

SMART INDIA HACKATHON

Problem Statement:

Voice Prescription (AP63)

Organization:

Bajaj Fin Serv

Category:

Software

Description:

Design an app to write formatted prescriptions based on dictation from doctor. A Doctor should be able to dictate his prescription to the patient while talking to his phone or PC running windows. The app should provide facility to sign the prescription and also send to the patient directly on his phone and email id. The method of storing the medical records (EHR) should follow relevant compliance laws like HIPAA.

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Section: 2B14

Brief working of the Application

The voice prescription application has been developed using Python 3.8. This application has a Graphical User Interface (GUI) with which a doctor can interact so as to develop the prescription using his voice commands or manually. The interface has been developed using **tkinter** module.

Doctor must press the **start** button in order to let the application start recognising his/her commands and fill the details into respective fields.

If in case we must edit the already entered patient details in the form, it can be done either manually or by using **Edit with Speech** button that uses voice recognition to update the data.

Initially, the details of the hospital and the doctor have to be set so that a proper format of a prescription can be produced with name of the hospital as its header. If those details are to be modified, it can be done using the buttons **Reset Hospital's Details** and **Reset Doctor's Details**.

After filling in all the details regarding a particular patient, the doctor must click **Create PDF** button to generate the prescription with the details specified above as a PDF document with name of the patient.

It is necessary for a Prescription to be signed by the doctor. So an **Add Signature** button is used to add the image of the doctor's signature to the prescription.

A **Send using WhatsApp** button has been included which is used to send the generated PDF document to the patient WhatsApp Number.

In order to clear all the previously entered patient details in the form, a **clear** button is used.

If the doctor would like to recheck the created PDF, he can do so by clicking the **Open PDF** button.

GUI of the Application:

The screenshot displays the 'Prescription' application window. At the top, there are window controls and a title bar. Below the title bar, there are two tabs: 'Speech_language' and 'Text_language'. On the right side, there are two buttons: 'Reset Hospital's Details' and 'Reset Doctor's Details'. The main form area is divided into sections. The 'Enter Patient's details:' section contains input fields for Name (Vivek), Gender (Male), Phone Number (9701926784), Age (67), and Weight (78). Below this is a 'Problem:' section with a text area containing 'headache', 'cough', and 'cold'. The 'Medication:' section has a text area containing 'dolo 650mg 10 tablets morning evening' and 'cetirizine 4 tablets evening'. At the bottom, there are two rows of buttons. The first row includes 'START', 'Edit with Speech', 'CLEAR', and 'Add Signature'. The second row includes 'CREATE PDF', 'Open pdf', and 'Send pdf via Whatsapp'.

Prescription

Speech_language Text_language

Reset Hospital's Details Reset Doctor's Details

Enter Patient's details:

Name: Vivek Gender: Male

Phone Number: 9701926784 Age: 67

Weight: 78

Problem:

headache
cough
cold

Medication:

dolo 650mg 10 tablets morning evening
cetirizine 4 tablets evening

START Edit with Speech CLEAR Add Signature

CREATE PDF Open pdf Send pdf via Whatsapp

Sample Prescription:

GIMSR

Rushikonda
Near GITAM
pincode-530045
Vizag,A.P

Doctor's name: Chidambaram Phone number: 7638768762

Pateint's name: Vivek Gender: Male

Patient Phone number: 9701926784 Age: 67

PROBLEM:

- 1.headache
- 2.cough
- 3.cold

MEDICATION:

- 1.dolo 650mg 10 tablets morning evening
- 2.cettrizine 4 tablets evening

