

Title: MyDoctor Bot

Time Chart:

MyDoctorBot

Project Start Date		8/17/2020 (Monday)		Display Week		1	
Project Lead		Jhi Jadhav Sakshi Jag					
WBS	Task	Lead	Start	End	Days	% Done	Work Days
1	Information Gathering				-	-	-
1.1	Synopsis		Mon 8/17/20	Sun 8/23/20	2	100%	5
1.2	Research		Mon 8/24/20	Mon 8/31/20	4	100%	6
2	Communication & Planning				-	-	-
2.1	SRS		Thu 9/10/20	Thu 9/17/20	2	100%	6
2.2	Class Diagram Use Case		Thu 9/10/20	Thu 9/17/20	2	100%	6
2.3	Front End		Thu 9/24/20	Wed 9/30/20	3	20%	5
3	Development				-	-	-
3.1	Front End		Thu 10/01/20	Thu 10/15/20	10	50%	11
3.2	Machine Learning		Thu 10/01/20	Fri 10/30/20	18	50%	22
3.3	Back End		Thu 10/15/20	Fri 10/30/20	10	50%	12
4	Development & Testing				-	-	-
4.1	Front End		Sun 11/01/20	Thu 11/05/20	4	90%	4
4.2	Machine Learning		Mon 11/02/20	Thu 11/12/20	8	85%	9
4.3	Back End		Sun 11/01/20	Tue 11/10/20	6	90%	7

Synopsis:

Looking at the current scenario of COVID-19, we are witnessing many things going around the world and among those there's one thing that we have observed very closely and thought of doing something for that.

Nowadays, even if people have normal symptoms which matches to Covid-19 but they are not infected with it are going to the hospitals and it's not possible to treat them all at a time and again people who don't have that much strong symptoms those people are taking treatment at their home or native place and not directly in hospital. In this scenario how it can be possible to make contact between doctor and patient easily and efficiently?

So, we came up with our project as a solution.

Project Details:

We will be implementing a web application integrated with a Chatbot for interacting with patients and doctors.

1. When the patient will describe his/her symptoms, the bot will reply with predictions for the disease.
2. Bot will provide detailed information about the disease.

Tools: Jupyter Notebook,Spyder,XAMPP

Technology: ML, Python, HTML, CSS, JavaScript,SQL, Flask.

Voice Activated Chatbots or Text-Based Chatbots?!

Deciding between voice-based chatbots and text-based chatbots is greatly depending upon your business requirements, target users, objectives of target users,objectives of business and where these objectives intersect. Voice based chatbots can probably be used by a particular type of user who has accessibility to a speaker and if business does not have any budget constraints as voice chatbots can be expensive.

But sometimes both text based and voice activated chatbots together prove to be very successful. as text based chatbot require limited resources and most suitable for the people who are always on the go and this can allow your user to begin interacting and exploring your offerings at their own convenient time and with really quick, efficient and useful reply and sometime the reply can be analyzed and predicted by bot itself meanwhile voice based chabot will only reply with recorded stuff.

Reference:

<https://chatbotsmagazine.com/is-voice-activated-chatbot-better-than-the-text-based-chatbot-7230e9161620>

NLP(Natural Language Processing)

- 1) Preprocessing of Text
 - a) Sentence Tokenization
 - b) Word Tokenization
 - c) POS(Parts of Speech) Tagging
 - d) Stemming
 - e) Lemmatization
 - f) Removing Stop Words
 - g) Word Cloud Building
- 2) Numerical Feature Extraction
 - a) Word Existence Feature
 - b) Word Frequency
 - c) Word Proportion Feature
 - d) Lexical Feature
 - e) Lexical Diversification Feature

Natural Language Toolkit (NLTK)

- a) NLTK is a leading platform for building python programs to work with human language data.
- b) Provides interfaces to over 50 corpora and lexical resources such as WordNet.
- c) Computational Linguistics
- d) Comprehensive API documentation
- e) Categorizing text
- f) Module used : nltk.chat

Reference:

<https://towardsdatascience.com/build-your-first-chatbot-using-python-nltk-5d07b027e727?gi=cae0f38521db>

Natural Language Processing and Natural Language Understanding

High-pass Natural Language Processing: this layer will analyse the input text from the user and perform the pre-processing on the text and form here to make dialog digestible to the chatbot. allowing the chatbot to answer a long compound question we as humans will answer the question.

Processing Steps:

Step 1: Automatic Language Detection

Step 2: Sentence Boundary Detection

Step 3: Find All Named Entities

Step 4: Determine Dependency

Step 5: Clean text from any possible markup

Step 6: Tokens

Reference: <https://medium.com/@CobusGreyling/chatbots-when-to-use-nlp-and-when-to-use-nlu-8eba17c0a4bc>

SOFTWARE REQUIREMENTS SPECIFICATION

Purpose:

The purpose of MyDoctor Bot is to detect symptoms of patients and assist health issues without actually visiting the hospital.

Project Scope:

MyDoctor Bot is a chatbot that receives the questions from the user/patient, tries to understand the question, and provides appropriate answers. It does this by converting an english sentence into a machine-friendly query, then going through relevant data to find the necessary information, and finally returning the answer in a natural language sentence. In other words, it answers your questions like a human does, instead of giving you the list of websites that may contain the answer. For example, when it receives the question "What time does the gym close today?", it will give a response "The gym closes at 10pm today."

The main objective is creating a web API, and sample web. The goal is to provide covid-19/normal patients a quick and easy way to have their questions answered without actually visiting the hospital.

Product Perspective:

Many search engines use the PageRank Algorithm to rank different webpages. When the user enters the question, the question is interpreted as keywords, the system returns a list of highest ranked words which may have the answer to the question and provide the suitable remedy to overcome the disease.

Product Functions:

- Allow unregistered users to register on the application and save their details to the database.
- The bot should respond to any input it receives.
- The chatbot will assist users with their queries and carry out appropriate actions.
- User will be able to converse with the chatbot with text and it will understand what the user is saying

through natural language understanding.

- The chatbot should be able to maintain the conversational state when the context may be unclear through previous questions.

Product Features :

The major features for our Chatbot will be the following:

- Web API: An API call will include a question in the form of a query string url parameter and the service will reply in JSON.
- Natural Language Processing: The system will take in questions written in standard English.
- Natural Language Responses: The answer to the question will be written in standard and understandable English.
- Information Extraction: There will be a database containing all the information needed, populated using information extraction techniques.

User Characteristics:

People all over the world will be a potential user for the chatbot. There is no age limit. The only constraint for the users is being familiar with the basics of computers. The chatbot will be available for the user 24X7.

Limitations:

- The users of the software product may be reluctant to share their personal information with the chatbot.
- Few people trust the Internet with their health. When googling for the symptoms of any disease, we come across a variety of websites, each offering their own version of the disease signs, causes, and cures.
- The chatbot can be untrustworthy, ineffective, or unsafe for user privacy. But it can also become a life-saver for patients with common health problems.

External Interface Requirements:

1. User Interface

Front end software: HTML, CSS, JavaScript, Bootstrap

Backend: ML, Python, Flask, PHP, MySQL

2. Software Requirements

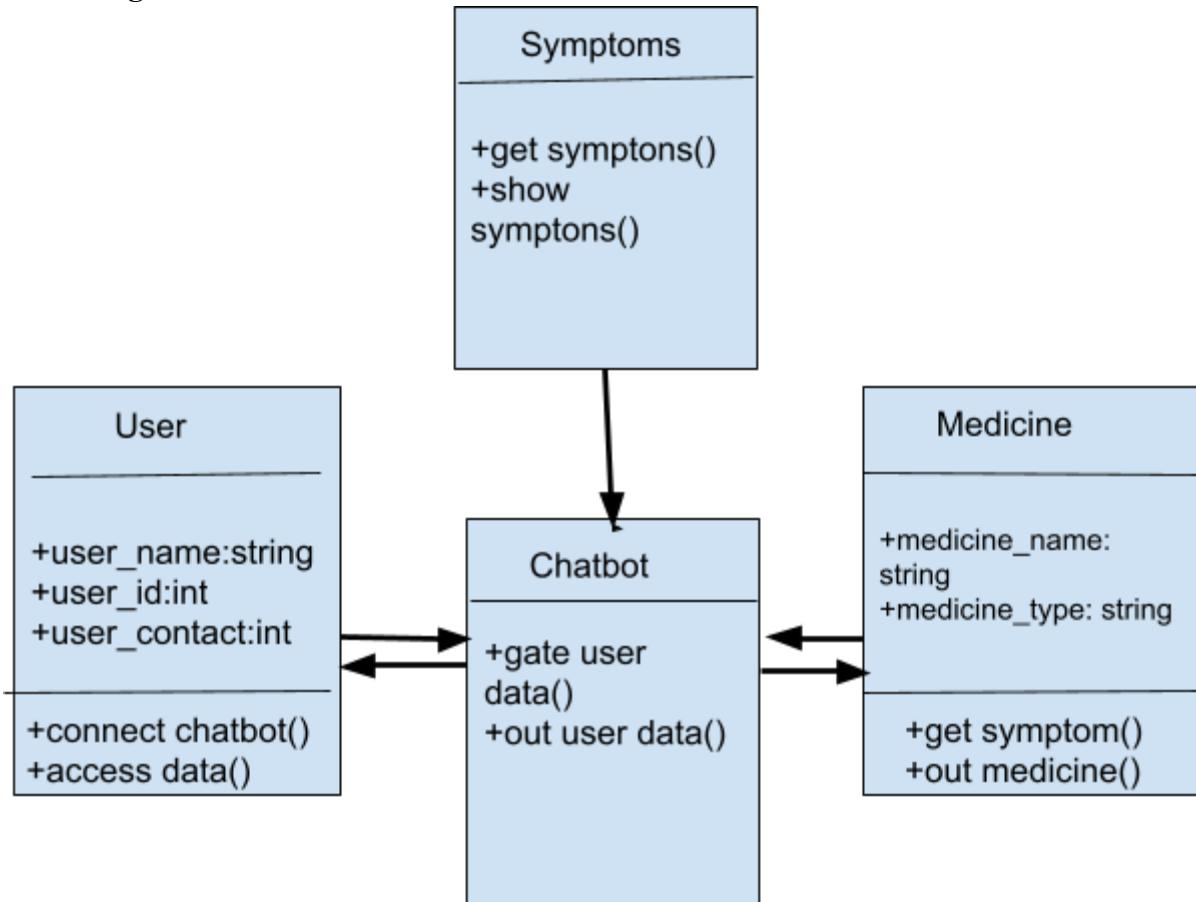
Anaconda

Spyder

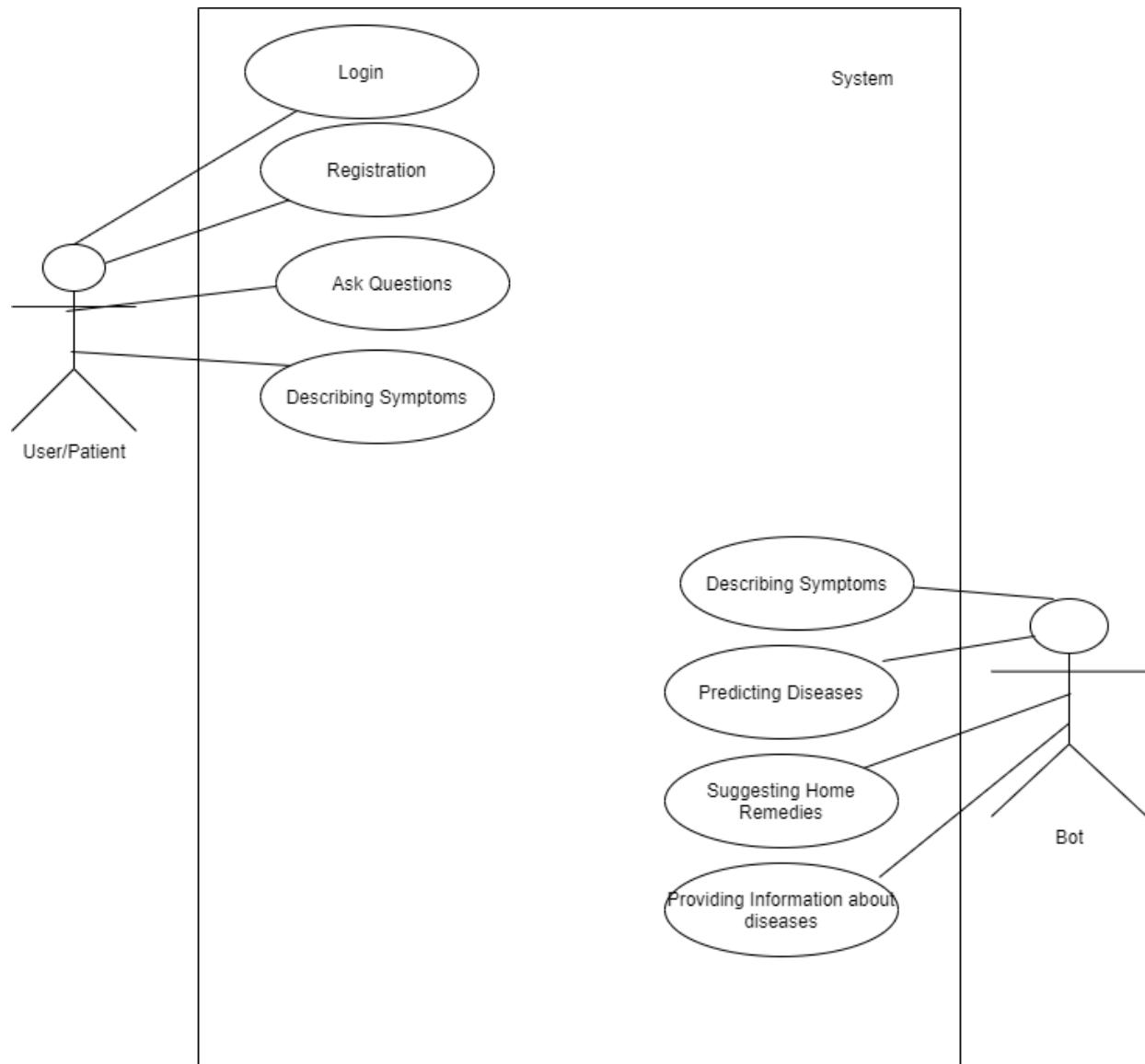
Jupyter

XAMPP

Class Diagram



USE CASE DIAGRAM:



Modules

Module I:

1. Frontend
2. Connecting Dataset to Chatbot
3. Backend

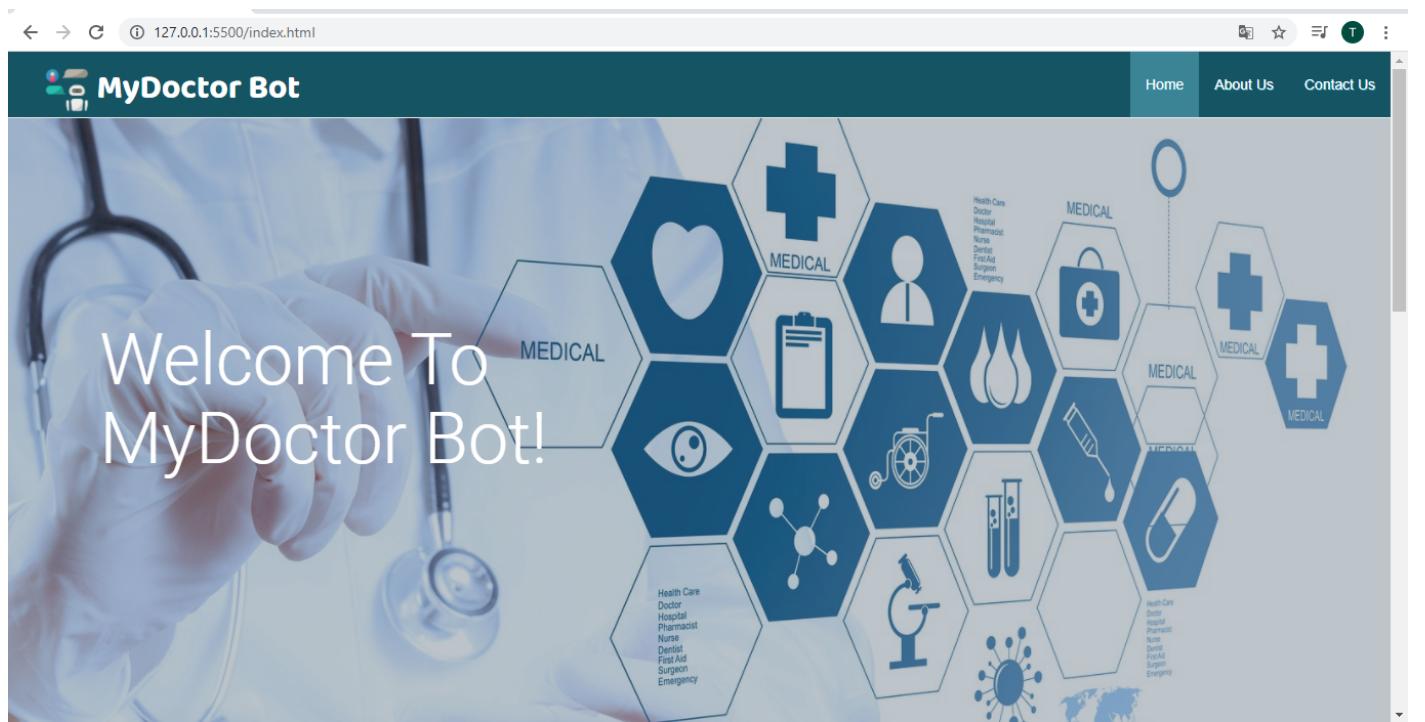
Module II:

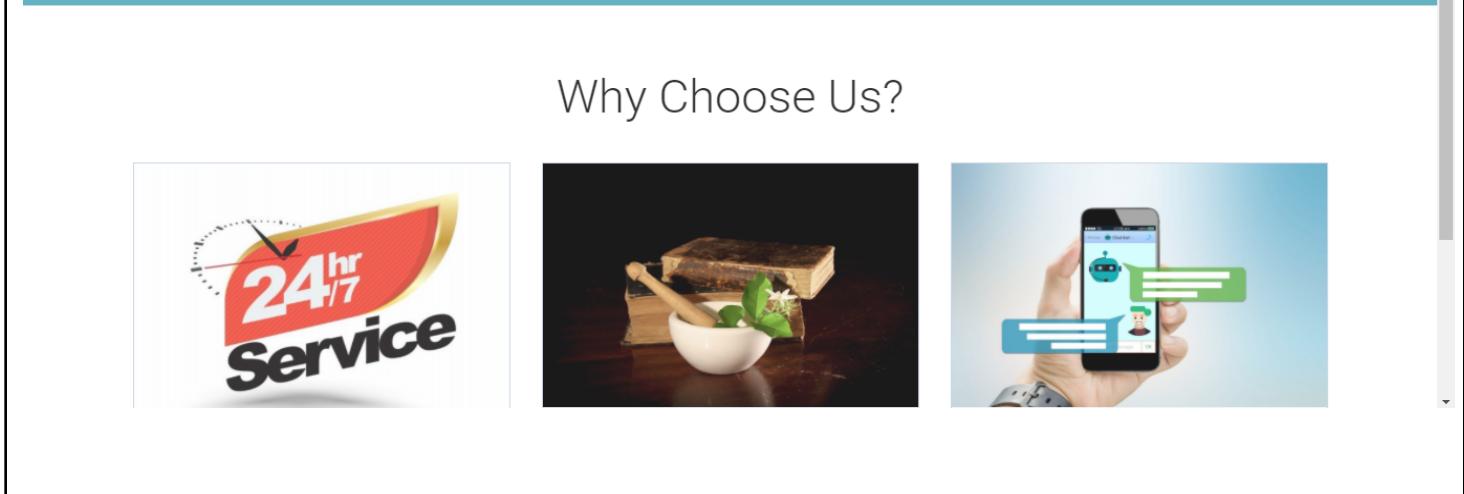
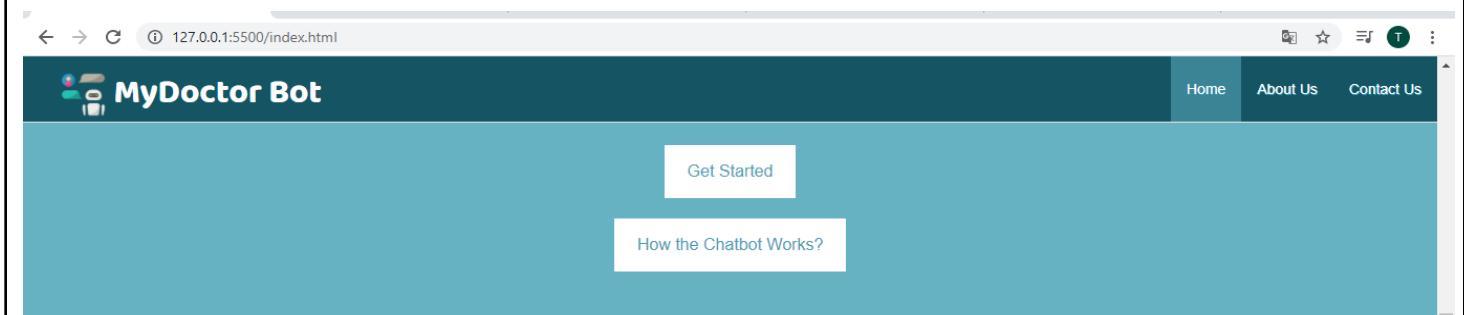
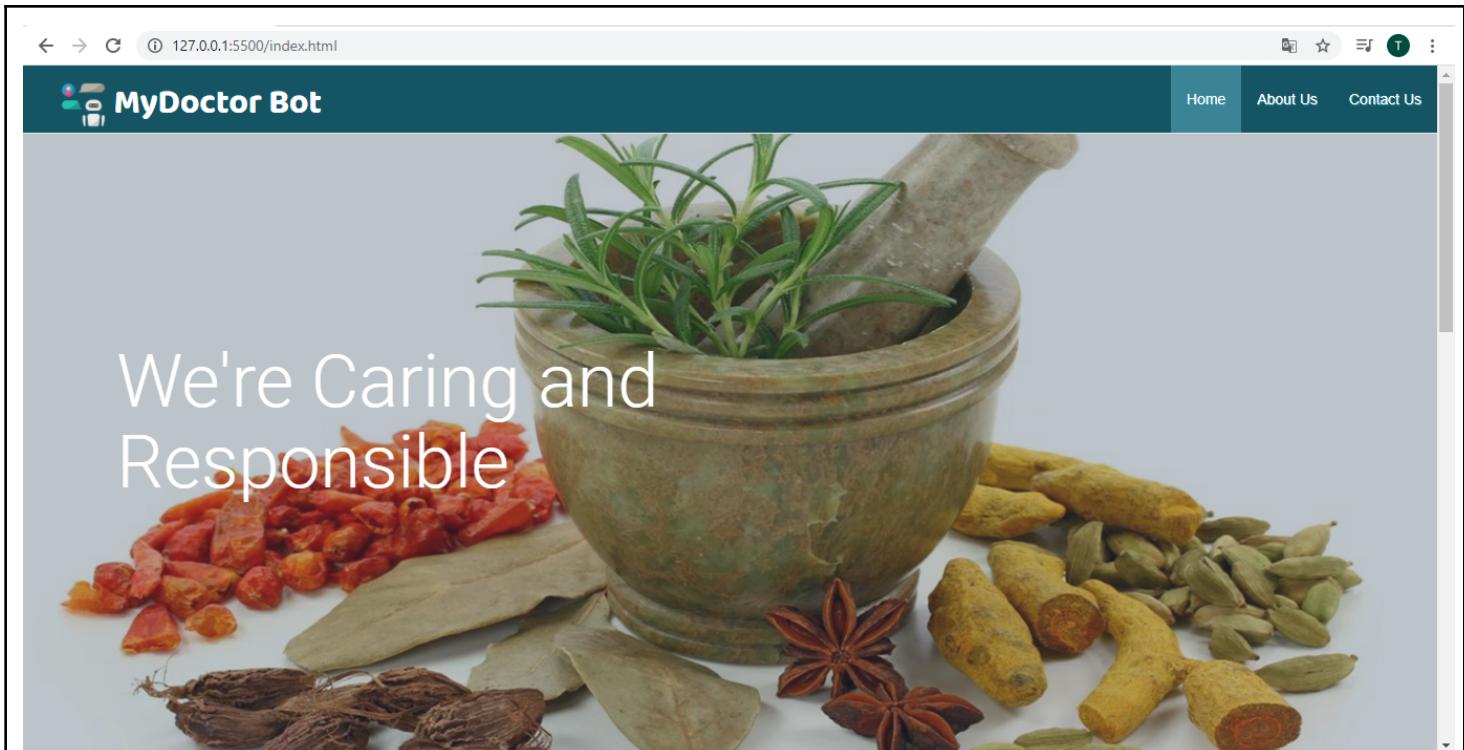
1. Backend
2. Integrating Chatbot into Website

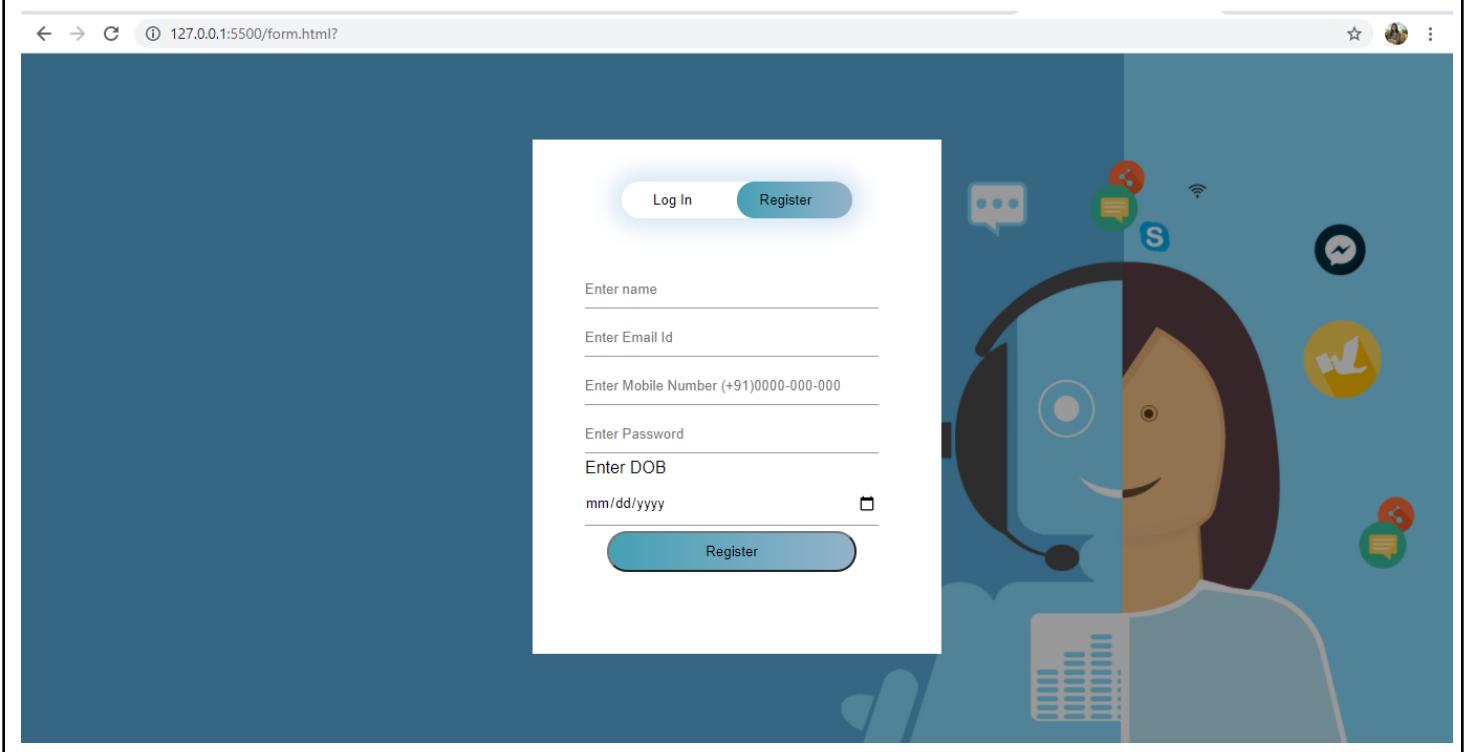
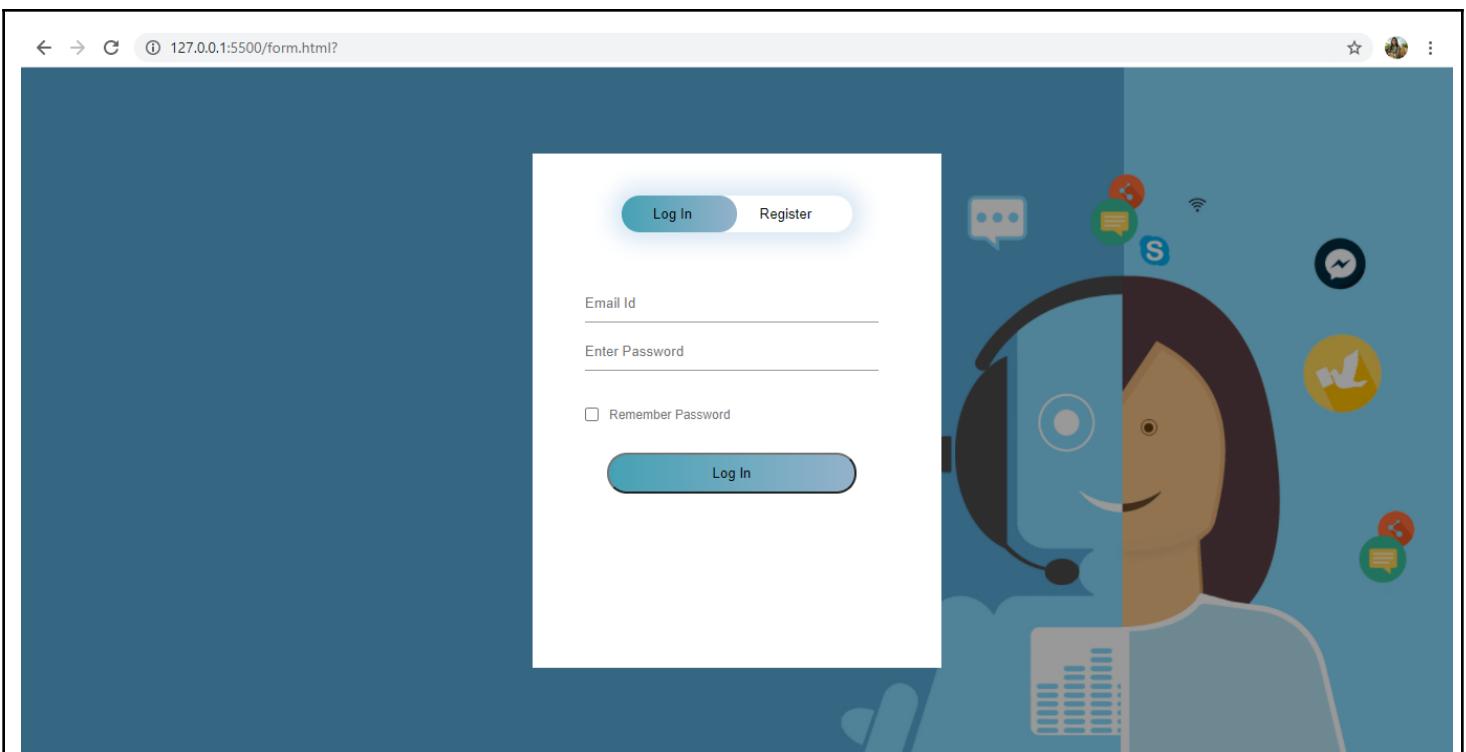
Participation:

1. Yashaswi Ghune : Backend
2. Samruddhi Jadhav : Chatbot
3. Sakshi Jagtap: Backend
4. Punamtanvi Kshatriya: Frontend

Frontend:







MyDoctor Bot 127.0.0.1:5000/home

MyDoctor Bot

Search for a disease

samruddhi jadav ▾

HOME / INFO / SYMPTOMS / INTERVIEW / RESULT

Welcome to MYDOCTOR BOT

You're about to use a short (3 min) and safe health checkup. Your answers will be carefully analyzed and you'll learn about possible causes of your symptoms.

Next

Activate Windows
Go to Settings to activate Windows.

Type here to search

MyDoctor Bot 127.0.0.1:5000/info

MyDoctor Bot

Search for a disease

samruddhi jadav ▾

HOME / INFO / SYMPTOMS / INTERVIEW / RESULT

Please select your gender

Next

Activate Windows
Go to Settings to activate Windows.

MyDoctor Bot x MyDoctor Bot x 127.0.0.1:5000/info

MyDoctor Bot Search for a disease samruddhi jadhav ▾

HOME / INFO / SYMPTOMS / INTERVIEW / RESULT

Please select your age

21

Continue

Activate Windows
Go to Settings to activate Windows.

This screenshot shows a web browser window for the 'MyDoctor Bot' application. The URL is 127.0.0.1:5000/info. The page displays a teal header with navigation links: HOME, INFO, SYMPTOMS, INTERVIEW, and RESULT. Below the header is a large white input field containing the text 'Please select your age'. A horizontal slider is positioned above the number '21'. At the bottom right of the input field is a blue 'Continue' button. To the right of the input field, there is a message about activating Windows.

MyDoctor Bot x MyDoctor Bot x 127.0.0.1:5000/symps

MyDoctor Bot Search for a disease samruddhi jadhav ▾

HOME / INFO / SYMPTOMS / INTERVIEW / RESULT

Search for symptoms or use the body model.

Find your symptoms

Eye

- agitation
- burning sensation
- unconscious state
- unsteady gait

Continue

Activate Windows
Go to Settings to activate Windows.

This screenshot shows a web browser window for the 'MyDoctor Bot' application. The URL is 127.0.0.1:5000/symps. The page features a teal header with the same navigation links as the previous screenshot. Below the header is a search bar labeled 'Search for symptoms or use the body model.' and a text input field 'Find your symptoms'. To the right of the input field is a 'Continue' button. A large white input field contains a human body diagram with a callout box labeled 'Eye'. A list of symptoms is displayed next to the body diagram, each with an 'ADD' button: 'agitation', 'burning sensation', 'unconscious state', and 'unsteady gait'. A second callout box is visible, listing 'agitation' and 'unconscious state' with their own 'ADD' buttons. At the bottom right of the input field, there is a message about activating Windows.

MyDoctor Bot 127.0.0.1:5000/questions

MyDoctor Bot

Search for a disease

samruddhi jadHAV

HOME / INFO / SYMPTOMS / INTERVIEW / RESULT

Please tell us more

Please check all the statements below that apply to you.

tremor YES NO DONT KNOW

unresponsiveness YES NO DONT KNOW

fall YES NO DONT KNOW

consciousness clear YES NO DONT KNOW

dizziness YES NO DONT KNOW

mental status changes YES NO DONT KNOW

Your Complain

agitation unconscious state
unsteady gait

Continue

Activate Windows
Go to Settings to activate Windows.

Type here to search

MyDoctor Bot 127.0.0.1:5000/diagnosis/18

MyDoctor Bot

Search for a disease

samruddhi jadHAV

Result

Please note that the list below may not be complete and is provided solely for informational purposes and is not a qualified medical opinion.

Based on your symptoms:

fall consciousness clear unconscious state agitation unsteady gait

Click any disease for details:

glaucoma
Moderate evidence (40%)

dementia
Weak evidence (22%)

pneumothorax
Weak evidence (11%)

infection urinary tract
Weak evidence (8%)

Activate Windows
Go to Settings to activate Windows.

Type here to search

MyDoctor Bot MyDoctor Bot 127.0.0.1:5000/diagnosis/18

Find near hospitals

Enter your location

View larger map

Sai Mandir
कारुदा देवी मंदिर
Hindu temple

Govt High School
Surakhapa
गवर्नमेंट सरकारी प्राइवेट स्कूल

BaghDev Temple
BaghDev मंदिर

SBI KIOSK PETDEORI
एसबीआई किओस्क पेटडोरी

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Activate Windows
Go to Settings to activate Windows.

Type here to search

Home About Us Contact Us

Our Chatbot

Meet With Our Team

Backend:

MyDoctor Bot

Home About Us Contact Us

Contact Us

Vishwakarma Institute of Technology, Pune

For development purposes only

Google This page can't load Google Maps correctly.

Any Queries

Mobile Number *

Your Problem *

Send

Quick Contact

Full Address: 666, Upper Indira Nagar, Bibwewadi, Pune, Maharashtra 411037

Cell No: +91 8087569525

Ambulance: 108

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TY_EDI_32.docx - sakshijagtap19 | TY_EDI_32.docx - Google Drive | TY_EDI_32.docx - Google Docs | localhost / 127.0.0.1 / mydoctorbot | +

localhost/phpmyadmin/sql.php?db=mydoctorbot&table=registration&pos=0

phpMyAdmin

Recent Favorites

Server: 127.0.0.1 » Database: mydoctorbot » Table: registration

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 3 (4 total). Query took 0.00015 seconds.

SELECT * FROM `registration`

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

	Name	Email_id	Mobile_no	PWD	DOB
<input type="checkbox"/>	Edit Copy Delete Sakshi	sakshi.jagtap19@vit	9657495165	sakshi123	2020-10-26
<input type="checkbox"/>	Edit Copy Delete samruddhi	sam@gmail.com	9657495345	sam123	2020-10-26
<input type="checkbox"/>	Edit Copy Delete Tanvi	tanvi@gmail.com	9657495165	tanvi123	2020-10-26

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options [Edit](#) [Copy](#) [Delete](#) [Export](#)

Check all With selected: [Edit](#) [Copy](#) [Delete](#) [Export](#)

Query results operations

Print [Copy to clipboard](#) [Export](#) [Display chart](#) [Create view](#)

Bookmark this SQL query

Console Let every user access this bookmark

Activate Windows
Go to Settings to activate Windows.

Windows Search O File E Microsoft Edge Microsoft Store Mail File 09:43 26-11-2020