Abstrak

The increasing use of websites is generally followed by the emergence of cybercrime threats, one of which is SQL Injection. SQL Injection is one of the most common and impactful injection attacks that can occur on a system or website. SQL Injection attacks have various types of attacks that can cause different impacts depending on the query injected into the system or website. In this research, machine learning algorithms especially Support Vector Machine (SVM) and Naïve Bayes are used to detect SQL injection. The dataset used for this research consists of two types of data. One is merged data from Kaggle and the other is the payload used in penetration testing which has been labeled based on five classes namely error based, union based, Boolean based, time based, and benign. From the experimental results, the highest accuracy of Support Vector Machine (SVM) is 93.98% and the highest accuracy of Naïve Bayes is only 73.50%, but with ensemble learning using both methods can achieve better accuracy of 92.9%.

Kata kunci : Machine learning, Support Vector Machine, Naïve Bayes, ensemble learning, SQL Injection.