

# SISTEM REKOMENDASI MATA KULIAH MENGGUNAKAN ALGORITMA APRIORI

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## ABSTRAK

Sistem rekomendasi ini digunakan untuk merekomendasikan mata kuliah pada mahasiswa yang sedang merencanakan kartu rencana studi. Sistem ini menerapkan metode *association rule*, dimana metode ini merupakan teknik data mining yang digunakan untuk menemukan aturan asosiatif antara suatu kombinasi item. Salah satu algoritma dari *association rule* yaitu apriori. Penelitian ini menggunakan 6.814 dataset mahasiswa teknik informatika universitas muhammadiyah jember angkatan 2015. Penerapan algoritma apriori pada dataset mahasiswa menggunakan minimum support 70% dan minimum confidence 70%. Dari dataset yang sudah diolah menggunakan algoritma apriori ditemukan nilai *support* dan *confidence* tertinggi semester genap sebesar 90% dari 2775 dataset mata kuliah dan nilai *support* dan *confidence* tertinggi semester ganjil sebesar 93% dari 3915 mata kuliah.

**Kata Kunci** : Sistem Rekomendasi, Algoritma Apriori, Mata Kuliah, Support, Confidence.

## **THE RECOMMENDATION SYSTEM OF A SUBJECT USING APRIORI ALGORITHM**

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### **ABSTRACT**

This recommendation system is used to recommend subjects for the students who are planning a study plan card. This system applies the association rule method, where this method is a data mining technique which is used to find associative rules between a combination of items. One of algorithms in association rule is a priori. This study used 6,814 datasets of informatics engineering students at the University of Muhammadiyah Jember 2015. The implementation of a priori algorithms on student datasets used 70% of the minimum support and 70% of minimum confidence. From the datasets that had been processed using a priori algorithm, it was found the highest support and confidence scores for even semester by 90% of the 2775 dataset of subjects and the highest support and confidence values of odd semester by 93% of the 3915 dataset of subjects.

**Keywords:** Recommendation System, Apriori Algorithm, Subject, Support, Confidence.