CLASSIFICATION OF COVID-19 SYMPTOMS
USING K-NEAREST NEIGHBOR

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ABSTRACT

Coronavirus Disease 19 (Covid-19) is a new virus that causes respiratory tract infections, which was discovered in 2019. In 2020 the World Health Organization (WHO) declared Coronavirus Disease 19 a global pandemic. Death and confirmed cases were identified using the PCR Swab Test. In addition to the PCR Swab Test, there are several symptoms mentioned by WHO (World Health Organization), namely general symptoms in the form of fever, cough, fatigue, loss of taste or smell. The price of the PCR test to detect the corona virus in Indonesia is a topic of discussion. The high cost of the Polymerase Chain Reaction (PCR) swab test is due to the many components that make up the tariff. The rate maker is in the form of reagents that are tested in a molecular laboratory that has specific specifications. Therefore, in this study the authors built a classification system using the K-Nearest Neighbor method. With this classification system, the public can first classify the symptoms they are experiencing before they will carry out a PCR test for further action and results. The results of this study are a system that can help determine whether the community is included in the categories of low exposure, moderate exposure, or high exposure. The accuracy value in the symptom dataset of patients infected with Covid-19 using Euclidean distance obtained 65% with a value of k = 3, then the precision value obtained 32%, and the recall value obtained 22%. Then using Manhattan distance, it obtained 65% with a value of k = 2, then the precision value obtained 33%, and the recall value obtained 40%.

Keywords: K-NN, Classification, Covid-19