

Online Pathology Report Application

Manali Patki¹, Mandar Deo², Sakshi Bhisikar³, Shruti Sudame⁴, Mrunal Dumbhare⁵,
Saikrishna Swarna⁶

¹Assistant Professor, Department of Information Technology, St. Vincent Pallotti College of Engineering and
Technology, Nagpur, India

²Director, Trust System & Software (I) Pvt. Ltd., Nagpur, India

^{3,4,5,6}Student, Department of Information Technology, St. Vincent Pallotti College of Engineering and
Technology, Nagpur, India

Abstract: In this project an online pathology report generation system is build, for social cause towards hospitality and self-care domain based on the key technologies. In this system, mainly there are three interfaces (patient, doctor and pathology) interacting with each other. Primarily the patients, doctors and pathologists need to login/register into the application for the further use. On the basis of the pathology recommended by doctor, the patient and doctor will receive the reports from the recommended pathology. Considering the fact that patient needs to do checkups on monthly basis, the history of generated reports would be saved in their respective profile with their individual login credentials.

Keywords: Pathology, Report, Application.

1. Introduction

This is an android application which facilitates the patient to get their pathology appointment and their respective reports online prescribed by their doctor. There are three different interfaces in the application where in, the patient, doctor and pathologist are the users. Each of the user would have its unique login and registration credentials through which they access the application for use.

The patient visits to the doctor for check-ups, following to various pathology tests, considering the patient's login to our application, patient can access the required details according to convenience and prerequisite for the particular test. Registered hospitals with their unique Reg. No consist of list of doctors and introduces patient to our application mentioning the details of patient along with the doctor's name and reference, on the parallel lines pathology receive list of patients with their different attributes as list of test, referenced doctor. When the patient is done with the suggested tests by doctor, the report gets generated by the pathology. This report it is uploaded by the concerned pathologist and would be sent simultaneously to the respective doctor and patient through the application.

2. Objective

Our main objective is to develop the android application for the convenience of patient, doctor as well as pathology labs in order to get the work done in fast and efficient manner. Patient can get their report easily through the application also it saves

time to go to the pathology and get the report manually.

This application ensures that the reports of particular patient are saved on a common platform, so there becomes less chances of losing the report.

3. Literature survey

The importance of pathology in modern medical practice must not be understandable. Pathological reports are used in the diagnosis and treatment of an increasing rate of clinical conditions [1]. We studied that it deals with the problem of missing self-management tools. The average patient finds critical medical tests, such as pathology reports that reveal cholesterol levels or blood sugar results, largely incomprehensible. It also emphasizes on dealing with understanding of these test results because they provide a vital on-going information about the status of the disease, its progression and what must be done to mitigate its effects. As it seeks to remedy the problem by presenting new user model for customizing the presentation of electronically generated test results to patients [1]. The paper "Customizing Pathology Report Design for Patient Use", Suelette Dreyfus. Victoria, Reeva Lederman, Stephen P. Smith, Paul Monagle is based on the topic related to patient use and comprehension of medical information. For example, better informed consumer patients have more interaction with physicians during consultation [2].

Digital Imaging and Communications in Medicine (DICOM) is an international imaging standard that "defines a particular format for the exchange of medical images through data and quality necessary for clinical use"[3]. The importance of pathology in modern medical practice must not be understandable. Pathological reports are used in the diagnosis and treatment of an increasing rate of clinical conditions [4]. The primary focus of the study was to demonstrate the requirements assessment performed, the strategies adopted, and the challenges encountered during the development and implementation [5].

4. Proposed system

The proposed system of project consists of three individual

user interfaces (patient, doctor and hospital) interacting with each other through a common platform (proposed application). The patient, doctor and pathologist register themselves in the application. The patient visits to the doctor for checkup, if doctor recommend some test, the patient then has to visit to the recommended pathology.

After all the tests done, the pathology generates the reports in PDF format and uploads the test reports to the patient's and doctor's view simultaneously which is then immediately viewed by patient and doctor in their respective logins. These reports are saved for lifetime on the local host.

5. Output

Here we proposed an Android based project for online pathology. In this system, the final report is sent by the pathologist to the doctor and patient. And thereafter the report gets saved in the application under a particular patient's and doctor's login. The output given by the application is the report sent by pathologist and received by patient and doctor.

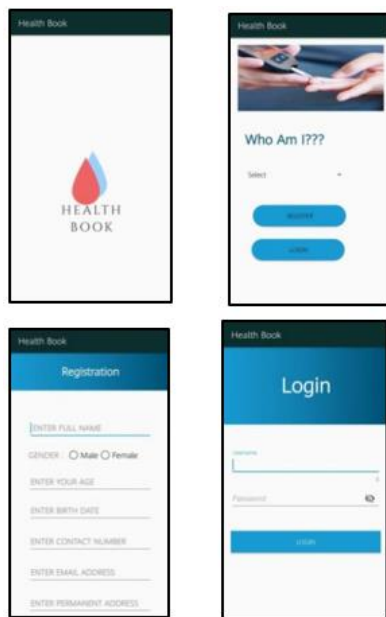


Fig. 1. Output

6. Conclusion

This application effectively generates requests from doctor's view to pathology view to test and create patient's pathology reports as soon as it is suggested/recommended by doctor to the patient.

The test reports generated in pathology labs in PDF format is uploaded by pathologist in pathology view of the system which is immediately viewed by doctor and patient in their respective login simultaneously.

This system maintains lifetime online records of pathology reports on local host and can be accessed anytime by doctor, patient and pathologist in their respective login.

This system helps in saving patients time of receiving

pathology reports. Pathology reports repository helps doctors in effective diagnosis and treatment. The system is ecofriendly by saving printing of cost reports. This system effectively manages three views (patient, doctor and pathology) simultaneously.

7. Future Scope

The future work of our project includes the authentication security of the data and application. Another addition to the work can be online appointment booking for doctor by the patient and the prescription prescribed by the doctor can also be maintained.

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