

COVID-19 DATA DASHBOARD

MAJOR PROJECT SYNOPSIS

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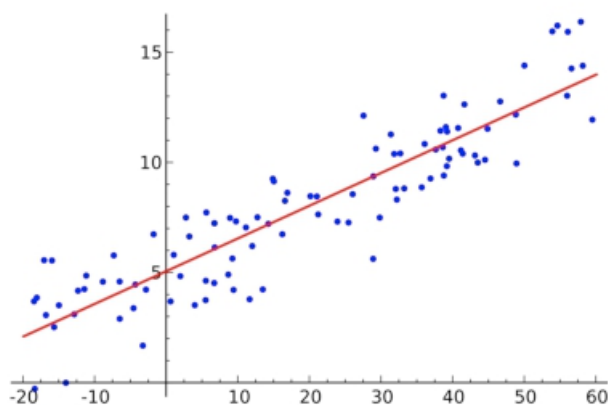
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Introduction

As it is quite evident from the current scenario that the most current, concerning and relatable topic is Coronavirus. It is natural for anyone to be concerned about the way things are happening and with the speed it is taking place in regards to coronavirus, all this instils a state of confusion and caution among people about the spread. Therefore, the main reason behind selecting the particular topic of coronavirus for this project remains to solve these confused state of mind with best to our ability projection of facts and figures in a way which is conceivable to everyone. The project 'COVID-19 DATA DASHBOARD' aims towards providing a better understanding of the coronavirus data by using correct and efficient visual methods assembled in an interactive form. The data used is taken from John Hopkins University and comprises of active, total confirmed, recovered and total deaths all over world distributed by countries. Along with that data is also taken from official government website for better protection and prediction of cases. The project also makes an attempt towards predicting the recoveries of the major hit countries the next day using machine learning. Linear regression is the machine learning technique/algorithm used to predict the number of recoveries going to take place the next day. The project also has an added feature where it analyses the vaccine rollout data according to different geographical locations, the type of vaccine, brand associated with it, its efficacy rate and the demography associated with it. The dashboard created is hosted as a website and the appropriate visuals used (graphs, plots etc) are interactive and very flexible for better understanding of the current scenario. The website and its visuals are created using the



(LINEAR REGRESSION)

Django implemented on visual studio. The javascript, CSS and HTML code is used inside the Django framework to produce the desired visual website with help of the MVC architecture.



(MVC ARCHITECTURE)

Software Requirement

- Python 3.7
- Django 3.8
- Jupyter Notebook
- Visual Studio

Hardware Requirement

Any working PC/Laptop with *4 GB RAM* and at least *i3 processor* to process the data together and work the website at same time.

References

- Kaggle - platform used to accumulate/retrieve data from. Data was taken from John Hopkins University's regular data update.
- Google - the search engine was used to connect to different websites and answer queries.
- StackOverflow - the website was used to resolve doubts and errors encountered during implementation of programme.

- Python documentation website - used to research and quantifiably give attention to specific attributes to increase the accuracy.
- Django Packages website - this website was used the same way as python documentation website for better performance of the Django programming.