
" PATIENT CARE SYSTEM FOR MOBILE HOSPITAL ON TRAIN "

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Abstract: In today's world, web based technology offers numerous online administrations in verging on each field. Nowadays everything can be done online just by reducing the measure of tasks, cost, and efforts to a more prominent extent utilizing online storage to the database additionally can be managed. The paper depicts about an idea of such a web-based platform, that make numerous medical/hospital's facility systems online by utilizing Web and networking technology that can be vital in executing the usefulness of online medical management. This will help in the administration of patients, the schedule list of doctors, keeping up the records of patients which can be accessed throughout the hospital. Also, Storing, managing, communicating, analysing and upgrading the patient details online.

Keyword: Mobile Hospital on Train, Patient Care System web based Application, Spring Framework and Database.

I. INTRODUCTION

Mobile Hospital on Train is a revolutionary concept of leveraging vast rail network across India and provides a specialty mobile hospital on the train with state of art medical equipment. The focus area of this mobile hospital is to provide the poor and underprivileged masses of rural India with medical treatment for restoring movement, sight, hearing and correction of cleft lips with dental and neurological treatment and more, completely free of cost.

The Patient Care System (PCS) for Hospital on Train has been predicted to offer health administrators in Hospitals to practice an upgraded monitoring with controlling over the number of functions in the hospitals, to help specialists and medical staff to enhance health services with promptly reference understanding of patient records and a work process empowered less-paper process and to give proficient and opportune treatment to patients through programmed alerts amid patient treatment cycle.

Before the PCS, the nonappearance of a well-organized administration framework made the checking of different kind of doctor's facilities troublesome. Senior level authorities were not able to keep satisfactory track on the use of assets and to record development on different health indicators of the state. In the meantime, doctor's facilities were confronting everyday operational difficulties and inefficiency in the patient handling of administrations bringing about wastage of time, manpower and money and a non-straightforward and unaccountable workplace.

Through efforts of Health and Family Welfare and Medical Education, government hospital processes in different states were re-built. This procedure of re-designing incorporated the creation of a system of online enrolment, simplification of the symptomatic procedure through single sample collection, setting up of standardized authoritative organizations, setting up online stock administration, reception of standardized biomedical waste administration and the best possible administration and assignment of human resources under the PCS.

PCS has empowered the procurement of better care to patients via automating all the major useful territories of government doctor's facilities. It is additionally encouraging the monitoring of pre-characterized health indicators by generating periodic reports for the hospital administration and, in addition, state-level executives.

PCS presents different lessons to be learned while deploying complete IT-based frameworks in substitution of manual procedures. PCS arrangement highlights the significance of creating streamlined procedures for clinic hospital administration and presents the part that innovation can play. In the meantime, it stresses on the significance of acquainting behavioural changes parallel with an innovative change of any sort.

II. LITERATURE SURVEY

The dominant part of government hospitals in India work on manual procedures, which make real inadequacies managing patient information and pointless delays in a patient's treatment cycle. In the meantime, manual procedures result in non-uniform and not-standardized handling of hospital administration related operational information, improper stock administration, fund management and allotment and present various difficulties in directing supervisory and observing activities. Such difficulties in everyday hospital administration and monitoring activities mirror the essential need to present standardized automated procedures and tools for managing the unlimited measure of data in government hospitals and meet the requests of advanced healthcare delivery.

Perceiving this need, the Ministry of Health and Family Welfare and the Ministry of Communication and Information Technology have issued rules and are working mutually towards the making of a national general health information infrastructure that will empower productive capturing and scattering of standardized health information and guarantee the conveyance of value quality health services. Taking into account these rules, different states have conceived their own particular remarkable IT based answers for streamline administration information for the hospital.

With the PCS, these deficiencies in the operations of government hospitals are being sought to be addressed. PCS has empowered giving better care to patients via automating all the major useful territories and the whole scope of doctor's facility activities. It is likewise empowering the monitoring of pre-characterized health indicators by generating reports and encouraging choice making by the hospital management and, in addition, state-level administrators.

The Main benefit of building PCS would assist the staff in recording detailed medical information of a patient who receives an intervention. Also, it would assist in recording the entire journey of the patient and also, the information should share for After Care support.

III. DESIGN AND ARCHITECTURE

Based on the results of the need assessment study, it will reveal the areas underprivileged condition. The train will collaborate with the regional hospitals, by doing camps in those areas will provide treatment to the people. The PCS is an IT based solution that addresses the entire range of hospital activities. The PCS is developing on Java technology with Spring Framework and JDBC Template properties are configured to connect the MySQL Server as the backend. Deploying the PCS application,

introduce and train the hospital administration and supervisory staff into using the PCS for their day to day activities.

The design of an application characterizes the different segments and their cooperation's in connection with an entire system. Application architecture characterizes the software that extensions the architectural crevice between the application server and the application's business logic, in this way dispensing with the complexities and unnecessary expenses of developing and deploying enterprise applications.

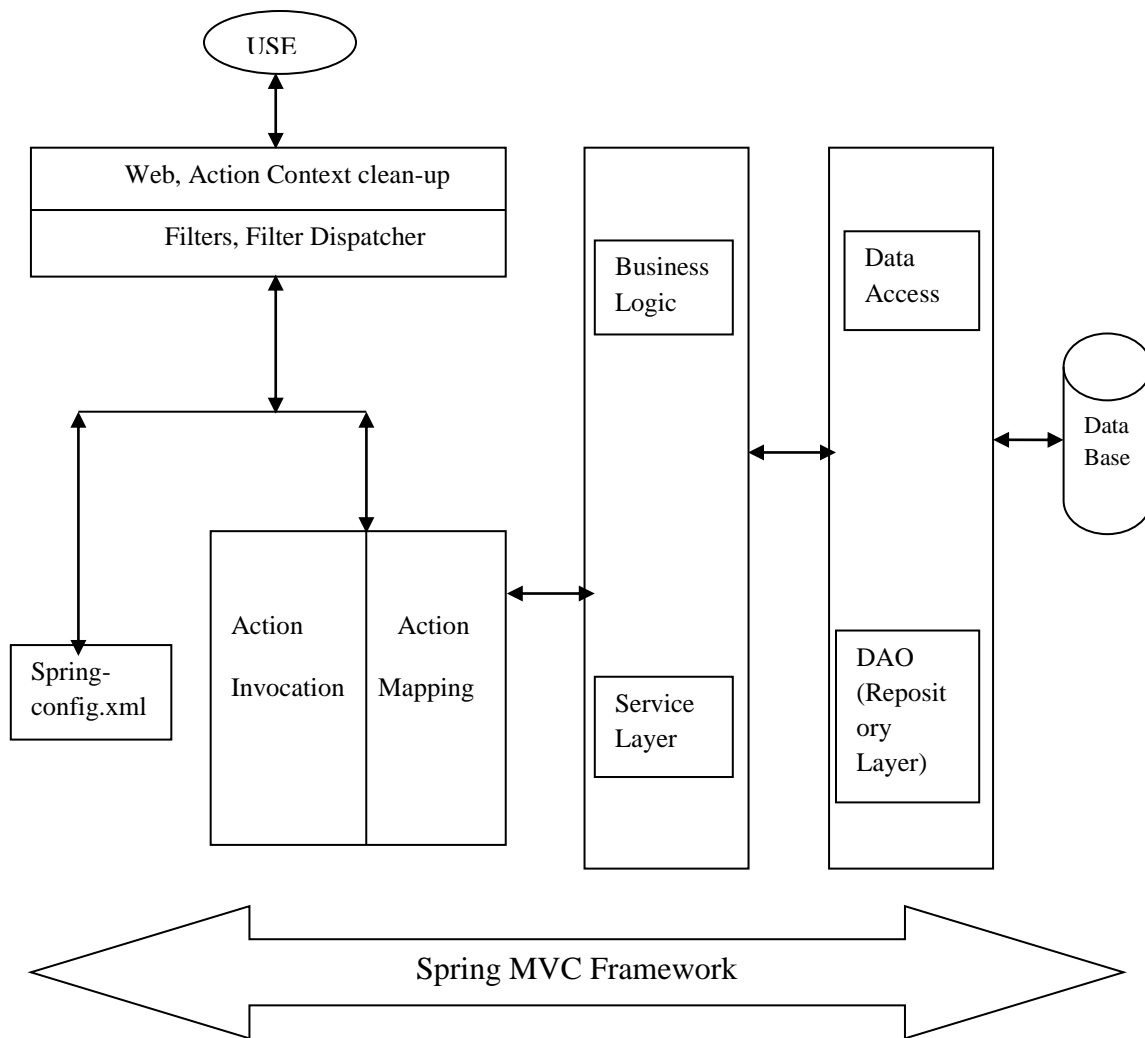


Figure 1 Architecture of PCS Software

The **Figure 1** depicts the PCS software architecture in which Spring4 framework is used to implement an application.

The PCS is contributing towards the creation of a robust public healthcare system across India. It is benefiting state level monitoring authorities, doctors and hospital administration as well as patients.

The transition from manual processes to this IT based system is a long drawn and gradual process, which presents numerous challenges in implementing and deploying PCS.

IV. TOOLS AND LANGUAGES THAT CAN BE USED

The above enterprise application can be developed by using object oriented programming languages for the front end like java8, Spring4 frameworks, JavaScript libraries and Bootstrap3. These are the advanced technologies in developing client interface for easy to use and as well as easy to analyse with reducing the much difficulty in the application. The Database or backend can be created by MySQL Workbench 5.2CE 2008. This tool will help to design and develop an extremely productive database which the client will require for the purpose of storage and manage a huge amount of data on different modules in the application.

V. CONCLUSION

By implementing this enterprise application, the administration of the patients will be all that much simpler, proficient and less tedious. It will be simple for the doctors and patient to get to the records and reports as the history and reports are as of now present in the system, the patient won't need to carry every one of the reports documents. The patient details are as of now present in the database while enrolment so the need of structure filling can be avoided from amid crisis cases. The correspondences among the specialist and patient are improved as the patient can get as much help on the web. It will help in lessening numerous manual endeavours, time taken and cost.

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