

Analyzing PHP Project – Medicare

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ABSTRACT

This research paper is related to our software project which is known as Medicare hospital management system. In this research paper we have added the introduction for our project, related works, and methodology used proposed system and discussions.

We have explained and proved how we did this project and how it will use in future as well. Related work topic, methodology, and proposed system topic has some subtopics such as Doctor Management, Patient management, medicine Inventory management, Laboratory management. At the discussion part we have summarized the whole content of the research paper.

Keywords-- Hypertext Preprocessor, JavaScripts, Cascading Style Sheets, DataBase

I. INTRODUCTION

Hospitals can be considered as one of the most important organizations providing public services in the society. As hospitals provide the most responsible service, the number of services and the people involved in the service in high. Accordingly, a hospital management system should be more accurate and efficient in handling their services. As an improvement for the current system which is a combination of file based and machined based, we have implemented a system to computerize all the details of the main processes of the hospital. Here, the Medicare Hospital Management system consists of four main components such as Doctor Management, Patient Management, Laboratory Management and Medicine Management. Each of these systems contains subcomponents such as adding, retrieving, updating, searching and report generation. The success and effectiveness of the hospital depend to a large extent on timely response to the customers. Therefore, in this system we have prioritized Doctor management system which contains all the details of the Doctors including their personal details and professional details, furthermore the visiting details are also stored in the system. Through this

the user (Receptionist) can easily check the details and the availability and inform the customer. As the hospital management system is mainly based on patients, Patient Management can be considered as the largest system. Therefore, providing accurate and efficient service for the patient in the most important task in the whole system. Here, we have implemented system to register a patient which stores all the details of the patient. And only if a patient is registered, he/she can get an admission from the hospital.

Effective Management of the hospitals can lead to the development of the organization, improvement and the empower of the staff performance, quality of the services provided and the reputation of the Hospital. Effective process management always leads to better management of the hospital and also its resources and staff. Therefore, we have not only focused on Patient and Doctor Management but also other services such as Laboratory Management and Medicine Management which makes the staff's tasks easier and more efficient. In the Laboratory Management, all the details of the equipment and the test details conducted in the Laboratory are stored. So that the user can easily find out all the current equipment, which will help the staff to maintain the equipment. Poor performance of medicine management in the hospitals can cause delays in timely treatment, progression of the disease, increases inpatient death, increased costs, and wasted human and financial resources. Therefore, In the Medicine management system the user can enter all the details especially the expire details of the medicine and the stock the medicine available in the hospital, so through this there will no delay in services for the customer.

II. RELATED WORK

A. Doctor Management

Doctor management system contains all the details of the Doctors including their personal details and professional details; furthermore, the visiting details are also stored in the system. Through this the user

(Receptionist) can easily check the details and the availability and inform the customer. Doctor management system contains sub functions such as implementing create update, view, delete, search, and document generation related functions. Doctor management system consists of Main Page for Doctor Management, Doctor Registration, View Doctors, Edit Doctor Details, Search Doctor, Generate Doctor Report, View Appointment, Add Appointments, Edit Appointment Details, Search Appointment, and Generate Appointment Report.

Doctor management is one of the maximum crucial components within the sanatorium control system. As the biggest database of the gadget is medical doctor control. Handling this system must be extra efficient and accurate. Here, the gadget consists of foremost subcomponents inclusive of Register Doctors and sign-up Doctor Appointment. With a view to check in a brand-new health practitioner, the person should upload the Doctor's details along with Name, E-mail, Phone, and Address with, Date of Birth together with the doctor's Professional information as nicely. As soon as a doctor is registered, the user can Edit, delete, and view all the Doctor's information and search for precise doctor details. And in the end get a report of all the Doctors.

In the Doctor Appointment management, to add a new appointment user must input the Doctor name, Appointment date, Appointment time, status, Speciality and Patient name. To get the required Patient name into the Appointment management system, this management system also interacts with the Patient Management system to specify the Patient name who has attended the doctors. From the dropdown menu a user can input the patients name into the system, which are retrieved from the Patient management system. Here too a user can Edit, delete, view all the Appointment information and search for precise Appointment details. And in the end get a report of all the Doctors.

To access the system's Doctor Management feature, go to the 'Main Page of Doctor Management'. A new doctor can register on the 'Doctor Registration page' to be added to the Doctor Management system. In addition to buttons for modifying and deleting the doctor's details, the 'View Doctors page' is used to view the doctor's details. The system's Doctor details can be modified using the 'Edit Doctor Details page'. Using the 'Search Doctor' page, a user can look for doctors who specialize in a particular field. To generate reports with specifics on doctors, go to the 'Generate Doctor Report page'. The 'View Appointment page' is used by a user to view the system's Appointment details. The 'Add Appointment page' is used to add details of a new doctor's appointment to the doctor management system. The 'Edit Appointment Details page' is used to edit the details of a doctor's appointment in the system. The 'View Appointments page' is used to allow users to

search for a specific appointment by a specific doctor's name, and the 'Generate Appointment Report page' is used to generate a report on appointment details.

B. Patient Management

Patient Management is one of the most important components in the Hospital Management System. As the largest database of the system is Patient Management, handling this specific system should be more efficient and accurate. Here, the system consists of two major subcomponents such as Register Patient and Register Admission. To register a new patient, the user should add the patient details such as Patient name, NIC, City, Address, Telephone number and Date of birth. Once a Patient is registered, the user can Edit, delete the patient details and the user can view all the patient details and search for specific details. This management system also interacts with the Doctor management system to specify the patients who have attended the doctors. In the Admission management user can add an admission to the system, delete an admission and finally get the report of all the admission. But only registered patients can get an admission if a patient is not registered, first the user must register the patient and then add admission. To add an admission, user must input the patient Id, Patient id's which have been saved in the database will be displayed as a drop-down list therefore the user does not need to type again, instead of that they can just select the patient id they need to register for the admission. With the Patient id user also needs to add telephone number, Admission date, admission time and the consulted doctor name. Same as Patient id, doctors who have been registered in the doctor management system can be visible as a drop-down list so that it is more convenient and efficient for the users to select the Doctor name.

C. Medicine Inventory Management

As our assignment is based on a hospital management system and my part of the assignment is related to the Medicine Inventory Management which manages details related to medicine storing and the supplier who supply those medicine to the hospital. As the user redirect to the Medicine inventory Management page by clicking the "Medicine inventory" they will be able to view a page which has a list of buttons indicating the all the functions such as Add Medicine, View Medicine Details, Search Details, Report Generate, Add Suppliers View Supplier Details. And if the user wants to add a medicine detail into the system, then they will be redirected to a page with contains the form in which the details such as Medicine type, Medicine Name, Manufacture Date, Expire Date, Supplier Name Quantity and Dosage. And by clicking the 'SUBMIT' button the filled details will be added to the system and while typing the details if the user wants to erase all inserted data in the input field, then they need to click the 'RESET' button.

And once the data are stored, we can see the stored data and all the other medicine details by clicking the View Medicine Details button. And in there all the details will be listed in a table and if the user wants to edit a particular medicine detail, then they can click the edit button under the operation column and they will be redirected to the update details page and there they can change the details of the medicine as they want and by clicking the update button the details will be updated and store into the system and the changes will be visible in the table. As the same way if the user wants to delete a particular medicine detail from, they can click the delete button and there will be an alert indicating the confirmation of the deletion and by clicking 'yes', the data will be deleted.

In the same way supplier's details will be also stored into the system and user can get redirected to the add supplier details page by clicking the Add supplier option in the navigation. And there the Supplier Name, Address and Phone number will be stored. As same as the Medicine details the suppliers' details also can be viewed by clicking the View Supplier Details option, and there they can update and delete the data as they want.

And in our system the users and search for a particular medicines or supplier's data by clicking the Search Details option in the navigation bar and they will be redirected to a page where there will be two buttons one as Search Medicine and another one for Search Supplier. When the Search medicine is clicked it will display a search bar where the medicine details can be searched by its type from the drop-down list and the details will be displayed in a table and if the user wants to update or delete the searched data they can do from there also. In the same way if the supplier's details need to be searched, user can search by supplier id and supplier name. And users can also generate report related to supplier details and medicine details and this function can be carried out through the Generate Report page where the user there will be two sections on for Medicine and another for suppliers with two buttons each, 'view button to view the report in pdf format and 'Download' button for download the report in a pdf format.

D. Laboratory Management

Laboratory management is one of the most important functions in the Medicare hospital management system. This lab management system consists of two main functions. They are medical test related functions and lab equipment related functions. What are the labs allocated for which medical test related details will be included in the medical test functionality. The user can add view edit and delete those medical test details. Under the add medical test page, the user can select medical test type, can select the doctor in charge, can select test done doctor name, can enter the allocated lab room number, can select the nurse, and can enter the allocated date as well. Once

the medical test details added, the user will be redirected to the view medical test page. In here the user can view all the added details and there will be a button to edit and delete as well. If the user clicks the update button, the user will be redirected to the medical test update page and all the data have been fetch from database and will be displayed in the edit page. If user wants to edit any data, the user can edit the needed data and can update the details as well. If the user clicks the delete button, then there will be an alert message to confirm, and once the user approves delete, the selected details will be deleted. Further the user can search the medical test type in search page. All the searched details will be displayed and the update, delete button will be displayed next to the details. If the user clicks the update button the page will redirect to the update page and if the user clicks the delete button the details will be deleted. Then the next function which is known as lab equipment details page. In here the user can view all lab equipment details such as lab equipment name, lab equipment type, cost, insurance date and lifespan of the equipment. Further the user can redirect to the add lab equipment page by clicking the add lab equipment button. In here the user can add all necessary details and can submit it to the system. Likewise, the user can edit and delete the details as well. Further there is report page where the users can view all the laboratory management related reports such as medical test report and lab equipment reports. There will be two options. One is for view online and another button is download report. If the user clicks the view online button the report will open in browser. If the user clicks the download button the report will be download with proper report name. Further laboratory management have some interactions with doctor management. The doctor's names will be got from the doctor table from database and fetched those data for some needed forms. These are the description related to the laboratory management.

III. METHODOLOGY

Our hospital management system should handle their services with greater accuracy and efficiency since hospitals offer the most responsible services. So, we have created a computerize system to handle the primary activities. And here we have developed the system using technologies such as PHP, CSS, HTML, JAVASCRIPT. And for implementation purposes PHP is used and to design the UI, HTML is used and to make the UI more attractive I have used CSS and bootstrap. And to ensure the effectiveness of the system, validations are used. JavaScript validates all the forms in the system, and when a user inputs a numerical value on a character field, a warning message appears. Similarly, if the user enters a phone number with fewer than 10 numbers or more than

10, a message indicating invalid input appears. And when deleting a particular field an alert message will be displayed for confirmation. And for PHP development we have used XAMPP is an open-source package. And for MySQL, open-source administration tool phpMyAdmin is used. And we have totally created 8 tables such as Doctor table, Appointment table, Patient table, Admission table, Equipment table, Lab-test table, Medicine table and Suppliers table. And we have implemented several functions for Search function and report generating function. And for report generating we have used PDF library.

And as implementation we have created function for each service such as when a new doctor is recruited into the system the user can input record of the doctor with the essential details and the system has a functionality to view all the doctor who are in the hospital. In the same way we have implemented a function to edit the doctor details when needed. And if a particular doctor leaves the firm, then we have a function to delete the doctor's data from the system. Accordingly, we have implemented a function to view all the details about the appointments of a doctor. And when it comes to the patients, we have implemented a function to add details of the patients when a patient is admitted in the hospital and we also have implemented a function to view the checkup details of the admission. And we have implemented function for store details of the tests that have taken place in the hospital. And those details also can be viewed edited and deleted according to the need. And when it comes to lab equipment, whenever a new lab equipment is purchased to the lab service those details of the asset should be stored into the system. And we have implemented a function for the medicine inventory as when a medicine is purchased and stored in the hospital then those details of the system ID stored into the system and those details can be updated and deleted whenever the user wants. And as the same way we have implemented a function to store the details of the suppliers who supply the medicine to the system. And those suppliers' details can be stored and retrieved and deleted for the system when needed.

A. Doctor Management

In an effort to increase the Doctor management system, we've used many technologies such as Hypertext Pre-processor, CSS, HTML, JAVASCRIPT. PHP can be taken into consideration as the primary generation which has been used to enforce the Doctor Management system and its subsystems. And additionally, to make the gadget more attractive CSS and Bootstrap were used. Finally, JavaScript is primarily used to validate all of the forms inside the device and FPDF that is a Hypertext Pre-processor class that allows to generate PDF [2] documents with pure PHP, this is to mention without using the PDFlib library extensively utilized to generate PDF reports.

Figure 1: Doctor Registration page for doctor management system

Appointment Report

Doctor_Name	Appointment_date	Appointment_time	Status	Speciality	Patient Name
Dr.Sanjana	2022-10-25	15:08	Available	Cardiologist	siva
Dr.Bandara	2022-10-12	10:15	Unavailable	Endocrinologist	Mr.Janathh
Dr.Bandara	2022-10-08	15:06	Unavailable	Cardiologist	Aravindh
Dr.Bandara	2022-10-08	15:06	Unavailable	Cardiologist	Aravindh

Figure 2: Generate pdf report page page for doctor management system

B. Patient Management

In order to develop the patient management system many technologies such as PHP, CSS, HTML, JAVASCRIPT have been used. PHP can be considered as the main technology which have been used to implement the patient management system. And, to make the system more attractive CSS and bootstrap have been used. Finally, JavaScript is mostly to validate all the forms in the system and FPDF which a PHP class that allows to generate PDF files with pure PHP, that is to say without using the PDFliblibrary.[1]

Figure 3: Add Patient page for patient management system



Figure 4: Search Patient page for patient management system

C. Medicine Inventory Management

This Medicine Inventory Management system is developed using technologies such as PHP, CSS, HTML, JAVASCRIPT. And for implementation purposes PHP is used and to design the UI, HTML is used and to make the UI more attractive I have used CSS and bootstrap. And to ensure effectiveness of the system validations are used and JavaScript validate all the forms in the system, where when a user input a numerical value on a character field then there will be a warning message and in the same way when it comes to phone number, if the user types a phone number less than or more than 10 numbers then there will be a warning message as invalid input. [3]



Figure 5: Add Supplier validations page for medicine inventory system

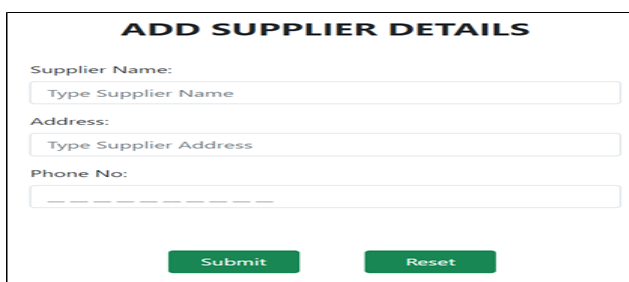


Figure 6: Add Supplier page for medicine inventory system

D. Laboratory Management

The laboratory management sub system is developed using technologies such as PHP, Java script, MySQL database, and css for styles. We have used our own css and bootstrap for styles. We used alert pop-up messages for any events and error message will be displayed if any validation error occurs in the system. If the user wants to enter a lab equipment name, then that should be a string. It cannot be number. So, we implemented validations using java script and if any error occurs the error message will be displayed in red color and a alert message will be displayed in this page. The database name for our project is Medicare and for the laboratory management, medical test table and lab equipment table are used and for fetching other functionality data, I used doctor table as well. . [4]

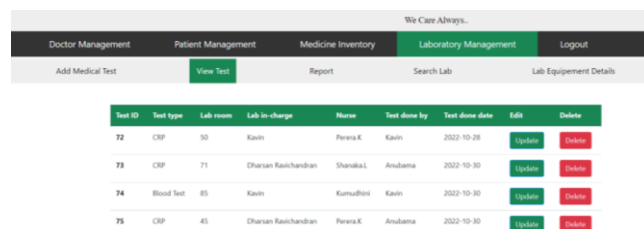


Figure 7: View Laboratory page for laboratory management system

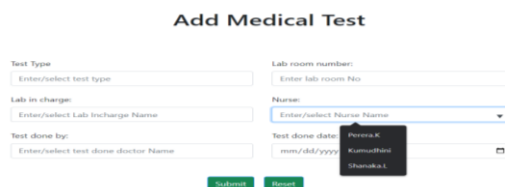


Figure 8: Add medical test page for laboratory management system

IV. PROPOSED SYSTEM

A hospital management system should handle their services with greater accuracy and efficiency. We have created a system to computerize all the specifics of the hospital's primary activities as an enhancement to the current setup, which combines file-based and machine-based operations. Medicare hospital management system is a web-based application system where hospital staff (user) can interact with some main sub systems. The system in this instance is made up of four primary parts, including management of doctors, patients, labs, and medications. Doctor related details will be discussed in the doctor management, patient related details will be discussed in patient management, medicines and supplier's related

details will be discussed in medicine inventory and labs and lab tests related details will be discussed in laboratory management. Subcomponents including adding, retrieving, updating, searching, and report generating are included in each of these systems. The prompt reaction to consumers is a key factor in the hospital's success and efficacy. Once registered, he or she is eligible for a hospital admission.

The doctor management system, which is prioritized in this system, contains all the information about the doctors, including both personal and professional information. Through this the user (Receptionist) can input details regarding the doctors into the system so that in case if someone needed the doctor details it can be retrieved from the system. It also stores information about visits and admissions. This makes it simple for the user (the receptionist) to advise the client about the availability and specifics. As the hospital management system is primarily dependent on patients, patient management can be thought of as the largest system. Therefore, the most crucial role in the entire system is to provide accurate and effective patient care. Here, we have a patient registration system that saves all the patient's information. And a patient can only receive an admission from the hospital if they are registered. In the same manner the user (Receptionist) can retrieve the patient details from the system if needed.

Also, on other services that facilitate the staff's work, such as laboratory management and medication management. All of the information regarding the apparatus and the tests performed in the laboratory is kept in the laboratory management system. To make it simple for the user to discover all of the available equipment, which will aid in equipment maintenance for the staff? The user of the Medicine Management System can enter all the information, including the expiration date of the medication and the quantity of the medication in stock at the hospital, ensuring that the customer's services are provided without delay.

A. Doctor Management

Our system's UI is a user-friendly UI that helps customers to carry out their duties with efficiency, effectiveness, and satisfaction. Doctor management system include eight most important interfaces. All of the interfaces are designed with a single subject matter specifically basing on green, white, and black colorings. And for the buttons we used green and crimson shades. As this system offers with Hospital management system the use of subtle shades would be more suitable. Principal interface which is the home page of the Doctor management system includes 6 buttons namely Register Doctor, View doctor, Appointment, Search doctor, Search Appointment and Report. In the Appointment page there's a button for adding Appointment. All the buttons will redirect the person to the particular pages. Moreover, adding input thru the UI appears to be greater convenient

as most effective simple bureaucracy has been used. Maximum of the time the system contains pick options in place of typing manually, this reduced the time taken for the user to input records as well because it keeps the accuracy of the records entered. Furthermore, simple tables have been used here to display the applicable records, this makes the consumer to read the statistics without problems without confusing. This system avoids needless elements and is clear inside the language we use on labels and in messaging. Through the use of not unusual elements in our system UI, users sense greater comfortable and are able to get things finished greater speedy. The machine also affords an choice to search any information this is stored in the database, right here as a easy seek bar which is little bigger than the ordinary size of the quest bars makes the UI greater attractive on the same time user can easily type something they want. This interface is likewise created considering all of the age organization of users, as in a hospital management system at time there might be adults who do no longer have a great deal idea on automatic systems. In the end, the user can view reports online as well download the reviews in the pdf shape simply by using clicking report choice. Here the report is regarded consistent with a custom designed template that's precise to the hospital. The health center database control gadget gives customers with statistics protection due to all policies. [3]

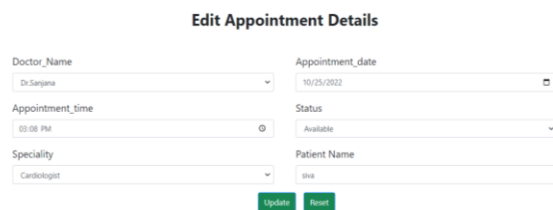


Figure 9: Edit appointment page for doctor management system

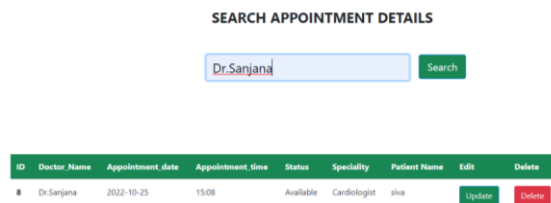


Figure 10: Search Doctor Page for doctor management system

B. Patient Management

Patient management system consist of 8 main interfaces. All the interfaces are designed with a single theme mainly basing on green, white, and black colors. As this system deals with hospital management using of subtle colors would be more appropriate. Main interface which is the home page of the patient management system contains 6 buttons namely Register Patient, View Patient, Add checkup Admission, View Admission, search and Report. All the buttons will redirect the user to the specific pages. Furthermore, adding input via the UI seems to be more convenient as only simple forms have been used. Most of the time the system contains select options rather than typing manually, this reduced the time taken for the user to input data as well as it maintains the accuracy of the data entered. Moreover, simple tables have been used here to display the relevant data, this makes the user to read the data easily without confusing. The system also provides an option to search any data that is saved in the database, here as a simple search bar which is little bigger than the regular size of the search bars makes the UI more attractive at the same time user can easily type anything they want. This interface is also created considering all the age group of users, as in a hospital management at time there will be adults who do not have much idea on computerized systems. Finally, the user can view reports online as well download the reports in the pdf form just by clicking report option. Here the report is viewed according to a customized template which is specific to the hospital. [1]

Figure 11: Edit Patient page for patient management system

Patient ID	Name	NIC	Gender	DATE OF BIRTH	ADDRESS	CITY	TELEPHONE	EDIT	DELETE
18	Araavinth	985478989V	Male	1988-07-05	No.123/45, Galle Road	Matlab	0724789851	Update	Delete
19	Gurubhala	85878989V	Male	1985-05-11	No.15, Alfa road	Columbo	078988743	Update	Delete
20	Pijantha	857453413V	Female	1985-12-02	No.12/11, Lanka Street	Kandy	074789854	Update	Delete
21	Anulana	98578989V	Female	1988-12-02	No.36/23, Park Street	Columbo	071487549	Update	Delete
22	Kamal	98789898V	Male	1988-01-12	101/16, Bandeenayake mawatha	Matlab	074789885	Update	Delete

Figure 12: View Patients details page for patient management system

C. Medicine Inventory Management

Medicine Inventory Management system all together there are 9 interfaces, and all the interfaces share a common theme and common colors as green, white, and black. It would be more acceptable to use muted colors for this system because it deals with hospital management. The Medicine Inventory Management system's home page has six buttons as Add Medicine, View Medicine Details, Search Details, Report Generate, Add Suppliers View Supplier Details. The user will be directed to the appropriate pages by clicking each button. Additionally, since only simple forms have been utilized, adding input via the UI appears to be more practical.

The system typically offers choose options rather than requiring manual entry, which cuts down on user input time while maintaining the accuracy of the data entered. Likewise, basic tables have been implemented here to display the relevant details, allowing the user to comprehend it without difficulty. The system also gives users the ability to search any data that has been saved in the database. Here, the search bar that is designed in such a way that makes the user interface (UI) more appealing while still allowing for easy typing by the user. In addition, all age groups of users were taken into consideration when designing this interface, as there may occasionally be individuals in hospital administration who are unfamiliar with computerized systems. When generating report, the user can view the report online and also can download them in PDF format. . [4]

MED	Medicine Type	Medicine Name	Manufacture Date	Expiry date	Supplier Name	Quantity	Package	Damage	Units	Operations
15	Tablet	Dabigatran	2022-08-05	2022-08-30	Medi Calls	100	Blister packs	20	g	Update Delete
19	Injections	Diacomit	2022-09-08	2022-08-30	Medi Supply	50	Bottles	30	kg	Update Delete
21	Liquid	Diacomit	2022-08-23	2022-09-08	Medi	125	Bottles	20	ml	Update Delete
25	Capsules	Diacomit	2022-09-29	2022-09-25	Medi Calls	52	Bottles	50	kg	Update Delete
32	Injections	Dabigatran	2022-10-04	2022-11-04	Medi Calls	41	Vials	10	l	Update Delete
33	Liquid	Medicine	2022-01-02	2022-12-09	Supplier	20	Bottles	25	ml	Update Delete

Figure 13: View Medicine for inventory medicine inventory management system

Figure 14: Generate pdf report page for medicine inventory management system

D. Laboratory Management

Laboratory management system consists of 9 main interfaces and all these interfaces are designed with common system colors such as green, white, and black colors. The first interface which is the main page for laboratory management consists of 5 buttons such as add medical test, view medical test, search, report, and lab equipment details. Once the add medical button clicked the user can see the add medical test form, furthermore, adding input via the UI seems to be more convenient as only simple forms have been used and it is very user friendly, and the needed details have been added in the form as well. There are some input fields where the user can select from the list or can type as well. Such as medical test type, doctor in charge. User can submit the form by clicking the submit button and user can reset the form by clicking the reset button. We have implemented some select tags instead of typing the form, so it might be quite easy for the user. Further we have used quite simple tables and languages, so any user can use this system and they do not need to practice and use. Straightaway the user can understand the function by seeing the column names, button names and navigation bar names. Further In laboratory management, there is search bar, which is little bit bigger than the usual size, so the user can easily understand the purpose of the search bar, and we have implemented the search with select tag. So, the user does not need to type, the user can select it from the list, so its little bit time saving and easy for everyone. In addition, all age groups of users were taken into consideration while designing this interface, as there may occasionally be individuals in hospital administration who are unfamiliar with computerized systems. Finally, by selecting the report option, the user may examine reports online and save them in PDF format. All reports are customized, and each management report has the same template. . [2]

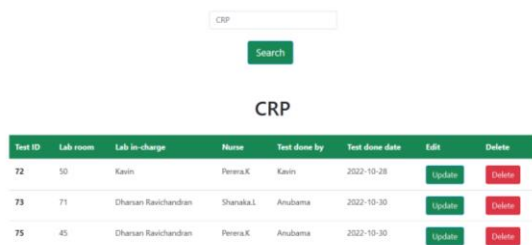


Figure 15: Search test page for laboratory management system

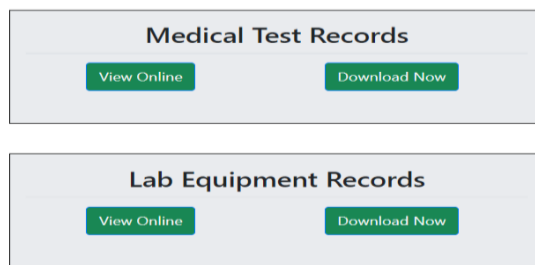


Figure 16: Generate pdf report page for laboratory management system

V. FUTURE WORKS

A specific form of artificial intelligence called machine learning enables systems to learn from data and recognize patterns with little to no human involvement. Computers that employ machine learning are presented patterns and data rather of being told what to do, allowing them to draw their own conclusions.

Many medical items currently on the market are constructed using artificial intelligence and machine learning algorithms. They enable medical professionals to study patient data and forecast disorders. Healthcare efficiency can be increased by the application of machine learning, which may result in cost reductions. Better algorithms for handling patient information or scheduling visits, for instance, may be created using it. Patients and Doctors have the chance to overcome industrial difficulties and build a more unified system with enhanced operations as machine learning in healthcare becomes more extensively adopted. Automating medical billing, providing clinical decision support, and creating clinical care standards are some of the most frequent applications of machine learning in healthcare. In science and medicine, there are numerous high-level applications of machine learning and healthcare principles. The first deep learning system for healthcare was created by researchers at MD Anderson to anticipate acute toxicity in patients receiving radiation therapy for head and neck malignancies. Deep learning in healthcare finds complicated patterns automatically in radiology, and the resulting insights enable radiologists to evaluate images such as traditional radiography, CT, MRI, PET scans, and radiology reports and make informed judgments. Machine languages increases the suggestion providing aspect of a Hospital management system where when a patient makes an admission for a specific disease the system will provide suggestions to the patients regarding the highest rating doctor and physicians. It may differ according to the age and gender too. Patients' perceptions of Doctor's recommendations for comfort, care differ by patient age

and gender. Age and gender are recognized to have an effect on the shipping of medical services. Older patients are much less possibly to obtain interventional scientific strategies, life-maintaining treatments, and steeply priced clinic care than more youthful patients after controlling for severity of illness. These suggestions can be easily identified if we use Machine languages in our hospital management system. Improving Diagnosis, Developing New Treatments, Reducing Costs, and Improving Care the benefits of Machine language use in Hospital management system.

We have done a survey after explaining the uses of Machine language in Hospital management system in a random clinic cares. This survey is to identify which technology is most preferred among the participants. We have included File based, Computerized and Machine learning technologies in the survey. Doctors, Patients, Admin and other staff's too participated in the survey and the result is shown in the below bar graph figure 1.1. From this graph it is evident that most people refer Machine Learning in the Hospital management system.

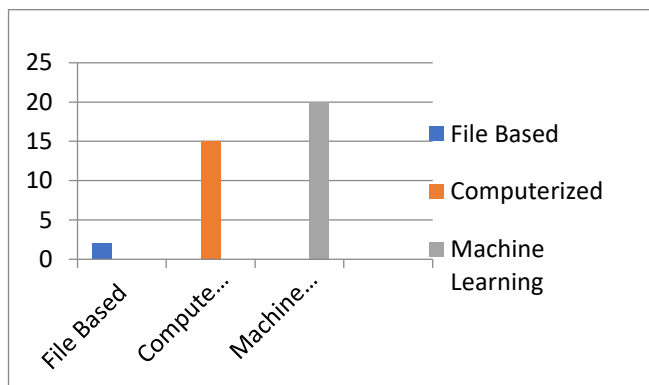


Figure 17: This Bar graph represents the results of the survey which is used to identify technology is most preferred among the participants, (Technology against the users.)

VI. CONCLUSION

This research is related to a software project known as the Medicare Hospital Management System. In this research paper, we have added an introduction to our project, related work and methodology used, proposed system and discussion. Explained and proved how this project was carried out and how it will be used in the future. Related work themes, methodologies, and proposed system themes. Here, the Medicare Hospital Management system consists of four main components such as Doctor Management, Patient Management, Laboratory Management and Medicine Management. And we have

implemented subsystems as well. Well-tuned hospital management system involves lots of important decisions that should be made in the most efficient and quick way. Nowadays it is hard to implement it without the distinct hospital management system. In this article, we'll explore what is HMS software, what functions it performs and how it helps the healthcare industry be more effective and patient centric. Also this article helps to understand that this system or software will help in making the whole functioning paperless. It integrates all the information regarding patients, doctors, staff, hospital administrative details etc. into one software. It has sections for various professionals that make up a hospital.

DISCUSSION

Doctor management, Patient Management, Medicine Inventory management, and laboratory managements are the sub system of the Medicare hospital system. Under the related work topic, we have discussed the process of each and every management and how they interact with each other and discussed regarding the functionalities of each management. Under the methodology we have discussed the used technologies and tools. We used php, JavaScript, MySQL and css for our project. We have explained how each tool used for our project and how we used them were discussed under this topic. Proposed system was the final topic we discussed, and it is something related to the outcome of our system and its usage. We have added the interface screenshots for more clarifications and the colors we used, how we integrate and how each function interacts with each other function was discussed under this topic.

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