Select doctor			
Non functional requirement:			

Source: admin	**Sing off: category for doctor specialized**	**Priority:** must	**Requirement-ID:M12**
Functional Requirement: Search option for finding doctor			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M13**
Functional Requirement: Patients penal			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M14**
Functional Requirement: Patient can login			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M15**
Functional Requirement: Patients can registration			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M16**
Functional Requirement: Patient can appointment			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M17**
Functional Requirement: Patient can edit profile			
Non functional requirement:			

Source: admin	**Sing off:** patient	**Priority:** must	**Requirement-ID:M18**
Functional Requirement: Patient update information			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M19**
Functional Requirement: Doctor panel			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M20**
Functional Requirement: Doctor can login			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M21**
Functional Requirement: Doctor can view appointment			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M22**
Functional Requirement: Doctor can cancel appointment			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M23**
Functional Requirement: Doctor edit information			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M24**
Functional Requirement: Update information			
Non functional requirement:			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M25**
Functional Requirement:			
Non functional requirement: Doctor limitation			

Source: admin	**Sing off:** doctor	**Priority:** must	**Requirement-ID:M26**
Functional Requirement:			
Non functional requirement: Secure the password by encryption			

Appendix-B:

Test case:

Unit testing:

Unit testing is a software progress in which the least testable parts of a request, called units, are independently and separately scrutinize for good action. Unit testing can be done physically but is frequently automatic.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
01	Unit Testing	Admin login	pass	Run successfully
		User login	pass	Run successfully
		User registration	pass	Run successfully
		Doctor login		

Admin login:

This page show on before login.

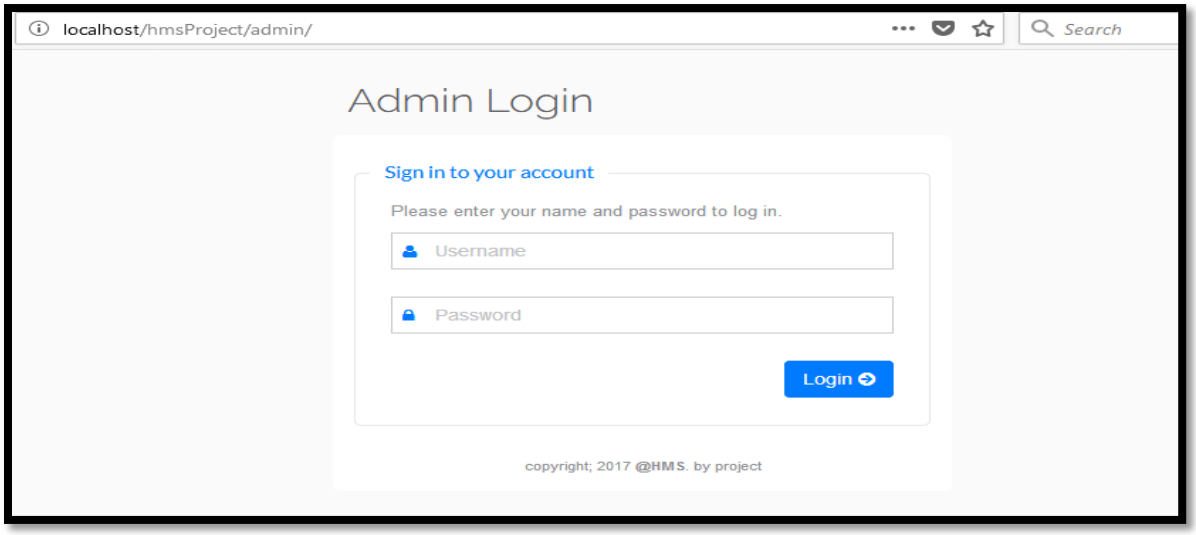


Figure- admin login

This page for when admin login. Where user name is admin and password is Test@12345

Figure- admin login

After login this page is show on.

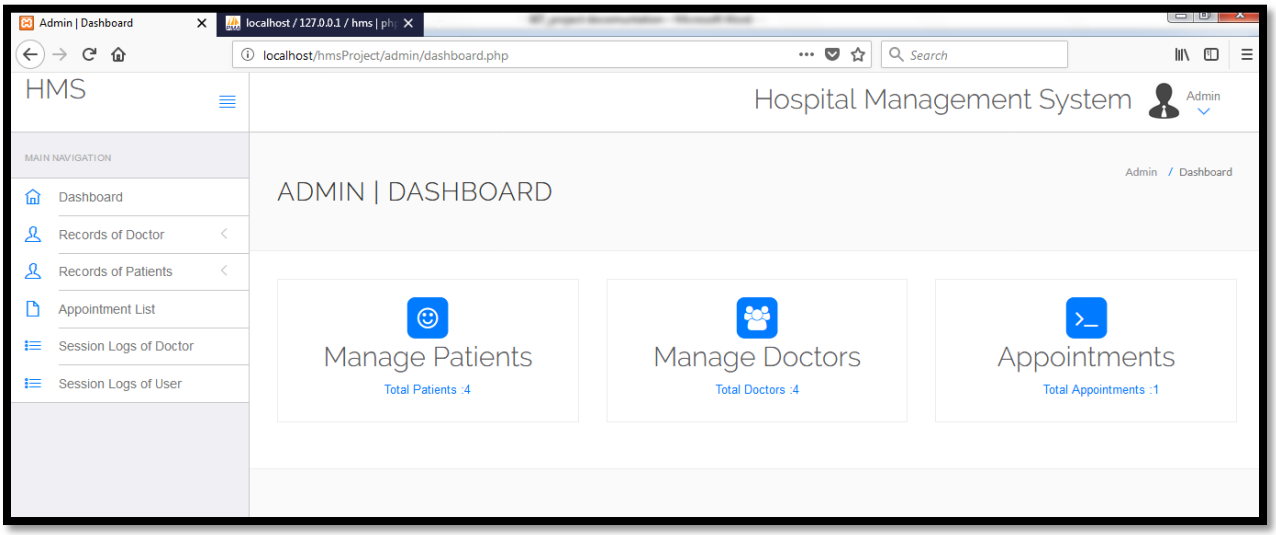


Figure- design for admin dashboard

When logout this page.

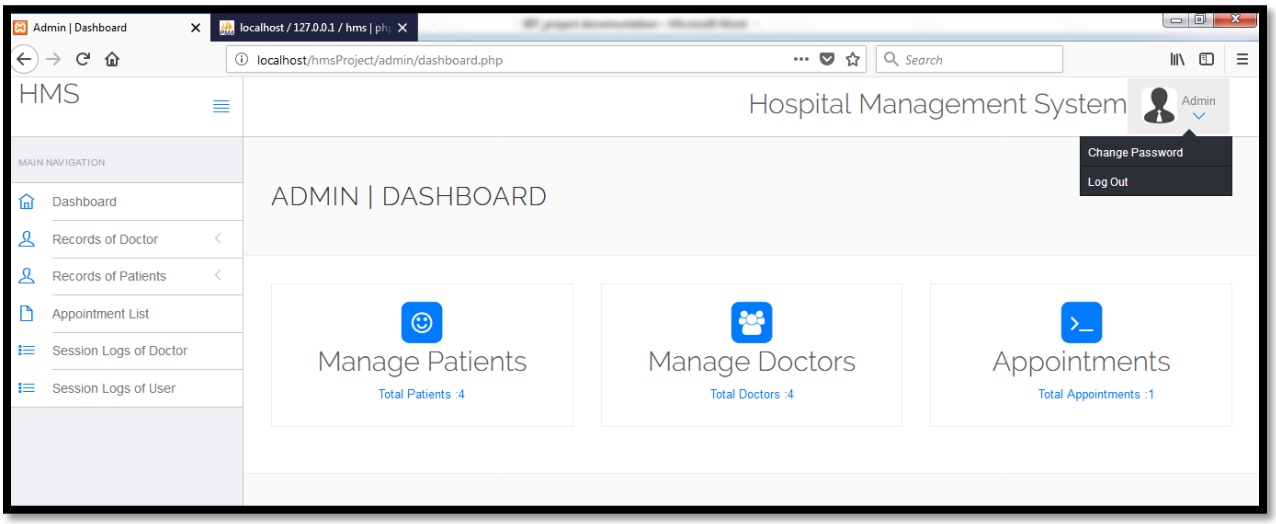


Figure- design for admin dashboard

User login:

User login page before login.

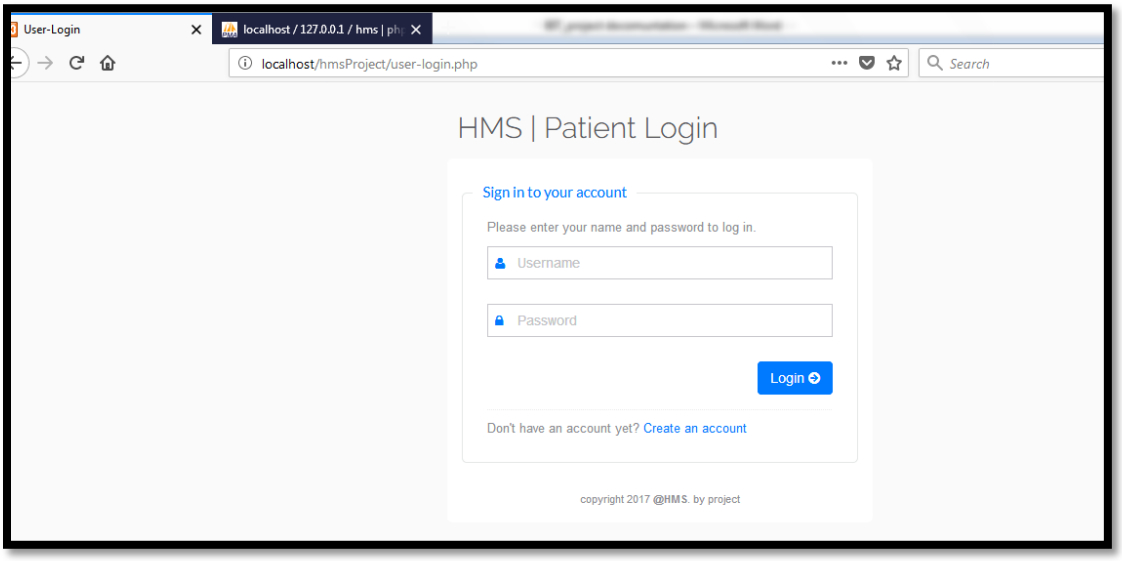


Figure- user login

When patients login this page is show on.

Figure- user login

After login this page is show on.

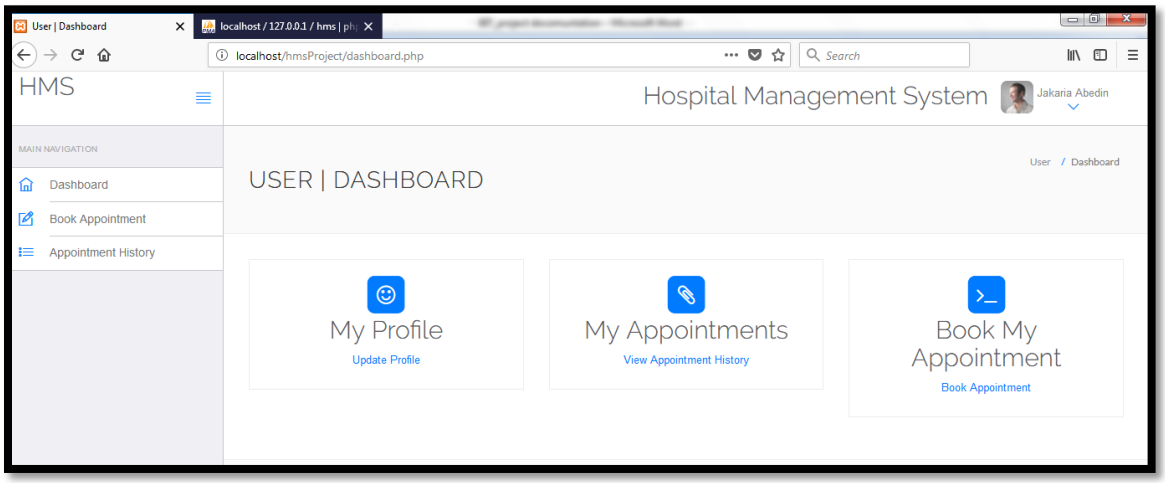


Figure- design for user dashboard

When user logout

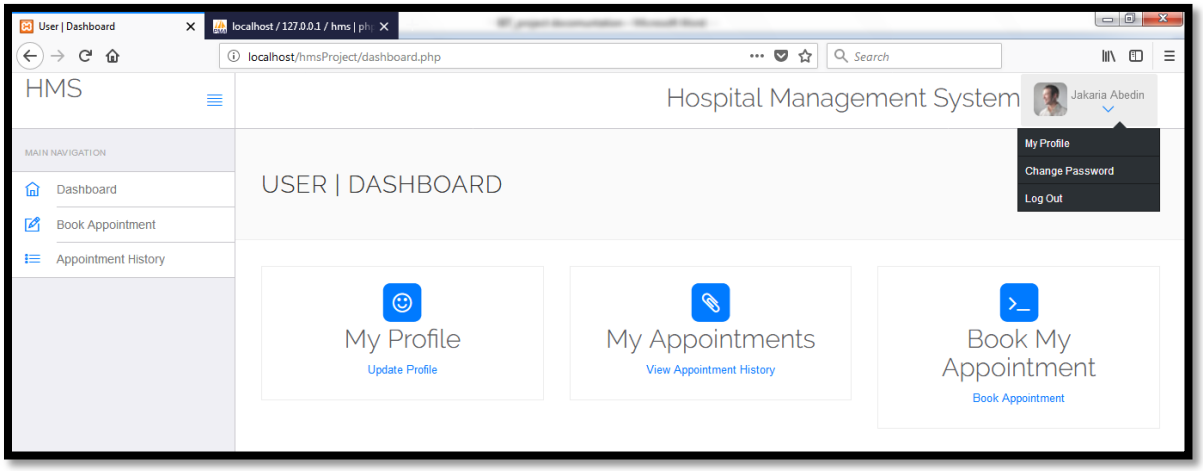


Figure- design for user dashboard

User registration:

This page for before registration

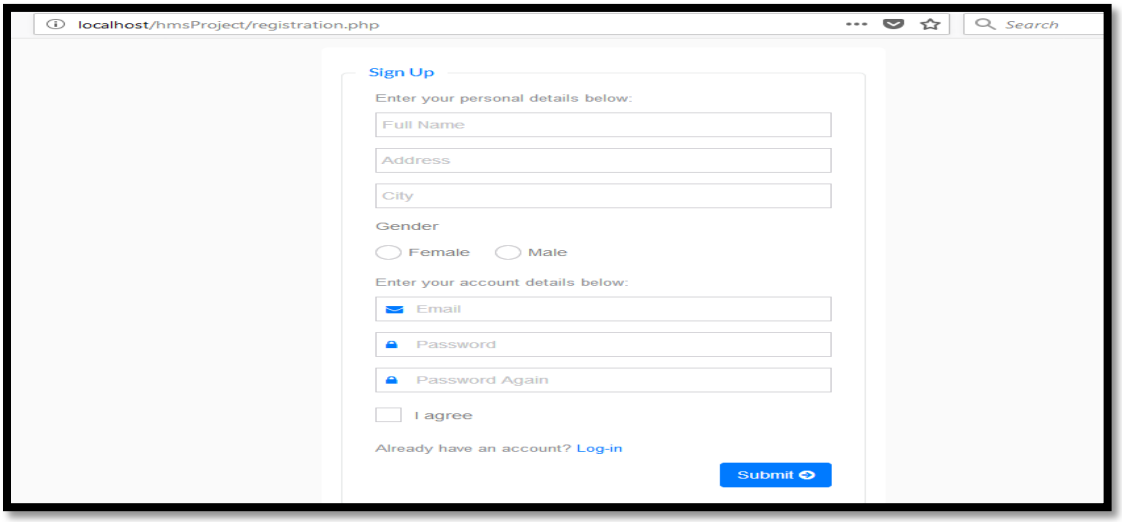


Figure- registration page

Registration with from fillip this page is show on.

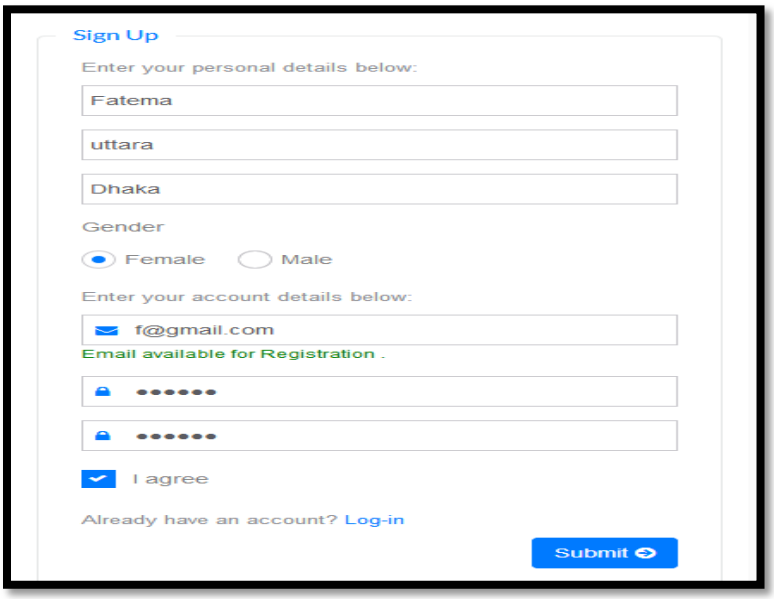


Figure- sing up

Then Registration successfully this message is show on.

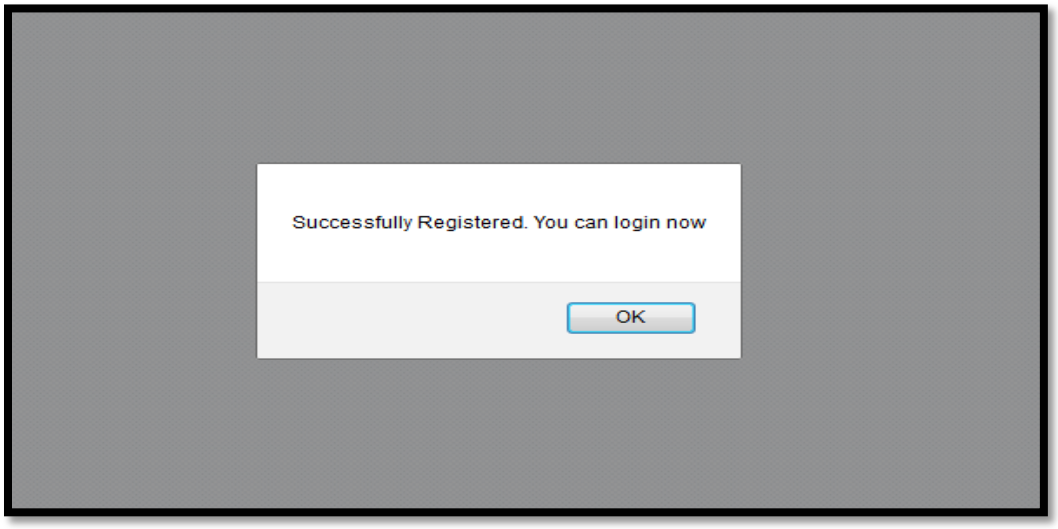


Figure- successfully registration

Doctor login:

This page for before doctor login

Figure- doctor login

This page is show for doctor login. Which username is mu@gmail.com and password 123456?

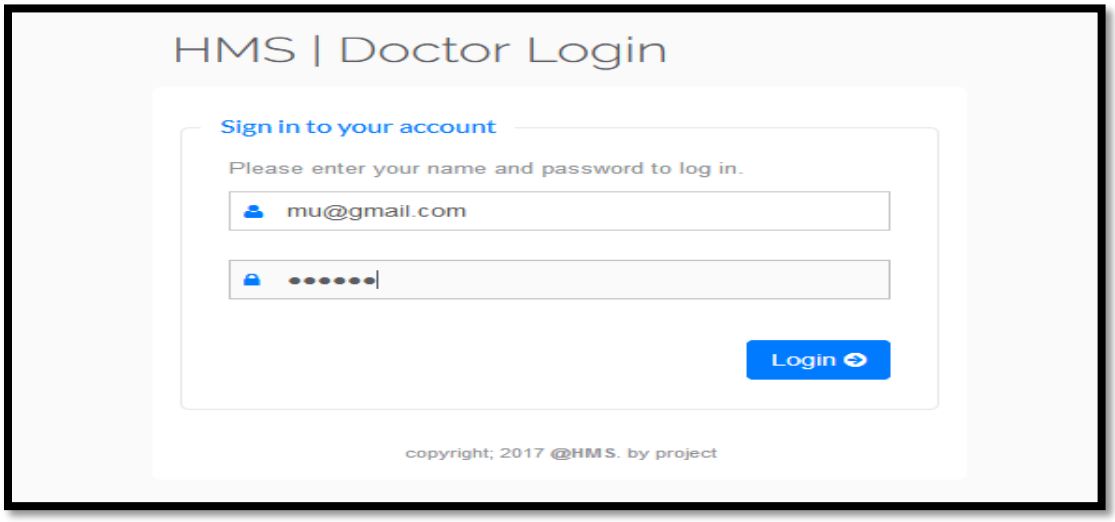


Figure- doctor login

This page for after login

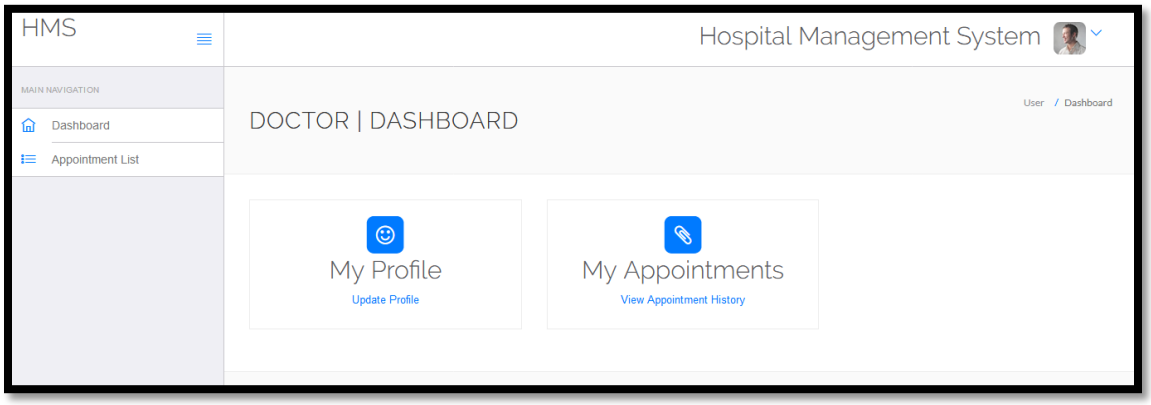


Figure- login

This page for show logout

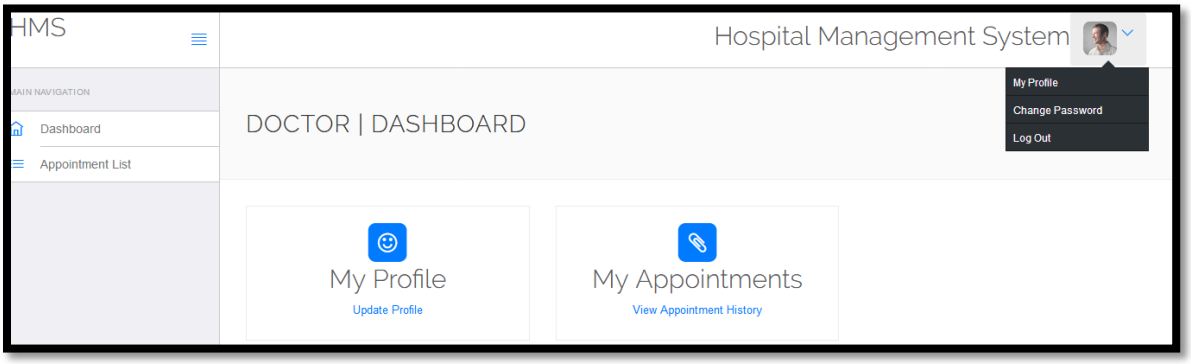


Figure- logout

Module Testing:

A common basis of perplexity for new software testers is the disparity between unit testing and module testing. In universal, unit tests are a set of tests on paper by a developer throughout the software growth process.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
02	Module Testing	Registration code	pass	Run successfully
		User Login code	pass	Run successfully
		Logout code	pass	Run successfully

Registration code**:**

This code for registration

```php
<?php
include_once('include/config.php');
if(isset($_POST['submit']))
{
$fname=$_POST['full_name'];
$address=$_POST['address'];
$city=$_POST['city'];
$gender=$_POST['gender'];
$email=$_POST['email'];
$password=md5($_POST['password']);
$query=mysql_query("insert into users(fullname,address,city,gender,email,password) values('$fname','$address','$city','$gender','$email','$password')");
if($query)
{
    echo "<script>alert('Successfully Registered. You can login now');</script>";

}
}
?>
```

Figure- registration

Output page:

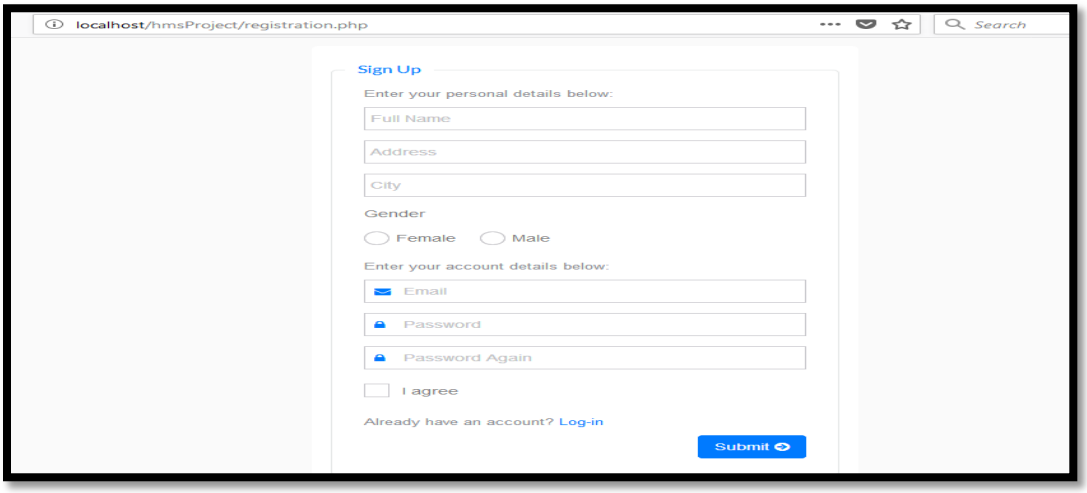


Figure- output

User Login code:

Code for user login

```php
<?php
session_start();
error_reporting(0);
include("include/config.php");
if(isset($_POST['submit']))
{
$ret=mysql_query("SELECT * FROM users WHERE email='".$_POST['username']."' and password='".md5($_POST['password'])."'");
$num=mysql_fetch_array($ret);
if($num>0)
{
$extra="dashboard.php";//
$_SESSION['login']=$_POST['username'];
$_SESSION['id']=$num['id'];
$host=$_SERVER['HTTP_HOST'];
$uip=$_SERVER['REMOTE_ADDR'];
$status=1;
$log=mysql_query("insert into userlog(uid,username,userip,status) values('".$_SESSION['id']."','".$_SESSION['login']."','$uip','$status')");
$uri=rtrim(dirname($_SERVER['PHP_SELF']),'/\\');
header("location:http://$host$uri/$extra");
exit();
}
else
{
$_SESSION['login']=$_POST['username'];
$uip=$_SERVER['REMOTE_ADDR'];
$status=0;
mysql_query("insert into userlog(username,userip,status) values('".$_SESSION['login']."','$uip','$status')");
$_SESSION['errmsg']="Invalid username or password";
$extra="user-login.php";
$host  = $_SERVER['HTTP_HOST'];
$uri  = rtrim(dirname($_SERVER['PHP_SELF']),'/\\');
header("location:http://$host$uri/$extra");
exit();
}
}
?>
```

Figure- code

Output

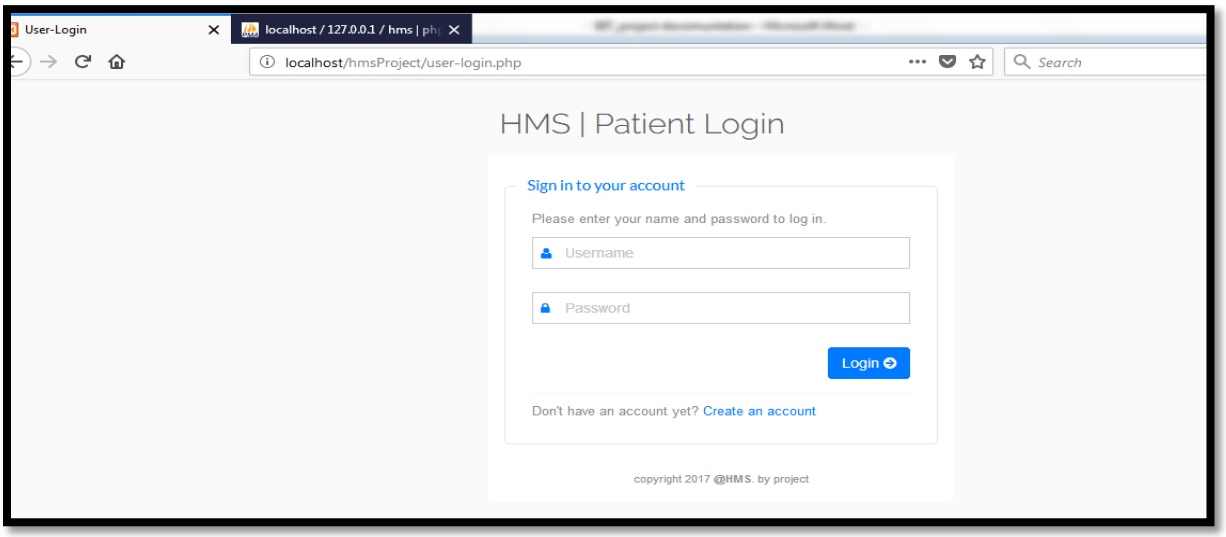


Figure- user login

Logout code:

Code for logout:

```php
<?php
session_start();
include('include/config.php');
$_SESSION['login']=="";
date_default_timezone_set('Asia/Kolkata');
$ldate=date( 'd-m-Y h:i:s A', time () );
mysql_query("UPDATE userlog  SET logout = '$ldate' WHERE uid = '".$_SESSION['id']."' ORDER BY id DESC LIMIT 1");
session_unset();
$_SESSION['errmsg']="You have successfully logout";
?>
<script language="javascript">
document.location="./user-login.php";
</script>
```

Figure- code

Output

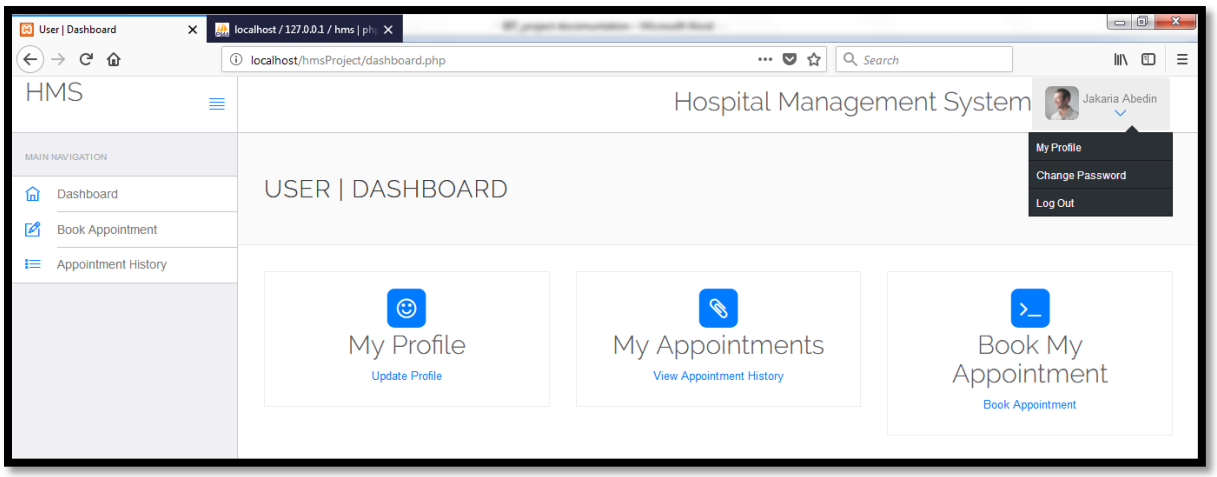


Figure- user dashboard

Integration Testing:

Integration testing, also recognized as integration and testing is a software expansion process which plan units are mutual and tested as group in several ways. In this context, a unit is clear as the least testable part of a request.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
03	Integration Testing	Admin panel	pass	Run successfully
		Doctor panel	pass	Run successfully
		User panel	pass	Run successfully

Admin panel:

Show in admin panel page

Figure- manage patients

This page for doctor manage

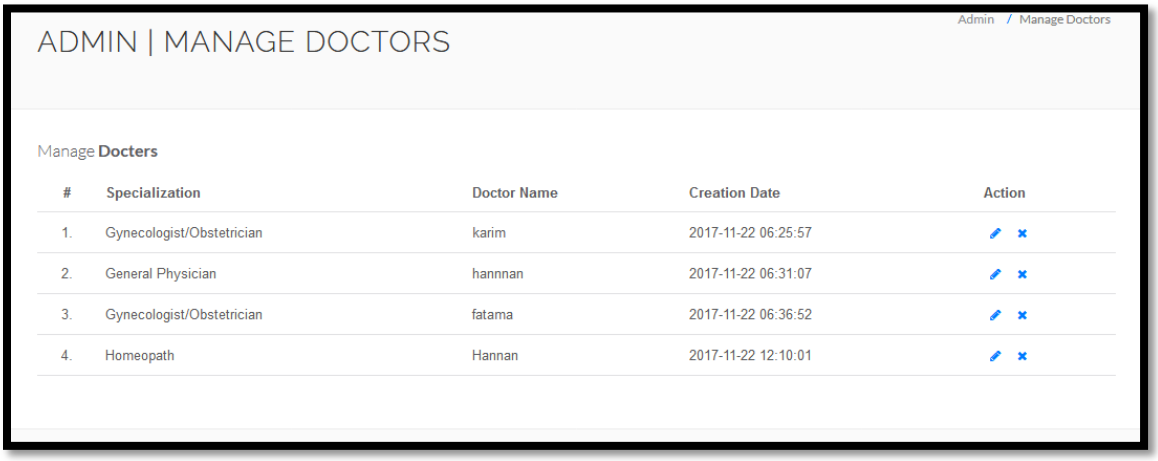


Figure- manage doctor

This page for patients' history page

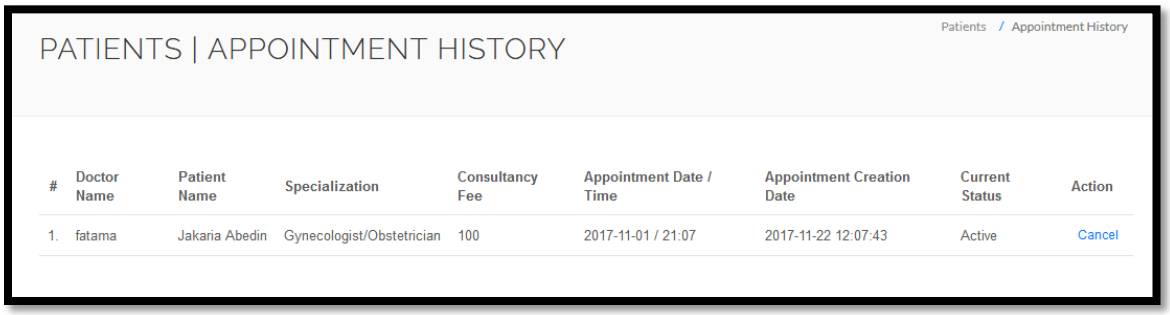
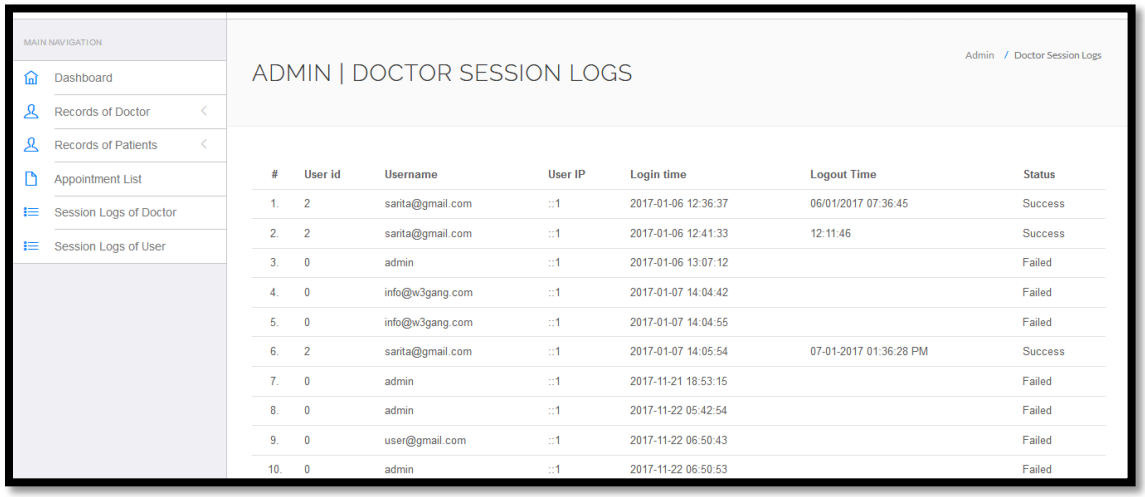


Figure- appointment history

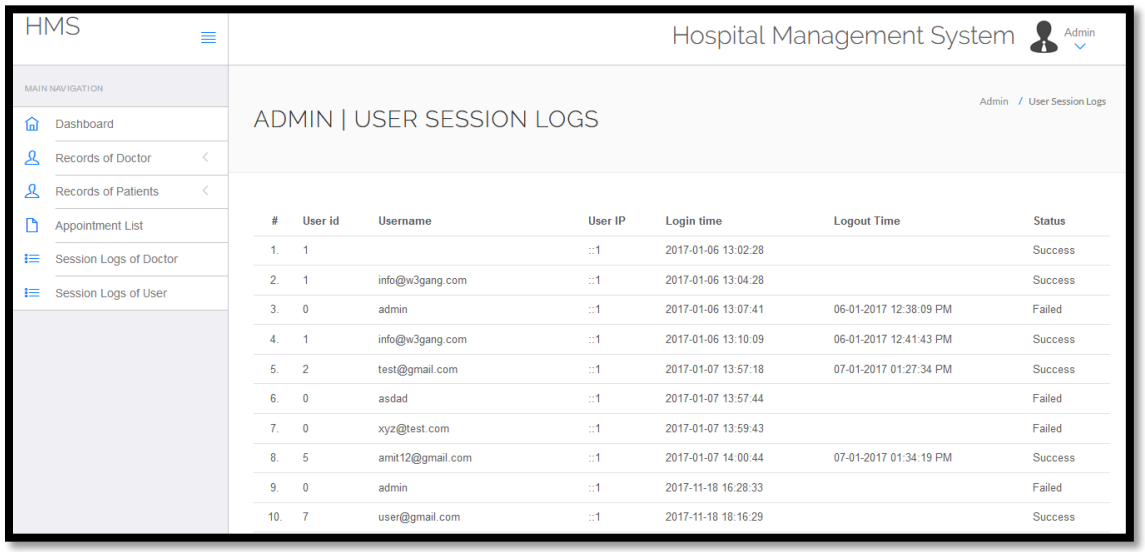
This page for doctor session logs



#	User id	Username	User IP	Login time	Logout Time	Status
1.	2	sarita@gmail.com	::1	2017-01-06 12:36:37	06/01/2017 07:36:45	Success
2.	2	sarita@gmail.com	::1	2017-01-06 12:41:33	12:11:46	Success
3.	0	admin	::1	2017-01-06 13:07:12		Failed
4.	0	info@w3gang.com	::1	2017-01-07 14:04:42		Failed
5.	0	info@w3gang.com	::1	2017-01-07 14:04:55		Failed
6.	2	sarita@gmail.com	::1	2017-01-07 14:05:54	07-01-2017 01:36:28 PM	Success
7.	0	admin	::1	2017-11-21 18:53:15		Failed
8.	0	admin	::1	2017-11-22 05:42:54		Failed
9.	0	user@gmail.com	::1	2017-11-22 06:50:43		Failed
10.	0	admin	::1	2017-11-22 06:50:53		Failed

Figure- doctor session log

This page for use session logs



#	User id	Username	User IP	Login time	Logout Time	Status
1.	1		::1	2017-01-06 13:02:28		Success
2.	1	info@w3gang.com	::1	2017-01-06 13:04:28		Success
3.	0	admin	::1	2017-01-06 13:07:41	06-01-2017 12:38:09 PM	Failed
4.	1	info@w3gang.com	::1	2017-01-06 13:10:09	06-01-2017 12:41:43 PM	Success
5.	2	test@gmail.com	::1	2017-01-07 13:57:18	07-01-2017 01:27:34 PM	Success
6.	0	asdad	::1	2017-01-07 13:57:44		Failed
7.	0	xyz@test.com	::1	2017-01-07 13:59:43		Failed
8.	5	amit12@gmail.com	::1	2017-01-07 14:00:44	07-01-2017 01:34:19 PM	Success
9.	0	admin	::1	2017-11-18 16:28:33		Failed
10.	7	user@gmail.com	::1	2017-11-18 18:16:29		Success

Figure- session logs

Doctor panel:

This page for edit doctor

Figure- edit page

This page for after update

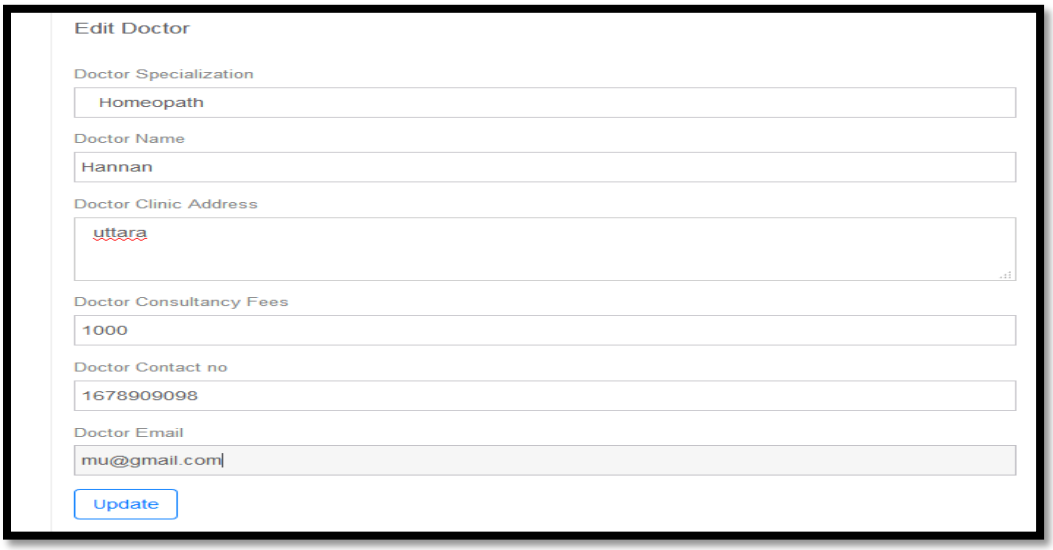


Figure- update

This page for doctor details update successfully.

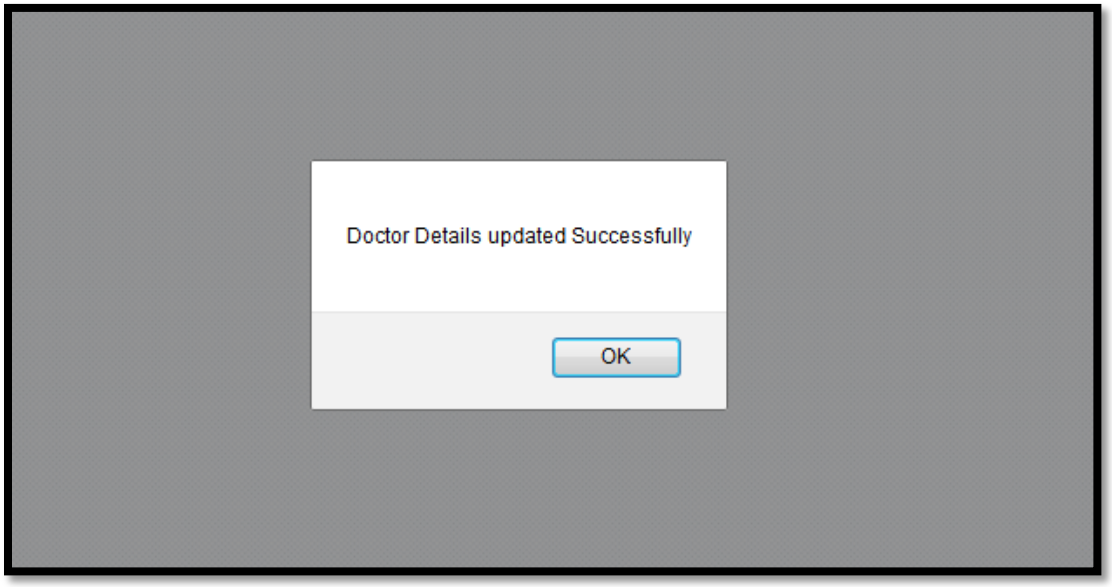


Figure- update sucessfully

User panel:

This page for user edits profile

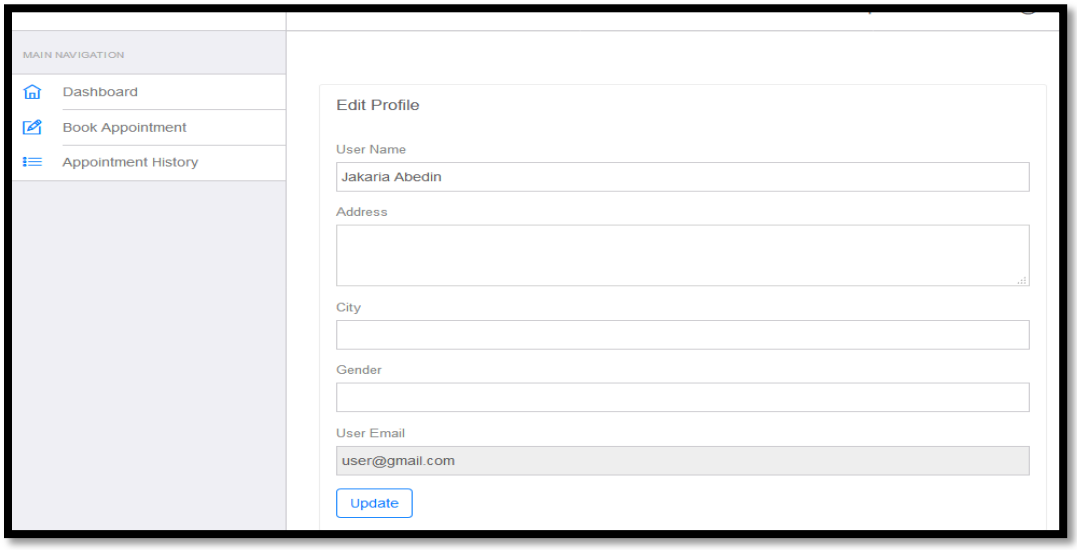


Figure- edit profile

This page for after update information

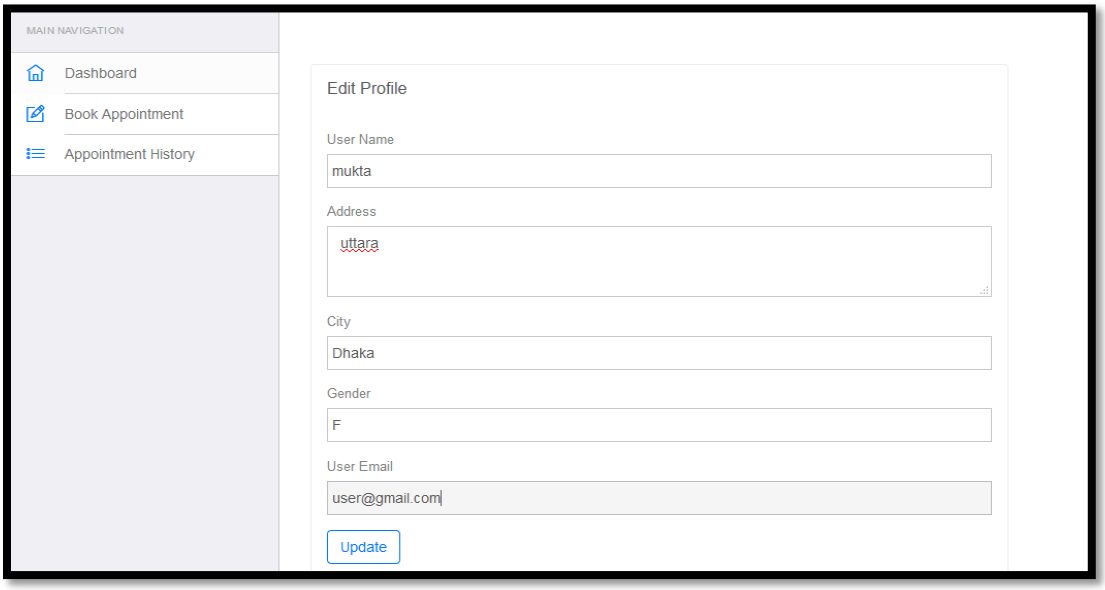


Figure- update information

Profile update successfully this message is show on

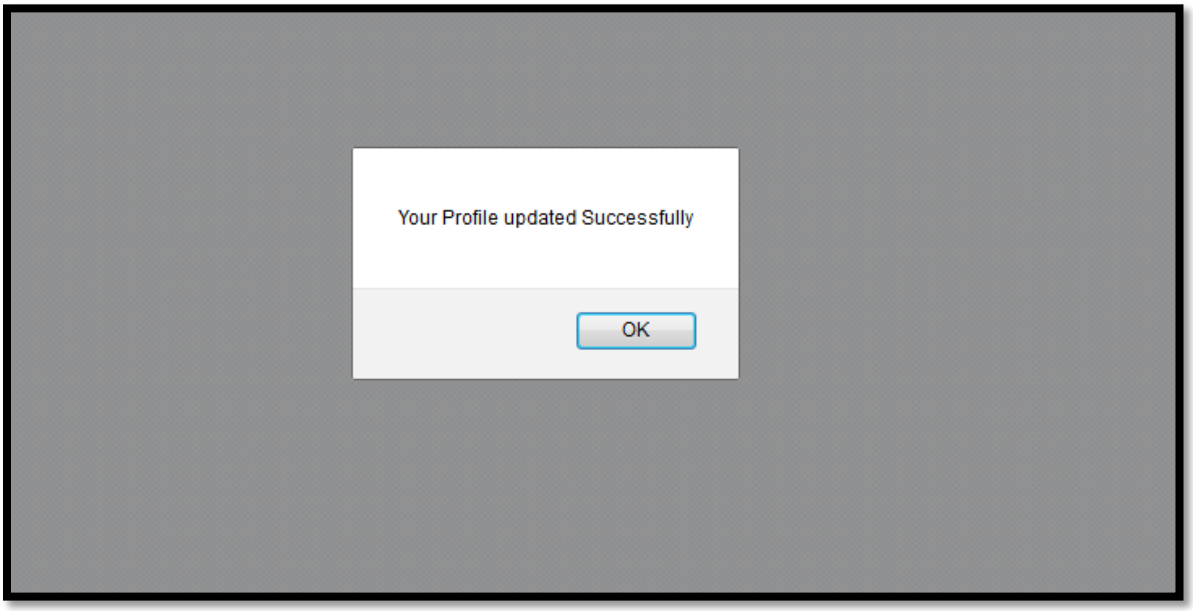


Figure- profile update

This page is for user appointment history

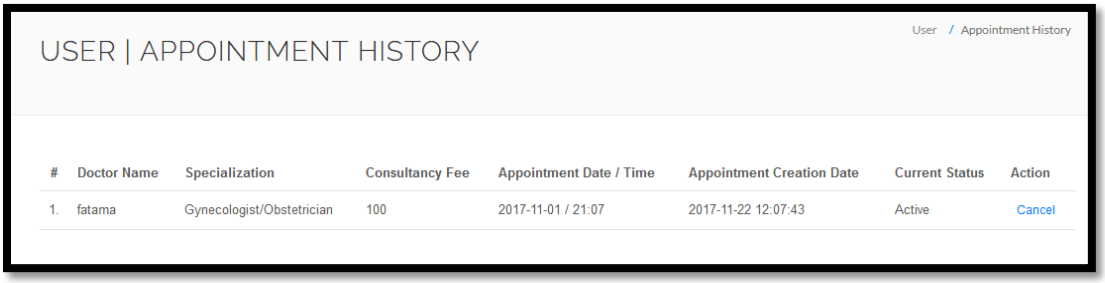


Figure- appointment history

This page for book appointment

Figure- book appointment

This page is show for appointment successfully booked

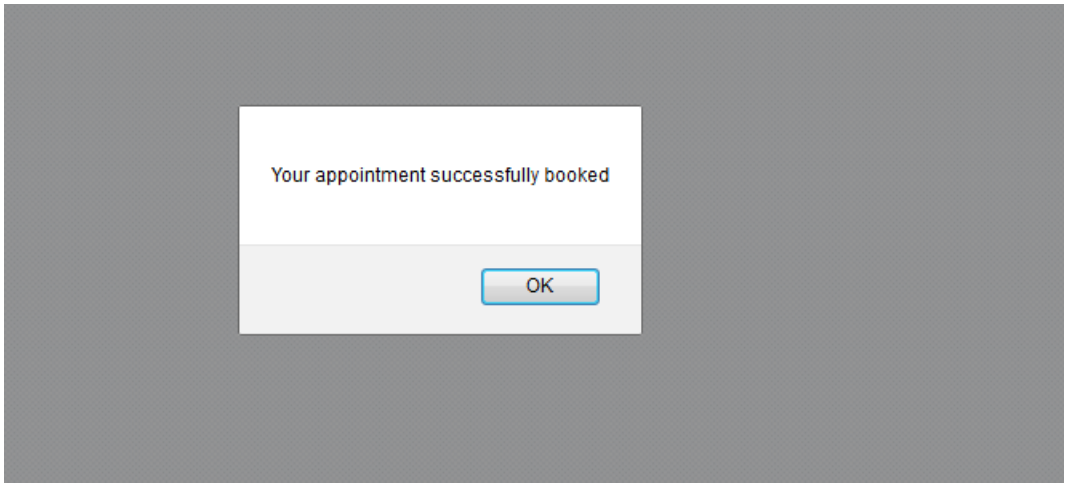


Figure- successfully booked

Acceptance Testing

Acceptance Testing is a level of the software difficult where a system is experienced for suitability. The purpose of this test is to assess the system's fulfillment with the business necessities and charge whether it is acceptable for delivery.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
04	Acceptance Testing	Login validation	pass	Run successfully
		appointment list	pass	Run successfully

Login validation

Patient validation test, this page is show when wrong username and password are input.

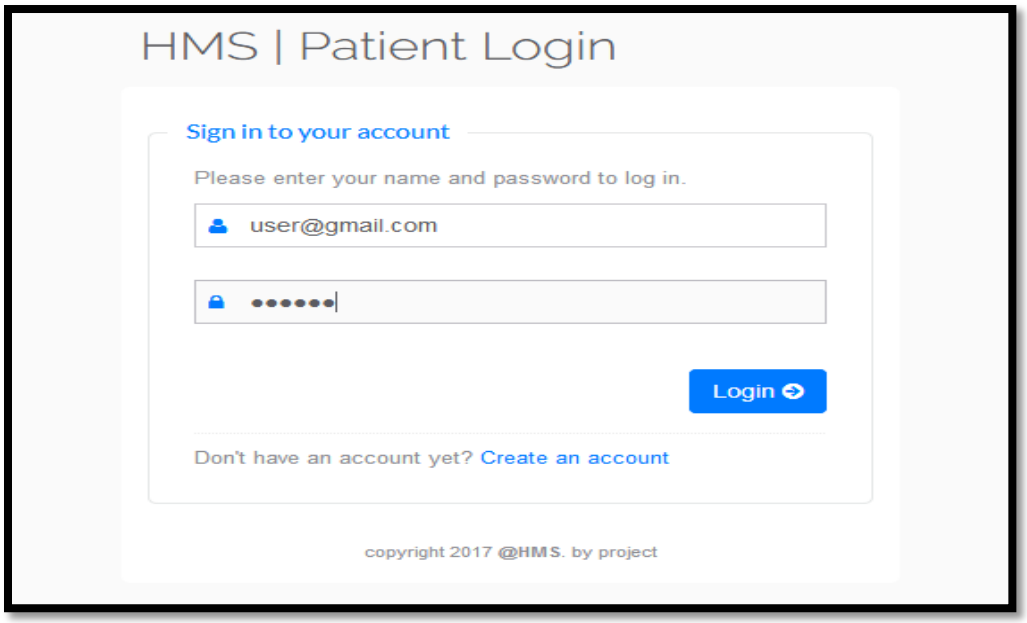


Figure- login validation

Invalid username and password are show in this page

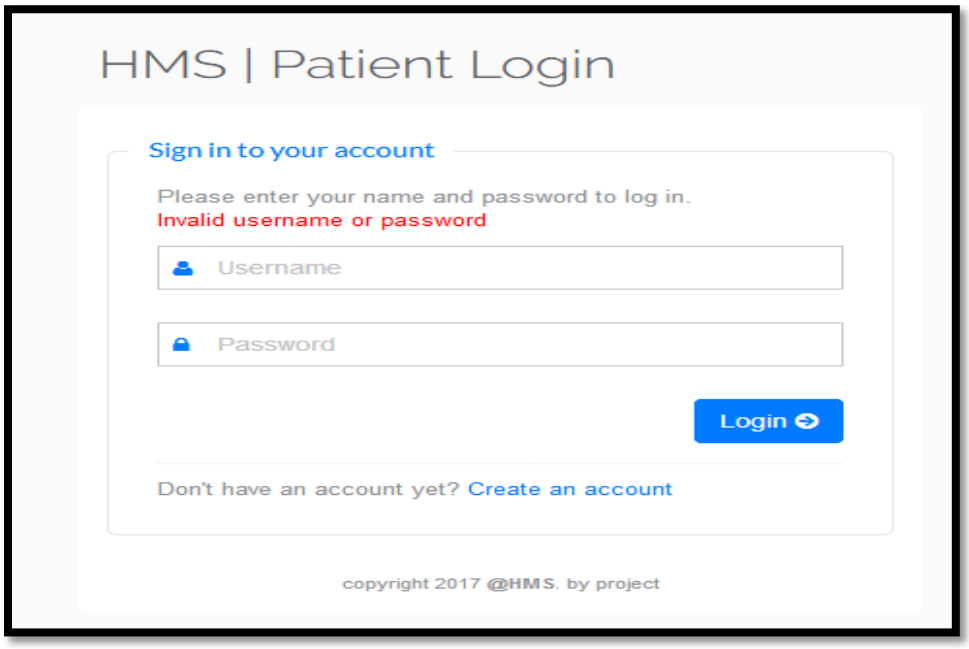


Figure- invalid username or password

Appointment list

This page for appointment list

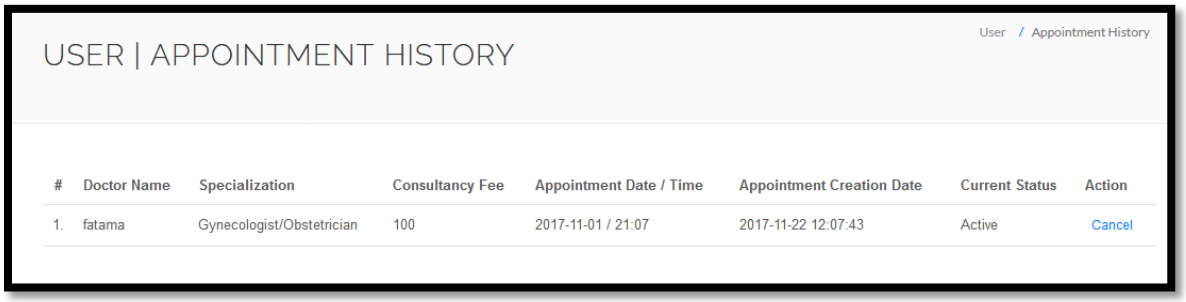


Figure- appointment list

Security Testing

Security testing is a growth intended to make known flaws in the safety mechanism of an in order system that protect data and maintain functionality as intended. Typical security supplies may include specific basics of privacy, integrity, verification, availability, authorization and non-repudiation.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
05	Security Testing	Copying URL	pass	Run successfully
		Invalid access	pass	Run successfully

Copying URL:

For URL test admin. This page is show on this filed is required

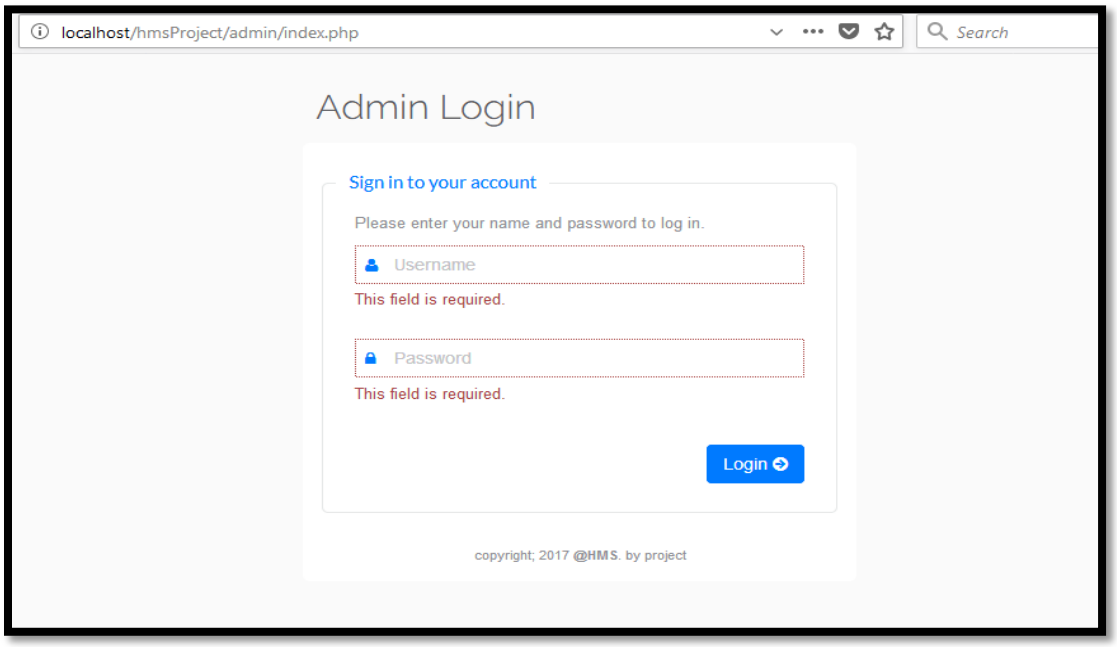


Figure- URL check

Invalid access:

This page for patient invalid access

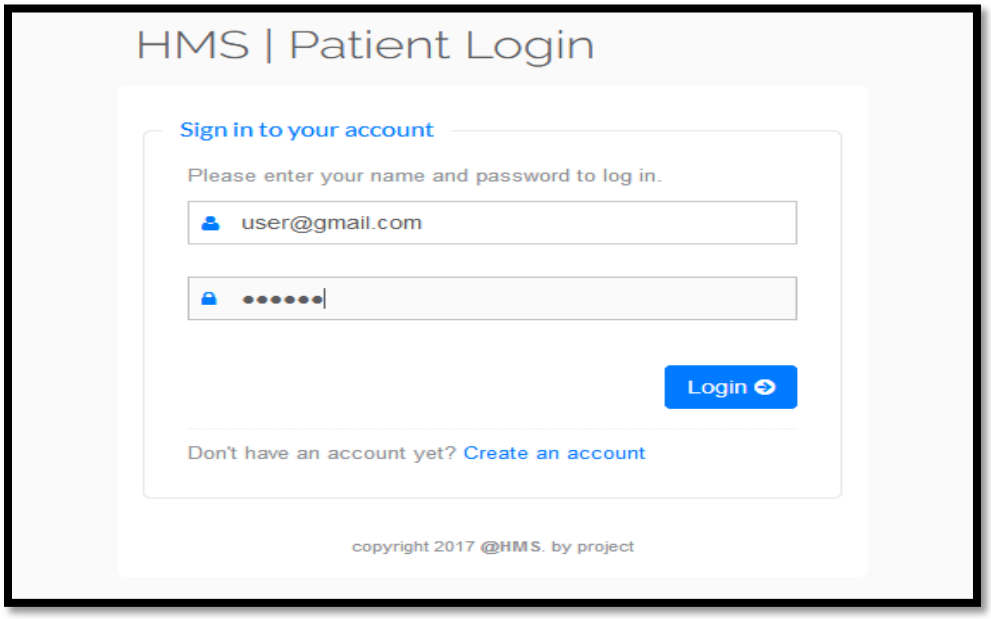


Figure- invalid access

Show on invalid username and password

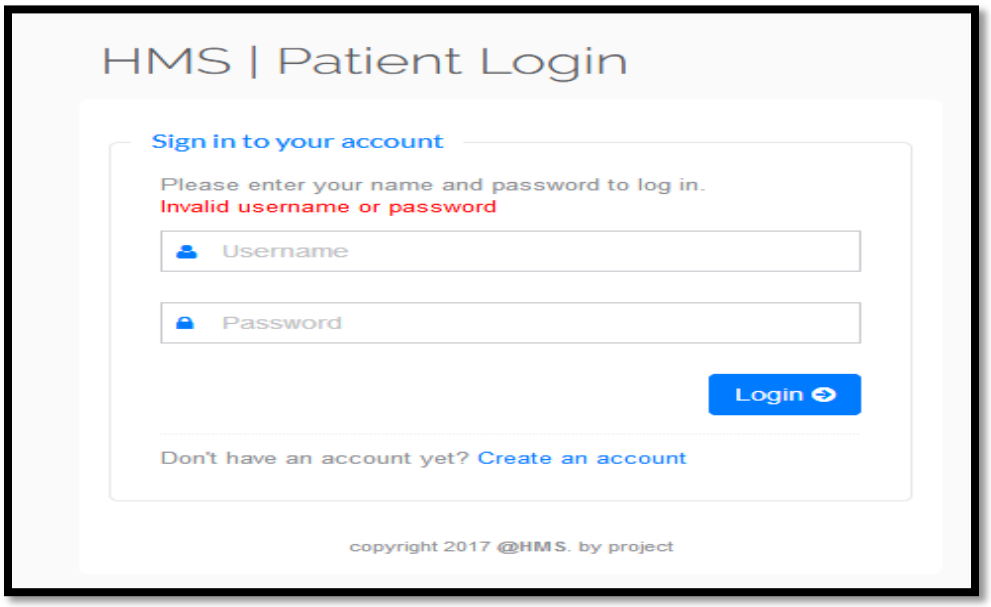


Figure- invalid username and password

Usability testing

Usability testing is a method to see how simple to use amazing is by testing it with real users. Users are asked to total tasks, classically while they are life form experiential by a canvasser, to see where they meet problems and knowledge confusion.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
06	Usability testing	Doctor Edit profile	pass	Run successfully
		Book appointment	pass	Run successfully

User Edit profile:

For Edit profile

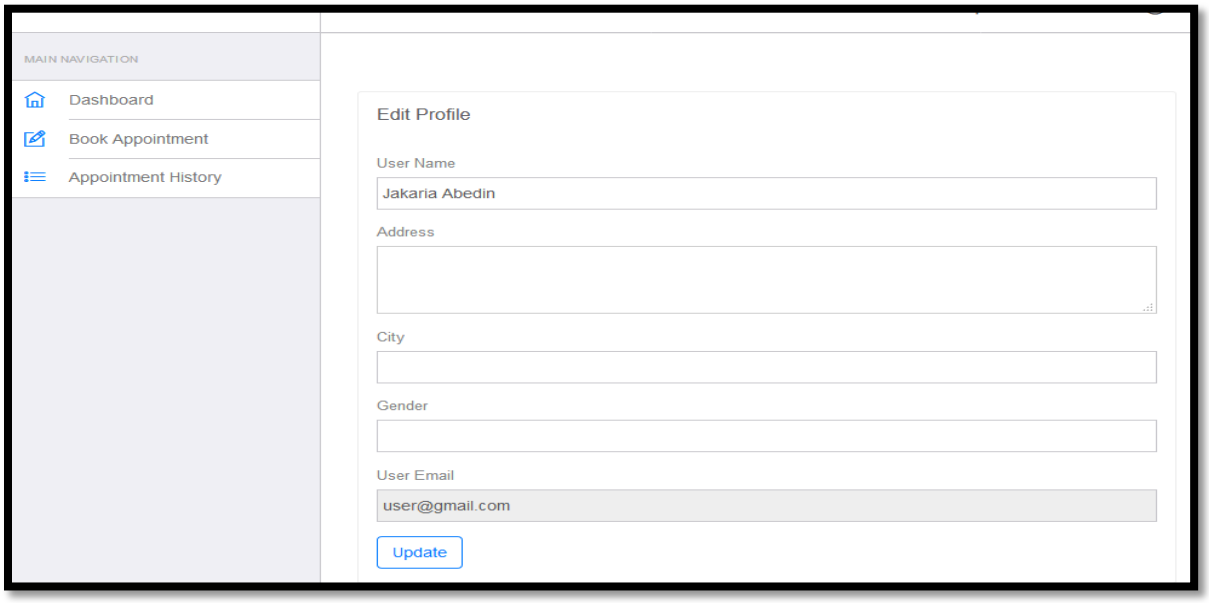


Figure- edit profilr

After edit profile

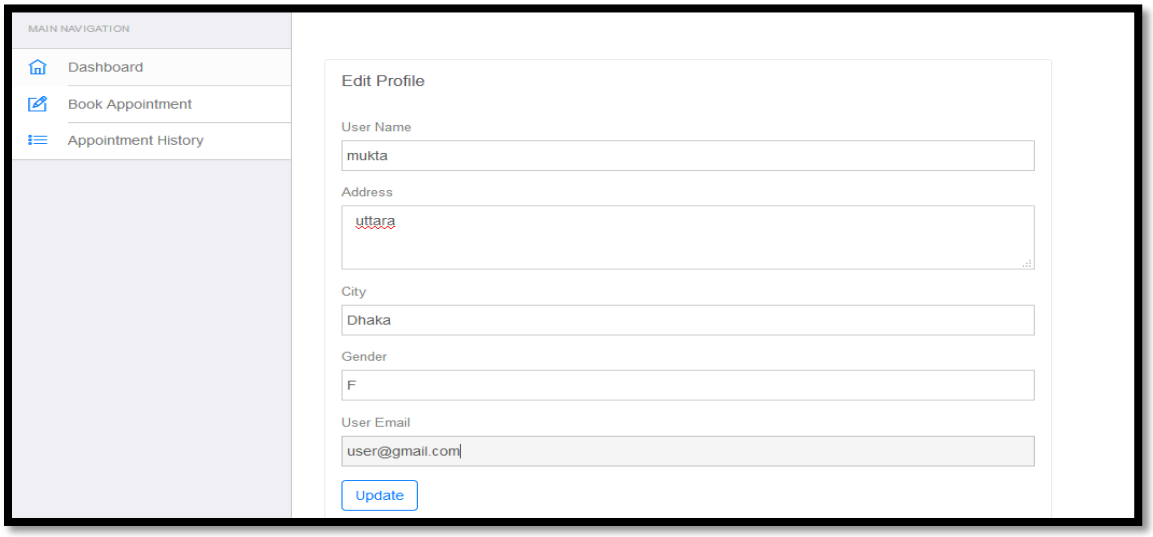


Figure- edit profile

Profile update successfully

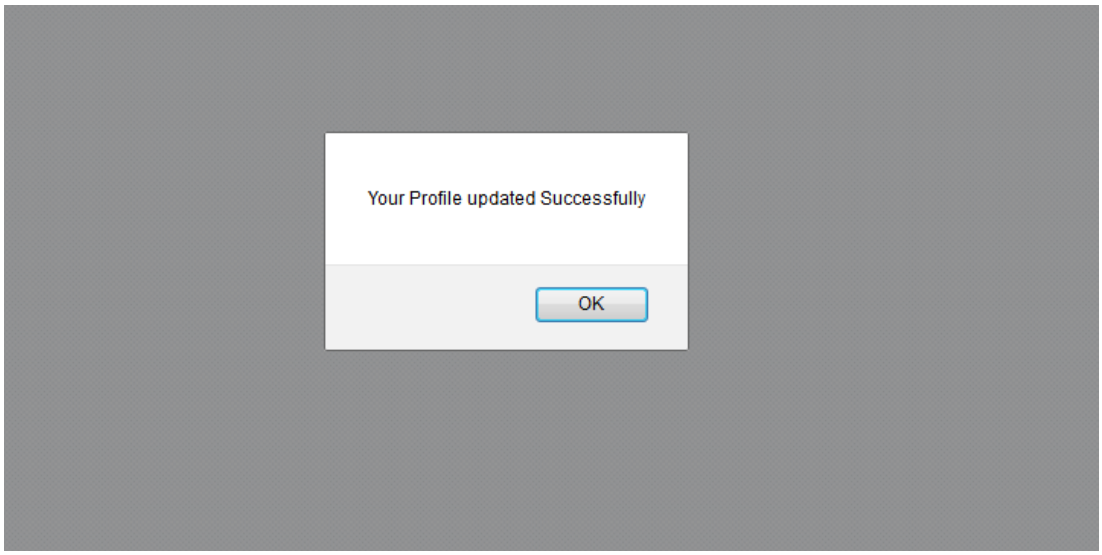


Figure- successfully update

Book appointment:

This page for book appointment

Figure- book appoinment

This page for appointment successfully booked

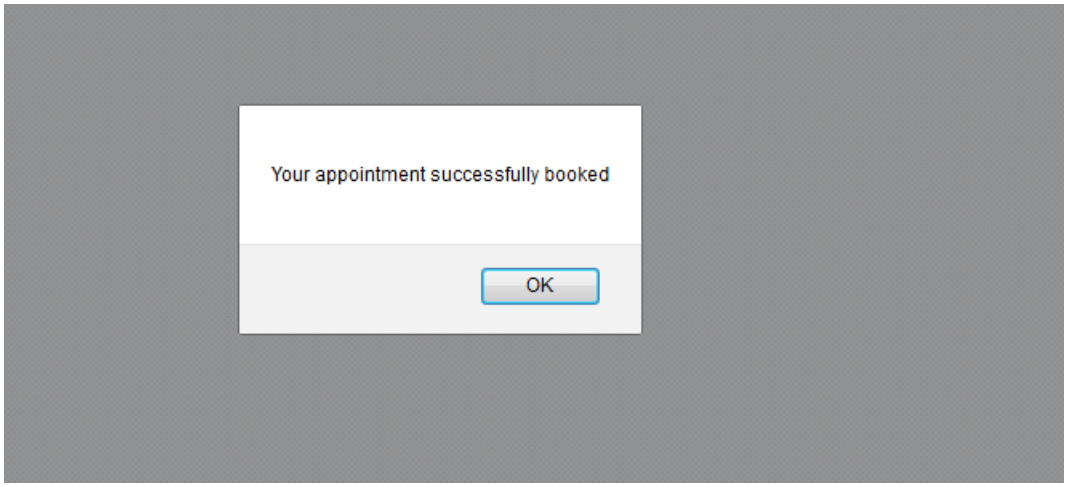


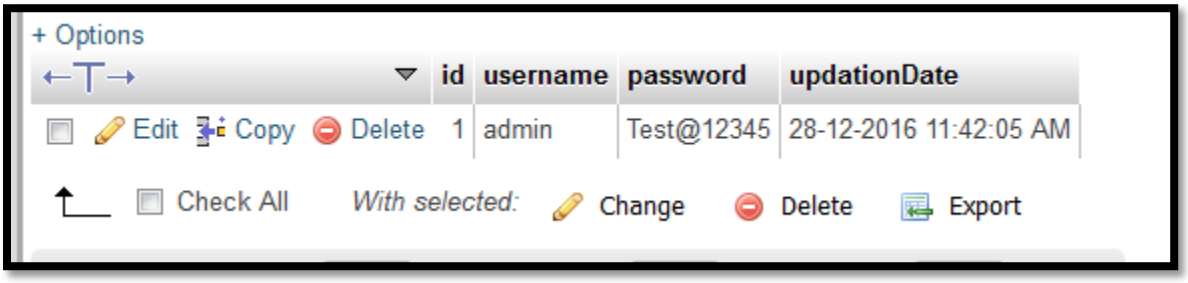
Figure- successfully booked

Database testing:

It involves the testing of file rational views which are leaving to carry database refactoring. It perform unit testing of record functions, views etc. It validates database tables, data models, database schema etc. It check system of Referential reliability.

Test No	Type Of Test	Name Of Test	Pass/Fail	Comment
07	Database testing	Admin For login	pass	Run successfully
		For appointment	pass	Run successfully

For admin login:



For appointment:

Appendix: C

No	Table	Attributes
01	admin	**id,** username ,password, updationDate,
02	appointment	**id,** doctorSpecialization, **doctorId, userId, consultancyFees,** appoinmentDate, appoinmentTime, postingDate, **userStatus, doctorStatus,** updationDate
03	doctors	**id,** specilazation, doctorName, address, docFees, **contactno,** docEmail, password, creationDate, updationDate.
04	doctorslog	**id, uid,** username, userip, loginTime, logout, **status.**
05	doctorspecilization	**id,** specialization, creationDate, updationDate.
06	userlog	**id, uid,** username, userip, loginTime, logout, **status**
07	users	**id,** fullName, address, city, gender, email, password, regDate, updationDate.

Appendix: D

User login:

```
<?php

session_start();

error_reporting(0);

include("include/config.php");

if(isset($_POST['submit']))

{

$ret=mysql_query("SELECT * FROM users WHERE email='".$_POST['username']."' and password='".md5($_POST['password'])."'");

$num=mysql_fetch_array($ret);

if($num>0)

{

$extra="dashboard.php";//

$_SESSION['login']=$_POST['username'];

$_SESSION['id']=$num['id'];

$host=$_SERVER['HTTP_HOST'];

$uip=$_SERVER['REMOTE_ADDR'];

$status=1;

$log=mysql_query("insert into userlog(uid,username,userip,status) values('".$_SESSION['id']."','".$_SESSION['login']."','$uip','$status')");

$uri=rtrim(dirname($_SERVER['PHP_SELF']),'/\\');

header("location:http://$host$uri/$extra");

exit();

}

else

{
```

```
$_SESSION['login']=$_POST['username'];

$uip=$_SERVER['REMOTE_ADDR'];

$status=0;

mysql_query("insert into userlog(username,userip,status)
values('".$_SESSION['login']."','$uip','$status')");

$_SESSION['errmsg']="Invalid username or password";

$extra="user-login.php";

$host  = $_SERVER['HTTP_HOST'];

$uri  = rtrim(dirname($_SERVER['PHP_SELF']),'/\\');

header("location:http://$host$uri/$extra");

exit();

}

}

?>
```

Registration:

```
<?php

include_once('include/config.php');

if(isset($_POST['submit']))

{

$fname=$_POST['full_name'];

$address=$_POST['address'];

$city=$_POST['city'];

$gender=$_POST['gender'];

$email=$_POST['email'];

$password=md5($_POST['password']);

$query=mysql_query("insert into users(fullname,address,city,gender,email,password)
values('$fname','$address','$city','$gender','$email','$password')");

if($query)

{

        echo "<script>alert('Successfully Registered. You can login now');</script>";


}

}

?>
```

Logout:

```
<?php

session_start();

include('include/config.php');

$_SESSION['login']=="";

date_default_timezone_set('Asia/Kolkata');

$ldate=date( 'd-m-Y h:i:s A', time () );

mysql_query("UPDATE userlog  SET logout = '$ldate' WHERE uid = '".$_SESSION['id']."' ORDER BY id DESC LIMIT 1");

session_unset();

$_SESSION['errmsg']="You have successfully logout";

?>

<script language="javascript">

document.location="./user-login.php";

</script>
```

Get doctor:

```
<?php

include('include/config.php');

if(!empty($_POST["specilizationid"]))

{

 $sql=mysql_query("select doctorName,id from doctors where
specilization='".$_POST['specilizationid']."'");?>

 <option selected="selected">Select Doctor </option>

 <?php

 while($row=mysql_fetch_array($sql))

        {?>

  <option value="<?php echo htmlentities($row['id']); ?>"><?php echo
htmlentities($row['doctorName']); ?></option>

  <?php

}

}

if(!empty($_POST["doctor"]))

{

 $sql=mysql_query("select docFees from doctors where id='".$_POST['doctor']."'");

 while($row=mysql_fetch_array($sql))

        {?>

 <option value="<?php echo htmlentities($row['docFees']); ?>"><?php echo
htmlentities($row['docFees']); ?></option>

  <?php

}

}

?>
```

Edit profile:

```
<?php

session_start();

include('include/config.php');

include('include/checklogin.php');

check_login();

if(isset($_POST['submit']))

{

        $fname=$_POST['fname'];

$address=$_POST['address'];

$city=$_POST['city'];

$gender=$_POST['gender'];


$sql=mysql_query("Update users set
fullName='$fname',address='$address',city='$city',gender='$gender' where
email='".$_SESSION['login']."'");

if($sql)

{

echo "<script>alert('Your Profile updated Successfully');</script>";


}

}

?>
```

Check login:

```
<?php
function check_login()
{
if(strlen($_SESSION['login'])==0)
        {
                $host = $_SERVER['HTTP_HOST'];
                $uri  = rtrim(dirname($_SERVER['PHP_SELF']), '/\\');
                $extra="../admin.php";
                $_SESSION["login"]="";
                header("Location: http://$host$uri/$extra");
        }
}
?>
```

Check ability:

```
<?php
require_once("include/config.php");
if(!empty($_POST["email"])) {
        $email= $_POST["email"];

                $result =mysql_query("SELECT email FROM users WHERE email='$email'");
                $count=mysql_num_rows($result);
if($count>0)
{
echo "<span style='color:red'> Email already exists .</span>";
 echo "<script>$('#submit').prop('disabled',true);</script>";
} else{

        echo "<span style='color:green'> Email available for Registration .</span>";
 echo "<script>$('#submit').prop('disabled',false);</script>";
}
}


?>
```

Check password:

```
<?php
session_start();
include('include/config.php');
include('include/checklogin.php');
check_login();
date_default_timezone_set('Asia/Kolkata');
$currentTime = date( 'd-m-Y h:i:s A', time () );
if(isset($_POST['submit']))
{
$sql=mysql_query("SELECT password FROM  users where password='".md5($_POST['cpass'])."' && email='".$_SESSION['login']."'");
$num=mysql_fetch_array($sql);
if($num>0)
{
 $con=mysql_query("update users set password='".md5($_POST['npass'])."', updationDate='$currentTime' where email='".$_SESSION['login']."'");
$_SESSION['msg1']="Password Changed Successfully !!";
}
else
{
$_SESSION['msg1']="Old Password not match !!";
}
}
?>
```

Book appionment:

```
<?php
session_start();


include('include/config.php');
include('include/checklogin.php');
check_login();


if(isset($_POST['submit']))
{


$specilization=$_POST['Doctorspecialization'];
$doctorid=$_POST['doctor'];
$userid=$_SESSION['id'];
$fees=$_POST['fees'];
$appdate=$_POST['appdate'];
$time=$_POST['apptime'];
$userstatus=1;
$docstatus=1;


        $query=mysql_query("insert into
appointment(doctorSpecialization,doctorId,userId,consultancyFees,appointmentDate,ap
pointmentTime,userStatus,doctorStatus)
values('$specilization','$doctorid','$userid','$fees','$appdate','$time','$userstatus','$docst
atus')");
        if($query)
        {
                echo "<script>alert('Your appointment successfully booked');</script>";
```

```
        }

}
?>
```