

Project Title

AI-Assisted Telemedicine KIOSK for Rural India

Introduction :

This project is designed to make healthcare more accessible in rural areas using AI and simple technologies like

QR codes and barcodes. The kiosk helps patients register, choose symptoms, and get doctor consultations quickly and easily.

It uses a voice assistant to guide users, making it suitable for everyone, including those who may not know how to use technology.

Currently, since we don't have access to Aadhaar QR codes or voter ID barcodes, we are demonstrating the system using a college QR code as an example.

Step-by-Step Workflow:

Step 1: Scanning the QR Code:

The process starts with the user scanning a QR code or barcode.

This QR code could come from Aadhaar, a voter ID, or any similar document.

After the code is scanned, the system reads the information and displays it on the screen.

A voice assistant also speaks the details out loud so the user can understand them easily.

Step 2: Symptoms Selection

The user then clicks the "Next" button on the screen.

A new page opens, showing a list of symptoms.

The user selects the symptom(s) they are experiencing from the list.

Step 3: Doctor Assignment and Printout:

Once the symptoms are selected, the system automatically assigns a doctor and provides a room number for the consultation.

This information is printed on paper without any manual effort from the user.

What Makes the Project Unique?

Ease of Use:

The system is designed to be simple. A user only needs to scan a QR code, click a few buttons, and receive all the necessary information.

Voice Assistant:

For users who cannot read or understand the screen, the voice assistant explains everything clearly.

Automation:

The entire process of registering, selecting symptoms, assigning doctors, and printing details is automated, saving time for both patients and

medical staff.

Future Enhancements

Voice Recognition:

In the future, the system will be upgraded with voice recognition technology. This will allow users to speak their commands, and the system will do the work for them, like selecting symptoms or confirming their choice.

Data Security with Quantum Encryption:

To ensure complete privacy, we plan to use quantum encryption. This advanced encryption will protect patient data from hacking, even with future technologies like quantum computers.

Dynamic QR Codes:

We will implement dynamic QR codes so that a single QR code can be reused multiple times (more than five times) for different tasks. This feature will reduce the need for new QR codes for every action.

Current Limitations

Since we currently do not have access to Aadhaar QR codes or voter ID barcodes, we are using a college QR code as a demonstration. However, the system is fully prepared to handle real Aadhaar and voter ID data when access is granted.

Conclusion

This project is a step toward improving healthcare access for rural areas in India. By using a combination of AI, QR codes, and voice assistance, we aim to make the entire process of consulting a doctor quick and user-friendly. Future upgrades like voice recognition, quantum encryption, and dynamic QR codes will make the system even more secure, powerful, and easy to use.

Let me know if you need additional details, slides, or visuals for your presentation!