COVID-19 MITIGATION EXPERT SYSTEM USING MOBILE-BASED FORWARD CHAINING METHOD

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ABSTRACT

Corona virus infection or called COVID-19 (Corona Virus Disease 2019) was first discovered in the city of Wuhan, China at the end of December 2019. This virus spreads very fast. In Indonesia itself, the spread of COVID-19 is getting more massive. Until Thursday, September 16, 2021, there were 4,178,164 total cases. There are many factors that cause human-to-human transmission of COVID-19, including gathering or doing activities in a crowd. Seeing this, it is important to have an expert system for mitigation as an effort to suppress the spread of the virus. This study aims to build an expert system using the design sprint method by utilizing environmental data (temperature, humidity and noise level data) from the API which is analyzed using the forward chaining method to provide good information for actions to be taken next in mitigating the risk of spreading COVID-19. From the results of testing the prototype using the System Usability Scale (SUS) obtained an average result of 76.13 with a quality of B. Based on the acceptability range, the value obtained is in the acceptable position. Meanwhile, based on the adjective rating, the prototype tested is in the good category. Based on these results, an application that has been validated with user needs is then generated.

Keywords: *Mitigation, Expert System, Forward Chaining, COVID-19, Design Sprint*