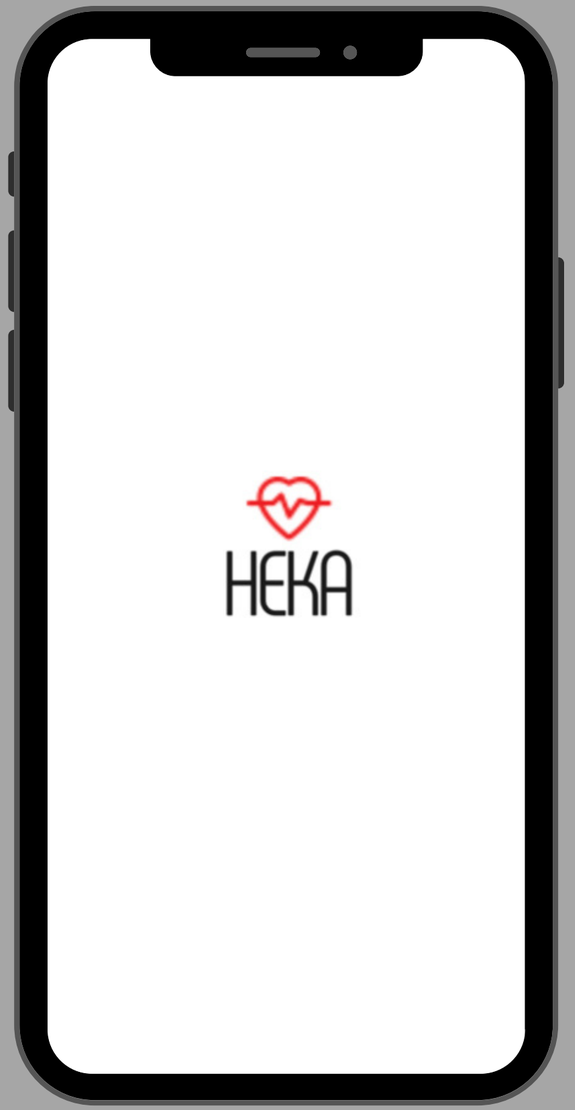
HEALTHCARE DATA HANDLER USING NFC TECHNOLOGY



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What is HEKA?

HEKA is an ancient Egyptian concept, which translates to "activating the divine".

HEKA was believed to be the essence of the gods and was used to create and protect life.

It was believed to be the source of all power and was seen as a way to bring balance and harmony to the world.

HEKA

Base Paper

Formal Security Analysis of NFC M-coupon Protocols using Casper/FDR

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Base paper link: https://ieeexplore.ieee.org/document/6482

Introduction

- The demand for efficient and accurate medical record-keeping has led to the development of an automatic medical form filling application.
- This application aims to automate the process of filling out medical forms, reducing the time and effort required for manual data entry.
- The system uses NFC technology to initiate the automatic medical data sharing.
- The application seamlessly integrates with existing electronic medical record systems, ensuring that the information remains secure and protected.
- This innovative application has the potential to revolutionize the medical industry by reducing the burden of administrative tasks and improving the accuracy of medical records.
- By minimizing errors in medical records, the application can contribute to better patient care outcomes.

Keywords

Mobile Application
Web Application
Data handling
Healthcare
NFC Technology
Revolutionize medical industry
Administrative tasks

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Abstract

- The increasing demand for efficient and accurate medical record-keeping has led to the development of an automatic medical form filling application.
- This application aims to automate the process of filling out medical forms, reducing the time and effort required for manual data entry.
- The system uses NFC technology to initiate the automatic medical data filling.
- The application integrates seamlessly with existing electronic medical record systems, ensuring that the information remains secure and protected.
- This innovative application has the potential to revolutionize the medical industry by reducing the burden of administrative tasks and improving the accuracy of medical records.
- By minimizing errors in medical records, the application can contribute to better patient care outcomes.

Existing systems

The patient data is typically entered into the hospital's electronic health record (EHR) system manually , which is a digital filing system used to store and manage patient health information. There are several methods used to enter patient data into the EHR system, including:

1. **Manual Data Entry**: This is the most common method of entering patient data into the EHR system. Healthcare professionals, such as nurses or medical assistants, typically input patient data into the EHR system during the patient's visit. They use a computer or a tablet with a keyboard or a touchscreen to enter information such as the patient's name, date of birth, medical history, medications, allergies, and vital signs.
2. **Voice Recognition**: Some hospitals use voice recognition software to enter patient data into the EHR system. Healthcare professionals can speak directly into a microphone attached to a computer or a tablet to enter patient data. The software converts the spoken words into text, which is then entered into the EHR system.

Existing systems

Barcode Scanning: Another method used to enter patient data into the EHR system is through barcode scanning. Patient information is stored in a barcode, which can be scanned by a handheld scanner or a computer. This method is commonly used to enter medications, and other relevant information into the EHR system.

Patient Portals: Some hospitals allow patients to enter their own data into the EHR system through a patient portal. Patients can log into the portal using their own secure login credentials and enter their personal information, medical history, medications, and other relevant information.

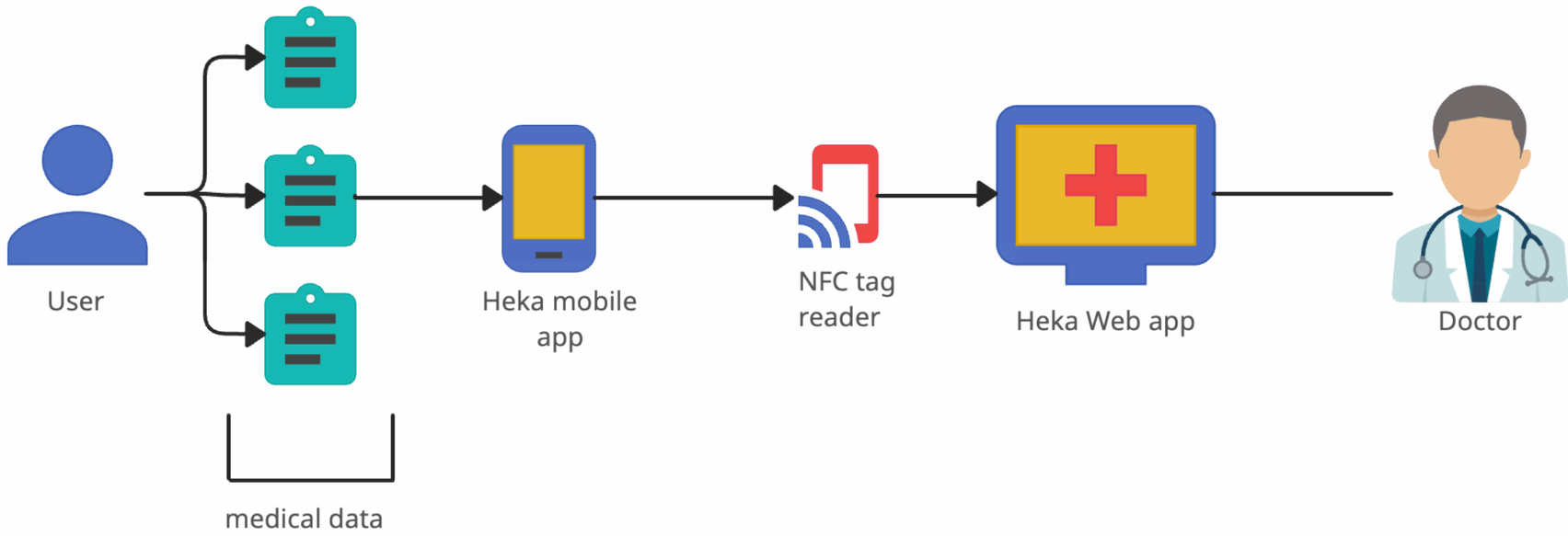
Issues in Existing System

- EHR systems face challenges such as user errors, technical issues, data security and privacy concerns, interoperability challenges, cost, and workflow integration.
- Healthcare organizations must address these issues to ensure patient care is not compromised.
- Measures to address these issues include appropriate training for healthcare professionals, regular maintenance and technical support, compliance with data security and privacy regulations, data sharing between different systems and providers, evaluating the costs and benefits of EHR systems, and careful integration into existing workflows.
- Failure to address these issues can result in errors in patient care and treatment, disruption of patient care, breaches of patient data, and increased costs for healthcare organizations.
- Overcoming these challenges can improve the efficiency and accuracy of medical record-keeping, ultimately leading to better patient care.

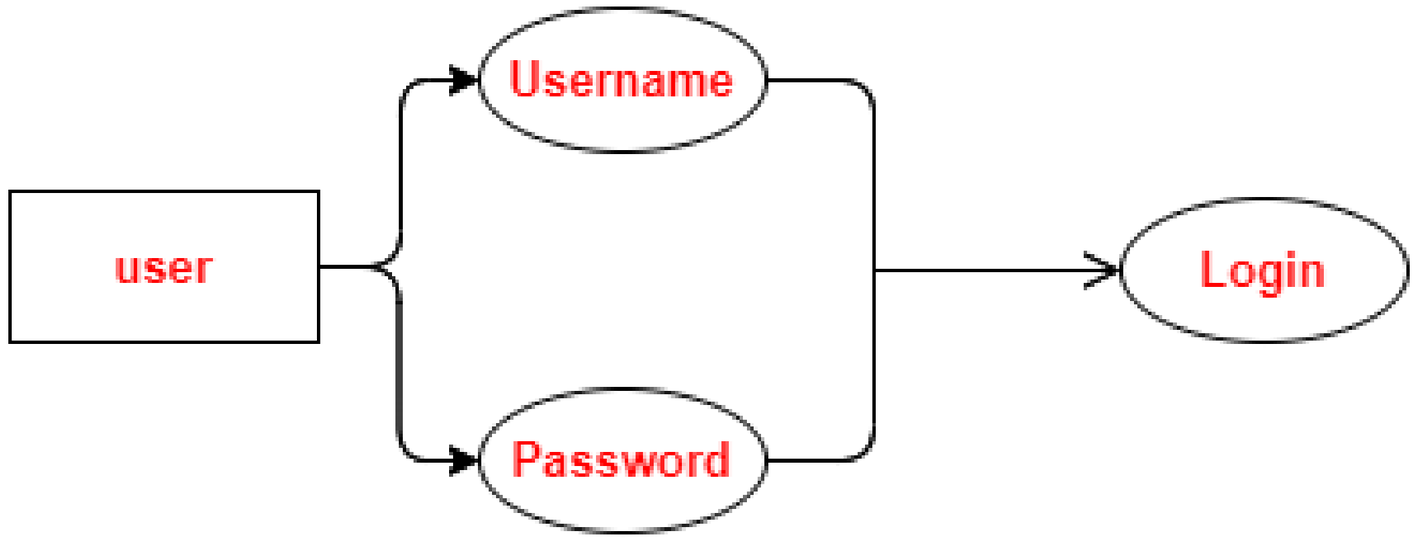
Proposed System

- While electronic health record (EHR) systems have many benefits, there are also some serious issues that healthcare organizations may face when implementing and using these systems. Our automatic medical form filling application hastens the process of patient medical data sharing.
- Our automatic medical form filling application uses NFC technology to initiate automatic medical data filling, reducing time and effort required for manual data entry.
- This eliminates human errors associated with manual data entry, leading to more accurate and reliable medical records.
- The application integrates seamlessly with existing electronic medical record systems, ensuring information remains secure and protected.
- The application requires user to enter the medical data into the mobile application and the data is stored in the local storage.
- On the medical professional's end, they use our web application to view the patient data in the pre provided medical form.

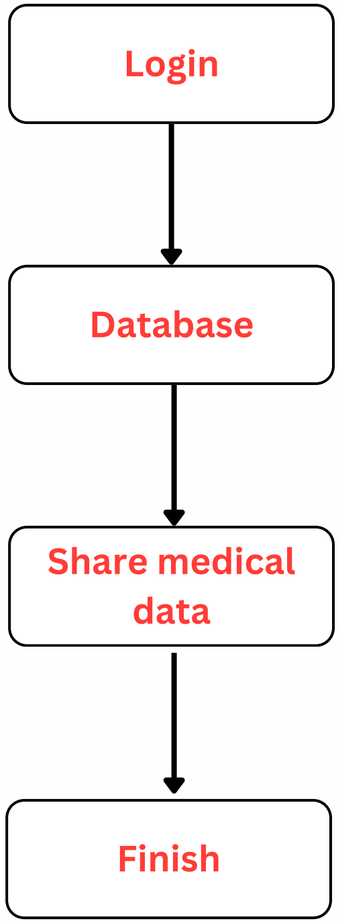
System Architecture



Login Module

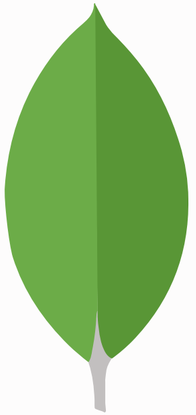


System Block Diagram



Language used

HEKA is a modern day tool to fill medical data in a safe and secured way, it is implemented using:



About the Interface

→ The application has an interactive Graphical User Interface(GUI) for updating user medical information at anytime. The application is designed using Java in Android Studio.

→ By using HTML ,CSS(Tailwind) we can create a UI of our website.

HEKA

Thank you!