Experiment 1:

kmeans = KMeans(n_clusters=8, init= "k-means++", max_iter=100)

```
KMeans Silhouette Score: 0.7160120743931654
```

AgglomerativeClustering(n_clusters=6, metric='euclidean', linkage='ward')

```
Agglomerative Clustering Silhouette Score: 0.7256900714288006
```

dbscan = DBSCAN(eps=0.999, min_samples=5)

```
DBSCAN Silhouette Score: 0.7070123298589694
```

Experiment 2:

KMeans(n_clusters=8 ,init="k-means++", max_iter=500)

```
KMeans Silhouette Score: 0.7160621457169183
```

AgglomerativeClustering(n_clusters=optimal_n_clusters = **10**, metric='euclidean', linkage='complete')

```
Agglomerative Clustering Silhouette Score: 0.7078385268925678
```

DBSCAN(eps=0.1, min_samples=5)

```
DBSCAN Silhouette Score: -0.6773088802623503
```

Experiment 3:

KMeans(n_clusters=8,init="random", max_iter=500)

```
KMeans Silhouette Score: 0.7162749930599402
```

AgglomerativeClustering(n_clusters=optimal_n_clusters=**11**, metric='manhattan', linkage='complete')

```
Agglomerative Clustering Silhouette Score: 0.7033958075815099
```

DBSCAN(eps=0.3, min_samples=5)

```
DBSCAN Silhouette Score: -0.055524203456842544
```

Experiment 4:

KMeans(n_clusters=optimal_k = **6** ,init="random", max_iter=500, verbose=5)

```
KMeans Silhouette Score: 0.7251181630059241
```

AgglomerativeClustering(n_clusters=**3**, metric='cosine', linkage='complete')

```
Agglomerative Clustering Silhouette Score: 0.6109340457071865
```

DBSCAN(eps=0.7, min_samples=1)

```
DBSCAN Silhouette Score: 0.023361857513575487
```

Experiment 5:

KMeans(n_clusters=**6**, init= "k-means++", max_iter=500,verbose=5)

```
KMeans Silhouette Score: 0.7251181630059241
```

AgglomerativeClustering(n_clusters=**3**, metric='cosine', linkage='average')

```
Agglomerative Clustering Silhouette Score: 0.6109340457071865
```

dbscan = DBSCAN(eps=0.3, min_samples=15)

```
DBSCAN Silhouette Score: -0.5342328711389696
```

Best results:

KMeans(n_clusters=optimal_k = **6** ,init="random", max_iter=500, verbose=5)

AgglomerativeClustering(n_clusters=6, metric='euclidean', linkage='ward')

dbscan = DBSCAN(eps=0.999, min_samples=5)