

Abstract

Muslims have a fundamental lifestyle which can be connected in everyday life not only from the Quran. These guidelines are contained in the teachings contained in the hadith. Hadith contains all expressions, words, or actions from Prophet Muhammad that are utilized as guidelines in the wellspring of Islamic law. Along these, numerous perusers, primarily Muslims, are keen on learning hadith. But the enormous amount of hadiths makes it challenging for perusers or particularly the individuals who are inexperienced with Islamic teachings to perused them. As a result, a system is required to textually grouped hadith according to the nature of instructing. That makes perusers could find new references in reading hadith and can more easily find hadith according to the type of teaching. This research utilizes an easy classification method and has optimal accuracy, namely k- nearest neighbor. Not only that but an additional chi-square method is also used which functions as feature selection with a total hamming loss 0. 11714 or approximately 88. 29% of the hadith are grouped correctly using chi-square as feature selection and using stopword removal modifications in preprocessing. However, the maximum outcome in this research was obtained without utilizing chi-square, with a total hamming loss 0.1042, or approximately 89. 58% of the hadith are correctly grouped.

Keywords: chi-square, hadith, k-nearest neighbor, multi label classification, stopword removal

