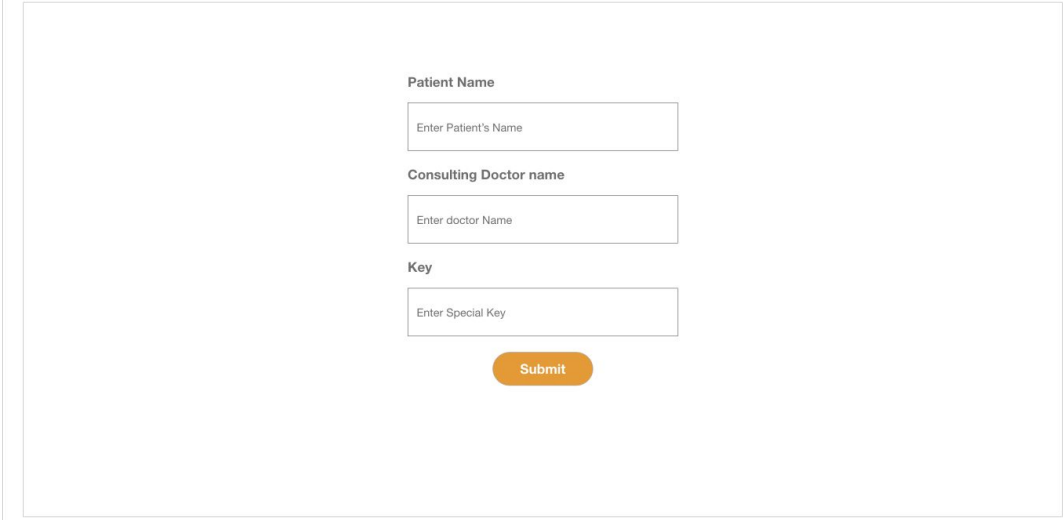
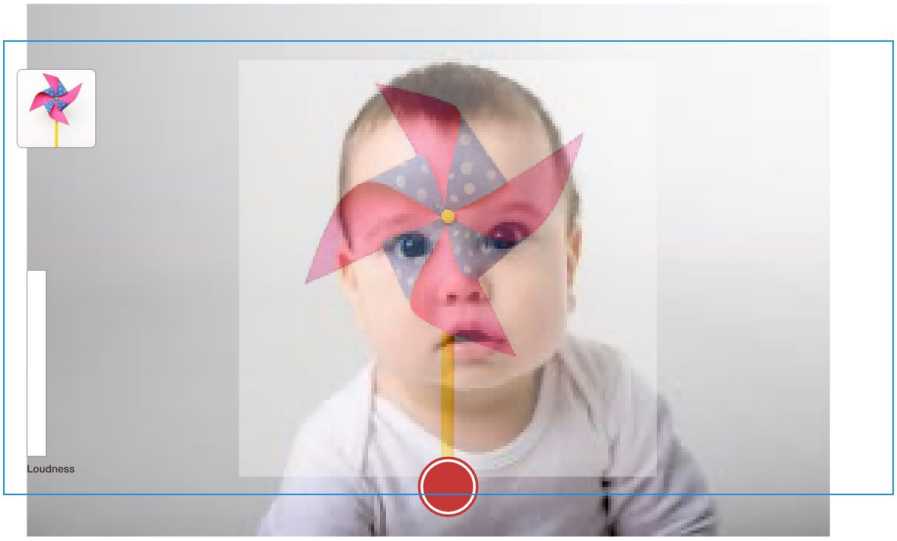
Steps:

1. Doctor in family clinic logs in with patient name, his name and key.(The key will be provided to the Family Doctor by the specialist)

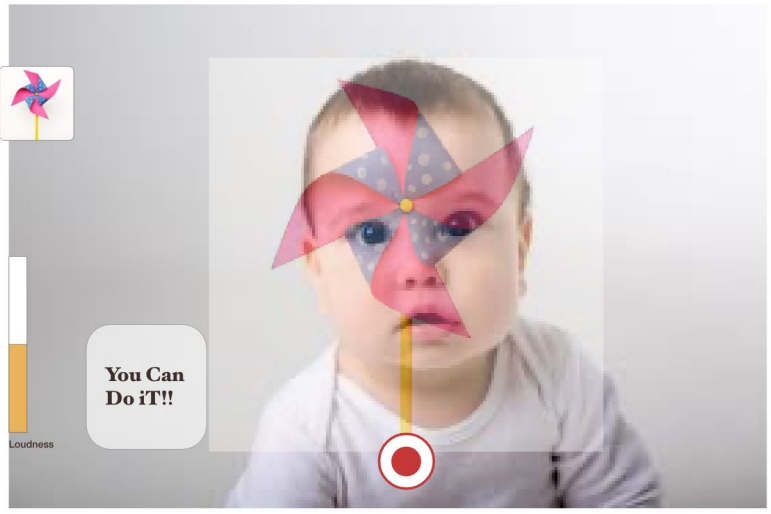


2. He is taken to recording screen and he positions the child infront of the camera



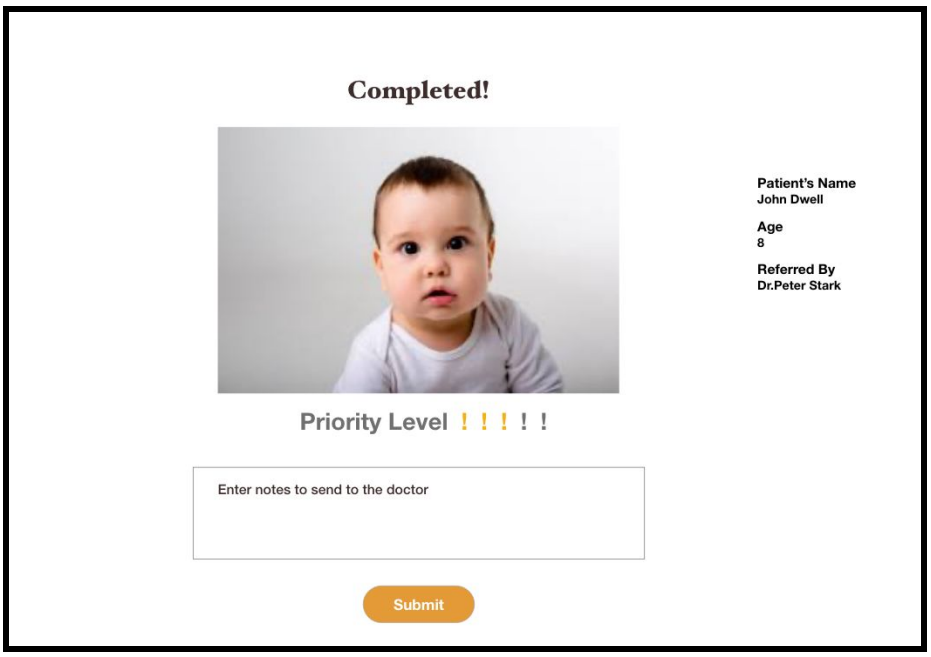
The pinwheel animation is overlaid on top of the livefeed from the camera

3. He explains to the child to blow into a microphone and tells him that the harder/louder he blows, the faster the pinwheel will spin. He then proceeds to hit the record button.



As the child is blowing, every 30seconds there is a motivational message that pops up that encourages the kid to continue blowing. (example: “You can do it!”, “You are doing great!”, “keep going!”, “Way to go!”, etc.) The top right corner will also show a countdown timer, counting down from 3 mins.

4. When the child experiences a seizure, the family doctor stops the recording and is taken to another screen.



Here he is asked to enter the age of the patient, indicate the priority level and other notes he wishes to send to the specialist.

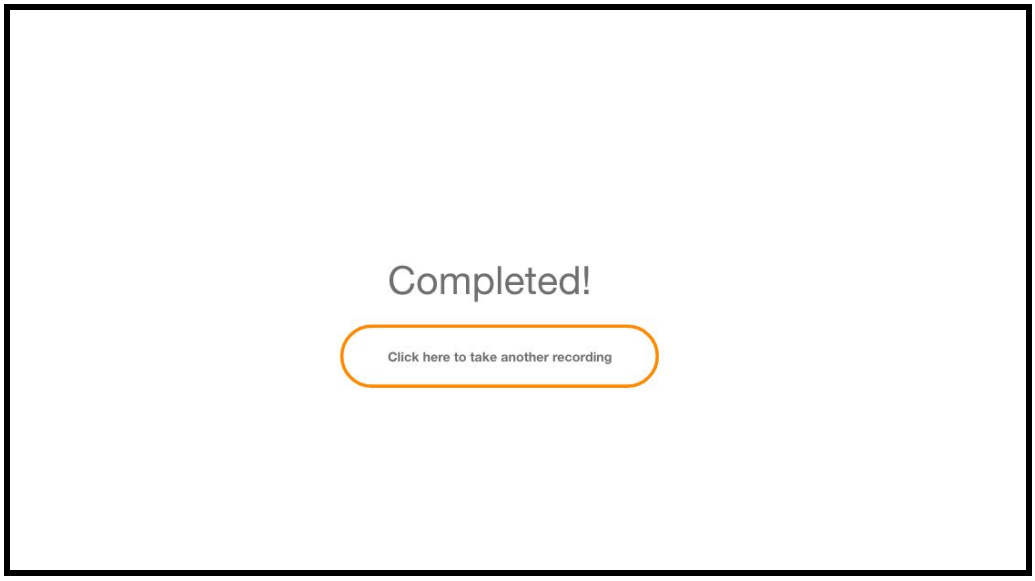
The name of the patient and consulting family doctor is carried over from the login screen

Please note that the recording sent is only of the child blowing into the camera and **NOT** the overlaid animation.

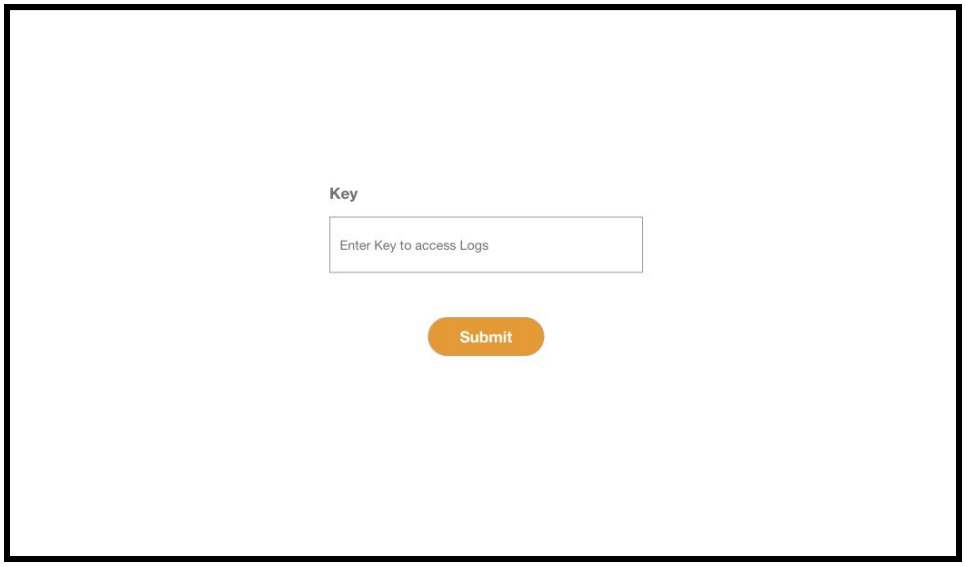
5. The doctor then hits submit and based on whether it was successfully uploaded or not, he is either presented with a success or error screen.

   In case of error, show error screen and allow the doctor to try reuploading again or re-recording again.

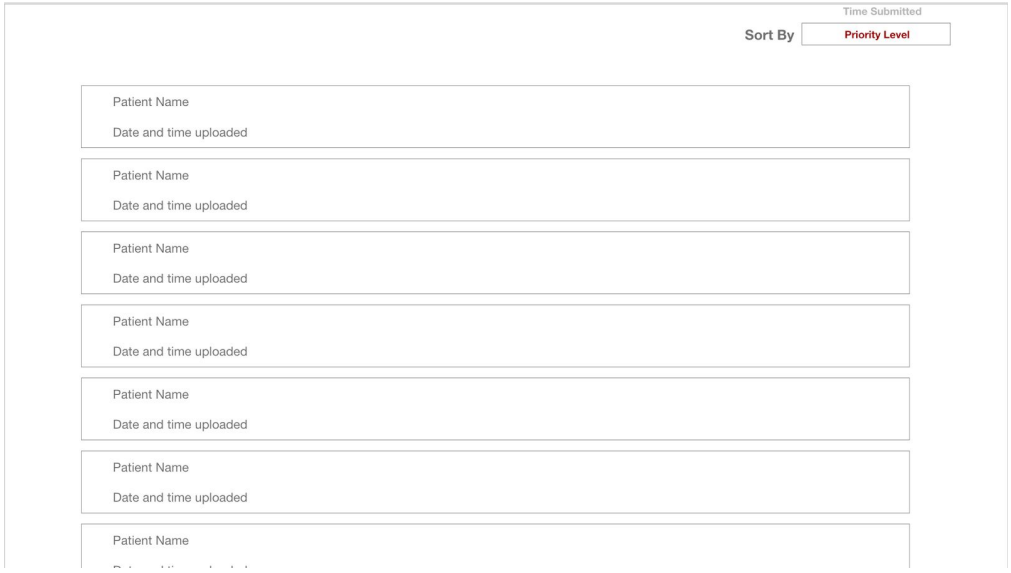
   In case of success, show completed screen and option for him to go back to main login screen and record another video. (An example of successful completion screen is shown below).



7. Now the specialist doctor's screen…
The specialist doctor's screen will be on a separate sub-domain and the specialist doctor will have another key to enter this screen.

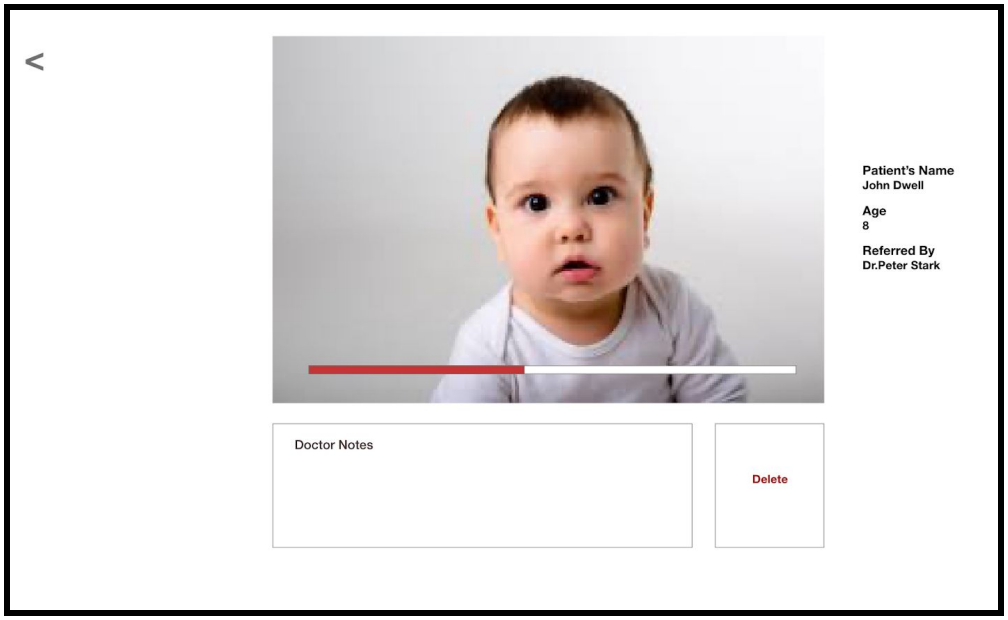


8. Upon successful authentication, the specialist doctor is taken to a separate screen where he is presented with the logs of all the different uploads made by the family doctors.



He can sort the logs by priority level or date uploaded. (he should be able to toggle between the two options)

9. When he clicks on one of the list items, he is taken to a separate page where he can see the video recording, patient information and doctor's notes. (video is shown without the overlaying animation that is seen during the recording)



Upon viewing the video, he should be able to delete the video go back to the log screen automatically. If he wishes to keep the video, he can simply hit the back button without deleting the video.

The idea:

The idea is to create a website that allows General Practitioners (GP) to identify pediatric patients with suspected cases of seizures and report findings to a specialist. The GP should be able to record a child using the webcam on his desktop, blowing into the screen. The loudness of blowing picked up by the microphone of the desktop should spin a pinwheel animation overlaid on top of a live feed from the webcam. The doctor should be able to record the patient and stop recording when the seizure ends.

Execution:

The plan is to make a web-app, hosted on github. The backend is to be made using Firebase (Firebase storage for storing the video and Cloud Firestore for adding other information.). If you prefer other storage platforms like MongoDb, do let me know.

2 unique alphanumeric keys (12 characters long) are made: 1 for the family doctor and the other for the specialist.

A possible database structure for Cloud Firestore:
"recordings"*(collection)* => random unique ID*(document)* => *document fields*:
patientName:
referringDoctorName:
patientAge:
mediaUrl: *//the url where the video is stored that is usually produced by firebase storage*
doctorNotes:

Additional Features:

1. Responsive site for using on mobile
2. A simple website design.
3. Configuring hosting details on github.
4. Decibel meter on the side to show that the microphone is working and count down timer to count down from 3mins from when the recording is started.
5. Possible addition of more animations (1-2).

Task Brief and Terms discussed:

- The task is to create the website that is discussed above.
- Please do create a mockup of the website to show us, it would really helpful.
- The amount agreed upon is 350SGD that will be paid in a 50-50 split, i.e. 175SGD upon undertaking the project and 175SGD on completion of the project and any revision if necessary.
- Please upload the file to github once done. Hosting will be on Github.
- The tentative deadline is the end of September 5th.