

Lab 4-Kmean from scratch-2110240-rimas

Main class to run code is kmean class and it should be .ipynb and the 3 remaining classes are .py to run them on google colab

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kmean.ipynb ☆
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[3] # Import the KMeans class from the clustering_base module
    from clustering_base import KMeans

    # Import the KMeans_dataset function from the dataset_sklearn module
    from dataset_sklearn import KMeans_dataset

    # Import the visualize_KMeansClusters and KMeansElbow_method functions from the drives_kmean module
    from drives_kmean import visualize_KMeansClusters, KMeansElbow_method

    # Generate the dataset for KMeans clustering
    X = KMeans_dataset()

    # Create an instance of the KMeans class with 3 clusters
    kmeans_custom = KMeans(n_clusters=3)

    # Fit the KMeans model to the data
    kmeans_custom.fit(X)

    # Get cluster assignments and cluster centers
    final_cluster_assignments_custom = kmeans_custom.labels_
    final_cluster_centers_custom = kmeans_custom.cluster_centers_

    # Visualize the KMeans clusters
    visualize_KMeansClusters(X, final_cluster_assignments_custom, final_cluster_centers_custom)

    # Perform the KMeans Elbow method
    KMeansElbow_method(X)

    # Add the '/content/sample_data' directory to the system path
    import sys
    sys.path.append('/content/sample_data')
```

The output:

