

# ניסויים

## Kmeans:

Optimal number of clusters based on Silhouette Score: 6 and his score 0.7251181630059241

```
KMeans
KMeans(init='random', n_clusters=6, random_state=42)
```

Optimal number of clusters based on Silhouette Score: 8 and his score 0.716259254869025

```
KMeans
KMeans(random_state=42)
```

Optimal number of clusters based on Silhouette Score: 8 and his score 0.716259254869025

```
KMeans
KMeans(algorithm='elkan', random_state=42)
```

Optimal number of clusters based on Silhouette Score: 6 and his score 0.7251181630059241

```
KMeans
KMeans(algorithm='elkan', init='random', max_iter=200, n_clusters=6,
      random_state=42)
```

Optimal number of clusters based on Silhouette Score: 6 and his score 0.7251181630059241

```
KMeans
KMeans(init='random', max_iter=1000, n_clusters=6)
```

התוצאה הטובה ביותר היא ניסוי מספר 1

## AgglomerativeClustering:

Optimal number of clusters based on Silhouette Score: 6 and his score 0.7256900714288006

```
AgglomerativeClustering
AgglomerativeClustering(n_clusters=6)
```

Optimal number of clusters based on Silhouette Score: 10 and his score 0.7078385268925678

```
AgglomerativeClustering
AgglomerativeClustering(linkage='complete', metric='l2', n_clusters=10)
```

Optimal number of clusters based on Silhouette Score: 5 and his score 0.6923413939127293

```
AgglomerativeClustering
AgglomerativeClustering(linkage='single', n_clusters=5)
```

Optimal number of clusters based on Silhouette Score: 5 and his score 0.6923413939127293

```
AgglomerativeClustering
AgglomerativeClustering(linkage='single', metric='l2', n_clusters=5)
```

Optimal number of clusters based on Silhouette Score: 6 and his score 0.7256900714288006

```
AgglomerativeClustering
AgglomerativeClustering(compute_distances=True, n_clusters=6)
```

התוצאה הטובה ביותר היא ניסוי מספר 5

**Dbscan:**

```
DBSCAN(eps=2)
the score :0.613327782899459
```

```
DBSCAN(eps=1.0)
the score :0.7070123298589694
```

---

```
DBSCAN(eps=1.0, min_samples=20)
the score :0.6612622555185036
```

```
DBSCAN(eps=1.0, min_samples=2)
the score :0.5798728445599673
```

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```
DBSCAN(algorithm='kd_tree', eps=1.0)
the score :0.7070123298589694
```

התוצאה הטובה ביותר היא ניסוי מספר 5