Chapter 2
A Novel Approach for Predicting COVID-19 Using Machine Learning-Based Logistic Regression Classification MODEL

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ABSTRACT

Recently, several studies have stated that mild weather can perhaps halt the global epidemic, which has already afflicted over 1.6 million people globally. Clarification of such correlations in the worst affected country, the US, can be extremely valuable to understand the function of weather in transmission of the disease in the highly populated countries, such as India. The authors developed a machine-learning approach as logistic regression classification models that used data from several sources to determine whether a patient is at risk of COVID-19 using one of the classification models with the greatest accuracy. They are working on a model that uses simple features available through basic clinical inquiries to detect COVID-19 patients. When testing resources are tight, their approach can be used to prioritize testing for COVID-19, among other things.

1. INTRODUCTION

The coronavirus disease epidemic of 2019 (COVID-19) is still a public health issue on a global scale. Many viral infections of humans have a well-known seasonality. It's still unclear how environmental influences, particularly those that affect the spread of infectious diseases, affect the spread of sickness from person to person.

The COVID-19 has a noteworthy impact on the adoption of UCaaS. A mixed research technique will be used to collect data on the aspects that may have contributed to an increase in UCaaS sales during

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the pandemic by using both "Primary and Secondary" forms of data collecting to get the most accurate results. It will focus on obtaining primary data and information from significant Indian corporations. Because of this, it will be simpler to understand and analyse the impact of UCaaS sales on large Indian enterprises, both before and after the pandemic (Lythgoe & Middleton, 2020).

COVID-19 is the phenomena of the analytical study of the features and reasons for using the services to enhance employee participation. The third chapter has presented the methodological approach of the study along with identifying the research design, approach, and philosophy that can help in improving the entire part of the development services regarding the lower costs of the situation of Covid-19 (Sabino et al., 2020). For example, positivism philosophy is the most important part of the study that has helped in maintaining the relation of the entire study along with the approaches towards collecting data (Bailey & Breslin, 2021).

Secondary and primary data collection are the most essential aspect in the procedure of managing the different aspects in the form of the contributions and results for the anticipated approaches when it comes to following the sample and the analysis approaches through the results (Boiral et al., 2021). Both the primary and secondary techniques of data collection are the most crucial part in managing the predictions regarding the growth and analysis of the data. For example, tools that have helped in collecting data from primary sources include online survey, interview, and questionnaire.

SARS-COV2 (COVID-19) erupted in Wuhan City in China in late 2019 andsubsequently evolved as a global pandemic. The COVID-19 pandemic extends to morethan 220 nations and territories globally and has altogether influenced each part of ourday-to-day lives. The quantities of contaminated cases passing despite everythingincrement essentially and do not indicate a very much controlled circumstance; as of 22ndJanuary, 2022, a total aggregate of 34,64,64,304 (55,85,224) contaminated (deceased)COVID-19 cases were accounted all over the worldOn the other hand, secondary data collection has come with tools such as conference appearances and magazines that have helped in collecting data on the process of using UCaaS. On the other hand, the understanding of the productivity approaches has also been identified from the data sources (Kuščer et al., 2022).

India is considered as the leader in the IT services industry for the world. We have a huge population of engineers in the country and every year India produces 1.5Million Engineers. India is considered Tech Hub of the world and has been providing IT outsourcing and application development services to the world at much lower costs that the developed countries. This calls for a huge requirement of knowledge workers in India.

As the organizations are geographically dispersed and so are the employees, the need for solutions to collaborate and work in teams to deliver projects globally has been growing by each day. Team collaboration became need of the hour for all organizations having knowledge workers like the IT Services, Research organizations or Consulting organizations etc (Lotfi et al., 2020).

Compared to SARS-CoV-1, this new coronavirus has a longer incubation period and has a higher pathogenicity, which we discuss. To supplement respiratory droplet transmission, these unique coronavirus molecular features likely allow it to use aerosols in totalling to respiratory droplet spread as indirect means of transmission.

A public health strategy of this aggressive character is designed to reduce the exponential rise in disease transmission rates. Using social distancing to keep infections from spreading within a three- to six-foot radius through respiratory droplets is proven to be effective. Persons in a community must choose activities that increase the gap between themselves and others in order to participate in this practise (infected, asymptomatic carriers, or non-infected). Distancing oneself socially or physically helps