HelmiPredico

OFFICIAL DOCUMENATAION

.

APRIL 22, 2023

HEALTHCARE

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2. Project Scope (Predico)

- The disease prediction system have 3 users such as doctor, patient and admin.
- Each user of the system are authenticated by the system.
- There is a role based access to the system.
- The systemallows the patient to give symptoms and according to those symptoms the system will predict a disease.
- The system suggests doctors for predicted diseases.
- The system allows online consultation for patients.
- The system helps the patients to consult the doctor at their convenience by sitting at home.

3. TECHNOLOGY USED

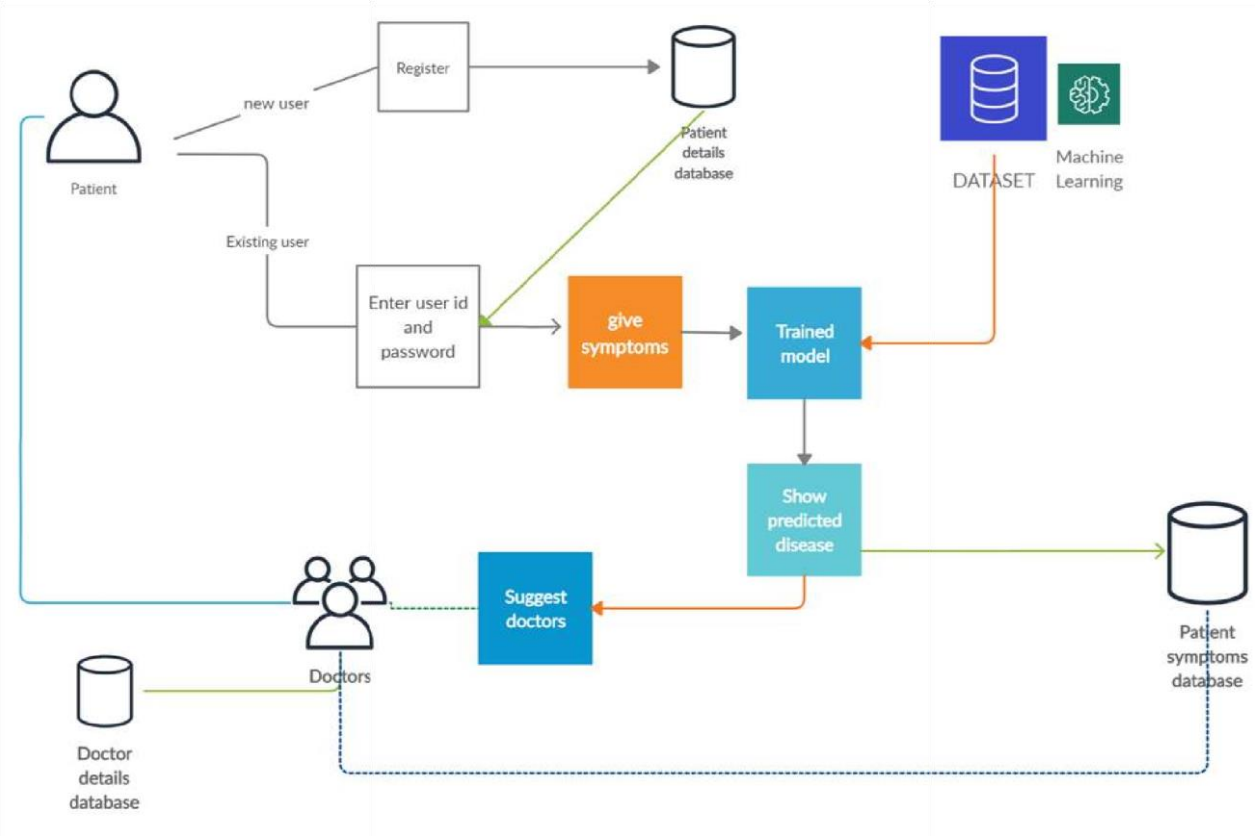
Front end: HTML, CSS , Bootstrap, Javascript

Back end: Django

Database: PostgreSQL

Tools: PgMyadmin, Orange

3. Architecture of the System



4. Data collection

Data collection has been done from the internet to identify the disease here the real symptoms of the disease are collected i.e. no dummy values are entered.

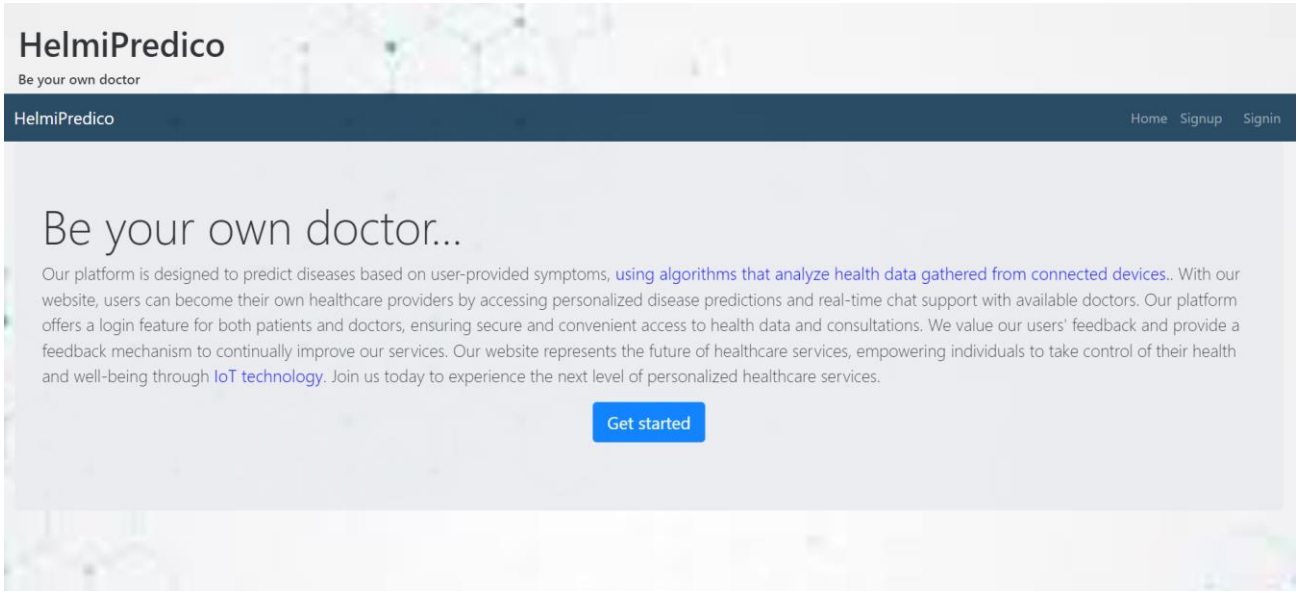
The symptoms of the disease are collected from kaggle.com which is website with a largest of datasets has made using ML & Iot (https://www.kaggle.com/datasets/neelima98/disease-prediction-using-machine-learning) This csv file contain 5000 rows of record of the patients with their symptoms(132 types of different symptoms) and their corresponding disease(40 class of general disease) , After the data is collected, it is securely transmitted to the system's servers for analysis. With the help of Internet of Things (IoT) technology, the data is modified depending on the users devices, ensuring seamless integration with the system. The modified data is showed so to the patient with the most disease predcited .

Some rows of disease with their corresponding symptoms in the dataset are -

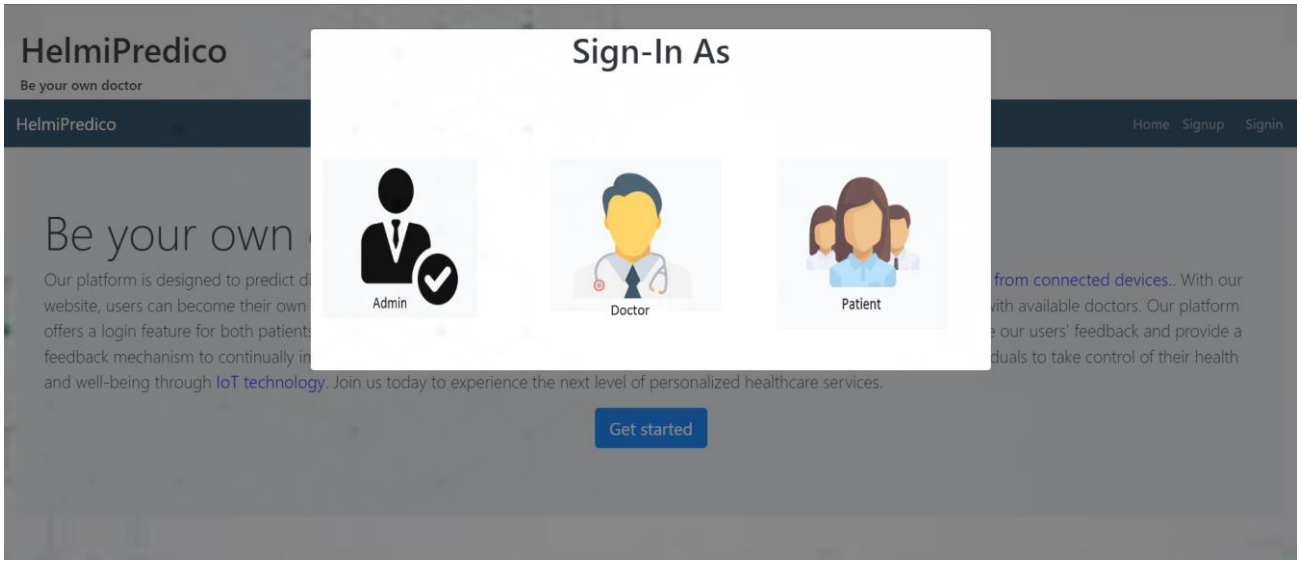
	Disease	Symptoms
0	Malaria	[chills, vomiting, high_fever, sweating, heada...
1	Allergy	[continuous_sneezing, shivering, chills, water...
2	Fungal infection	[skin_rash, nodal_skin_eruptions, dischromic _...
3	Gastroenteritis	[vomiting, sunken_eyes, dehydration, diarrhoea]
4	arthritis	[muscle_weakness, stiff_neck, swelling_joints,...
5	Typhoid	[chills, vomiting, fatigue, high_fever, headac...
6	Hypertension	[muscle_weakness, stiff_neck, swelling_joints,...

5. Applicataion UI

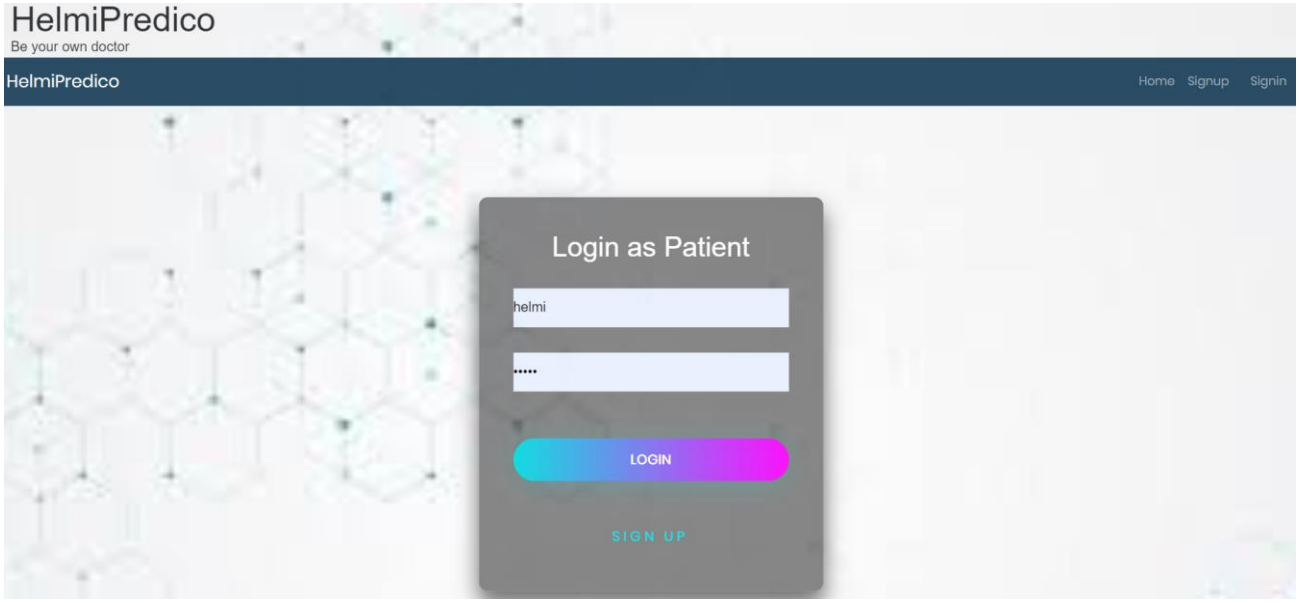
Homepage-



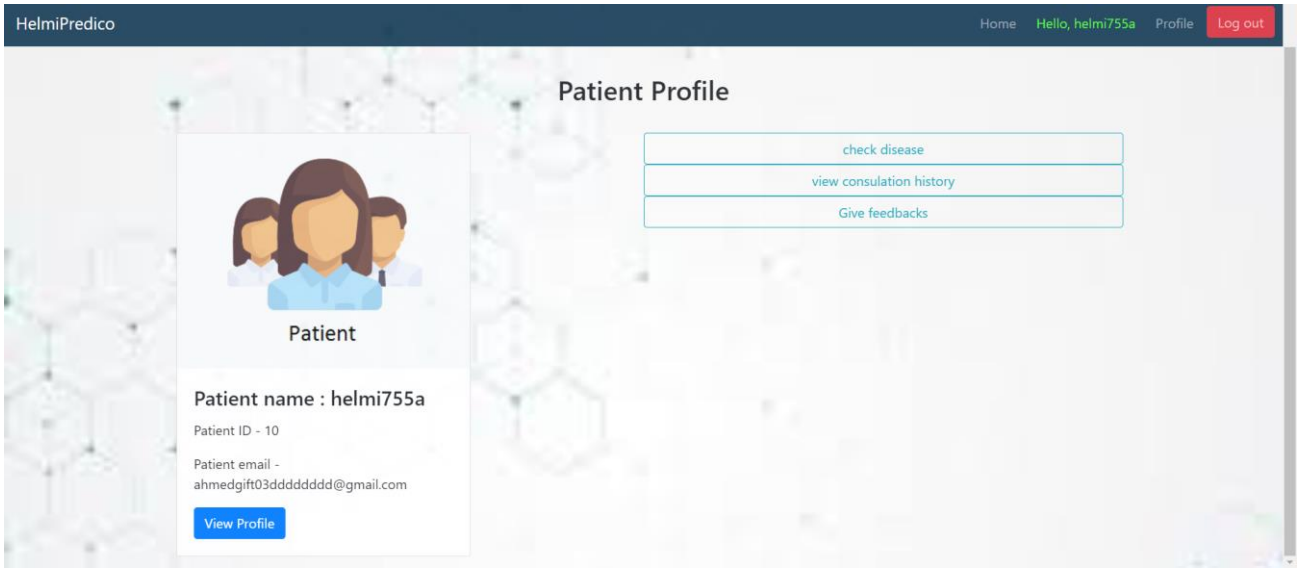
Login Modal-



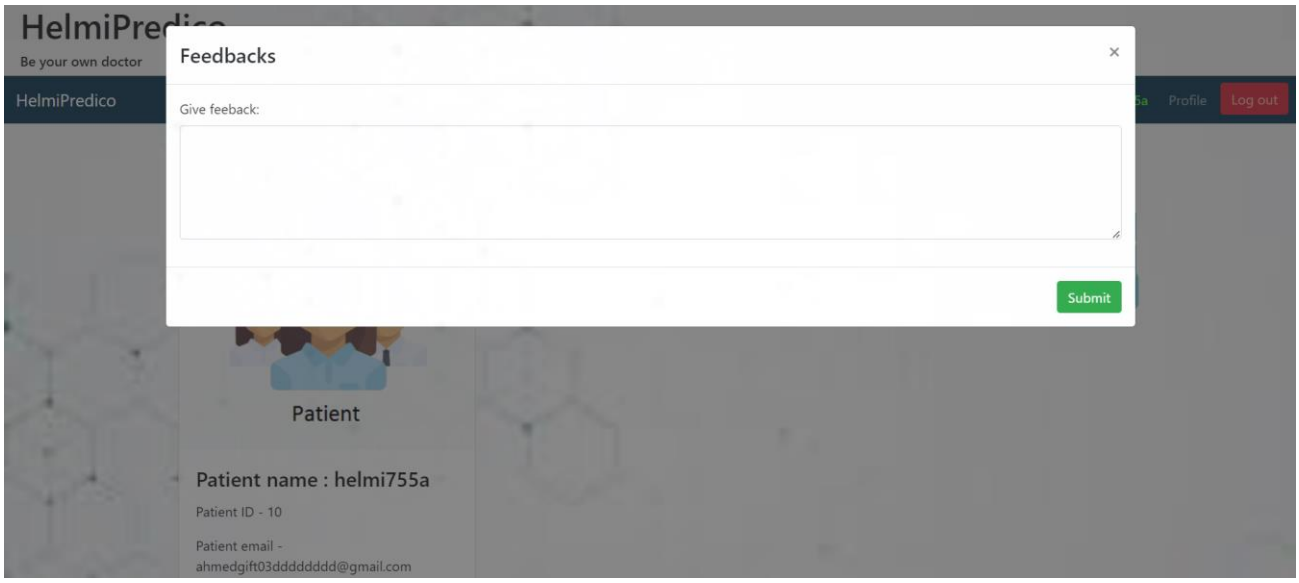
Login as Patient-



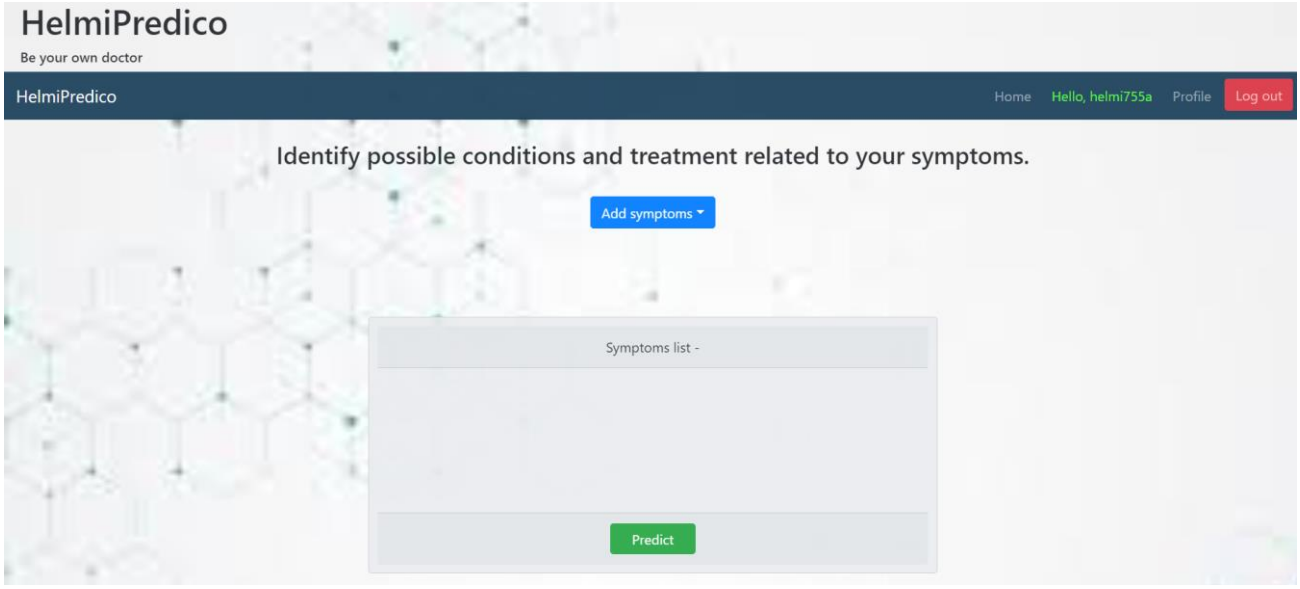
Patient UI-



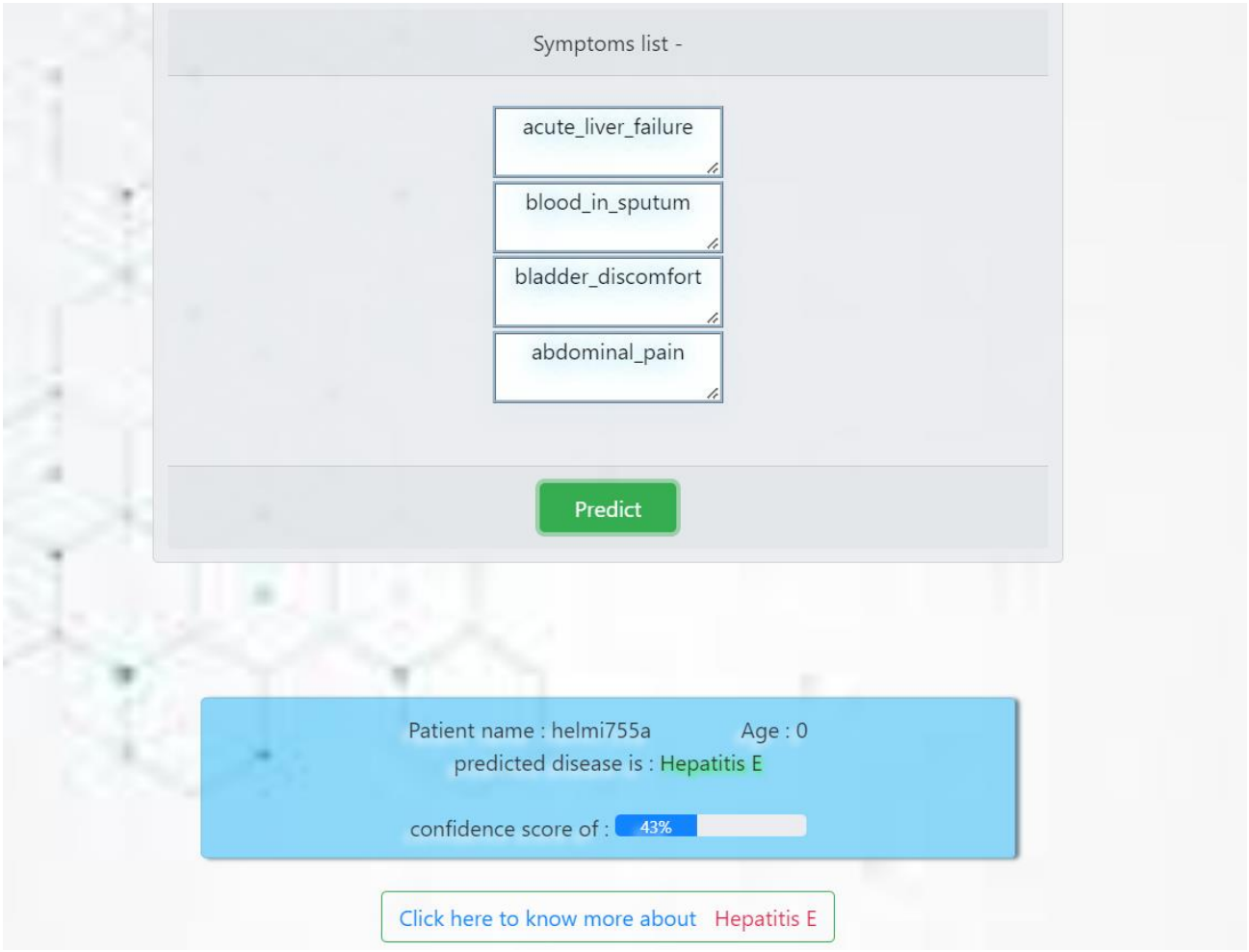
Feedback Form-



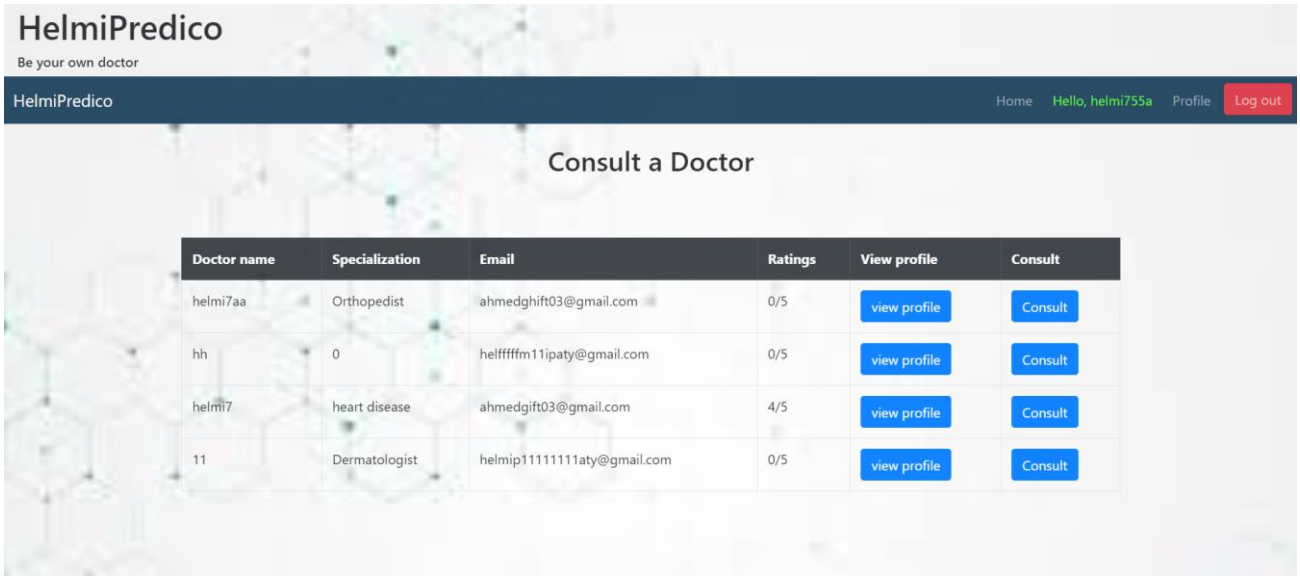
Check Disease- Entering symptoms



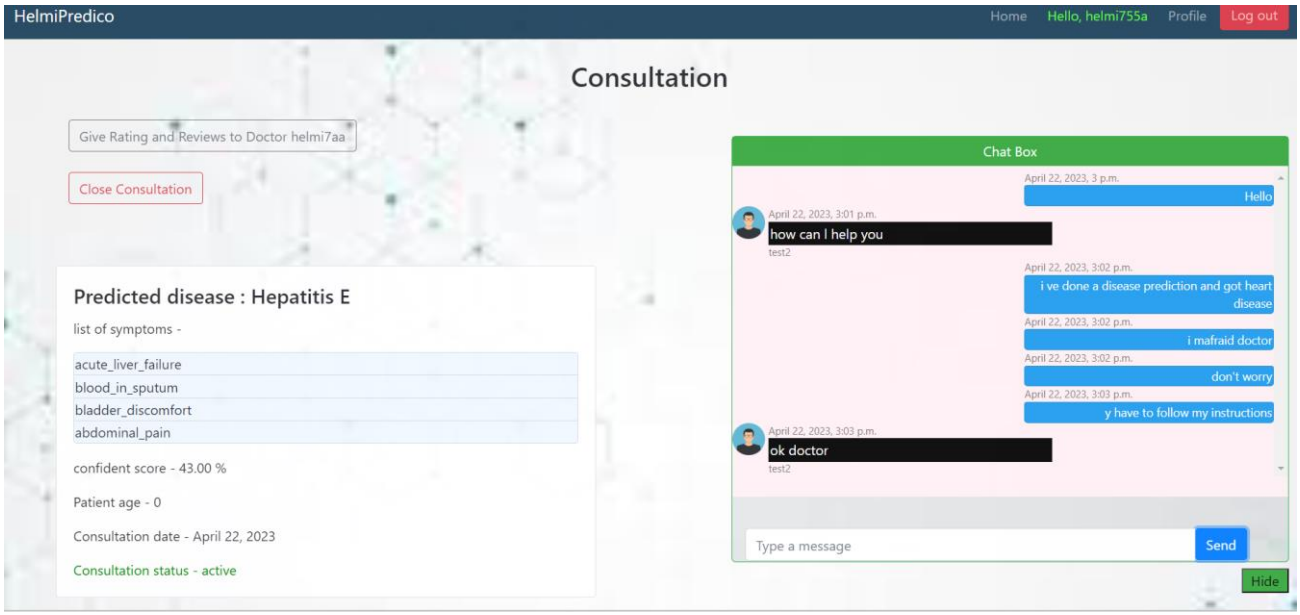
Predictions-



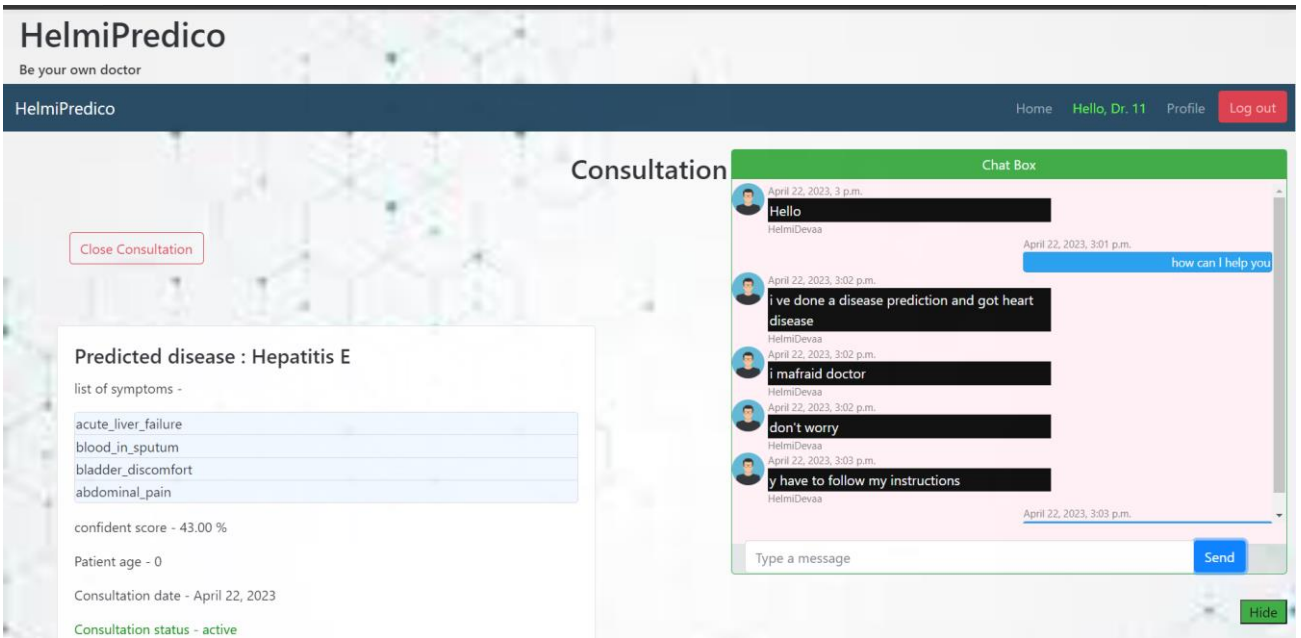
Consult a Doctor-



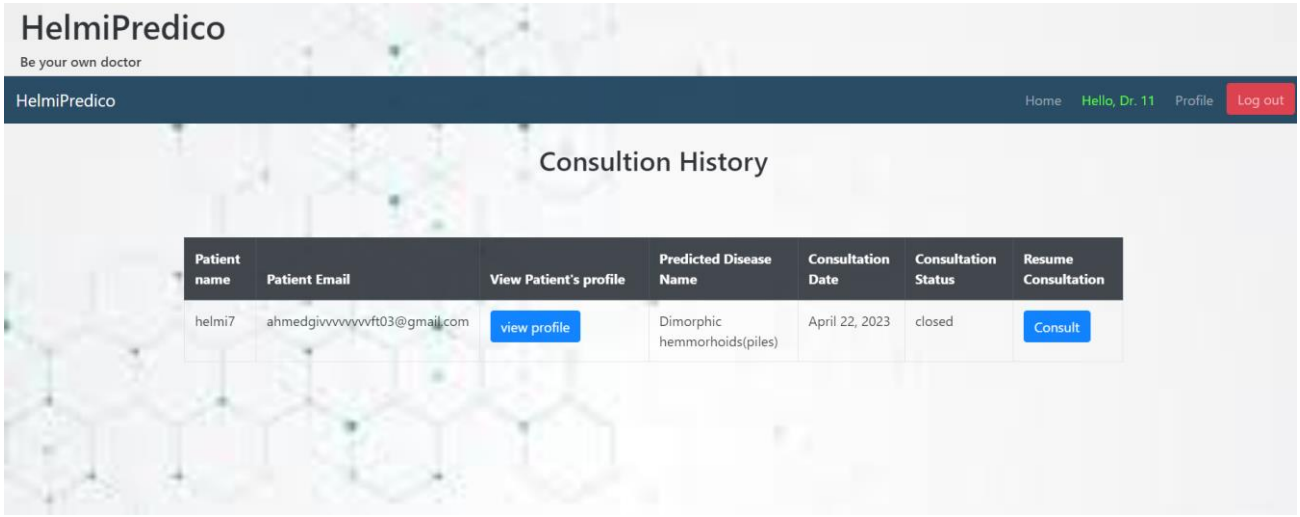
Consultation UI- (Patient)



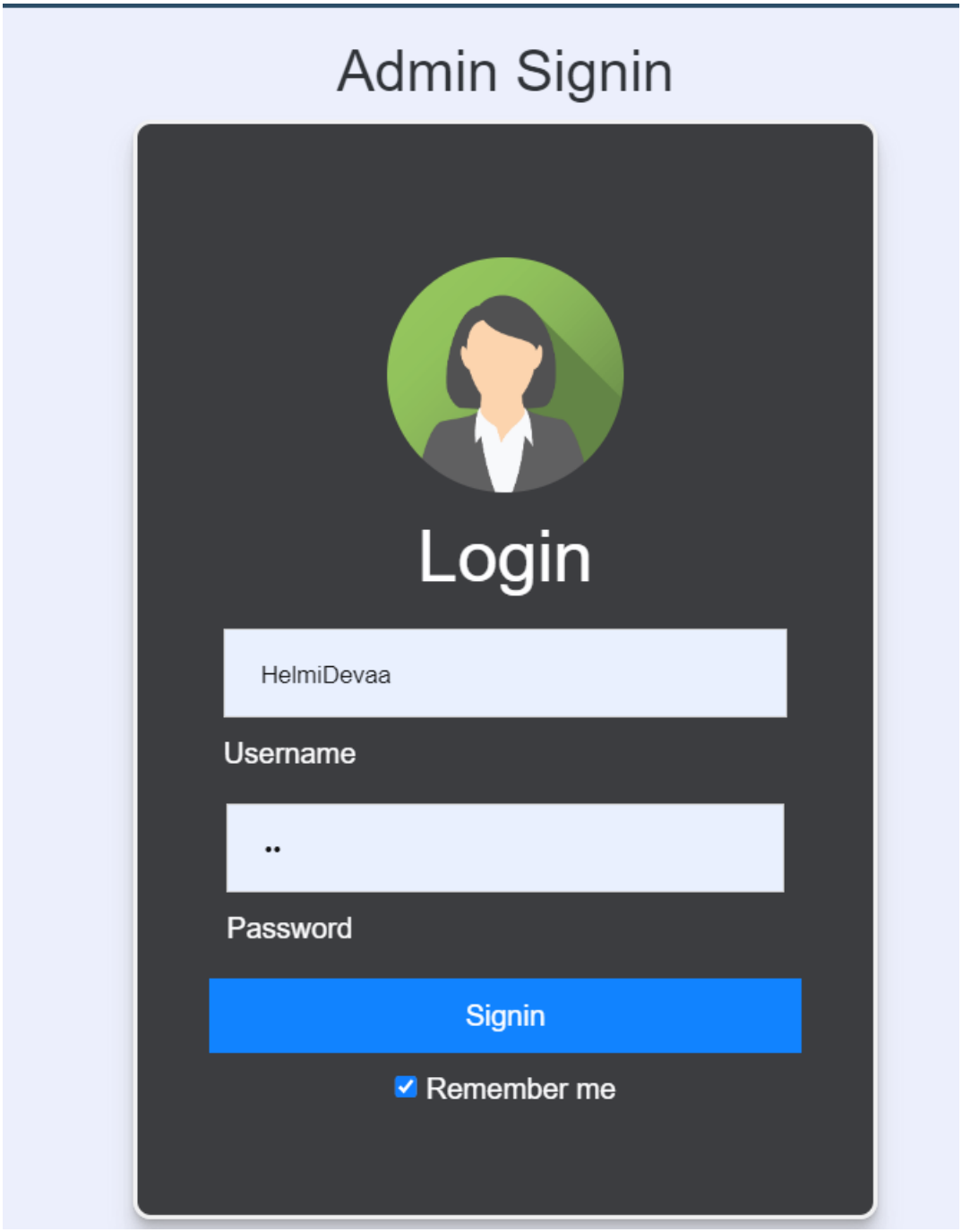
Consultation UI- (Doctor)



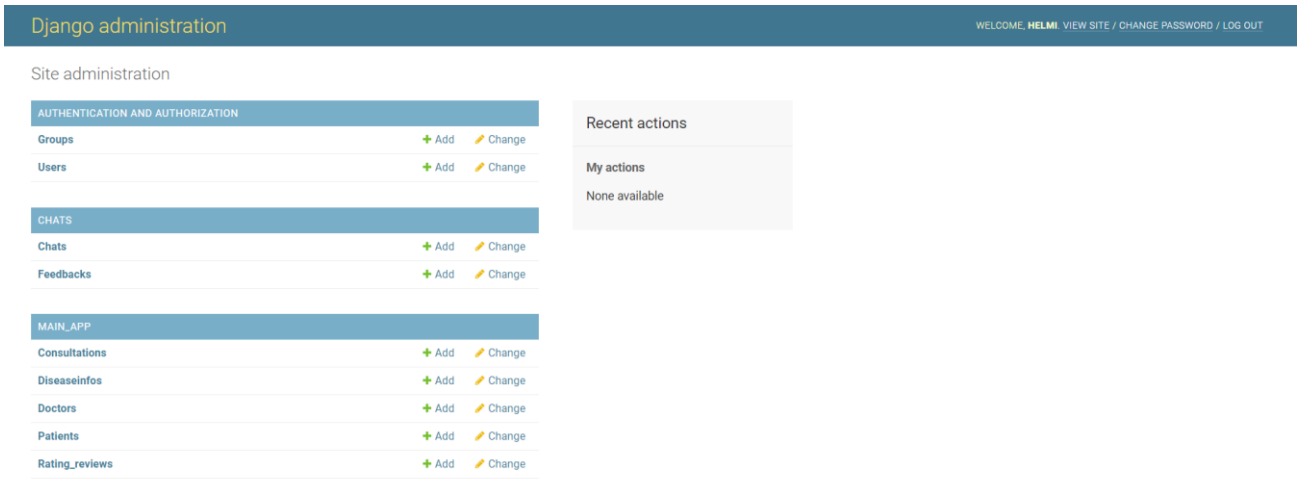
Consultation history- (Doctor)



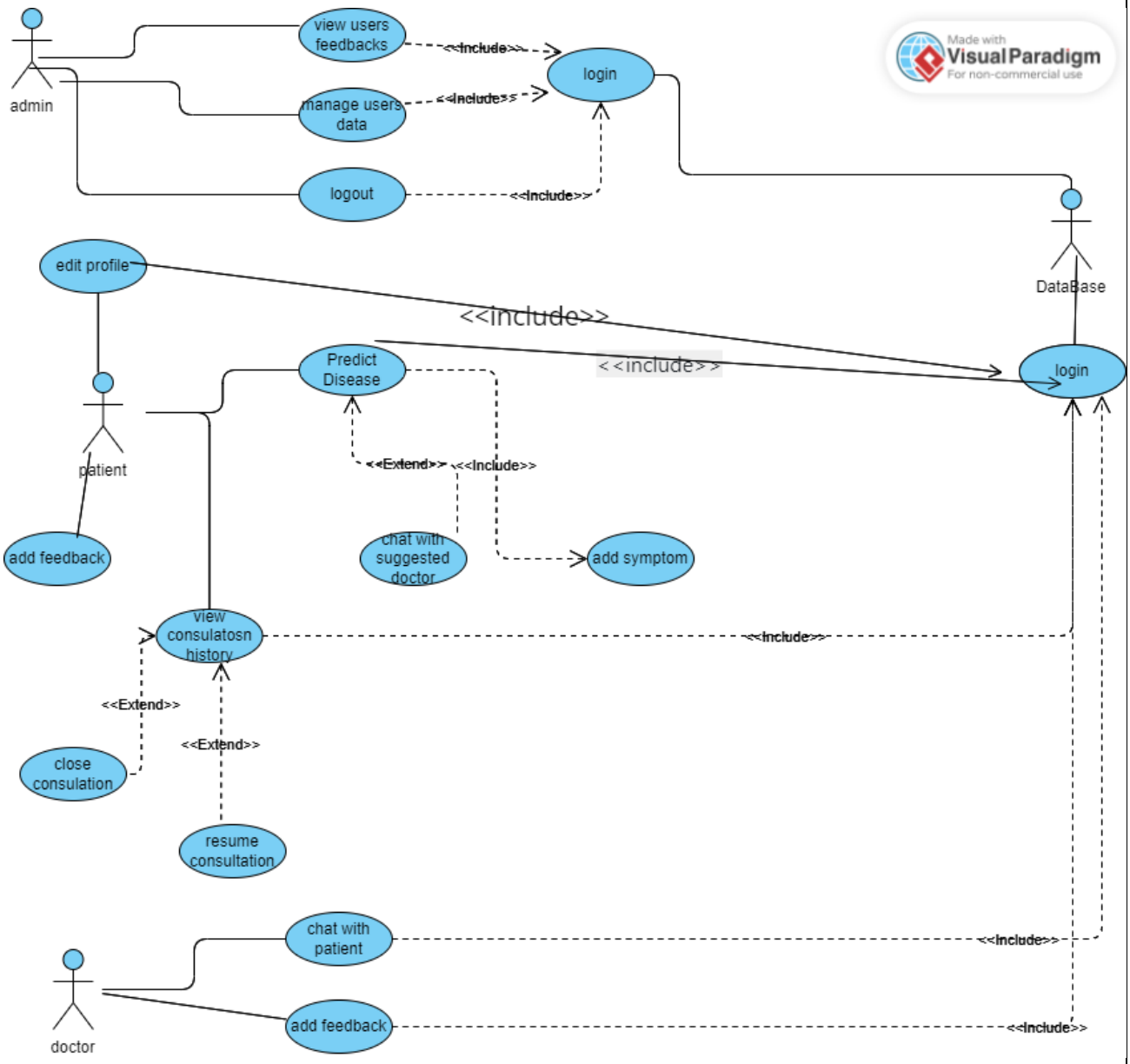
Admin Sign in-



Admin Interface-



6. Use Case Diagram


admin
view users feedbacks
manage users data
logout
<<Include>>
login
DataBase
edit profile
<<include>>
<<include>>
login
patient
Predict Disease
<<Extend>>
<<Include>>
add feedback
chat with suggested doctor
add symptom
view consulatosn history
<<Include>>
<<Extend>>
<<Extend>>
close consulation
resume consultation
doctor
chat with patient
add feedback
<<Include>>
<<Include>>