

ABSTRACT

The spread of the COVID-19 virus has become the biggest global health threat since the beginning of 2020. The COVID-19 virus has now spread to all countries including Indonesia and has become a pandemic. The trend of increasing the number of positive cases of COVID-19 is still ongoing in Indonesia. The central and regional governments are expected to be able to as soon as possible and as effectively as possible reduce the number of positive cases of COVID-19.

In this study, the number of positive cases of COVID-19 in the Special Capital Region Jakarta was used, especially in the North Jakarta area. Jakarta was chosen as the study sample because it is one of the highest epicenters of the spread of COVID-19 in Indonesia. Concrete data on positive cases of COVID-19 was obtained using the minitab 18 application program and data on the number of positive cases of COVID-19 was obtained from Jakarta Smart City (JSC). The evaluation was carried out by performing data processing on the number of positive COVID-19 cases from 26 March 2020 to future data. The use of minitab 18 aims to compare the prediction results generated with the prediction results processed using the python programming language.

The data is then analyzed to predict the number of positive COVID-19 cases for the next day using the Autoregressive Integrated Moving Average (ARIMA) method. The results of this study are useful for taking a policy based on prediction results through a website-based application by obtaining patterns or models from previously collected data. Of the two time series models used in predicting the prediction of positive cases of COVID-19 in Jakarta by comparing the results of minitab 18 and python data processing with the number of positive cases of COVID-19 in North Jakarta. On July 28, 2021, using minitab 18, ARIMA (5,0.5) MSE 13127.0 was obtained as many as 437,124 positive cases of COVID-19 and python ARIMA (5,0.5) MSE 35659.56 as many as 774,206 positive cases of COVID-19 .

Keywords: Autoregressive Integrated Moving Average (ARIMA), COVID-19, *Minitab 18*, Jakarta, Prediction.