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COVID-19 Detection & Prevention

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Department of Computer Science & Engineering

**Bangabandhu Sheikh Mujibur Rahman Science and
Technology University**

COVID-19 Detection & Prevention

by

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Submitted to the Department of Computer Science &
Engineering

Bangabandhu Sheikh Mujibur Rahman Science and
Technology University, Gopalganj 8100 in partial fulfillment
to the requirements for the degree

Of B.Sc. Engineering

Project Approval

Student's Name: Md. Juwel allick

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Project Title: COVID-19 Detection & Prevention

We the undersigned, recommend that the project completed by the student listed above, in partial fulfillment of B.Sc. Engineering degree requirements, be accepted by the Department of Computer Science and Engineering, Bangabandhu Sheikh Mujibur Rahman Science and Technology for deposit.

Supervisor Approval*

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I perceive this as a good opportunity for my career development.

I am very grateful to the great creator for completing the project.

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18CSE018
November,2020

ABSTRACT

The main purpose of this project is to provide the right guidance and information to everyone during this COVID-19 epidemic. People are getting confused by various misinformation. Using this project, it is very easy to get various information about COVI-19 and the user can get various advices about what to do at this time with his own information. By following these instructions, they will be able to stay safe at this time. There are various mass awareness instructions. Which in turn can reduce the impact of corona from society. There is a lot of information about different companies. Using it, the public can contact the corona control department and receive various services.

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CHAPTER 1

Introduction

1.1 Introduction

The Covid-19 Detection and Prevention project is essentially an informative instructional project. Covid-19 is a contagious disease caused by severe acute respiratory syndrome coronavirus2 (SARS-CoV-2). The first case was identified in Wuhan, China in December 2019.

The Covid-19 epidemic is described here. Here are the symptoms in Covid-19. The virus that is responsible for this has been described. For the convenience of the common man, there is a chatbot here with various information about what he can do and what he can do now.

Common symptoms of COVID-19 include fever, cough, fatigue, breathing difficulties, and loss of smell and taste. Symptoms begin one to fourteen days after exposure to the virus. Anyone can easily receive services from the project.

1.2 Motivation & Aims

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus SARS-CoV-2. It was previously referred to by its provisional name, 2019 novel coronavirus (2019-nCoV). This virus species is new. For a new kind of epidemic, the public is easily confused. Not enough information is available about this to cause new problems. Again, a cycle is trapping with misleading information. I have tried to solve all these problems. Here is a variety of data through which we can easily know about the epidemic. The information used in this project has been collected from various internationally recognized organizations. Society can play a role in raising public awareness Coronavirus(SARS-CoV-2).

1.3 Features

This is basically an informative instructional project. Here is information on the virus responsible for the Covid 19 epidemic, including its image. Information is given on how the epidemic originated and spread. The symptoms of covid 19 have been described. By looking at the symptoms we can easily know about covid 19 coronavirus. Here is a chatbot where we can get information about the positivity of our various illnesses. The means of communication with various services are described. Here is how the epidemic can be prevented. It can play an important role in raising our awareness. The information is presented in a very nice and simple way so that everyone can understand very easily.

1.4 Objectives

1. Present accurate information about the epidemic.
2. Awareness raising.
3. Resistance to confusing evil cycles.
4. Establish liaison with epidemic regulatory agencies.
5. Covid 19 reported presence.
6. Instructions on what to do now.
7. Various ways to prevent epidemics.

Methodology

2.1 Introduction

There is a main menu here. Where the topics presented in the project are presented. Moreover there are a few submenus covid 19 a special arrangement has been made to check the positivity. The description of the user's physical condition sheds light on his covid 19 positivity. Users are divided into four

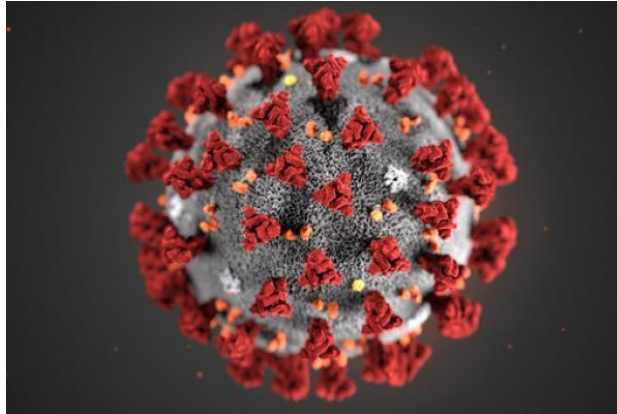


Fig 01: coronavirus SARS-CoV-2

categories according to their symptoms. They have been instructed according to the category. The virus subsequently spread to all provinces of China and to more than 200 other countries in Asia, Europe, North America, South America, Africa, and Oceania.

2.2 COVID_19_Symptoms

COVID-19 affects different people in different ways. Most infected people will develop mild to moderate illness and recover without hospitalization. There is no evidence yet to link an intermediate host, such as a pangolin, to its introduction to humans. Signs and symptoms of coronavirus disease 2019 (COVID-19) may appear two to 14 days after exposure. This time after exposure and before having symptoms is called the incubation period.

- **Most common symptoms:**

- Fever.
- Dry cough.
- Tiredness.

- **Less common symptoms:**

- Aches and pains.
- Sore throat.
- Diarrhoea.
- Conjunctivitis.
- Headache.
- Loss of taste or smell.
- A rash on skin, or discolouration of fingers or toes.

- **Serious Symptoms:**

- Difficulty breathing or shortness of breath.
- Chest pain or pressure.
- Loss of speech or movement.

Seek immediate medical attention if you have serious symptoms. Always call before visiting your doctor or health facility.

People with mild symptoms who are otherwise healthy should manage their symptoms at home.

2.3 HOW IT SPREADS

The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it is important that you also practice respiratory etiquette (example, by coughing into a flexed elbow).

The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. These droplets are too heavy to hang in the air, and quickly fall on floors or surfaces.

You can be infected by breathing in the virus if you are within close proximity of someone who has COVID-19, or by touching a contaminated surface and then your eyes, nose or mouth

2.4 Prevent COVID-19

It's likely that flu viruses and the virus that causes COVID-19 will both spread this fall and winter. Healthcare systems could be overwhelmed treating both patients with flu and patients with COVID-19. This means getting a flu vaccine during 2020-2021 is more important than ever

To prevent infection and to slow transmission of COVID-19, do the following:

- Wash your hands regularly with soap and water, or clean the with alcohol-based hand rub. Right way for washing hands- <https://youtu.be/L-QWAi6n1Bk>
- Maintain at least 1 metre distance between you and people coughing or sneezing.
- Avoid touching your face.



Fig 02: wear mask stay safe

- Cover your mouth and nose when coughing or sneezing.
- Stay home if you feel unwell.
- Refrain from smoking and other activities that weaken the lungs.
- Practice physical distancing by avoiding unnecessary travel and staying away from large groups of people.
- You must wear a mask when going to the hospital and avoid public transport or crowds.

- You can have only one companion with you while traveling but you have to maintain a safe distance (3 feet) with him.

2.5 COVID-19 Self Checker

The purpose of the Coronavirus Self-Checker is to help you make decisions about seeking appropriate medical care. This system is not intended for the diagnosis or treatment of disease or other conditions, including COVID-19. This message show first before self checking option.

Symbol	Zone
Green	Normal
Yellow	Bad
Orange	Risky
Red	Dangerous

Classification of people

Procedure

Some screenshot of running project:

First look of program

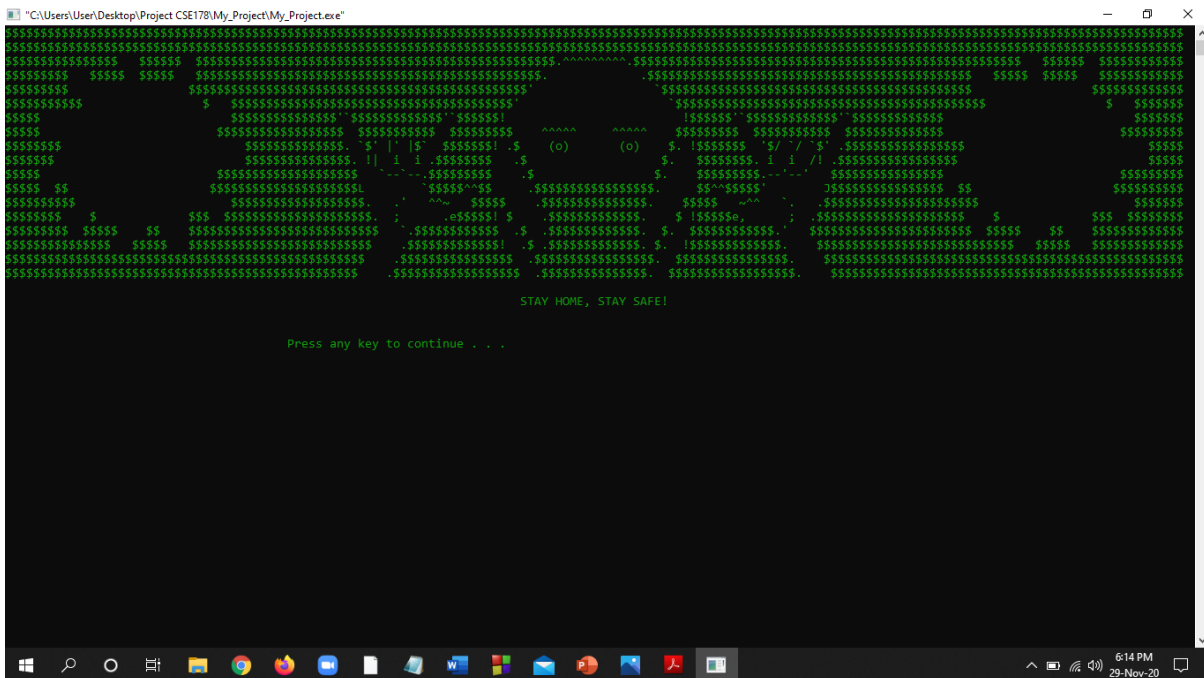


Fig 03: First look

Main Menu:

```
*****
COVID-19 DETECTION & PREVENTION
*****

PRESS YOUR OPTION
-----

=> About Coronavirus(SARS-CoV-2)-----[1]
=> COVID-19 Symptom-----[2]
=> Check Your COVID-19 Positivity-----[3]
=> How to Prevent COVID-19?-----[4]
=> Back-----[B]
=> Exit-----[E]
```

Fig 04: Main Menu

Last look:

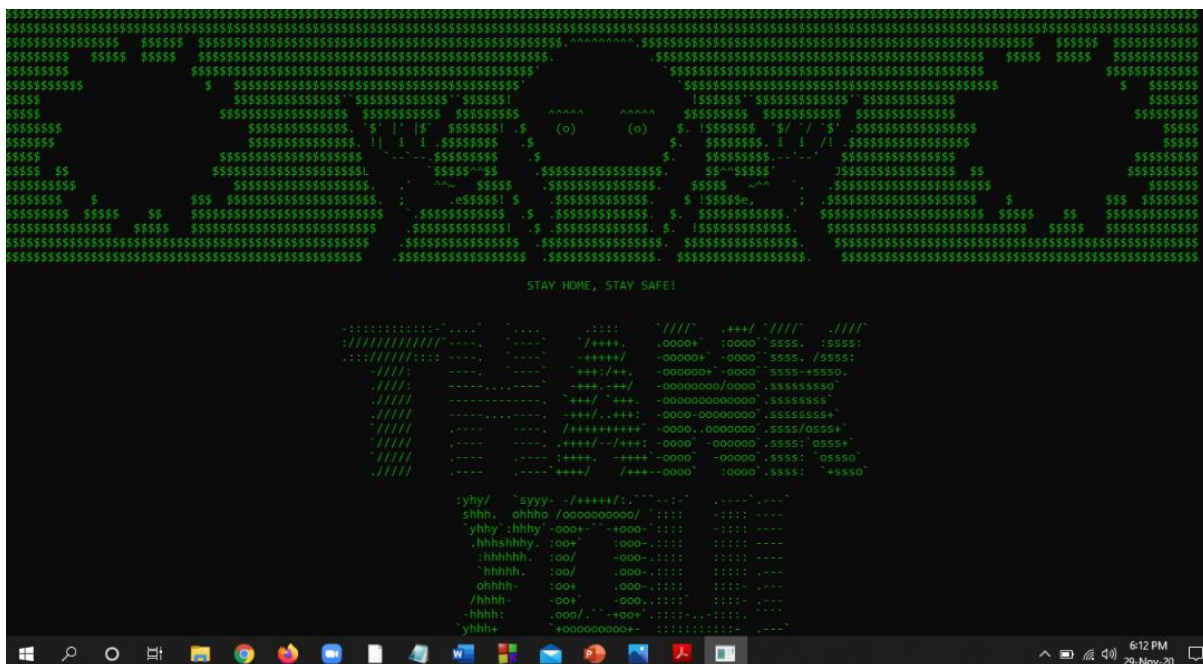


Fig 05: Last look

Limitation and Future plan

4.1 Limitation

- There is no data chart of covid affected.
- There are a few numbers of symptoms.
- There is less information here.

4.2 Future plan

- I want to add more information about these diseases
- I want to add Graph & Chart here
- I want to add doctor and hospital info.
- I want to add vaccine update.
- I want to add graphics so that people can easily understand.

Conclusion

5.1 Conclusion

Corona epidemics have taken shape around the world during this time. So far no cure has been found. This is why covid-19 has a very dangerous shape. Therefore, detection is the only means by which the epidemic can be controlled. The information is simply presented here. This project describes the steps to be taken to save yourself and the society from this epidemic. Will play an important role in creating public awareness to prevent epidemics. Epidemic control will help to establish links with different agencies. By describing your own symptoms, you can get an idea of the possibility of being infected with covid-19 and get instructions on what to do. You can protect yourself from inaccurate and misleading information and intrigue.

5.2 Reference

<https://www.wikipedia.org>

<https://www.who.int>

<https://www.cdc.gov>