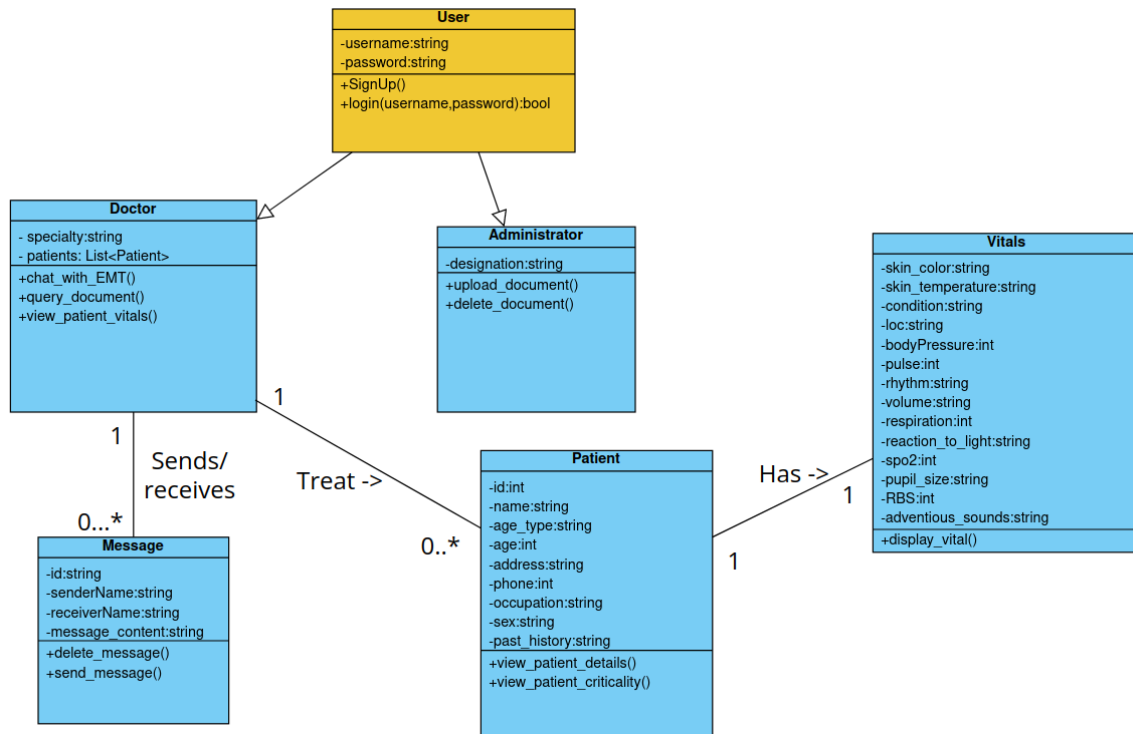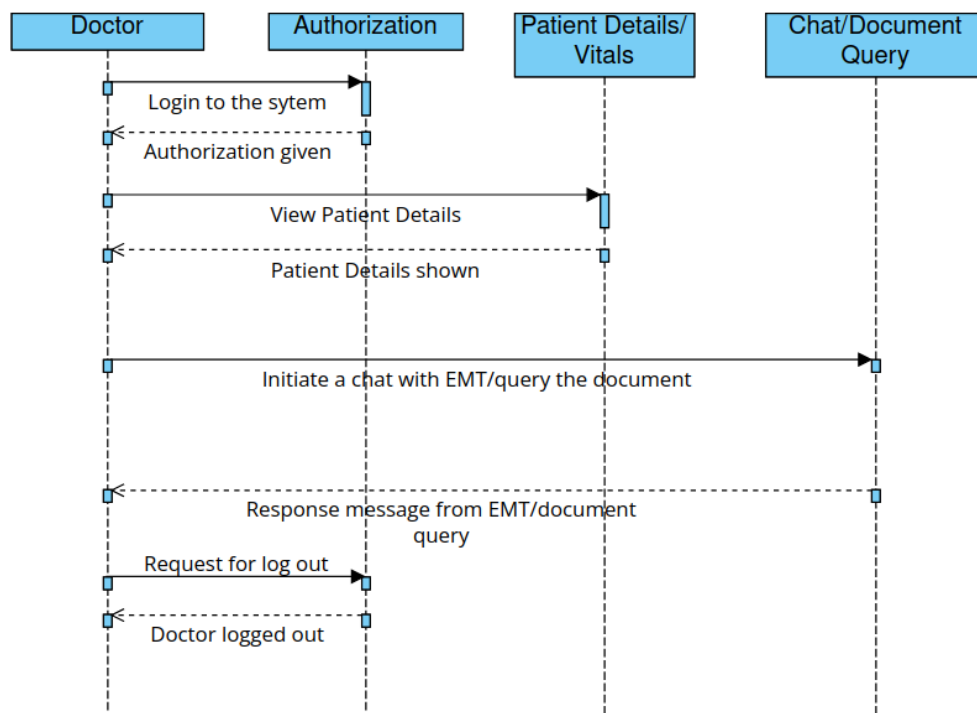# Product Design

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Design Model

Class 1: Patient	Class State:- This class stores all the personal details of a patient such as age,gender,address etc. Class behavior : The criticality of the patient and the list of patients can be viewed.
Class 2: Message	Class state: The text sent or received is stored in this class along with the sender's name and receiver's name. Class behavior: A message can be deleted and it can be sent as well.
Class 3: Vitals	Class state: This class stores all the important health vitals that are uploaded by the EMT. Class behavior: The vitals are displayed on the screen on clicking the patient and the criticality is also decided based on these judgements.
Class 4: Administrator	Class state: This is a subclass of parent class User. Designation is the only state that this class holds and has no behavioral aspects.
Class 5: User	Class state: This is a parent class of Doctor and Administrator. It has a username and a password. Class behaviors:- The class provides signup and login methods.
Class 6: Doctor	Class state:- This is a subclass of User. Each doctor has a speciality and a list of patients associated with him. Class behaviors:- Doctor can chat with EMT assistant,query the document and view patient's vitals.

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User
-username:string
-password:string
+SignUp()
+login(username,password):bool

Doctor
- specialty:string
- patients: List<Patient>
+chat_with_EMT()
+query_document()
+view_patient_vitals()

Administrator
-designation:string
+upload_document()
+delete_document()

Vitals
-skin_color:string
-skin_temperature:string
-condition:string
-loc:string
-bodyPressure:int
-pulse:int
-rhythm:string
-volume:string
-respiration:int
-reaction_to_light:string
-spo2:int
-pupil_size:string
-RBS:int
-adventious_sounds:string
+display_vital()

Patient
-id:int
-name:string
-age_type:string
-age:int
-address:string
-phone:int
-occupation:string
-sex:string
-past_history:string
+view_patient_details()
+view_patient_criticality()

Message
-id:string
-senderName:string
-receiverName:string
-message_content:string
+delete_message()
+send_message()

1 Sends/ receives 0...*

Treat -> 0..* 1

Has -> 1 1

Sequence Diagram(s)

Doctor   Authorization   Patient Details/ Vitals   Chat/Document Query

Login to the sytem

Authorization given

View Patient Details

Patient Details shown

Initiate a chat with EMT/query the document

Response message from EMT/document query

Request for log out

Doctor logged out

Design Rationale

There have been major changes in the design, the biggest change being the chat box being fit into a button and showing the chatbox.
In the older design, the homepage was divided into 3 subparts, the leftmost sidebar showing the details of the patient, the middle bar showing the vitals and the rightmost bar having 2 sub-bars where each is a chatbox with either EMT or a Document query.

There was a change in design that was done, in this the chat-boxes that were located at the right in the initial design, we shifted it into a chat button and on clicking it, both the chats will appear. The middle bar was expanded to the complete screen and this was done because it was easier and habitual to Doctors.

Another change that was done was that the scrolling of the left sidebar was added and the background color of the patient box must be based on the criticality.

We are also supposed to create an option of sending images and audio.