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|  | Cluster Distance Performance |

he Cluster Distance Performance operator takes this centroid cluster model and clustered set as input and evaluates the performance of the model based on the cluster centroids. Two performance measures are supported: Average within cluster distance and Davies-Bouldin index. These performance measures are explained in the parameters.

K=3

**PerformanceVector**

PerformanceVector:

Avg. within centroid distance: 1935726448497994.500

Avg. within centroid distance\_cluster\_0: 2492228297597510.000

Avg. within centroid distance\_cluster\_1: 10973714215652.848

Avg. within centroid distance\_cluster\_2: 2448563714512001.000

Davies Bouldin: 0.452

K=4

# PerformanceVector

PerformanceVector:

Avg. within centroid distance: 866592634002730.100

Avg. within centroid distance\_cluster\_0: 12027660291353.370

Avg. within centroid distance\_cluster\_1: 10973714215652.848

Avg. within centroid distance\_cluster\_2: 2448563714512001.000

Avg. within centroid distance\_cluster\_3: 11472000289006.355

Davies Bouldin: 0.271

K=5

PerformanceVector:

Avg. within centroid distance: 11671973665769.566

Avg. within centroid distance\_cluster\_0: 12027660291353.370

Avg. within centroid distance\_cluster\_1: 10973714215652.848

Avg. within centroid distance\_cluster\_2: 11601956365112.863

Avg. within centroid distance\_cluster\_3: 11472000289006.355

Avg. within centroid distance\_cluster\_4: 12459258278464.734

Davies Bouldin: 0.060

K=6

# PerformanceVector

PerformanceVector:

Avg. within centroid distance: 9540469608764.492

Avg. within centroid distance\_cluster\_0: 2722364521187.006

Avg. within centroid distance\_cluster\_1: 10973714215652.848

Avg. within centroid distance\_cluster\_2: 11601956365112.863

Avg. within centroid distance\_cluster\_3: 11472000289006.355

Avg. within centroid distance\_cluster\_4: 12459258278464.734

Avg. within centroid distance\_cluster\_5: 2928148705609.381

Davies Bouldin: 0.199

K=7

Davies Bouldin: +0.315

K=8

PerformanceVector:

Avg. within centroid distance: 6069447141862.127

Avg. within centroid distance\_cluster\_0: 3125599609270.358

Avg. within centroid distance\_cluster\_1: 12459258278464.734

Avg. within centroid distance\_cluster\_2: 2921794632546.107

Avg. within centroid distance\_cluster\_3: 2928148705609.381

Avg. within centroid distance\_cluster\_4: 11601956365112.863

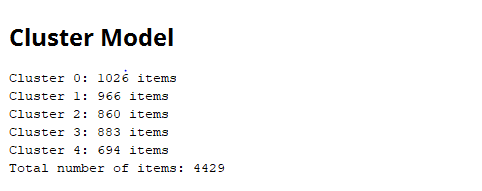
Avg. within centroid distance\_cluster\_5: 2948230875186.970

Avg. within centroid distance\_cluster\_6: 2722364521187.006

Avg. within centroid distance\_cluster\_7: 2612779365459.963

Davies Bouldin: 0.396

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| **k** | 3 | 4 | **5** | 6 | 7 | 8 |
| **Davies Bouldin:** | 0.452 | 0.271 | 0.06 | 0.199 | 0.315 | 0.396 |



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