INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DHARWAD

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MINI PROJECT WORK REPORT ON

"COVID-19 Recommendation System (Chatbot)"

In partial fulfilment of the requirements for the VI Semester of Bachelor of Technology

In Computer Science Engineering.

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ABSTRACT

We are all together in a fight against the COVID-19 pandemic. Chatbots, if effectively designed and deployed, could help us by sharing up-to-date information quickly, encouraging desired health impacting behaviours, and lessening the psychological damage caused by fear and isolation. Despite this potential, the risk of amplifying misinformation and the lack of prior effectiveness research is cause for concern. Immediate collaborations between healthcare workers, companies, academics, and governments are merited and may aid future pandemic preparedness efforts.

CONTENTS

Chapter one

Introduction

1.1. Problem Statement

With the spread of COVID-19 across the world, there is a sense of panic and uncertainty amongst the public. People are not sure what measures to take to safeguard themselves and their family and have many questions.

1.2. State of the Artwork

During the novel coronavirus (COVID-19) pandemic, institutions like the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) have begun utilizing chatbots to share information, suggest behavior, and offer emotional support. Chatbots are software programs that talk with people through voice or text in their natural language. Some well-known examples include "Alexa" from Amazon, "Siri" from Apple, and "Cortana" from Microsoft. They often come pre-installed on smartphones or home-based smart speakers. In recent years, chatbot use for health-related purposes has increased considerably, from supporting clinicians with clinical interviews and diagnosis to aiding consumers in self-managing chronic conditions. Chatbots have varied widely in their responses to questions about physical health, suicide, intimate partner violence, substance abuse, and other sensitive conversations. The COVID-19 pandemic puts in stark relief the potential for chatbots to help save lives.

Chapter two

Software Requirements Specifications(SRS)

2.1. Platform

- PyCharm
- Spyder 3.0

2.2. Language Used

- Python

2.3. Graphical User Interface (GUI)

- Tkinter

2.4. Libraries Used

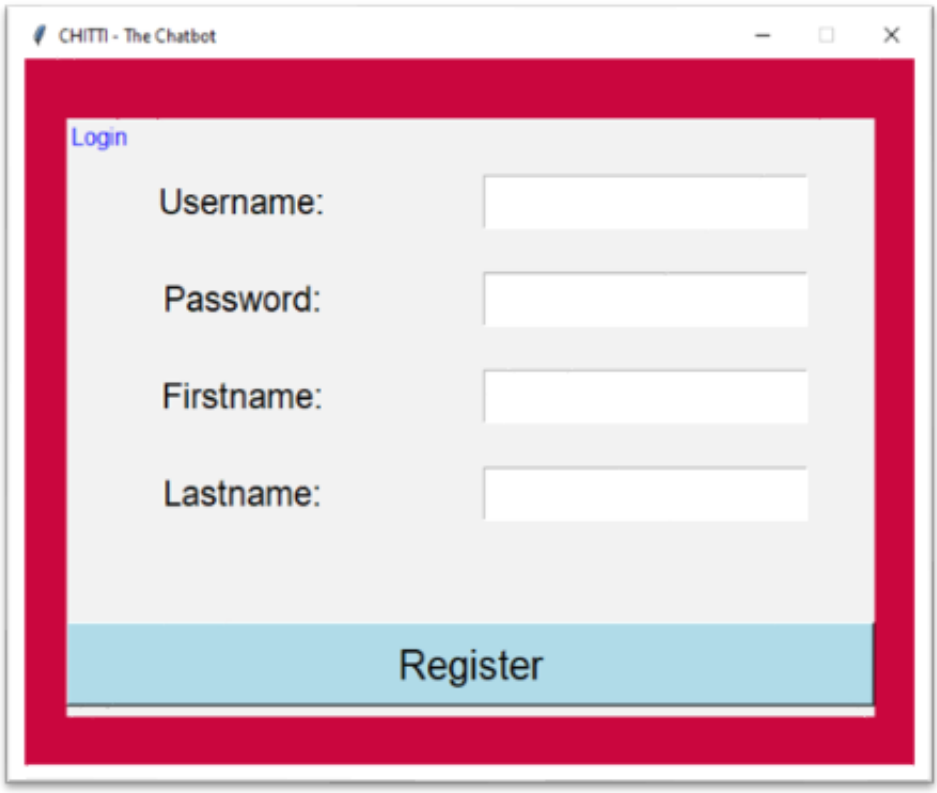
- Pytorch
- Pandas
- NumPy
- NLTK
- Matplotlib
- BeautifulSoup
- Pillow
- Requests

2.5. Others

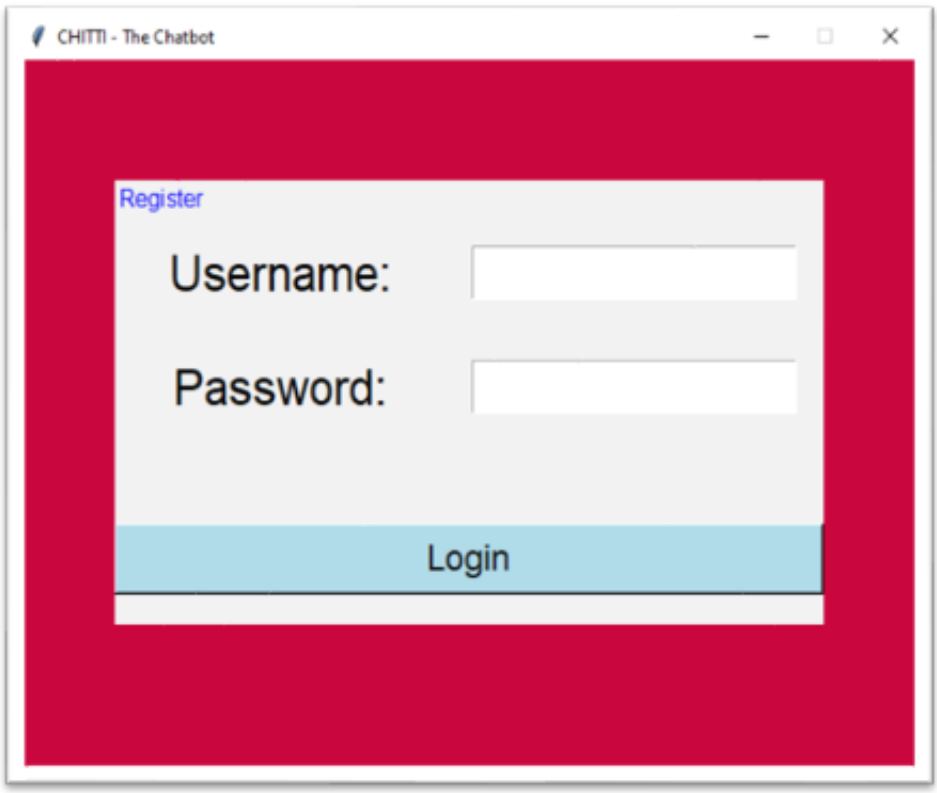
- Intents (JSON File)
- Natural Language Processing (NLP)
- APIs
- Web Scraping
- Website: MoHFW, CoWIN, Worldometer

Chapter Three

Results

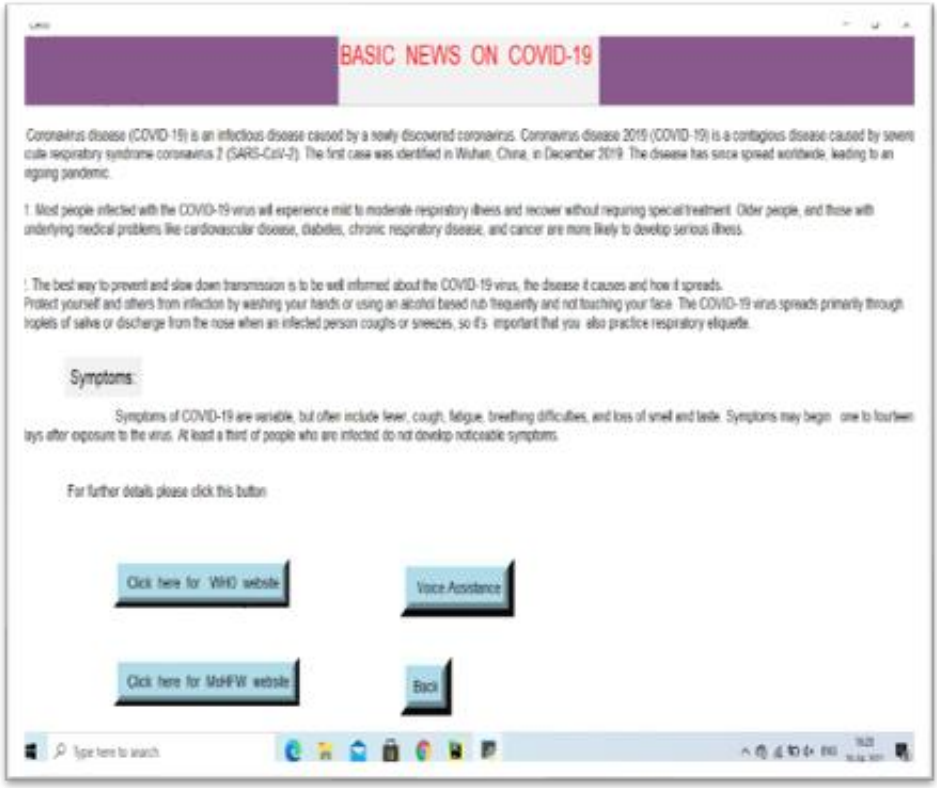


- This is the registration page of our project.
- The users can register here to use the facilities of our project.

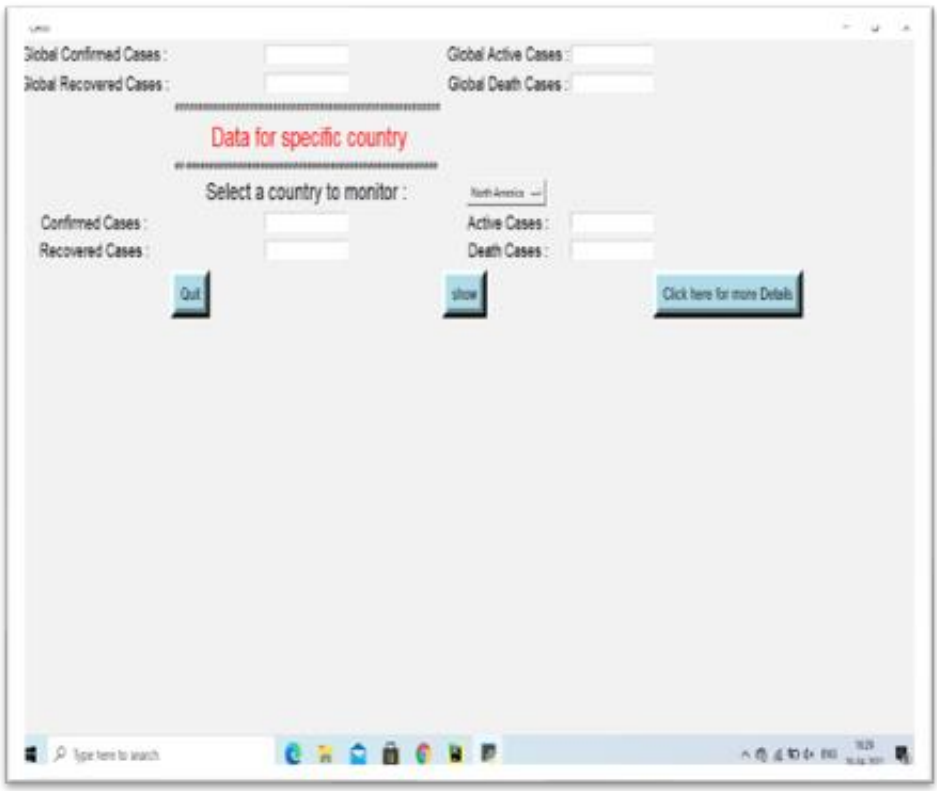


- This is the login page of our project.
- All the registered users have to login from their account to use the facilities.

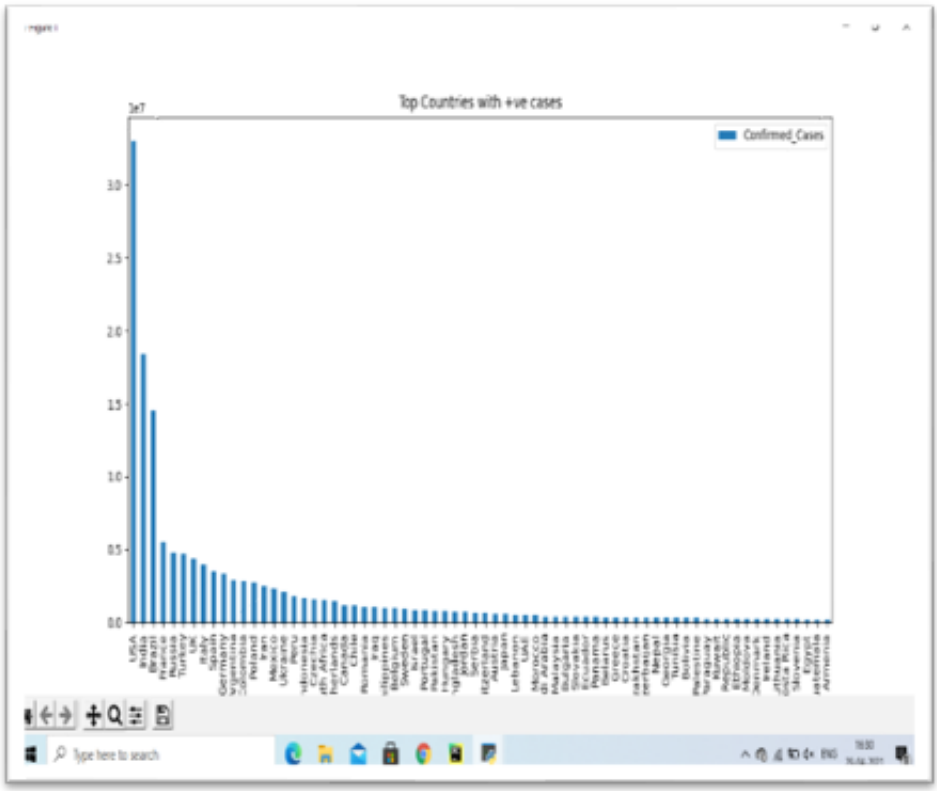
- This is the Home Page of our project.
- It contains the Info of Corona Virus, Statistics, Precautions, Chatbot, Info about Vaccines and an Exit button.
- When clicked on respective buttons more information related to them will be shown.



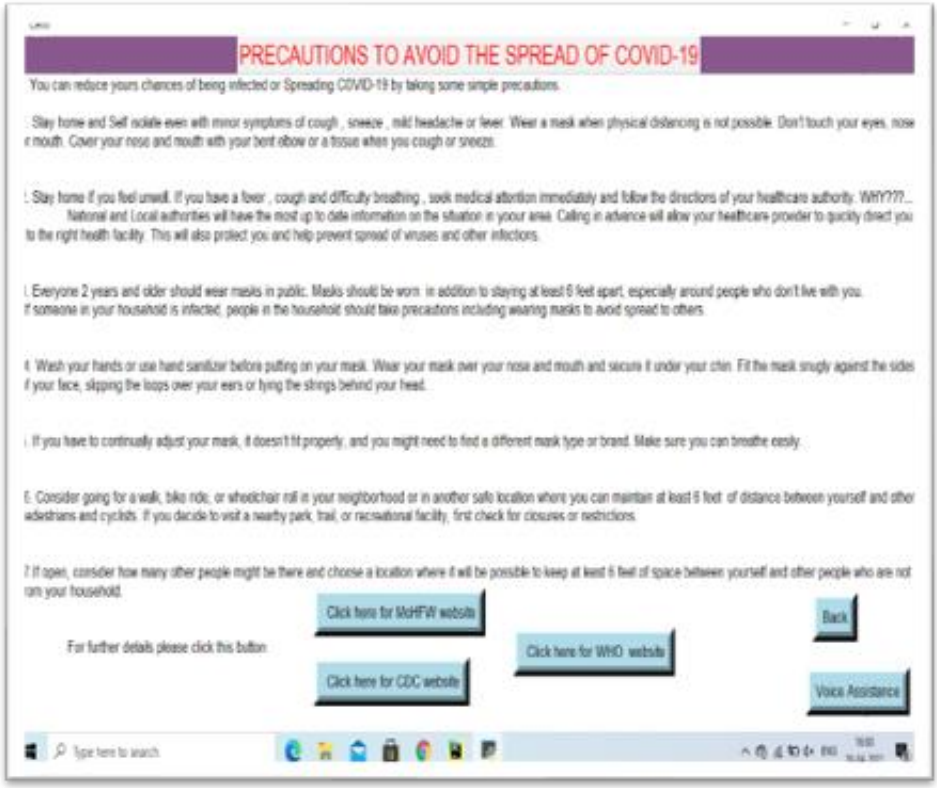
- This page opens when clicked on **Info of Corona Virus** button.
- It gives basic information about Corona Virus which is directly scraped from Indian government website.
- It also has a **Voice Assistance** for blind people.
- For more information, the users will be directed to **WHO Website** and **MoHFW Website**.
- When clicked on **Back** button, the user will be directed to Home Page.



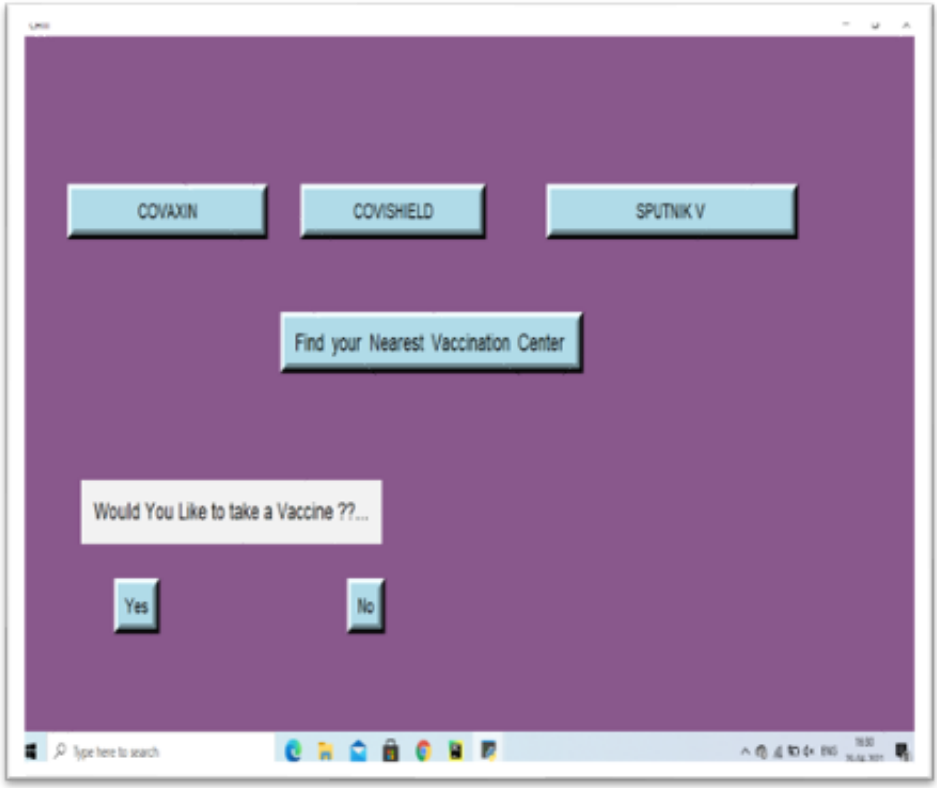
- This page gives the statistics on number of confirmed cases, recovered cases, active cases, and death cases globally and for a specific country when mentioned.
- For more information related to statistics of the pandemic, the user is directed to a website where there are all kind of valid information regarding statistics of pandemic.
- When clicked on **Quit** button, the user is directed to Home Page.



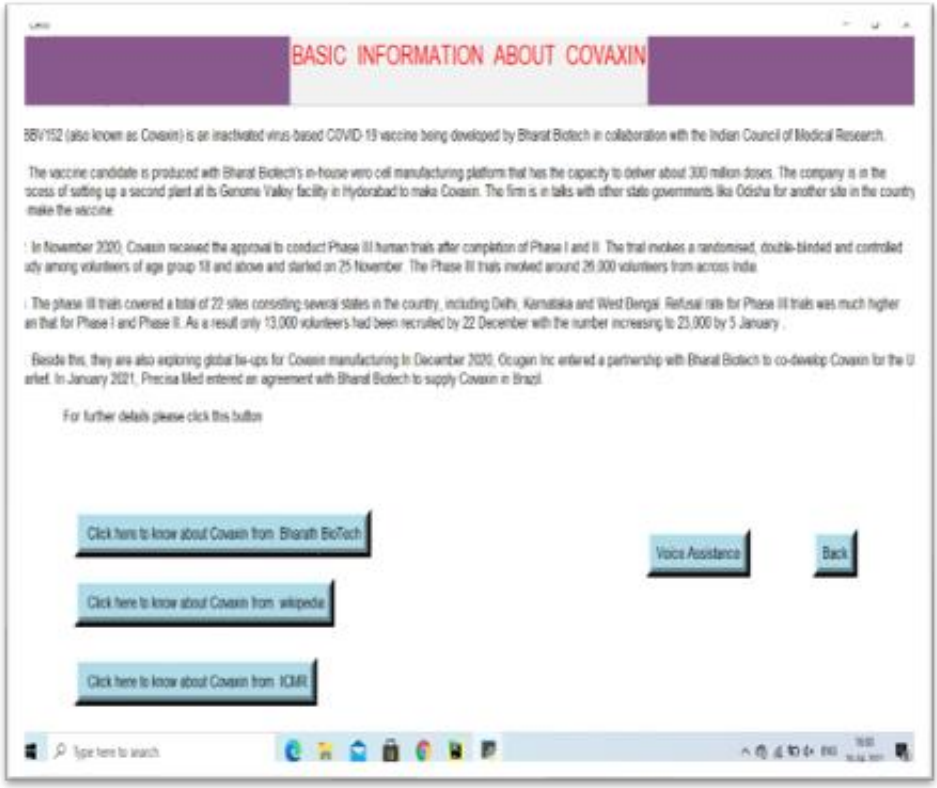
- This page gives the bar graph of number of positive cases across all the countries.
- This compares the number of positive cases across all the countries.



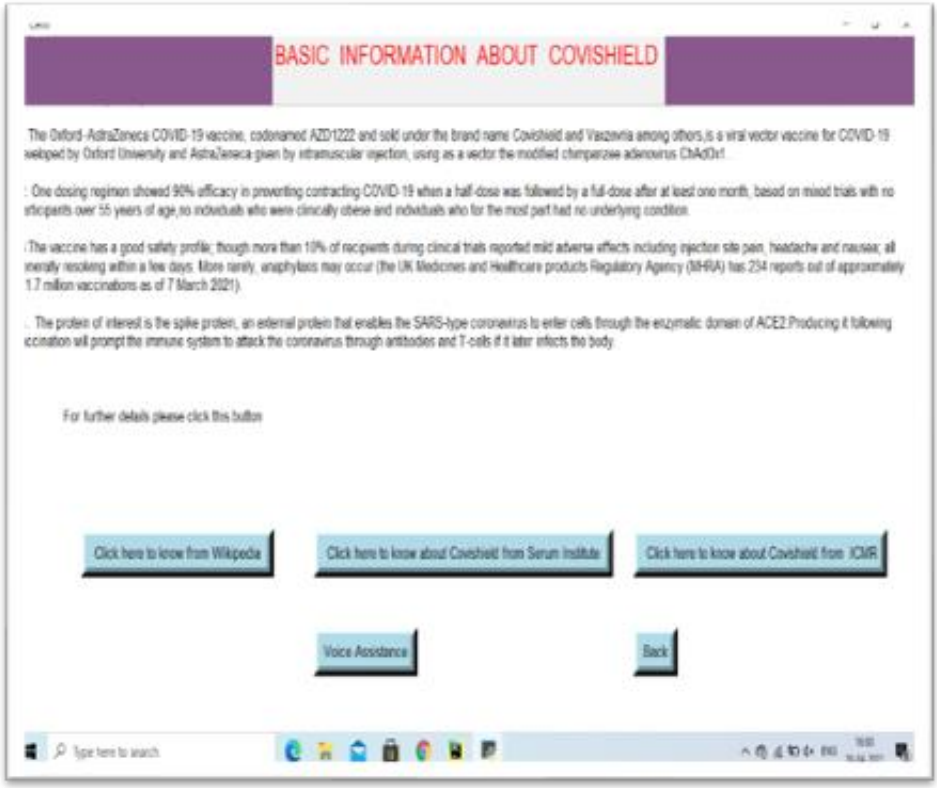
- This page appears when clicked on **Precautions** button in Home Page.
- This page provides with the precautions to avoid Corona Virus.
- The content is scraped from government websites, so the content is completely valid.
- It has **Voice Assistance** for blind people.
- For more information, the user will be directed to various government website.
- When clicked on Back button, the user is directed to Home Page.



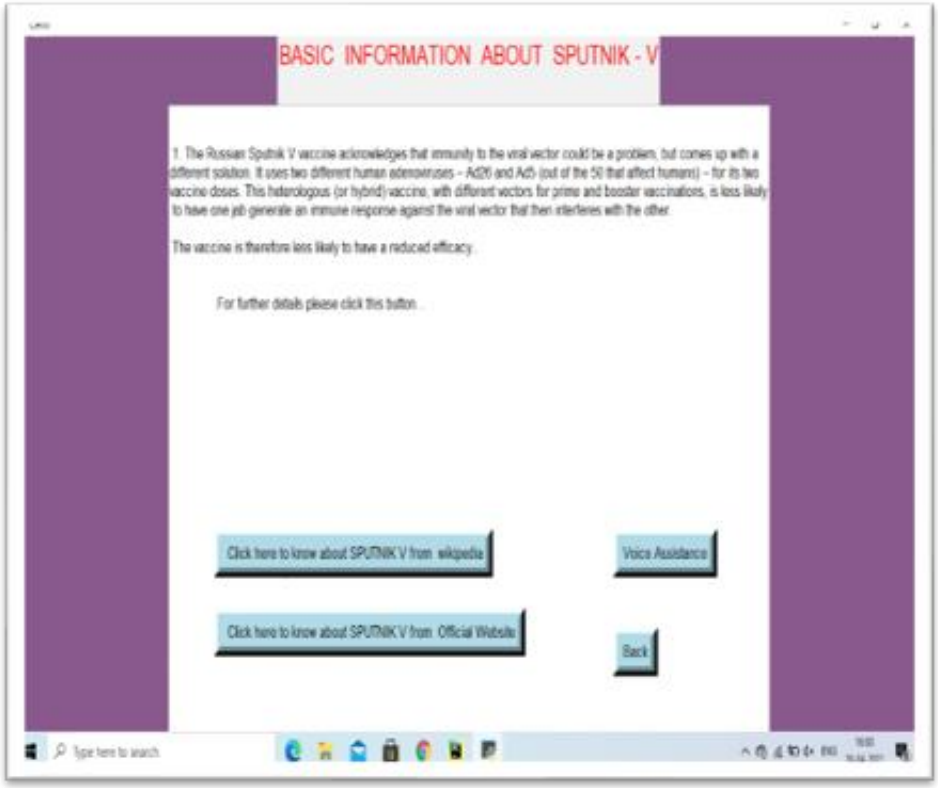
- This page appears when clicked on **Info About Vaccines** button.
- When clicked on each button in this page, it gives detailed information about each vaccine.
- When clicked on **Find your Nearest Vaccination Center**, it gives details about all the nearest available options for vaccination.
- When clicked on **Yes** button, the user is directed to official website to book a slot for getting vaccinated.
- When clicked on **No** button, the user is directed to Home Page.



- This page gives basic information about **Covaxin** Vaccine.
- For more information, the user is directed to various website giving more detailed information about Covaxin Vaccine.
- It has a **Voice Assistance** for blind people.
- When clicked on Back button, the user is directed to **Info About Vaccines** page.



- This page gives basic information about **Covishield** Vaccine.
- For more information, the user is directed to various website giving more detailed information about Covishield Vaccine.
- It has a **Voice Assistance** for blind people.
- When clicked on Back button, the user is directed to **Info About Vaccines** page.



- This page gives basic information about **Sputnik-V** Vaccine.
- For more information, the user is directed to various website giving more detailed information about Sputnik-V Vaccine.
- It has a **Voice Assistance** for blind people.
- When clicked on Back button, the user is directed to **Info About Vaccines** page.

Chapter four

Conclusion and Future Scope

The WHO Director-General recently called for innovative pandemic responses. To this aim, chatbots are already being deployed in the fight against COVID-19. If designed effectively, chatbots may help prevent misinformation, aid in symptom detection, engender infection-limiting behaviors, and lessen the mental health burden of pandemic response. In a pandemic, no group of people remains unaffected for long. Together patients, healthcare workers, academics, technology companies, NGOs, and governments can ensure chatbot say the right thing.

In the future, the chatbots can be used to avoid any kind of misinformation being spread.

Chapter Five

References

- WHO Website- www.who.int
- MoHFW Website- www.mohfw.gov.in