**SimpleKMeans**

**TOP 5**

**Cluster :4**

**Seed: 2**

Number of iterations: 5

Within cluster sum of squared errors: 365309.0

Clustered Instances

0 5714 ( 59%)

1 990 ( 10%)

2 1588 ( 16%)

3 1398 ( 14%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 <-- assigned to cluster

148 41 0 21 | 0

1201 293 465 261 | 1

1115 256 576 303 | 2

1035 92 2 281 | 3

1116 145 431 288 | 4

128 25 31 26 | 5

283 11 0 66 | 6

181 18 2 39 | 7

337 62 76 65 | 8

170 47 5 48 | 9

Cluster 0 <-- 4

Cluster 1 <-- 1

Cluster 2 <-- 2

Cluster 3 <-- 3

Incorrectly clustered instances : 7424.0 76.6151 %

**Seed: 10**

Number of iterations: 5

Within cluster sum of squared errors: 365140.0

Clustered Instances

0 5519 ( 57%)

1 1680 ( 17%)

2 1303 ( 13%)

3 1188 ( 12%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 <-- assigned to cluster

133 21 39 17 | 0

1480 258 320 162 | 1

1389 347 304 210 | 2

621 320 189 280 | 3

1092 369 254 265 | 4

132 26 27 25 | 5

130 123 27 80 | 6

94 63 32 51 | 7

326 84 67 63 | 8

122 69 44 35 | 9

Cluster 0 <-- 1

Cluster 1 <-- 4

Cluster 2 <-- 2

Cluster 3 <-- 3

Incorrectly clustered instances : 7257.0 74.8916 %

**Seed: 12**

Number of iterations: 13

Within cluster sum of squared errors: 365066.0

Clustered Instances

0 6108 ( 63%)

1 1298 ( 13%)

2 1527 ( 16%)

3 757 ( 8%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 <-- assigned to cluster

156 36 15 3 | 0

1600 342 250 28 | 1

1637 332 245 36 | 2

634 176 353 247 | 3

1192 192 334 262 | 4

119 32 39 20 | 5

125 29 100 106 | 6

127 34 62 17 | 7

359 71 79 31 | 8

159 54 50 7 | 9

Cluster 0 <-- 2

Cluster 1 <-- 1

Cluster 2 <-- 3

Cluster 3 <-- 4

Incorrectly clustered instances : 7096.0 73.2301 %

**Seed: 50**

Number of iterations: 8

Within cluster sum of squared errors: 365335.0

Clustered Instances

0 5715 ( 59%)

1 1649 ( 17%)

2 1310 ( 14%)

3 1016 ( 10%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 <-- assigned to cluster

134 15 33 28 | 0

1405 277 291 247 | 1

1335 292 361 262 | 2

707 343 205 155 | 3

1278 352 199 151 | 4

125 38 24 23 | 5

172 124 35 29 | 6

111 74 30 25 | 7

336 72 86 46 | 8

112 62 46 50 | 9

Cluster 0 <-- 1

Cluster 1 <-- 4

Cluster 2 <-- 2

Cluster 3 <-- 3

Incorrectly clustered instances : 7417.0 76.5428 %

**Cluster :5**

**Seed: 2**

Number of iterations: 5

Within cluster sum of squared errors: 364019.0

Clustered Instances

0 4763 ( 49%)

1 987 ( 10%)

2 1588 ( 16%)

3 1355 ( 14%)

4 997 ( 10%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 <-- assigned to cluster

127 42 0 21 20 | 0

980 295 465 267 213 | 1

878 252 576 287 257 | 2

868 91 2 277 172 | 3

992 141 431 268 148 | 4

109 27 31 23 20 | 5

241 11 0 66 42 | 6

145 18 2 42 33 | 7

296 63 76 62 43 | 8

127 47 5 42 49 | 9

Cluster 0 <-- 4

Cluster 1 <-- 1

Cluster 2 <-- 2

Cluster 3 <-- 3

Cluster 4 <-- 9

Incorrectly clustered instances : 7501.0 77.4097 %

**Seed: 10**

Number of iterations: 6

Within cluster sum of squared errors: 363671.0

Clustered Instances

0 4906 ( 51%)

1 1503 ( 16%)

2 1260 ( 13%)

3 1071 ( 11%)

4 950 ( 10%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 <-- assigned to cluster

128 20 37 16 9 | 0

1359 239 315 161 146 | 1

1283 320 297 204 146 | 2

484 271 178 249 228 | 3

965 329 241 230 215 | 4

121 26 26 24 13 | 5

83 105 27 64 81 | 6

78 54 31 39 38 | 7

293 78 64 52 53 | 8

112 61 44 32 21 | 9

Cluster 0 <-- 1

Cluster 1 <-- 4

Cluster 2 <-- 2

Cluster 3 <-- 3

Cluster 4 <-- 6

Incorrectly clustered instances : 7375.0 76.1094 %

**Seed 12**

Number of iterations: 7

Within cluster sum of squared errors: 364128.0

Clustered Instances

0 5243 ( 54%)

1 1285 ( 13%)

2 909 ( 9%)

3 785 ( 8%)

4 1468 ( 15%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 <-- assigned to cluster

124 36 36 4 10 | 0

1375 336 259 24 226 | 1

1404 322 255 25 244 | 2

534 183 84 262 347 | 3

1028 189 115 279 369 | 4

105 32 23 22 28 | 5

138 33 15 100 74 | 6

121 30 14 17 58 | 7

293 62 68 44 73 | 8

121 62 40 8 39 | 9

Cluster 0 <-- 2

Cluster 1 <-- 1

Cluster 2 <-- 8

Cluster 3 <-- 3

Cluster 4 <-- 4

Incorrectly clustered instances : 7251.0 74.8297 %

**Seed 50**

Number of iterations: 9

Within cluster sum of squared errors: 364192.0

Clustered Instances

0 5047 ( 52%)

1 1627 ( 17%)

2 1257 ( 13%)

3 932 ( 10%)

4 827 ( 9%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 <-- assigned to cluster

109 13 32 23 33 | 0

1226 282 280 226 206 | 1

1167 282 348 245 208 | 2

641 346 193 140 90 | 3

1160 331 204 132 153 | 4

110 38 21 19 22 | 5

168 119 33 23 17 | 6

88 73 28 29 22 | 7

295 76 80 52 37 | 8

83 67 38 43 39 | 9

Cluster 0 <-- 1

Cluster 1 <-- 3

Cluster 2 <-- 2

Cluster 3 <-- 8

Cluster 4 <-- 4

Incorrectly clustered instances : 7565.0 78.0702 %

**Cluster :7**

**Seed:2**

Number of iterations: 6

Within cluster sum of squared errors: 363001.0

Clustered Instances

0 4199 ( 43%)

1 919 ( 9%)

2 1046 ( 11%)

3 1358 ( 14%)

4 957 ( 10%)

5 633 ( 7%)

6 578 ( 6%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 5 6 <-- assigned to cluster

105 39 2 24 15 25 0 | 0

841 284 364 245 207 175 104 | 1

718 233 241 282 252 182 342 | 2

813 85 2 295 149 66 0 | 3

906 125 391 278 151 85 44 | 4

93 25 7 25 20 14 26 | 5

221 10 0 67 42 20 0 | 6

131 15 4 48 31 11 0 | 7

259 57 30 59 43 30 62 | 8

112 46 5 35 47 25 0 | 9

Cluster 0 <-- 4

Cluster 1 <-- 8

Cluster 2 <-- 1

Cluster 3 <-- 3

Cluster 4 <-- 9

Cluster 5 <-- 0

Cluster 6 <-- 2

Incorrectly clustered instances : 7654.0 78.9886 %

**Seed:10**

Number of iterations: 14

Within cluster sum of squared errors: 361249.0

Clustered Instances

0 3966 ( 41%)

1 1366 ( 14%)

2 1175 ( 12%)

3 1000 ( 10%)

4 870 ( 9%)

5 689 ( 7%)

6 624 ( 6%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 5 6 <-- assigned to cluster

105 20 36 16 8 5 20 | 0

1130 215 293 179 133 61 209 | 1

1086 285 288 201 152 67 171 | 2

365 246 164 197 198 191 49 | 3

758 307 215 220 188 197 95 | 4

100 23 22 30 13 8 14 | 5

42 77 27 39 72 97 6 | 6

53 54 28 41 39 6 19 | 7

241 77 61 38 46 50 27 | 8

86 62 41 39 21 7 14 | 9

Cluster 0 <-- 1

Cluster 1 <-- 4

Cluster 2 <-- 2

Cluster 3 <-- 7

Cluster 4 <-- 3

Cluster 5 <-- 6

Cluster 6 <-- 8

Incorrectly clustered instances : 7602.0 78.452 %

**Seed:12**

Number of iterations: 9

Within cluster sum of squared errors: 361512.0

Clustered Instances

0 4407 ( 45%)

1 1295 ( 13%)

2 825 ( 9%)

3 583 ( 6%)

4 1252 ( 13%)

5 800 ( 8%)

6 528 ( 5%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 5 6 <-- assigned to cluster

122 33 29 5 12 8 1 | 0

1266 323 260 23 226 77 45 | 1

1275 329 230 17 215 115 69 | 2

363 186 67 188 269 201 136 | 3

824 200 105 196 307 194 154 | 4

90 32 17 16 27 16 12 | 5

62 30 11 87 57 72 41 | 6

79 28 13 15 48 37 20 | 7

236 74 52 28 58 57 35 | 8

90 60 41 8 33 23 15 | 9

Cluster 0 <-- 2

Cluster 1 <-- 1

Cluster 2 <-- 9

Cluster 3 <-- 6

Cluster 4 <-- 4

Cluster 5 <-- 3

Cluster 6 <-- 8

Incorrectly clustered instances : 7421.0 76.5841 %

**Seed:50**

Number of iterations: 13

Within cluster sum of squared errors: 361427.0

Clustered Instances

0 3888 ( 40%)

1 1483 ( 15%)

2 1144 ( 12%)

3 832 ( 9%)

4 785 ( 8%)

5 698 ( 7%)

6 860 ( 9%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 5 6 <-- assigned to cluster

90 16 30 23 30 11 10 | 0

1057 248 278 223 214 129 71 | 1

1022 269 274 209 194 194 88 | 2

336 313 173 100 92 142 254 | 3

861 303 182 126 133 116 259 | 4

91 35 22 20 20 14 8 | 5

78 108 36 23 14 24 77 | 6

61 66 28 18 19 22 26 | 7

227 65 85 55 34 29 45 | 8

65 60 36 35 35 17 22 | 9

Cluster 0 <-- 1

Cluster 1 <-- 3

Cluster 2 <-- 2

Cluster 3 <-- 8

Cluster 4 <-- 9

Cluster 5 <-- 6

Cluster 6 <-- 4

Incorrectly clustered instances : 7673.0 79.1847 %

**Cluster :10**

**Seed:2**

Number of iterations: 7

Within cluster sum of squared errors: 359606.0

Clustered Instances

0 2912 ( 30%)

1 897 ( 9%)

2 1040 ( 11%)

3 1197 ( 12%)

4 859 ( 9%)

5 590 ( 6%)

6 571 ( 6%)

7 629 ( 6%)

8 409 ( 4%)

9 586 ( 6%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 5 6 7 8 9 <-- assigned to cluster

93 38 1 19 15 25 0 8 4 7 | 0

634 286 361 211 180 165 104 132 16 131 | 1

520 225 240 259 225 168 338 147 5 123 | 2

517 84 2 244 140 60 0 101 152 110 | 3

586 126 390 233 125 83 44 144 149 100 | 4

59 22 7 29 20 11 25 10 16 11 | 5

122 11 0 63 34 16 0 33 46 35 | 6

84 14 3 42 31 11 0 18 8 29 | 7

219 53 31 48 42 27 60 21 9 30 | 8

78 38 5 49 47 24 0 15 4 10 | 9

Cluster 0 <-- 1

Cluster 1 <-- 8

Cluster 2 <-- 4

Cluster 3 <-- 3

Cluster 4 <-- 9

Cluster 5 <-- 0

Cluster 6 <-- 2

Cluster 7 <-- 5

Cluster 8 <-- 6

Cluster 9 <-- 7

Incorrectly clustered instances : 7874.0 81.259 %

**Seed:10**

Number of iterations: 9

Within cluster sum of squared errors: 359670.0

Clustered Instances

0 3069 ( 32%)

1 1291 ( 13%)

2 1106 ( 11%)

3 876 ( 9%)

4 823 ( 8%)

5 642 ( 7%)

6 609 ( 6%)

7 651 ( 7%)

8 447 ( 5%)

9 176 ( 2%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 5 6 7 8 9 <-- assigned to cluster

78 18 34 14 7 5 15 15 23 1 | 0

870 194 277 149 116 57 196 160 151 50 | 1

878 269 263 168 142 52 166 141 113 58 | 2

241 230 153 190 190 186 51 128 32 9 | 3

615 295 205 197 195 186 101 91 60 35 | 4

86 26 22 26 10 6 15 10 8 1 | 5

19 80 24 38 65 93 5 29 3 4 | 6

31 54 28 31 39 6 18 20 12 1 | 7

190 68 61 32 42 47 25 30 36 9 | 8

61 57 39 31 17 4 17 27 9 8 | 9

Cluster 0 <-- 2

Cluster 1 <-- 4

Cluster 2 <-- 1

Cluster 3 <-- 3

Cluster 4 <-- 7

Cluster 5 <-- 6

Cluster 6 <-- 0

Cluster 7 <-- 9

Cluster 8 <-- 8

Cluster 9 <-- 5

Incorrectly clustered instances : 7839.0 80.8978 %

**Seed:12**

Number of iterations: 9

Within cluster sum of squared errors: 358992.0

Clustered Instances

0 3072 ( 32%)

1 1115 ( 12%)

2 706 ( 7%)

3 560 ( 6%)

4 1172 ( 12%)

5 725 ( 7%)

6 511 ( 5%)

7 645 ( 7%)

8 656 ( 7%)

9 528 ( 5%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 5 6 7 8 9 <-- assigned to cluster

65 38 34 6 12 3 1 23 13 15 | 0

907 292 205 22 195 59 39 193 155 153 | 1

887 289 213 17 191 100 58 163 170 162 | 2

198 143 56 188 241 177 132 90 148 37 | 3

653 158 84 176 296 198 148 86 86 95 | 4

59 27 16 16 29 18 12 13 8 12 | 5

36 24 10 83 62 60 47 11 18 9 | 6

39 24 14 16 46 35 23 14 18 11 | 7

174 68 47 29 65 53 36 27 17 24 | 8

54 52 27 7 35 22 15 25 23 10 | 9

Cluster 0 <-- 1

Cluster 1 <-- 2

Cluster 2 <-- 8

Cluster 3 <-- 6

Cluster 4 <-- 4

Cluster 5 <-- 3

Cluster 6 <-- 7

Cluster 7 <-- 0

Cluster 8 <-- 9

Cluster 9 <-- 5

Incorrectly clustered instances : 7810.0 80.5986 %

**Seed:50**

Number of iterations: 8

Within cluster sum of squared errors: 359830.0

Clustered Instances

0 2753 ( 28%)

1 885 ( 9%)

2 963 ( 10%)

3 587 ( 6%)

4 578 ( 6%)

5 737 ( 8%)

6 691 ( 7%)

7 609 ( 6%)

8 1308 ( 13%)

9 579 ( 6%)

Class attribute: LABEL

Classes to Clusters:

0 1 2 3 4 5 6 7 8 9 <-- assigned to cluster

83 25 29 20 14 15 7 8 0 9 | 0

540 293 244 163 159 138 68 119 389 107 | 1

449 240 264 151 187 206 56 101 458 138 | 2

513 76 120 78 28 147 189 135 2 122 | 3

581 138 155 71 132 116 197 132 351 107 | 4

88 14 20 7 8 9 10 8 31 15 | 5

131 14 24 15 7 25 83 43 0 18 | 6

88 24 19 13 9 31 26 14 2 14 | 7

192 32 62 42 19 28 38 28 71 28 | 8

88 29 26 27 15 22 17 21 4 21 | 9

Cluster 0 <-- 4

Cluster 1 <-- 1

Cluster 2 <-- 8

Cluster 3 <-- 9

Cluster 4 <-- 0

Cluster 5 <-- 7

Cluster 6 <-- 3

Cluster 7 <-- 6

Cluster 8 <-- 2

Cluster 9 <-- 5

Incorrectly clustered instances : 7977.0 82.322 %