ABSTRAK

Data merupakan hal yang crucial pada saat ini baik bagi perusahaan, pemerintahan, instansi, maupun individu yang ada. Kumpulan data yang ada dapat diolah menjadi suatu informasi yang berharga bagi setiap organisasi dan atau individu yang membutuhkannya. Salah satu kegunaan dari data yang terkumpul dalam bidang pendidikan adalah untuk membenahi dan meningkatkan kualitas pendidikan bagi mahasiswa. Data mining merupakan proses untuk mencari pola pada sekumpulan data besar dan diperoleh suatu pengetahuan. Dengan menggunakan beberapa metode seperti NBTree untuk classification, XMeans dan DBScan untuk clustering, maka dilakukan percobaan untuk menerapkan metode-metode tersebut pada analisis data mahasiswa. Dari hasil analisis dengan classification diperoleh pola dan dengan clustering diperoleh kelompok data (cluster). Pola dari tree yang terbentuk pada proses classification dan hasil kelompok data yang terbentuk pada proses clustering dapat memberikan sesuatu yang bermanfaat bagi jurusan, fakultas, dan universitas serta memberikan pengaruh terhadap kualitas dari mahasiswa.

Kata kunci: NBTree, XMeans, DBScan, data mahasiswa, pola, kelompok
ABSTRACT

Data is one of the crucial things at this time for companies, governments, institution, or individuals. A dataset can be a valuable information for those who need it. For example in education, a datasets can be used to improve the quality of education for students. Data mining is a process to search a pattern from datasets and get a knowledge from it. By using some method like NBTree in classification, XMeans and DBScan in clustering, some experiments is conducted to implemented those method to analyze student’s data. From classification result obtained a pattern and from clustering result obtained a group of data (cluster). Pattern from classification process and cluster from clustering process can give some benefit for department level, faculty level, and university level and also give some effect in student’s performances.

Keywords: NBTree, XMeans, DBScan, student’s data, pattern, cluster
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| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan T. Informatika) |

### Table 4.108. Centroid clustering data Mahasiswa Aktif (Jurusan T. Informatika)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan T. Informatika) |

### Table 4.109. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.110. Centroid clustering data Mahasiswa Lulusan (Jurusan T. Informatika)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan T. Informatika) |

### Table 4.111. Centroid clustering data Mahasiswa Aktif (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.112. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.113. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.114. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.115. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.116. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.117. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.118. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.119. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.120. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.121. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.122. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.123. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.124. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.125. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.126. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.127. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.128. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.129. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.130. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.131. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.132. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.133. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.134. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.135. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.136. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.137. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.138. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.139. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.140. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.141. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.142. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.143. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.144. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.145. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.146. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.147. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.148. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informasi) |

### Table 4.149. Centroid clustering data Mahasiswa Lulusan (Jurusan S. Informasi)

| Property | Class  
|----------|--------
| Centroid clustering | Mahasiswa Lulusan (Jurusan S. Informati...
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