PRESENTATION ON PROJECT REPORT

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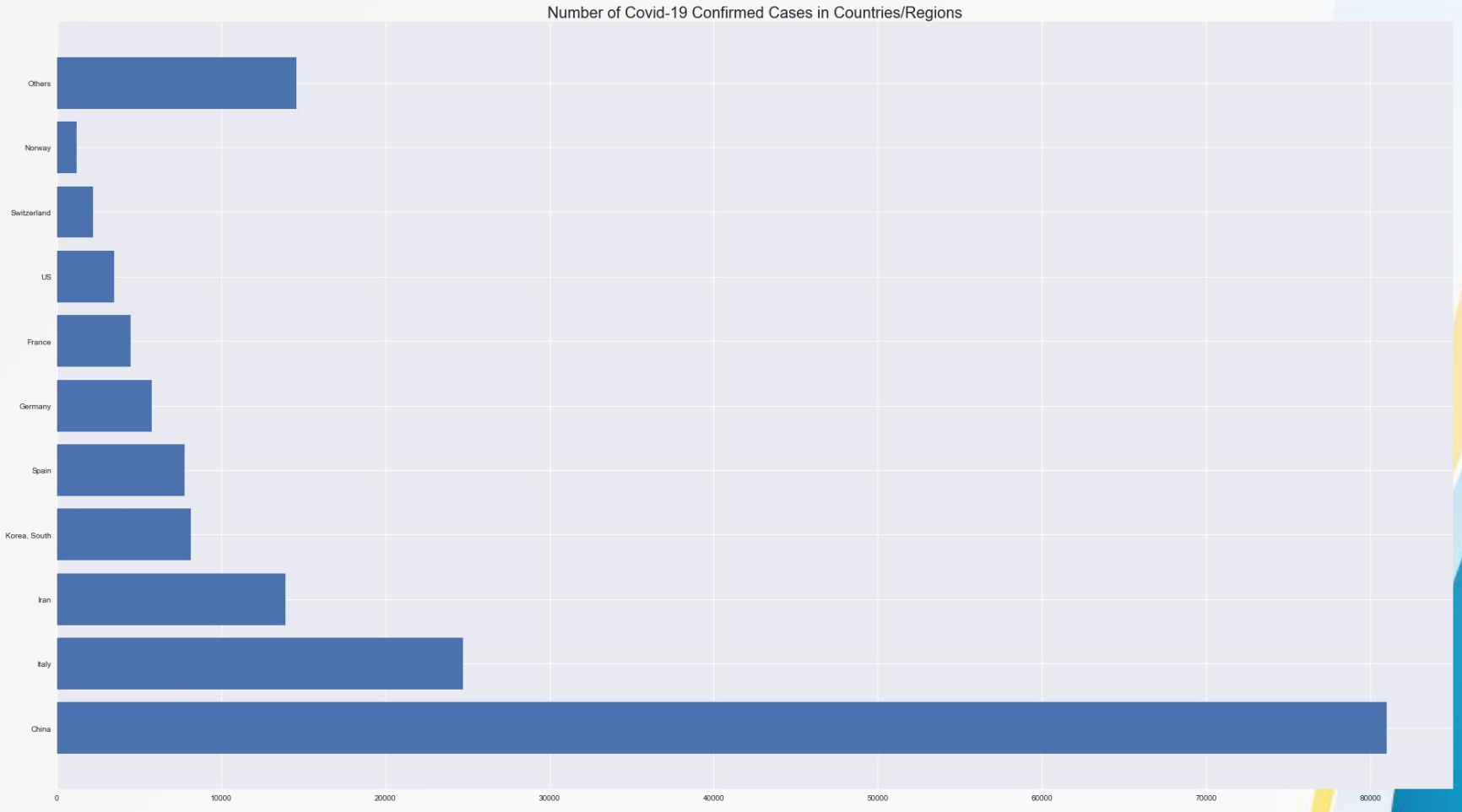
PROBLEM STATEMENT

- Coronavirus Outbreak Prediction Using Machine Learning Covid-19 Outbreak Prediction
- We will analyse the outbreak of coronavirus across various regions, visualize them using charts and graphs and predict the no of upcoming cases using Linear Regression and Support Vector Machine (SVM) model in python

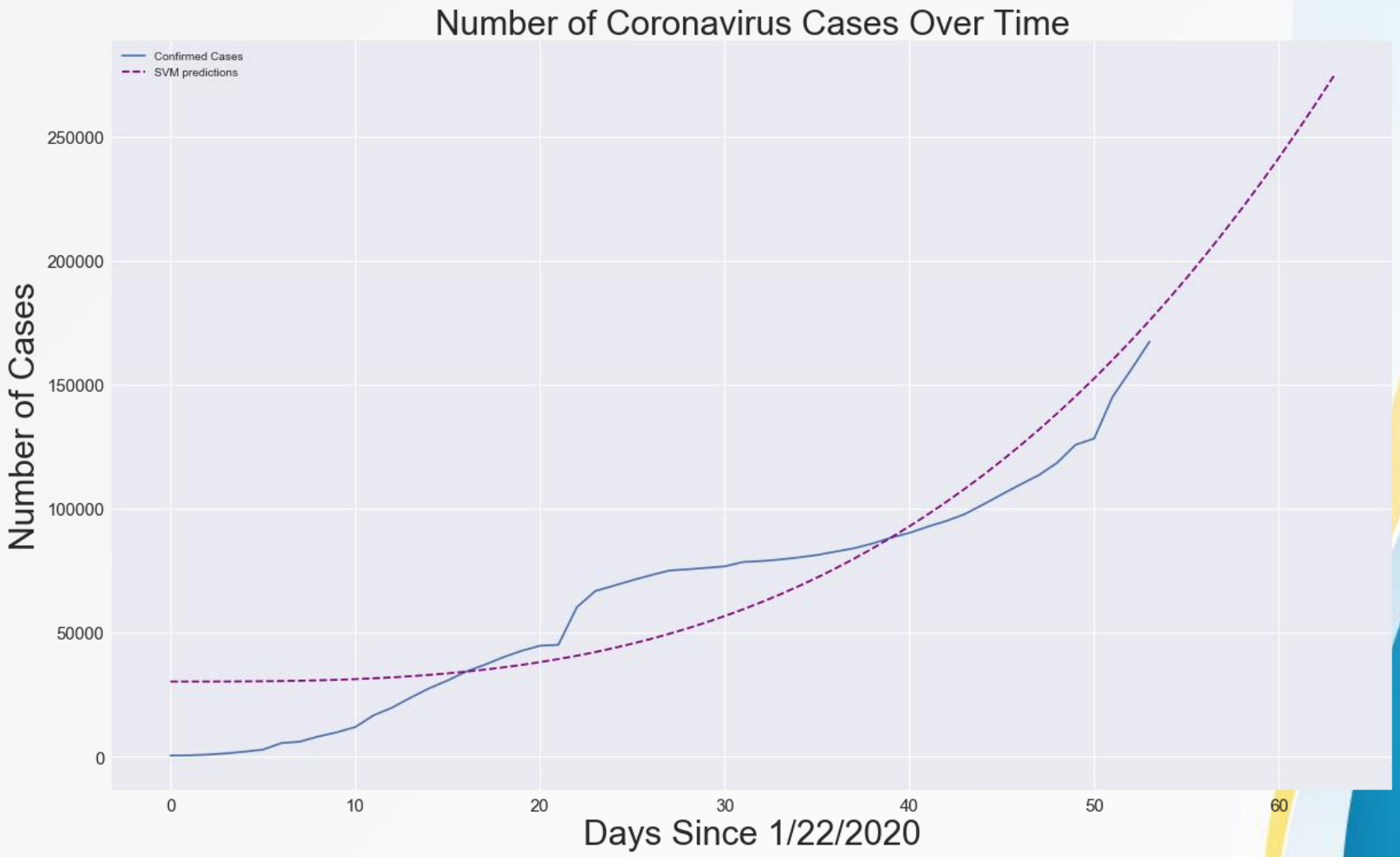
INTRODUCTION

Coronavirus (Covid-19) has become the most buzzed topic these days. Its outbreak has taken the world by storm. In this we'll see what Coronavirus is, how did it emerge, and what are its symptoms. Then, we will see what has been its impact so far and analyze the outbreak of Coronavirus across various regions, visualize them using charts and graphs, and predict the number of upcoming confirmed cases using the Linear Regression model in Python.

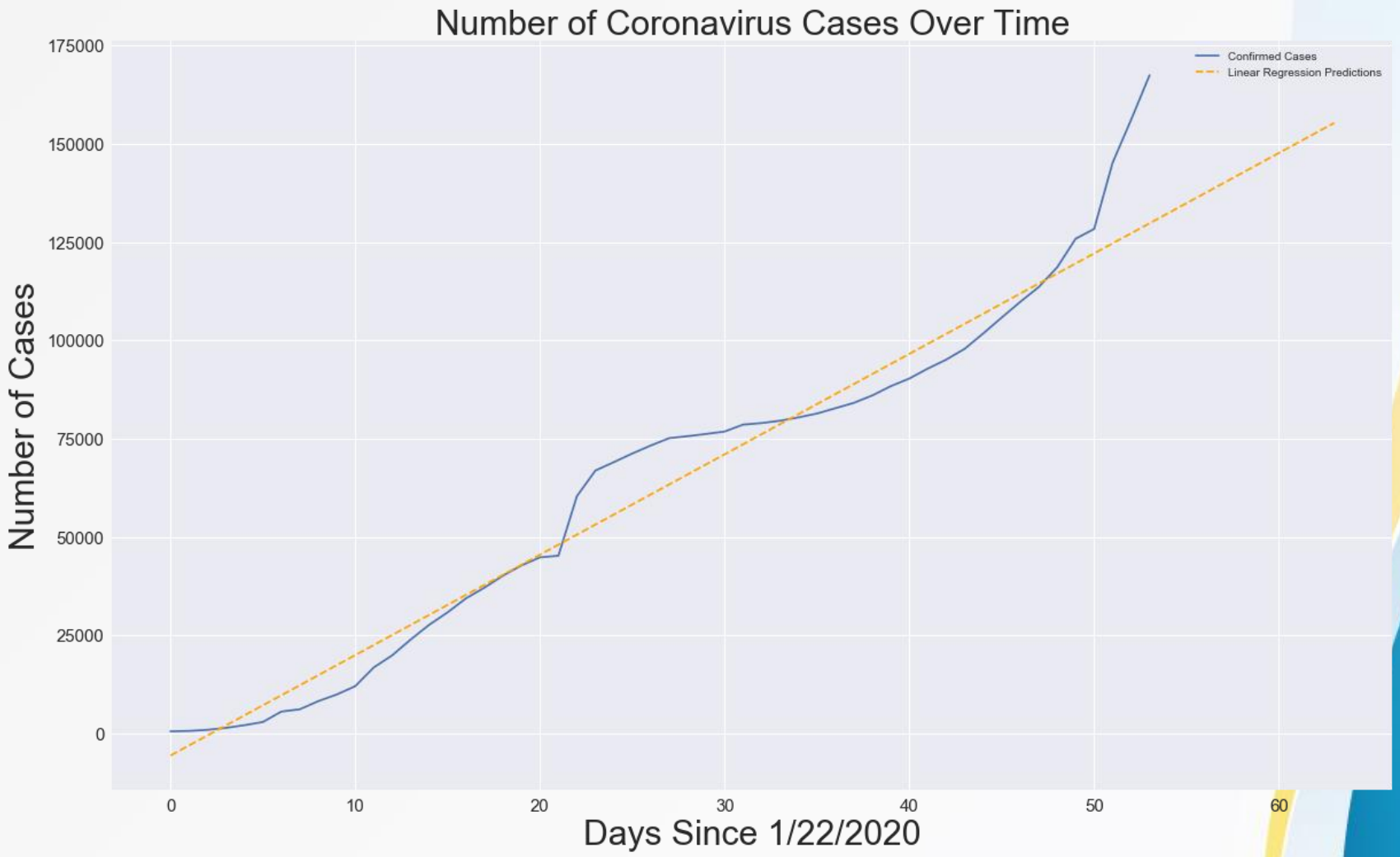
GRAPH


Number of Covid-19 Confirmed Cases in Countries/Regions
Others
Norway
Switzerland
US
France
Germany
Spain
Korea, South
Iran
Italy
China
0
10000
20000
30000
40000
50000
60000
70000
80000

GRAPH(2)


Number of Coronavirus Cases Over Time
Confirmed Cases
SVM predictions
Number of Cases
250000
200000
150000
100000
50000
0
0
10
20
30
40
50
60
Days Since 1/22/2020

GRAPH(3)


Number of Coronavirus Cases Over Time
Confirmed Cases
Linear Regression Predictions
Number of Cases
175000
150000
125000
100000
75000
50000
25000
0
0
10
20
30
40
50
60
Days Since 1/22/2020

METHODOLOGY

- **ALGORITHMS**

  > *Linear Regression*

  why linear Regression ?

  Linear regression analysis is used to predict the value of a variable based on the value of another variable. The variable you want to predict is called the dependent variable. The variable you are using to predict the other variable's value is called the independent variable.

  X = input variable (also called independent variable)

  Y = output variable (also called dependent variable)

  > *Support Vector Machine(SVM)*

  :**-paratmeters used** : kernal, c, gamma, epsilon, shrinking, svm_grid

  Why SVM?

  SVM Classifiers offer good accuracy and perform faster prediction compared to other algorithms. They also use less memory because they use a subset of training points in the decision phase. SVM works well with a clear margin of separation and with high dimensional space.

FINDINGS

- Total number of confirmed cases (1-22-2020) to (3-13-2022) is 167499
- Total number of death cases (1-22-2020) to (3-13-2022) is 6440
- Total number of death cases (1-22-2020) to (3-13-2022) is 76034

REFERENCE

:- Data set from simplilearn website

:- Reference video from youtube channel (simplilearn)