

ONLINE SUPPORT WEBSITE FOR COVID-19 REPOSES

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Abstract:

COVID-19 has taken the world by storm. It has been one of the most disastrous plagues of all times. Not only has it shown a catastrophic effect on the various people inhabited all around the world but it has also started to eat away at the world's economy. Many recently established businesses have collapsed or are at the brink of collapsing due to recent plague and due to this many small countries have already gone into an economic crisis. Although there may have been several reasons due to which this plague, we believe that one of the most problematic issues during this period has been the lack of proper information and guidance by higher officials. All around the world we have seen people not understand just how severe COVID-19 has been and due to this make rash decisions such as avoiding the rules and regulations established by our government. This is why we have decided to establish and develop a platform in which people will be able to share their experiences to the world by making their own posts. This platform will also have an inbuilt chatbot which will be able to communicate with the user to identify whether they are suffering from COVID-19 or not. We will walk you through our paper and explain how we were able to develop and establish this web application.

Keywords: Coronavirus Disease, Covid-19, Symptoms, Precaution, Experiences

Introduction:

COVID-19 has been one of the worst pandemics faced by mankind irrespective of all the previous outbreaks which may have taken place in the past. Although it has taken a catastrophic toll on the world it is astonishing to see how drastically the world has suffered due to this. We often look in our history books and are fascinated on how all the previous plagues which have taken place in the past were due to simple diseases such as chicken pox or malaria however even with the most recent and developed technologies we currently have within the medical industry we are still facing such a large devastating issue when it comes to this pandemic. Although large medical organizations all around the world have worked nonstop since the start of the pandemic at the start of 2020 the cure has still not been found or procured even by the end of the year and we wonder how long the world will continue to function as it is with many countries at the brink of an economic collapse.

Through this recent pandemic we have been able to clearly understand just how important prevention is better than cure although corona may have been a simple disease for our future generations to crack, we being in the modern era with the most sophisticated and advanced technologies have failed to comprehend and maintain this outbreak of Covid-19 all around the world. One of the major reasons that we were unable to cope with the pandemic has been our inability to identify the people who have been affected by this disease. Although we may say that the treatment to these respective individuals was not properly authorized by hospitals all around the world due to the lack of facilities that is something to debate upon another day.

In our paper we would like to focus upon the issue which people around the world were unaware regarding the dangers of COVID-19 as well as how to take precautionary measures. Although news channels were able to constantly update people regarding the various measures such as the lockdowns or the city curfews the people were always left in the blank when it came to the topic of treating or problems faced by people who have suffered from the disease. This has led to the spread of false information and rumors among people which has led many of them to believe that COVID-19 was not a serious problem and that precautionary measures such as masks were a waste of time. Due to this reason, we have observed disputes in various different countries in which people revolted against curfews and lockdowns saying that their freedom was being violated when in reality the government was trying to properly handle the global pandemic. Due to these revolts, there has definitely been a spike on cases during to the negligence shown by people. This is why we would like to create a platform which will help people around the world gain an understanding on COVID-19 as well.

The major objective of our project is to create a web application in which people will be able to obtain information regarding the topic of COVID-19. Instead of being forced to wait for statistics given by the government people can take matters into their own hands on the platform which we would like to create. This web application will have 2 functionalities. The first function of our web application will be to have users establish various posts upon this webpage to help other people understand what types of experiences they have been through due to COVID-19 recently. When a user registers in our website they will go through a registration form to understand the current state of the individual. All of this information will be further used to collect data upon areas and constantly update people residing in that area regarding the status of COVID-19 in their vicinity. This function will constantly help people to understand the situation or COVID-19 around them so that they will not take reckless actions. Furthermore, people who have suffered from COVID-19 will be able to add their experiences to the wall for other users to read. They will estimate users on what types of measures they should take if they are currently suffering from COVID-19 as well as what they should expect or who to approach if things get serious.

The second function of our web application will be our inbuilt chatbot which will act as a diagnostic model. This chatbot will communicate with the various people on our website and understand what they are going through. If a person is worried that they are suffering from COVID-19 our chatbot will be able to input the symptoms faced by the user and identify the possibility of them having obtained this plague. This will be done by asking the user several questions. These questions will be related to symptoms which users may observe if they were really affected by COVID-19. The inputs which are given by the user will be taken and compared with those of existing COVID-19 patients to verify whether they are suffering from COVID-19 or not. Further note they will be informed on their nearest COVID-19 center as well as the precautionary measures that they must take in order to ensure that their loved ones and people in their surroundings are not affected as well. Through this paper we will walk you through the development of this web application and the various stages we have had to go through in order to have it properly developed and established.

Procedure:

In order to successfully create and develop our platform we have had to go through and complete various stages. In this section of our paper, we would like to explain these stages in a descriptive manner along with the types of software's and technologies which we have used during the development phase so that you can further more understand the integrity of our web application.

METHODOLOGY:

1 - Collection of Project Requirements:

The initial stage of our project has been dealt with ideating and understanding what we would like to establish. As we have already discussed the functionalities that we would like to provide we further had to create a clear picture now we have these properly and efficiently executed. We must ensure that our web application is properly created so that it is able to handle the flow of traffic as well as create new posts without having issues. To ensure that all of this will happen we must have a clear picture upon how we will structure and maintain our web application. Furthermore, we must make sure that all of the software's and technologies which we will be using to develop our project have been installed and are present in the system. The major technologies and software's that we will be using through this project are HTML, SQL, JSP, Java Servlet and Python IDE. Prior to the start of our project, we must ensure that these are installed and properly functioning within the system along with all the libraries we may need to import and use down the line.

2 - Web Application Development:

Now that we have been able to establish all of our requirements, we can begin working upon the creation of our web application. In this stage we will have to perform two important tasks. The first task to complete is to make sure that all the web pages we have created are properly created and styled with the use of HTML to create their structures and CSS to neatly style and arrange all of the data within them. We must also make sure that our web application is dynamically able to create its own web pages to account for the several posts users will upload regarding their experience with COVID-19. Once this has been accomplished, we will now have to use Servlets to establish a connection with our database which will be the SQL database in order to store user credentials as well as all the data which will be taken regarding them related to COVID-19. We will also be creating an authentication system so that user will be able to login to their profile to update their situation and even share stories related to the topic.

3 - Chatbot Development:

Now that we have been able to successfully develop our web application it is now time to work upon creating our chatbot we will be using python in order to program and create our chatbot which will be displayed alongside our web application in order to help users traverse or obtain information. Along with this we will also be developing our chat to act as a diagnostic tool for users to use when they are unaware of their current situation. The chatbot will communicate with the user and ask them several different questions related to COVID-19 to assess their situation. Based upon the user's input the chatbot will be able to understand whether the user is currently suffering from COVID-19 or not. Once the diagnostics have been taken the user will be given the proper information regarding what type of precautions and what they must do in order to protect their surrounding people.

RESULTS:

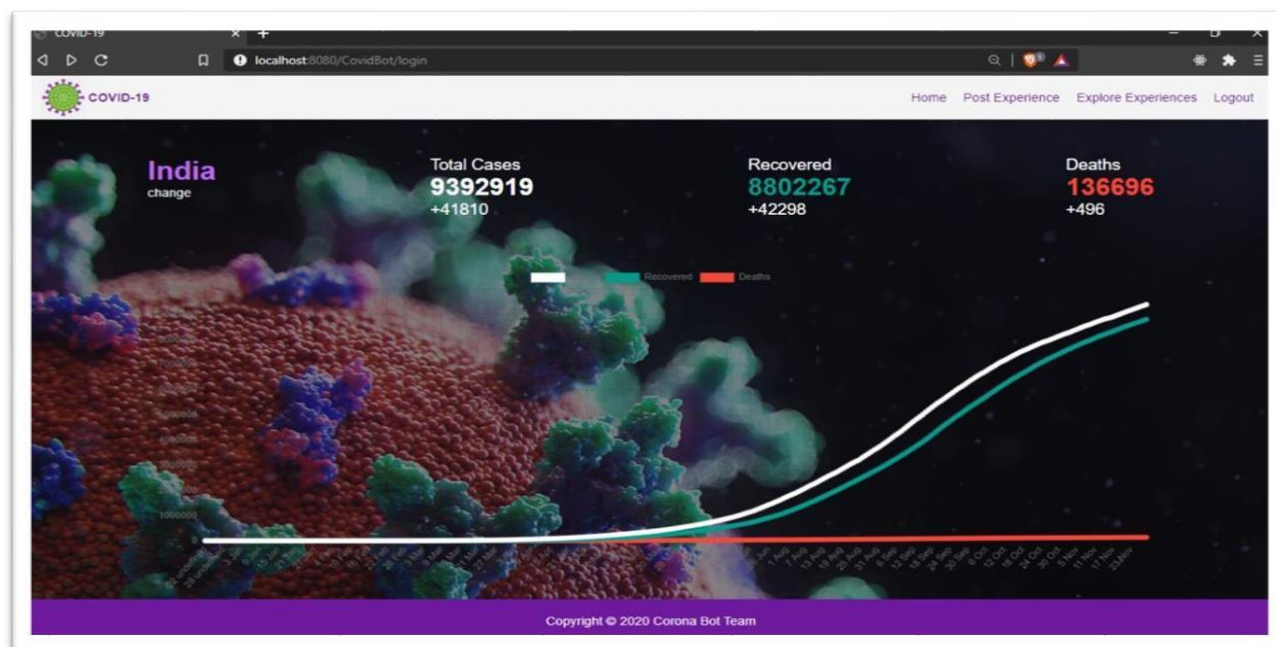


Fig 1: Home-Page of Web Application

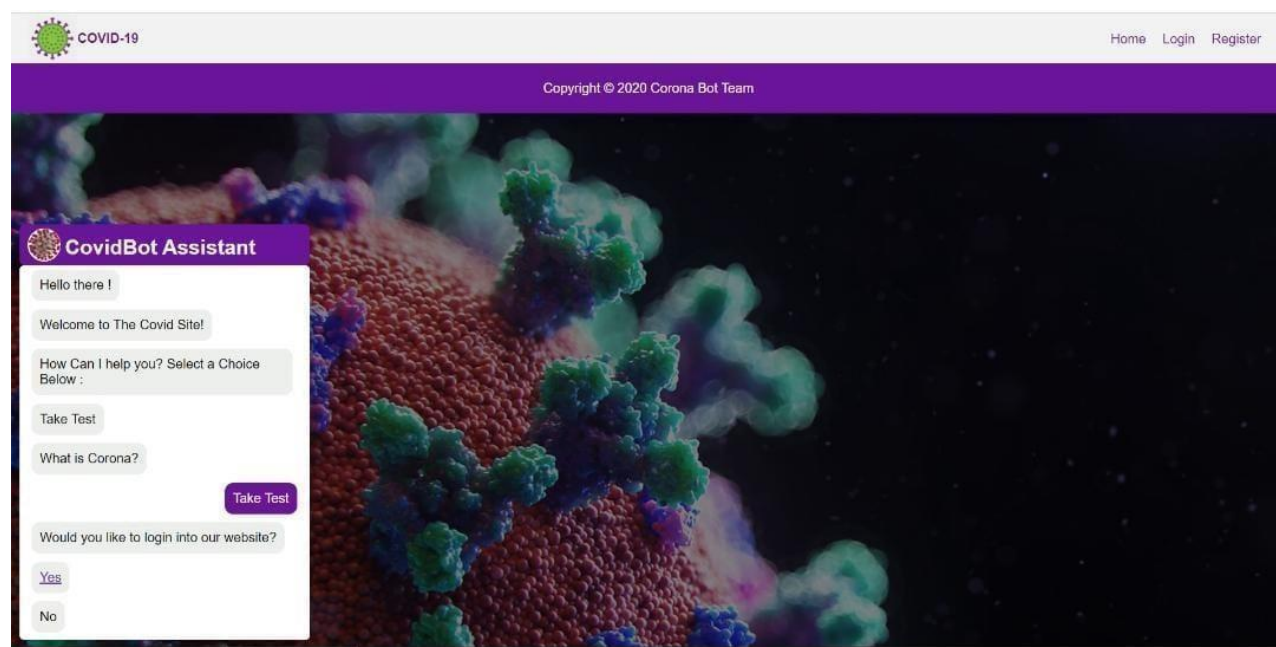


Fig 2: Covid Bot Assistant of Web Application

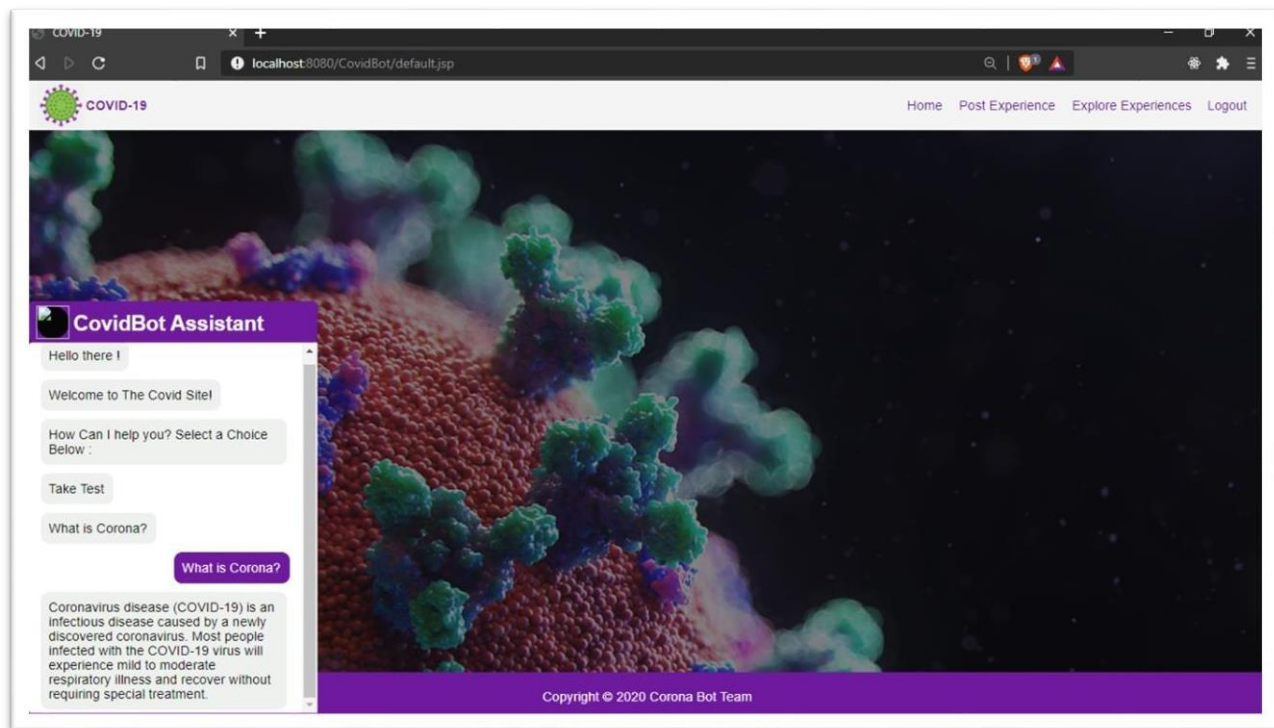


Fig 3: Chatbot Interacting with User



Fig 4: Register Page for User

COVID-19

Log in

Email

email@example.com

Password

enter your password

Login

Forgot password?

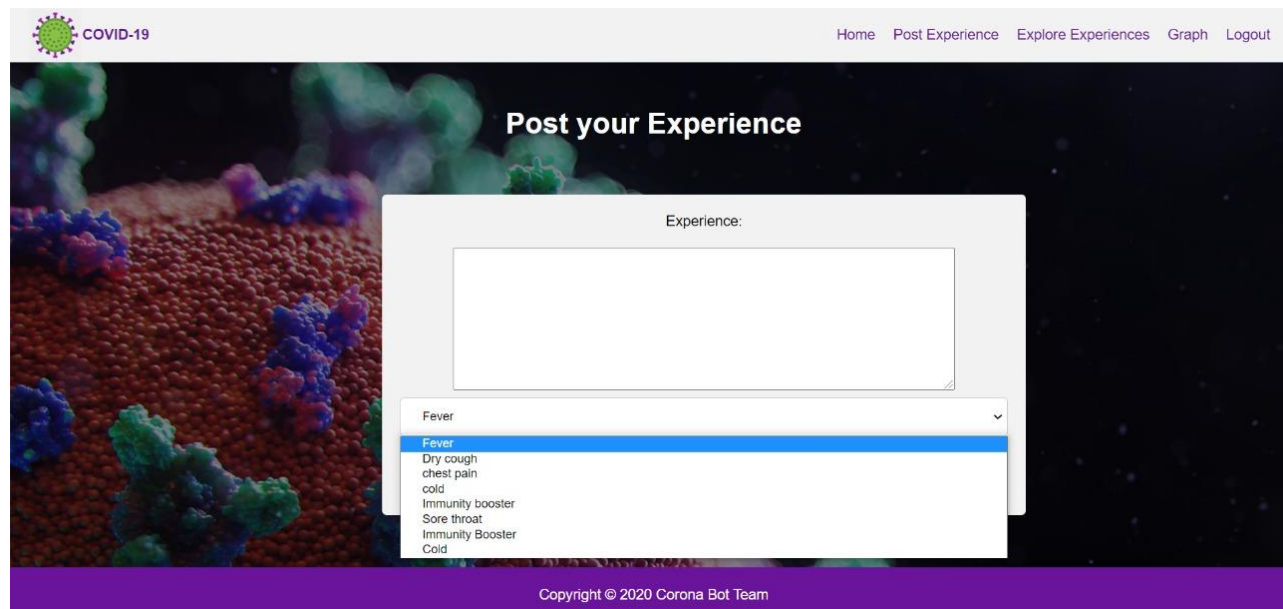
Don't have an account? Register here



Fig 5: Login Page for User

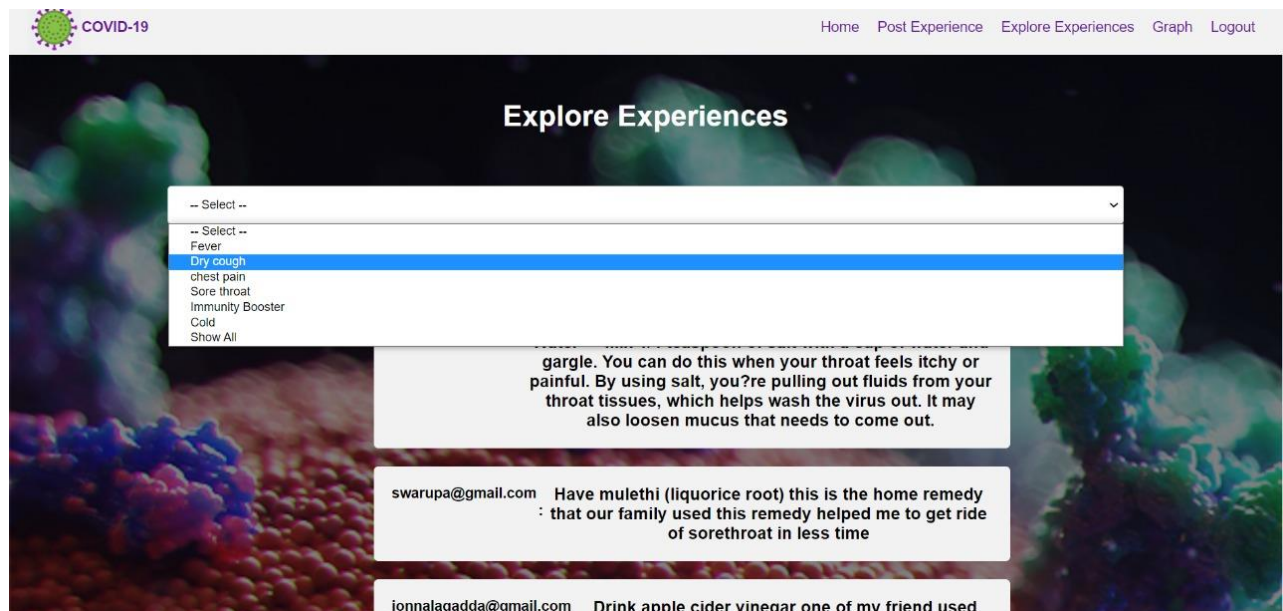


Fig 6: Graphical representation for symptoms



The screenshot shows the 'Post your Experience' form on the COVID-19 website. The form has a title 'Post your Experience' and a text area labeled 'Experience:'. Below the text area is a dropdown menu with the following options: Fever, Dry cough, chest pain, cold, Immunity booster, Sore throat, Immunity Booster, and Cold. The 'Fever' option is selected. The background of the form is a dark, textured image. The website header includes the COVID-19 logo, navigation links (Home, Post Experience, Explore Experiences, Graph, Logout), and a copyright notice at the bottom: Copyright © 2020 Corona Bot Team.

Fig 7: Posting Experiences of a User



The screenshot shows the 'Explore Experiences' page on the COVID-19 website. The page has a title 'Explore Experiences' and a dropdown menu with the following options: -- Select --, -- Select --, Fever, Dry cough, chest pain, Sore throat, Immunity Booster, Cold, and Show All. The 'Dry cough' option is selected. Below the dropdown menu, there are three experience entries: 1. A text entry: 'gargle. You can do this when your throat feels itchy or painful. By using salt, you're pulling out fluids from your throat tissues, which helps wash the virus out. It may also loosen mucus that needs to come out.' 2. A text entry: 'swarupa@gmail.com Have mulethi (liquorice root) this is the home remedy that our family used this remedy helped me to get ride of sorethroat in less time'. 3. A text entry: 'jonnalagadda@gmail.com Drink apple cider vinegar one of my friend used'. The background of the page is a dark, textured image. The website header includes the COVID-19 logo, navigation links (Home, Post Experience, Explore Experiences, Graph, Logout), and a copyright notice at the bottom: Copyright © 2020 Corona Bot Team.

Fig 8: Exploring Experiences of a User

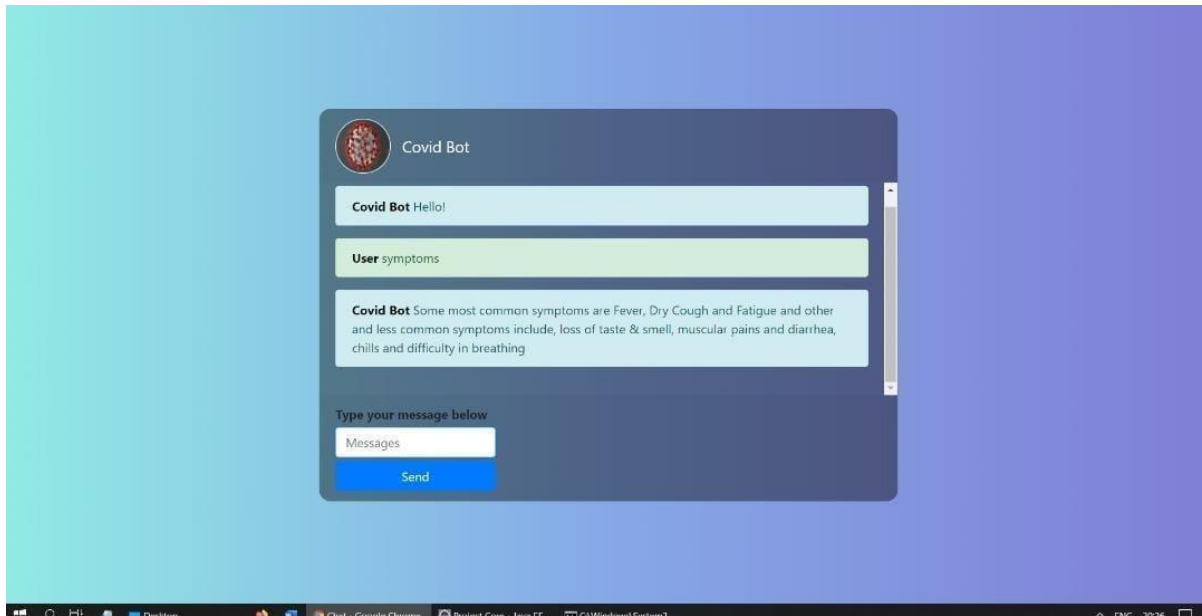


Fig 9: Chat bot Interacting with User for Q/A

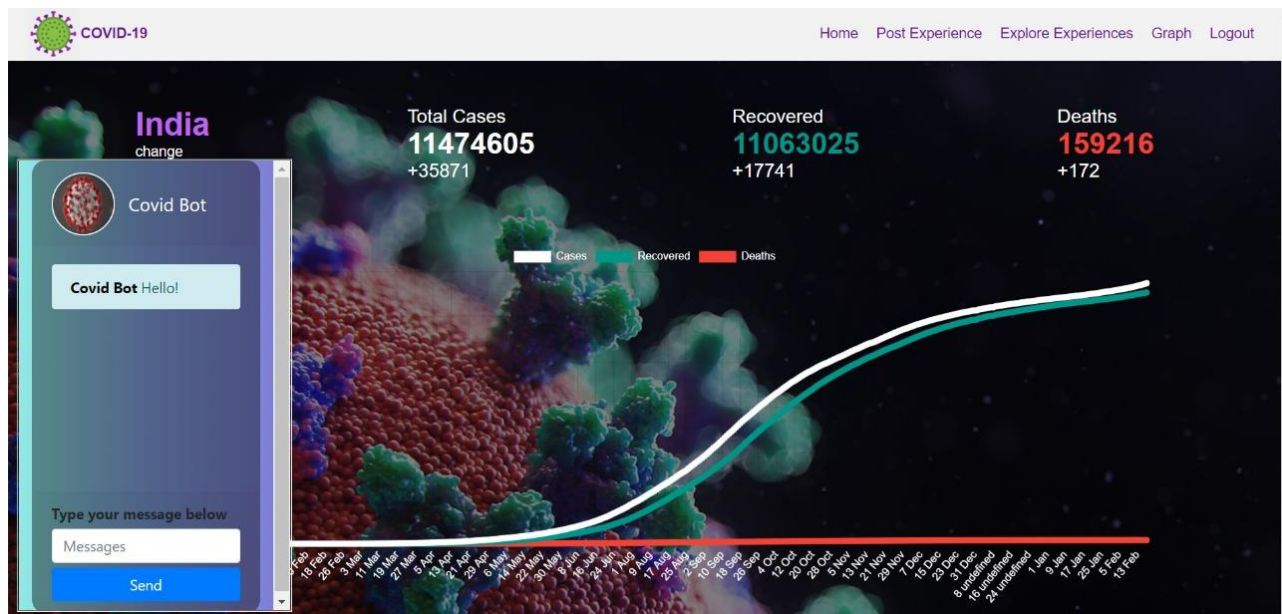


Fig 10: ONLINE SUPPORT WEBSITE FOR COVID 19

Conclusion:

Through this project we have been able to understand just how little people understand the real situation that has happened due to COVID-19. Many people still believe that COVID-19 is still just a common cold and are not taking proper measures to prevent it as they are aware of the survival rates of COVID-19 patients. However, they do not realize how much one will have to suffer before being able to recover from this plague. This is why we have been able to successfully create a platform upon which users will be able to read the stories of fellow COVID-19 reasons to learn the horrifying reality of this plague so that they can take

proper actions. We have also been able to create a proper chatbot using python to ensure that users can also check their current stage and use the inbuilt diagnostic function within our chatbot check whether they have been affected by the plague or not. Irrespective of the output they will be properly instructed on how to prevent the spread of COVID-19 and if they are shown to obtain symptoms of COVID-19 the users will further be instructed with the proper instructions to have themselves properly treated at their local COVID-19 center. We may have not been able to completely help people around the world fight COVID-19 but we believe that no news travels faster than those shared amongst peers and fellow neighbors. Through this platform we hope people will be able to realize just how severe COVID-19 is and don't neglect the issue any longer.

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