

## ***ABSTRACT***

Heart disease is the most deadly and contagious disease in the world with a very large number of sufferers. The causes of heart disease vary, including unhealthy lifestyles, consuming foods high in cholesterol, environmental factors and hereditary or genetic factors. This problem is caused by the difficulty of early detection of heart disease, because many people often ignore early symptoms and often a person is not aware of the potential for heart disease in themselves. Most people are reluctant to have a heart health check because of the waiting time or queue to get appropriate health services, such as in the heart polyclinic of the Haji Hospital, East Java Province, which is experiencing a shortage of doctors. This can increase the risk of patients being exposed to other viruses. To overcome this problem, a fast, accurate, and effective diagnostic system is needed to reduce waiting time or queues. Therefore, this study aims to create a diagnostic system to predict web-based heart disease categories using the Naïve Bayes classification method to help doctors diagnose patients. The system was developed by taking data from the heart polyclinic of the Haji Hospital, Surabaya with a dataset in the form of 15,846 patient medical records. The attributes in the dataset that will be used in this system consist of 12 attributes including gender, age, complaints, family history of disease, systole, diastole, respiratory rate (RR), hdl cholesterol, ldl cholesterol, blood sugar 2 hours after eating (2 JPP), Gda stick (random blood sugar), and diagnosis. This system is built with the Naïve Bayes method as a data mining algorithm that uses the Python language for data processing tools. HTML and CSS as website development programming languages are used for visualization and data input by users. The results obtained from the web-based heart disease category diagnosis system with a comparison of the Gaussian Naïve Bayes and Bernoulli Naïve Bayes methods are 96.69% and 96.44%, so that the system can help and facilitate doctors in diagnosing heart disease categories quickly, precisely and accurately.

**Keywords: Classification, Diagnostic Systems, Heart Disease Categories, Naïve Bayes**