**TALLER 2**

**REDES NEURONALES**

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**Fecha:** 2023-08-22

**APRENDIZAJE NO SUPERVISADO**

**1. Path-Based1**

|  |  |  |
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| **kmeans** | **kmedoids** | **DBSCAN** |
|  |  |  |
|  |  |  |
| k = 15 | k=15 | epsilon=1,8213  Nro. Vecinos = 10 |

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| --- | --- | --- | --- |
|  | **k-means** | **k-medoids** | **DBSCAN** |
| **SSW** | 2,0846 | 2,0108 | 7,0103 |
| **SSB** | 9,1903 | 9,1714 | 4,3779 |
| **WB-index** | 3,4024 | 3,2887 | 4,8038 |
| **Silhouette** | 0,5426 | 0,5730 | 0,2273 |

**2. Aggregation**

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| **kmeans** | **kmedoids** | **DBSCAN** |
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|  |  |  |
| k=18 | k=18 | epsilon=1,1498  Nro. Vecinos = 10 |

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|  | **k-means** | **k-medoids** | **DBSCAN** |
| **SSW** | 2,0270 | 1,9570 | 8,7556 |
| **SSB** | 12,0144 | 12,0232 | 6,0349 |
| **WB-index** | 3,0368 | 2,9298 | 15,9592 |
| **Silhouette** | 0,6038 | 0,5771 | -0,3618 |

**3. Path-based2**

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| **kmeans** | **kmedoids** | **DBSCAN** |
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|  |  |  |
| k=25 | k=25 | ep=1,6691  Nro. Vecinos = 10 |

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|  | **k-means** | **k-medoids** | **DBSCAN** |
| **SSW** | 1,8793 | 1,7429 | 8,6011 |
| **SSB** | 9,1270 | 9,0813 | 1,0805 |
| **WB-index** | 5,1475 | 4,7980 | 31,8417 |
| **Silhouette** | 0,5509 | 0,5879 | -0,3492 |

**4. S3**

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| **kmeans** | **kmedoids** | **DBSCAN** |
|  |  |  |
|  |  |  |
| k = 20 | k = 20 | epsilon = 1,7451 e4  Nro. Vecinos = 10 |

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|  | **k-means** | **k-medoids** | **DBSCAN** |
| **SSW** | 4,53 e4 | 4,52 e4 | 1,3998 e5 |
| **SSB** | 2,5450 e5 | 2,5455 e5 | 1,8689 e5 |
| **WB-index** | 3,5388 | 3,5513 | 12,9408 |
| **Silhouette** | 0,6073 | 0,6038 | -0,3075 |

**5. Zelnik1**

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| **kmeans** | **kmedoids** | **DBSCAN** |
|  |  |  |
|  |  |  |
| k=25 | k=25 | epsilon=0,0255  Nro. Vecinos = 10 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **k-means** | **k-medoids** | **DBSCAN** |
| **SSW** | 0,0268 | 0,0262 | 0,1624 |
| **SSB** | 0,1703 | 0,1704 | 0,0222 |
| **WB-index** | 3,9413 | 3,8480 | 36,6551 |
| **Silhouette** | 0,7286 | 0,7183 | -0,2158 |

**6. Ds3c3sc6**

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| --- | --- | --- |
| **kmeans** | **kmedoids** | **DBSCAN** |
|  |  |  |
|  |  |  |
| k=15 | k=15 | epsilon = 0,0080  Nro. Vecinos = 10 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **k-means** | **k-medoids** | **DBSCAN** |
| **SSW** | 0,0178 | 0,0175 | 0,0462 |
| **SSB** | 0,0952 | 0,0954 | 0,0725 |
| **WB-index** | 2,8075 | 2,7564 | 7,0087 |
| **Silhouette** | 0,5598 | 0,5557 | 0,0678 |

**7. Complex9**

|  |  |  |
| --- | --- | --- |
| **kmeans** | **kmedoids** | **DBSCAN** |
|  |  |  |
|  |  |  |
| **k=14** | **k=14** | **epsilon=9,8923**  Nro. Vecinos = 10 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **k-means** | **k-medoids** | **DBSCAN** |
| **SSW** | 46,3844 | 47,9522 | 104,8374 |
| **SSB** | 212,8512 | 213,5675 | 123,4962 |
| **WB-index** | 3,0509 | 3,1434 | 70,4597 |
| **Silhouette** | 0,5887 | 0,5667 | -0,1181 |

**8. rings**

|  |  |  |
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| **kmeans** | **kmedoids** | **DBSCAN** |
|  |  |  |
|  |  |  |
| k=27 | k=27 | epsilon=0,9992  Nro. Vecinos = 10 |

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| --- | --- | --- | --- |
|  | **k-means** | **k-medoids** | **DBSCAN** |
| **SSW** | 1,0909 | 1,0712 | 3,5975 |
| **SSB** | 5,0938 | 5,1265 | 2,4491 |
| **WB-index** | 5,7825 | 5,6419 | 17,6270 |
| **Silhouette** | 0,5430 | 0,5462 | 0,2105 |