

HAD Final Milestone

(Team 17)

Project 2: Tele-Consultation Platform



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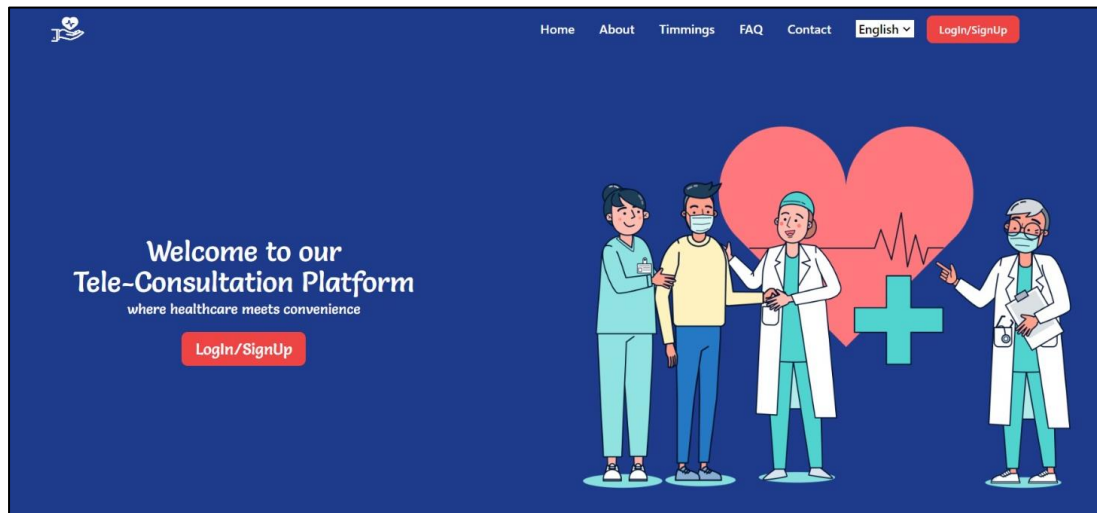
Team Members:

- ✓ Akanksha Shukla (MT2022008)
- ✓ Ayush Agrawal (MT2022027)
- ✓ Vikranth Bari (MT2022131)
- ✓ Yaman Goyal (MT2022134)
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Links:

- ✓ [Project Demo](#)
- ✓ [Backend](#)
- ✓ [Frontend](#)

What is E-Aarogya?



- ✓ E-Aarogya is a tele-consultation platform. It uses IT to facilitate communications between a patient and a doctor who are otherwise geographically separated. Most of the hospitals are located in urban areas so people have to travel long distance for consultation which in turn cost them more than the consultation fees. Our platform will provide user, remote access for consultation and saves their time and travelling cost. User can connect with the doctor at any time from any place.

Functionalities and Features of E-Aarogya:

- ✓ Patient's Functionalities:

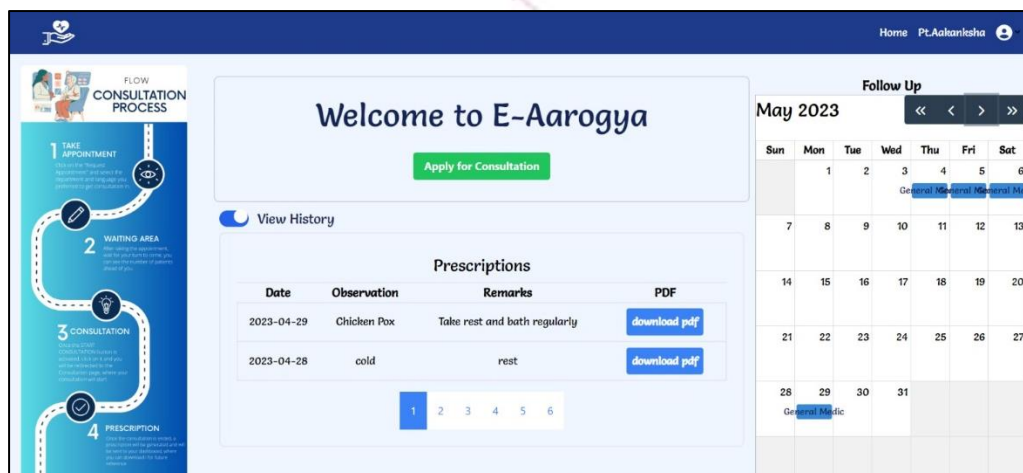


Fig: Patient's Dashboard

- **Request Consultation:** A patient can request for consultation in the department he/she wishes for and also in their preferred language.

Apply for Consultation

Select Department

ENT

Dentist

Orthology

Neurology

General Medic

Select Language

Apply

Apply for Consultation

General Medic

Select Language

English

Hindi

Marathi

Tamil

Kannada

Apply

- **Follow-ups:** Patient will be able to see the upcoming follow-ups setup by doctor of a particular department, these follow-ups will be marked on the calendar which is on the right part of the patient's dashboard.

Welcome to E-Aarogya

Apply for Consultation

View History

Prescriptions

Date	Observation	Remarks	PDF
2023-04-29	Chicken Pox	Take rest and bath regularly	download pdf
2023-04-28	cold	rest	download pdf

Follow Up

May 2023

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

- **Add follow-ups to google calendar:** Once you click on any of the follow-up, a pop-up will open and you can see for which department the follow-up is issued for and you can add it to google calendar for future reminders.

General Medic

cold

5/4/2023

Add to google Calendar

Calendar

Today

May 2023

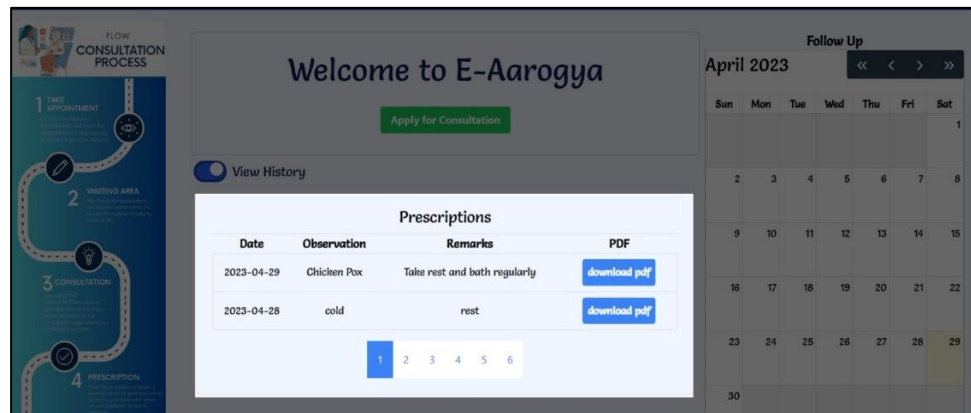
Follow-up TeleConsultation

Thursday, May 4 - 12:00 - 12:00am

30 minutes before

akanksha shukla

- **Prescription Records:** Patient will be able to see all his previous prescriptions of E-Aarogya on the dashboard itself, also he will be able to download those e-prescription.



- **Download e-prescription:** Patient will be able to download e-prescription by clicking on the download button.

Dr. Mahesh Babu
Doctor Id: 1

Date: 2023-02-20

Patient Id: 1
Patient Name: Aakanksha Rani
Gender: Female
Contact Number: +916393959912

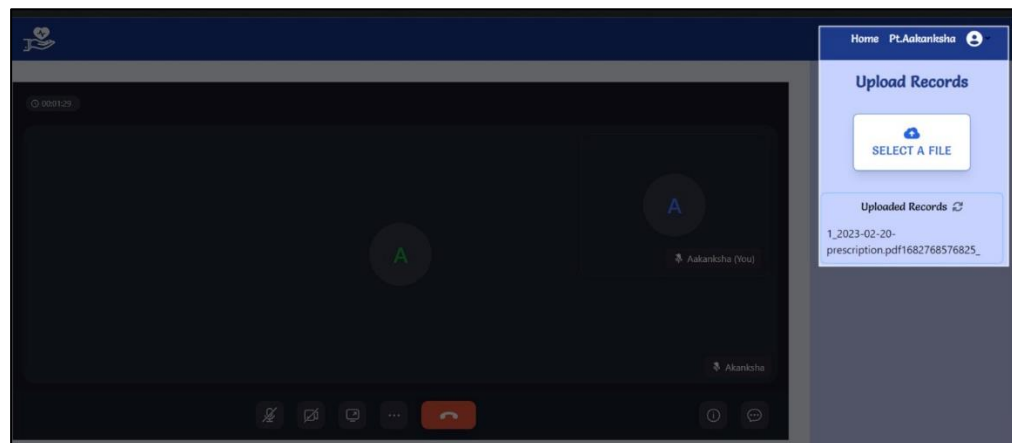
Observation
Storing Pdf to get Pdf

Medicine	Dosage
Dolo 660	2
Pcm	3

Remark
Dekhte h store hota h ya nhi

- **Video Consultation:** Doctor and patient will be able to do video consultation.
- **Upload Health Records:** Patient will be able to upload health record other than that of E-Aarogya prescriptions during videocall

itself and in real-time the doctor will be able to see them.



✓ Doctor's Functionalities:

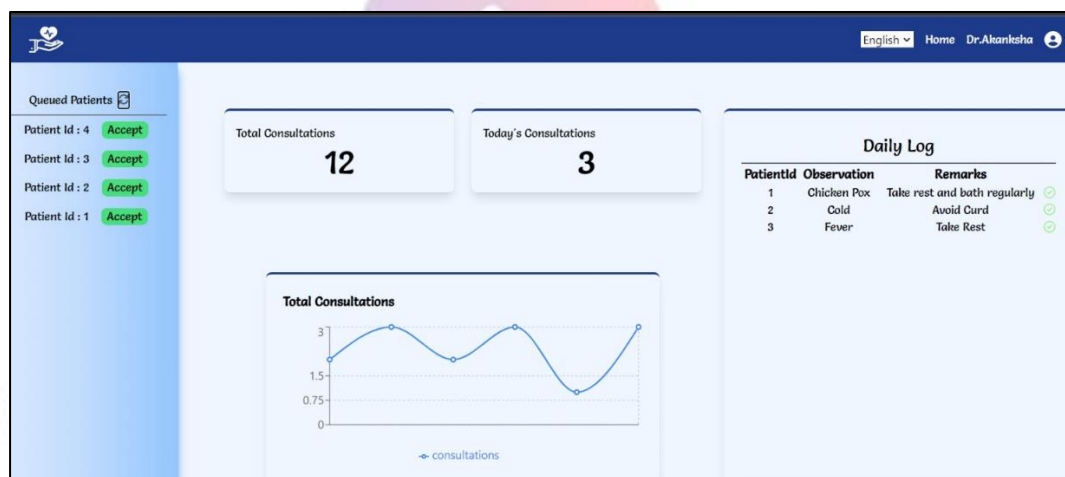
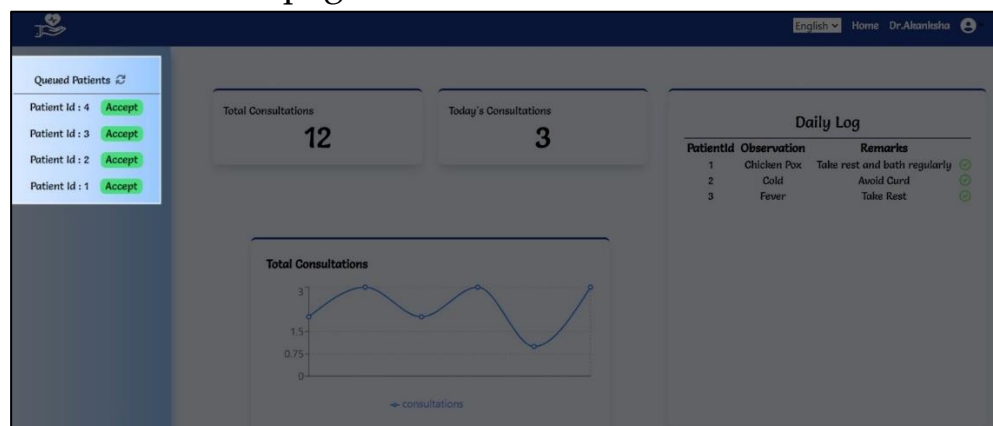
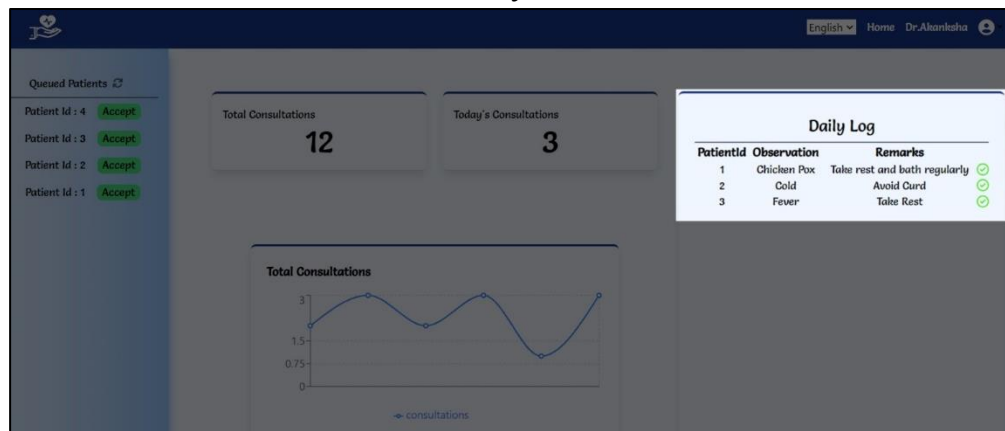


Fig: Doctor's Dashboard

- **Accepting Patient from Queue:** Doctor will accept the request of patient from the queue, and will be redirected to the consultation page.



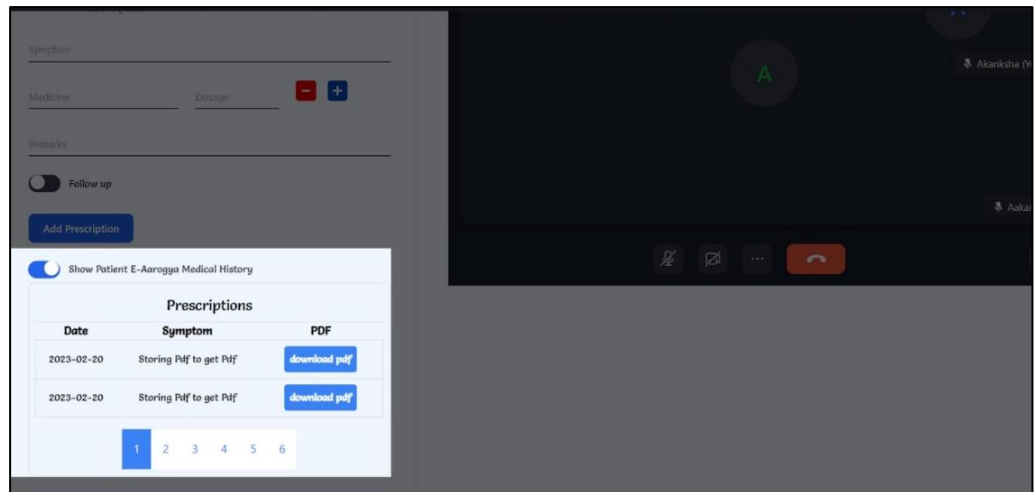
- **Daily logs:** Doctor will be able to see all the consultations he/she had done on current day.



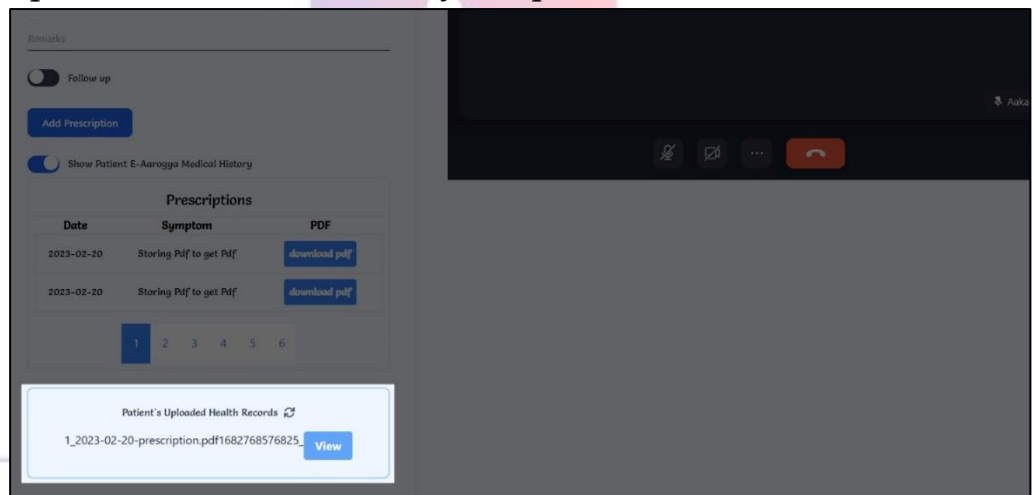
- **Add Prescription:** On the consultation page, there are two components, the first one is the adding prescription for the patient he/she is consulting, and the other one is the video call section.

The screenshot shows the 'Add Prescription' form for patient Aakanksha (Pt.Id: 1, Pt.Name: Aakanksha, Pt.Gender: Female, Pt.Age: 24). The form includes fields for Symptom, Medicine, Dosage, and Remarks. There are buttons for 'Add Prescription' and 'Show Patient E-Aarogya Medical History'. A video call window is visible on the right side of the form.

- **View patient's previous prescriptions:** Doctor can request the patient to see his/her previous prescriptions by sending the otp on the patient's registered phone number, once the patient tells the otp, doctor will get access to the prescriptions.

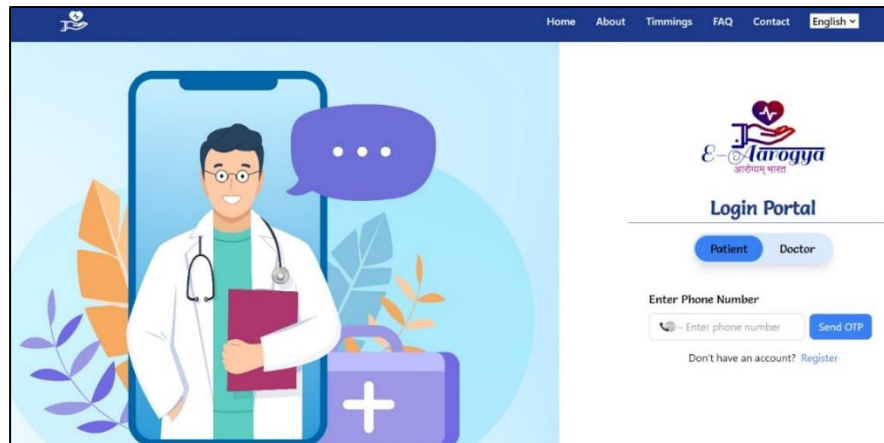


- **View uploaded health records:** Doctor will be able to see the uploaded health records by the patient.

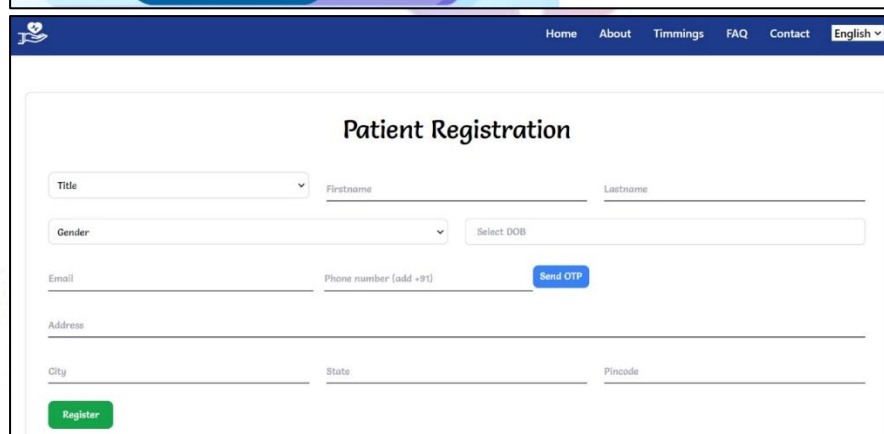


E-Aarogya patient's guide:

- ✓ **Login/Register:** On the home page, click on the Login/Signup button and you will be redirected to the login page. If you are already signed up on the website, then you are ready to login, otherwise please sign-up.

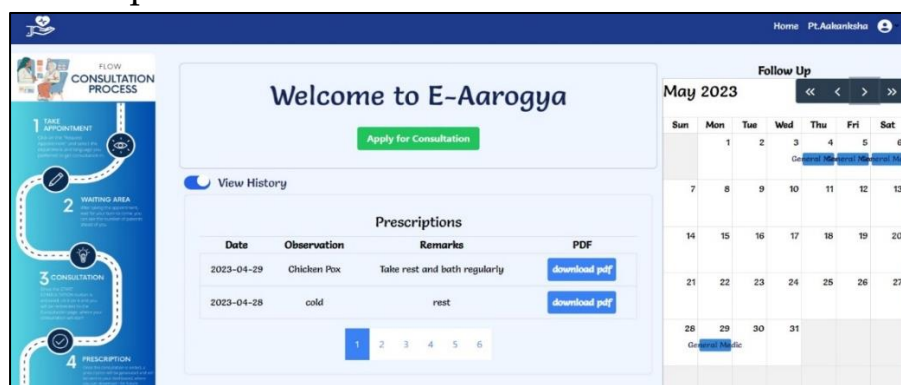


The screenshot shows the E-Aarogya Login Portal. On the left, there is a large illustration of a doctor in a white coat holding a folder, with a speech bubble and a medical bag. On the right, the portal has a navigation bar with links: Home, About, Timmings, FAQ, Contact, and English. Below the navigation bar is the E-Aarogya logo and the text 'Login Portal'. There are two buttons: 'Patient' and 'Doctor'. Below these buttons is a section for 'Enter Phone Number' with a text input field and a 'Send OTP' button. At the bottom, there is a link: 'Don't have an account? Register'.



The screenshot shows the E-Aarogya Patient Registration form. The form has a title 'Patient Registration'. It includes fields for Title (dropdown), Firstname, Lastname, Gender (dropdown), Select DOB (dropdown), Email, Phone number (add +91), Address, City, State, and Pincode. There is a 'Send OTP' button next to the Phone number field and a 'Register' button at the bottom left.

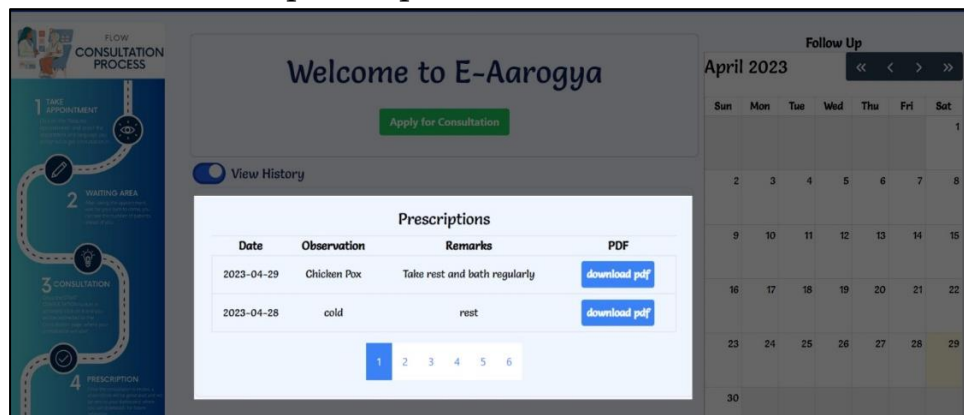
- ✓ **Patient Dashboard:** Once you logged in to your account, you'll see the patient's dashboard.



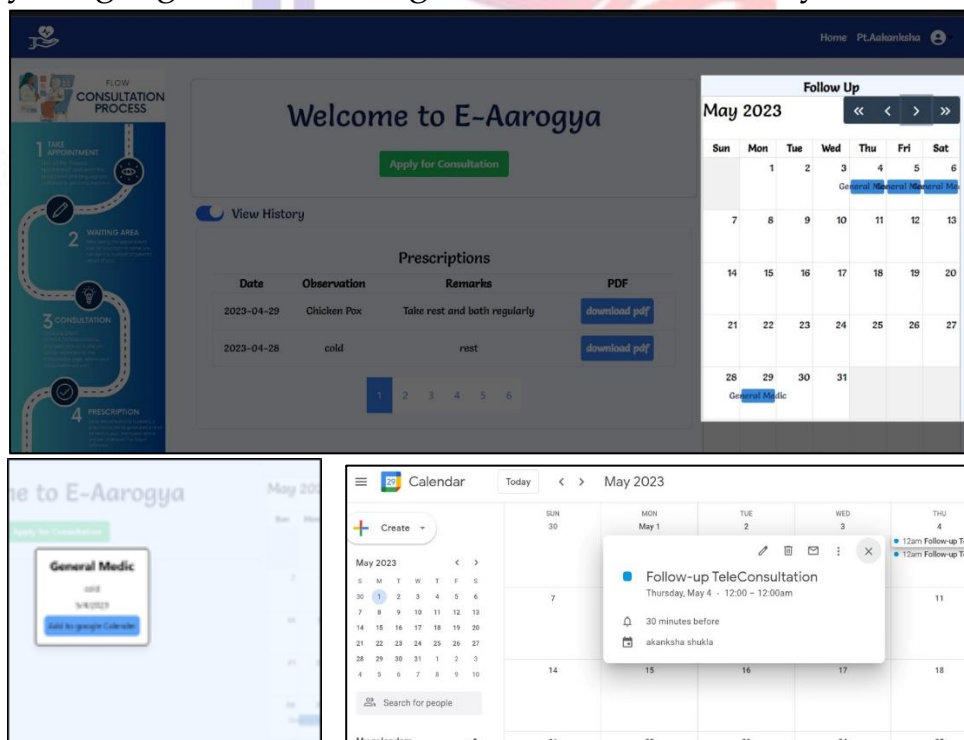
The screenshot shows the E-Aarogya Patient Dashboard. The dashboard has a navigation bar with links: Home, Pt.Ashankisha, and a user profile icon. On the left, there is a 'FLOW CONSULTATION PROCESS' diagram with four steps: 1. TAKE APPOINTMENT, 2. WAITING AREA, 3. CONSULTATION, and 4. PRESCRIPTION. The main content area has a 'Welcome to E-Aarogya' message with an 'Apply for Consultation' button. Below this is a 'View History' section with a table of prescriptions. The table has columns: Date, Observation, Remarks, and PDF. The table contains two rows of data. On the right, there is a 'Follow Up' calendar for May 2023.

Date	Observation	Remarks	PDF
2023-04-29	Chicken Pox	Take rest and bath regularly	download pdf
2023-04-28	cold	rest	download pdf

- ✓ **Previous Prescriptions:** Here you'll see all your previous prescriptions you got on the E-Aarogya site. You can also download this e-prescription.

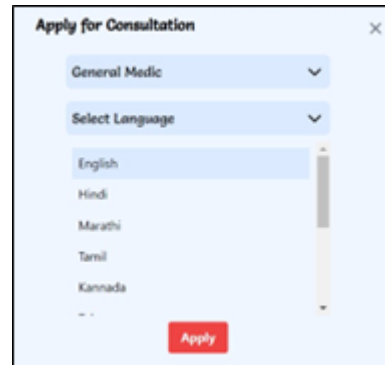
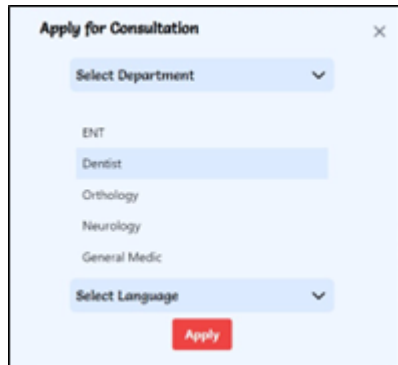


- ✓ **Follow-ups:** On the right side of the screen, you can see one calendar which shows all your upcoming follow-ups with any particular department. You also has the liberty to add this to your google calendar to get reminder on that day.

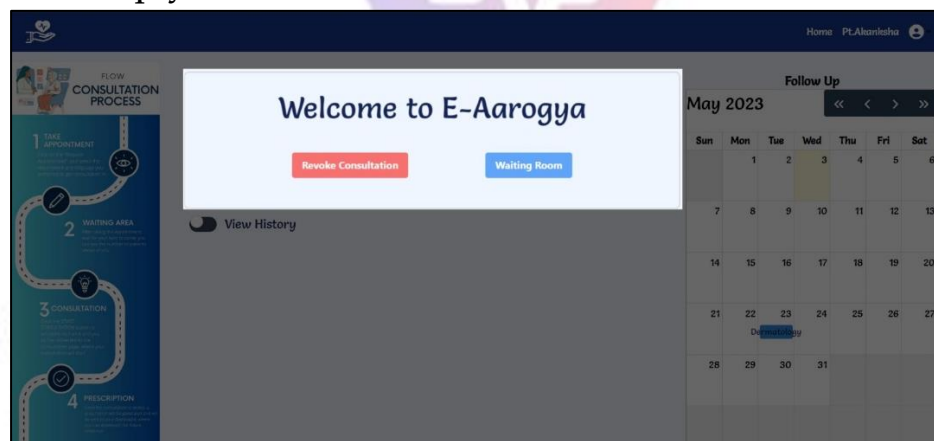


- ✓ **Apply for Consultation:** The heart of this website, you can take appointment under any department you wish for

and also you can select the language in which you want the consultation to be.



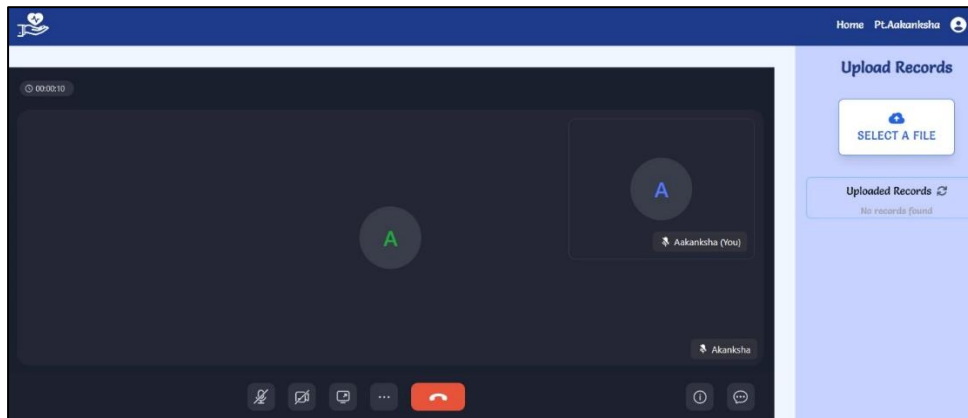
- ✓ **Revoke Consultation:** There might be chances that the patient doesn't want to consult anymore and want to leave, so he/she can simply revoke his/her consultation.



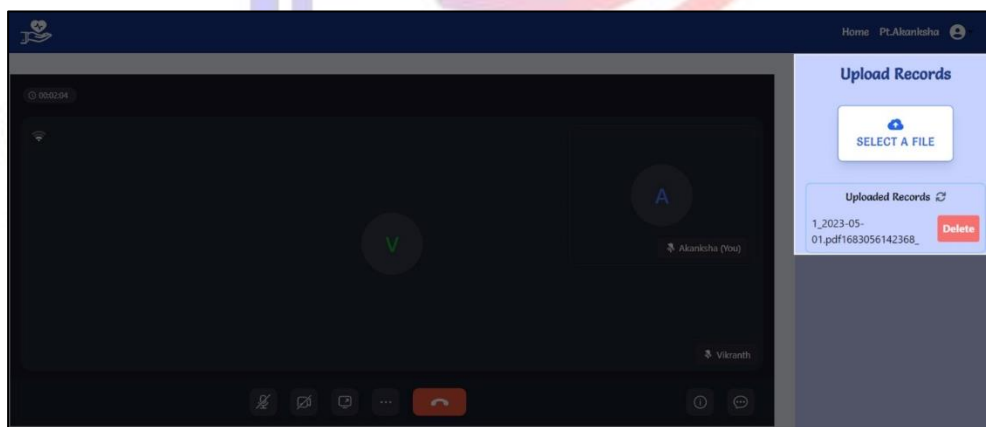
- ✓ **Join Consultation:** Once you apply for consultation, you'll be redirected to waiting area, where you will be able to see the total number of patient ahead of you. Wait until the join button becomes green, once it is enabled, you can start your consultation.



- ✓ **Consultation Area:** Once you joined the consultation, video call will be started and you can talk to the doctor about your medical problem.



- ✓ **Upload Health Record:** If there is any need to upload your previous health records other than that of E-Aarogya, like your blood report, you should upload it from the side panel of upload records, also if you want to delete them you can delete also.

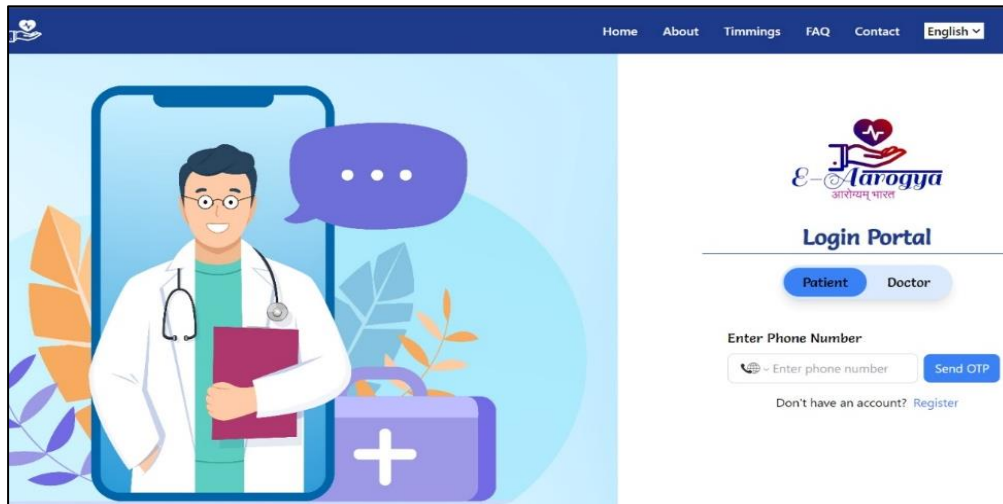


- ✓ **End Consultation:** Once doctor leaves the call, you can also leave it and you will be redirected to your consultation page where you can see your latest prescription.

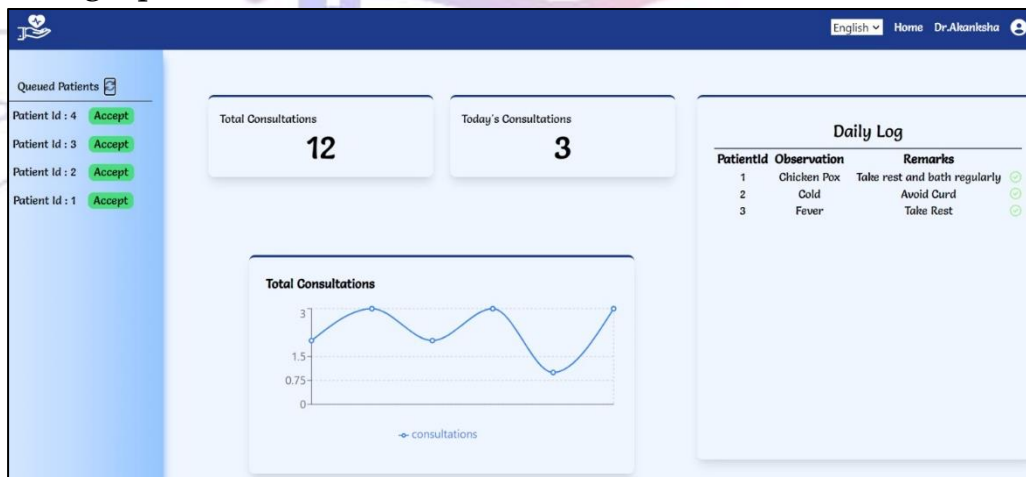
[Note: If doctor is not coming for more than 5min of joining the call, please consider your appointment to be cancelled.]

E-Aarogya Doctor's Guide:

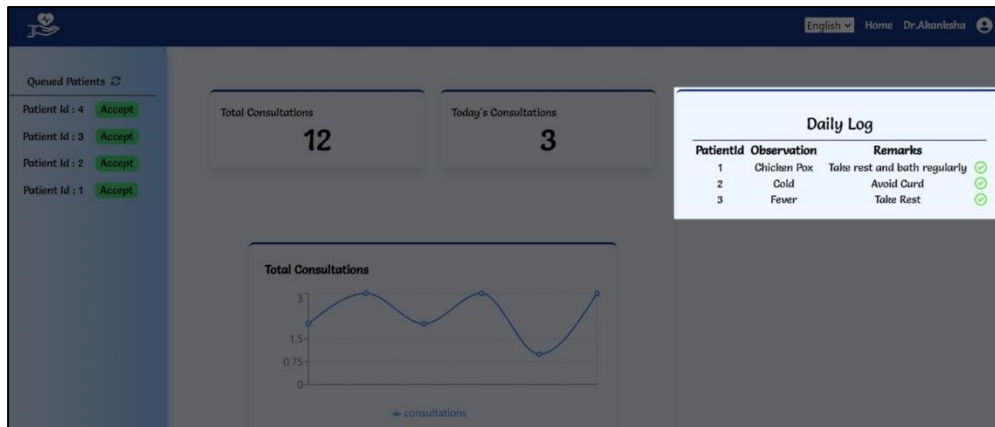
- ✓ **Login:** Login with your phone number and enter the otp sent to your phone number.



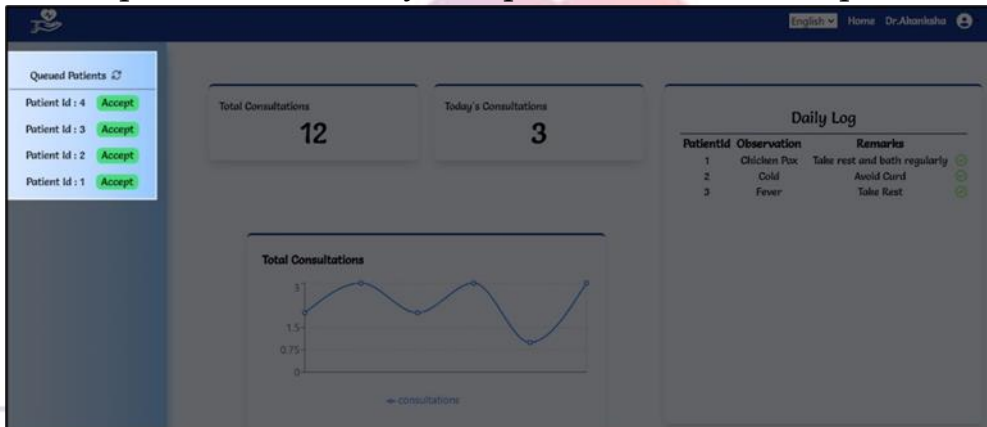
- ✓ **Doctor's Dashboard:** Once you are logged in to the website, you'll be able to see the doctor's dashboard. Here, you can see list of patients waiting in queue on the left panel, also you can see some info-graphics on the screen.



- ✓ **Daily Logs:** Doctor can see what all consultations he/she has done on the particular day.



- ✓ **Queued Patients:** Doctor will be able to see all the waiting patients in the queue but can only accept the first one's request.



- ✓ **Consultation Page:** Once the doctor accepts the request for consultation, he/she will be redirected to the consultation page.

The consultation page displays the following information:

- Patient Information:**
 - Pt.Id : 1
 - Pt.Name : Aakanksha
 - Pt.Gender : Female
 - Pt.Age : 24
- Symptom:** A text input field.
- Medicine:** A text input field.
- Dosage:** A text input field with a red minus button and a blue plus button.
- Remarks:** A text input field.
- Follow up:** A toggle switch.
- Add Prescription:** A blue button.
- Show Patient E-Aarogya Medical History:** A toggle switch.
- Patient's Uploaded Health Records:** A section showing 'No records found'.
- Video Call Interface:** A large dark area with a blue circle containing the letter 'A' in the center. At the bottom, there is a red call button and a 'Akanksha (You)' label.

- ✓ **Patient's previous consultations:** Doctor can see patient's previous consultations iff the patient gives the consent for which

doctor have to click on send otp button and ask patient to tell the otp so that he/she can access their previous prescriptions for reference.

Pt.Id : 1
Pt.Name : Aakanksha
Pt.Gender : Female
Pt.Age : 24

Symptom

Medicine Dosage - +

Remarks

Follow up

Add Prescription

Show Patient E-Aarogya Medical History

Patient needs to allow the access to his medical history
Enter OTP
022102 Verify OTP

Patient's Uploaded Health Records

Symptom

Medicine Dosage - +

Remarks

Follow up

Add Prescription

Show Patient E-Aarogya Medical History

Prescriptions

Date	Symptom	PDF
2023-02-20	Storing Pdf to get Pdf	download pdf
2023-02-20	Storing Pdf to get Pdf	download pdf

1 2 3 4 5 6

- ✓ **Health Records:** Once the patient uploads any health record on his/her end, doctor can see it in the health record section.

Follow up

Add Prescription

Show Patient E-Aarogya Medical History

Prescriptions

Date	Symptom	PDF
2023-02-20	Storing Pdf to get Pdf	download pdf
2023-02-20	Storing Pdf to get Pdf	download pdf

1 2 3 4 5 6

Patient's Uploaded Health Records

1_2023-02-20-prescription.pdf1682768576825_ View

[Note: Doctor firstly has to end the videocall and then only he/she should submit the prescription, once add prescription is clicked, doctor will be redirected to the dashboard.]

Individual Contributions:

✓ Akanksha Shukla (MT2022008):

- Complete UI/UX design
- Video Call Feature
- Appointment Queue maintenance
- Functionality to protect page print during consultation
- Database design
- API Integration
- JWT Integration

✓ Ayush Agrawal (MT2022027)

- Functionality to Add to Google calendar
- OTP login and Authentication
- Multi-Lingual
- API Integration
- Functionality to take consent of patient before accessing his/her previous consultation records.

✓ Vikranth Bari (MT2022131)

- Architecture design
- Database design
- API creation
- Logic building
- PDF creation and download
- Functionality to add health record in real-time using Amazon S3.

✓ Yaman Goyal (MT2022134)

- Spring security
- Role based authentication
- API creation
- JWT integration