

DECLARATION

We **RAGUL V S** and **SUDHARSAN VISVAK T** hereby declare that the Project Report entitled “**IDENTIFYING COVID-19 OR NOT USING SUPERVISED MACHINE LEARNING ALGORITHM**” done by me under the guidance of **DR J CRUZ ANTONY MCA, PHD.**, and Sathyabama Institute of Science and Technology is submitted in partial fulfillment of the requirements for the award of Bachelor of Engineering degree in Computer Science and Engineering.

DATE:

PLACE:

SIGNATURE OF THE CANDIDATE

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Identify Covid-19 or not using SMLT

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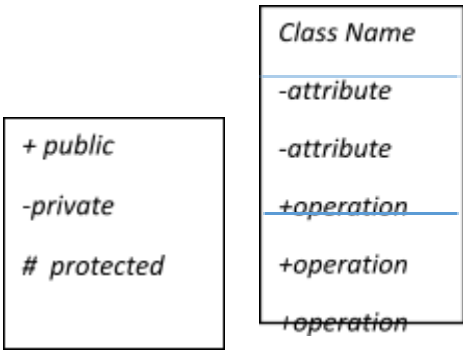
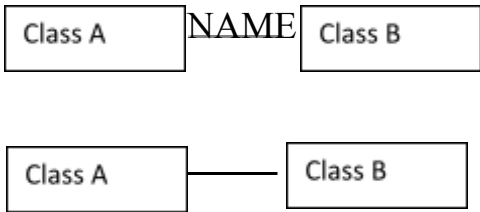
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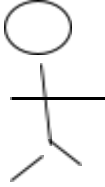
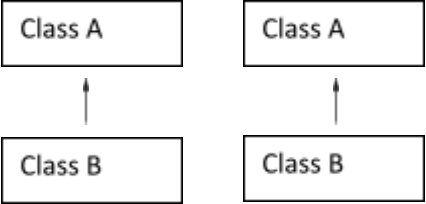
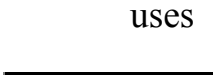



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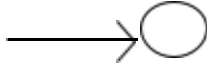

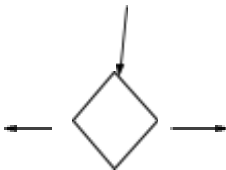
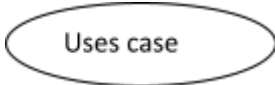
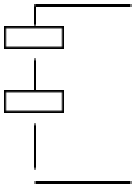
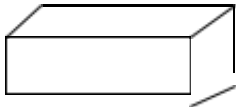
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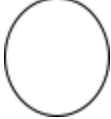


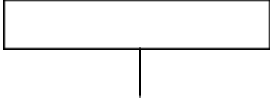
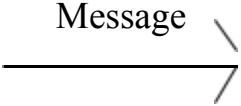
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LIST OF SYMSBOLS

S.N	NOTATION	NOTATION	DESCRIPTION
1.	Class	 <p>The diagram shows two examples of class notation. The first is a box containing three lines of text: '+ public', '-private', and '# protected'. The second is a box divided into three horizontal sections. The top section is labeled 'Class Name'. The middle section contains '-attribute' and '-attribute'. The bottom section contains '+operation' and '+operation'.</p>	Represents a collection of similar entities grouped together.
2.	Association	 <p>The diagram shows two examples of association notation. The first shows two boxes labeled 'Class A' and 'Class B' connected by a line labeled 'NAME'. The second shows two boxes labeled 'Class A' and 'Class B' connected by a simple line.</p>	Associations represents static relationships between classes. Roles represents the way the two

			classes see each other.
3.	Actor		It aggregates several classes into a single classes.
4.	Aggregation		Interaction between the system and external environment
5.	Relation(uses)		Used for additional process communication.
6.	Relation (extends)		Extends relationship is used when one use case is similar to another use case but does a bit more.
7.	Communication		Communication between various use cases.
8.	State		State of the process.

9.	Initial State		Initial state of the object
10.	Final state		Final state of the object
11.	Control flow		Represents various control flow between the states.
12.	Decision box		Represents decision making process from a constraint
13.	Use case		Interaction between the system and external environment.
14.	Component		Represents physical modules which is a collection of components.
15.	Node		Represents physical modules which are a collection of components

16.	Data Process/State		A circle in DFD represents a state or process which has been triggered due to some event or action.
17.	External entity		Represents external entities such as keyboard, sensors etc.
18.	Transition		Represents communication that occurs between processes.
19.	Object Lifeline		Represents the vertical dimensions that the object communications.
20.	Message		Represents the message exchanged.

1. ABSTRACT:

The Coronavirus disease 2019 (COVID-19) pandemic, which originated in Wuhan China, has had disastrous effects on the global community and has overburdened advanced healthcare systems throughout the world, WHO is continuously monitoring and responding to this pandemic. The current rapid and exponential rise in the number of patients has necessitated efficient and quick prediction of the possible outcome of an infected patient for appropriate treatment using AI techniques. The aim is to predict machine learning based techniques for covid-19 recovery chances possible or not prediction results in best accuracy. The analysis of dataset is done by supervised machine learning technique(SMLT) to capture several information's like, variable identification, uni-variate analysis,

bi-variate and multi-variate analysis, missing value treatments and analyze the data validation, data cleaning/preparing and data visualization will be done on the entire given dataset. To propose a machine learning-based method to accurately predict recovery chances by prediction results in the form of whether the covid-19 patient precondition.

2. EXISTING SYSTEM:

In December 2019, a pandemic named COVID-19 broke out in Wuhan, China, and in a few weeks, it spread to more than 200 countries worldwide. Every country infected with the disease started taking necessary measures to stop the spread and provide the best possible medical facilities to infected patients and take precautionary measures to control the spread. As the infection spread was exponential, there arose a need to model infection spread patterns to estimate the patient volume computationally. Such patients' estimation is the key to the

necessary actions that local governments may take to counter the spread, control hospital load, and resource allocations. This article has used long short-term memory (LSTM) to predict the volume of COVID-19 patients in Pakistan. LSTM is a particular type of recurrent neural network (RNN) used for classification, prediction, and regression tasks. We have trained the RNN model on Covid-19 data (March 2020 to May 2020) of Pakistan and predict the Covid-19 Percentage of Positive Patients for June 2020. Finally, we have calculated the mean absolute percentage error (MAPE) to find the model's prediction effectiveness on different LSTM units, batch size, and epochs. Predicted patients are also compared with a prediction model for the same duration, and results revealed that the predicted patients' count of the proposed model is much closer to the actual patient count.

2.1 Drawbacks:

The existing method is only patient count and it does not classify whether covid or not the patient is recovered or not.

Accuracy, Recall F1 score metrics are not calculated and machine learning algorithms are not applied.

3. INTRODUCTION

3.1 DATA SCIENCE:

Data science is an interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from structured and unstructured data, and apply knowledge and actionable insights from data across a broad range of application domains.