NAME: Sandeep Kumar Rai

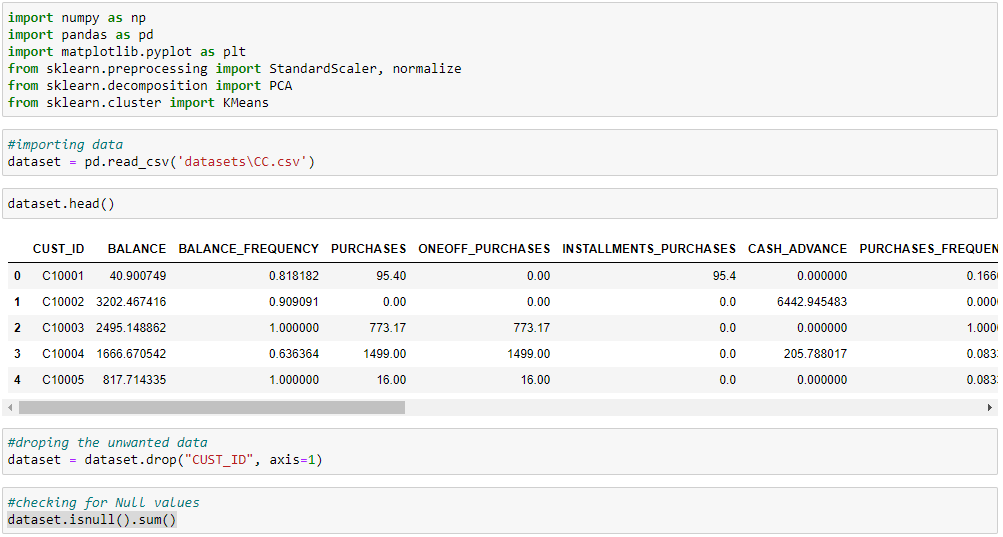
GITHUB\_LINK: https://github.com/raisandeepkmr/assignment\_5.git

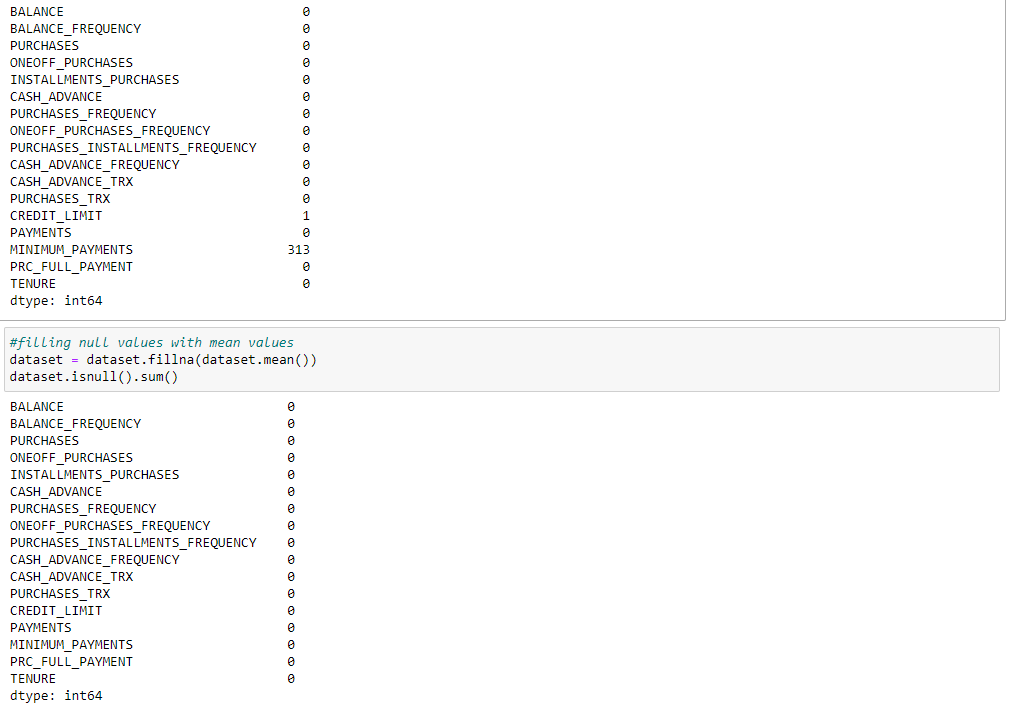
VIDEO\_LINK: <https://drive.google.com/drive/folders/1q9I_ieoHe8qptl8f4KPiyi8jqV8kGqF4?usp=sharing>

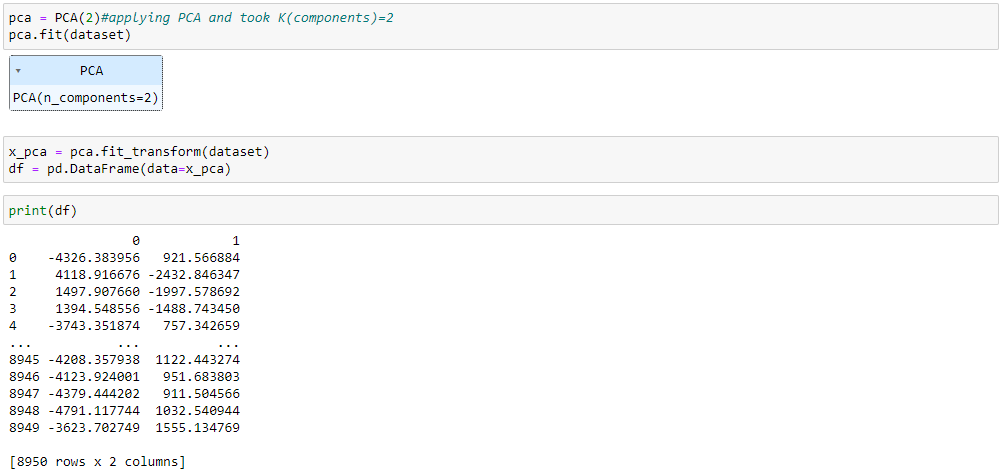
**In class programming:**

1. Principal Component Analysis

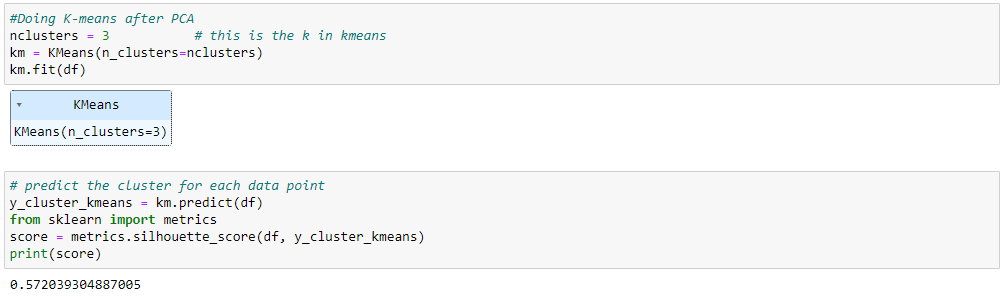
a. Apply PCA on CC dataset.



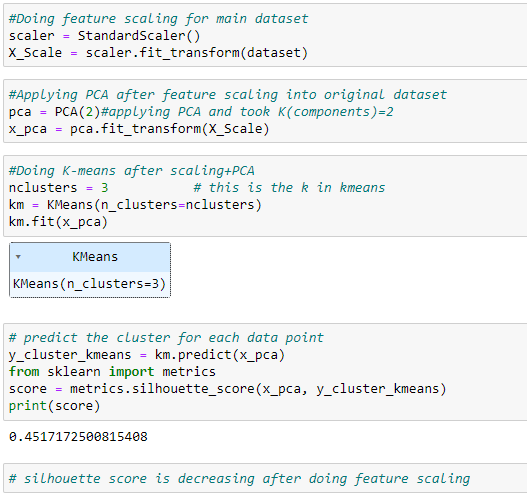




b. Apply k-means algorithm on the PCA result and report your observation if the silhouette score has improved or not?

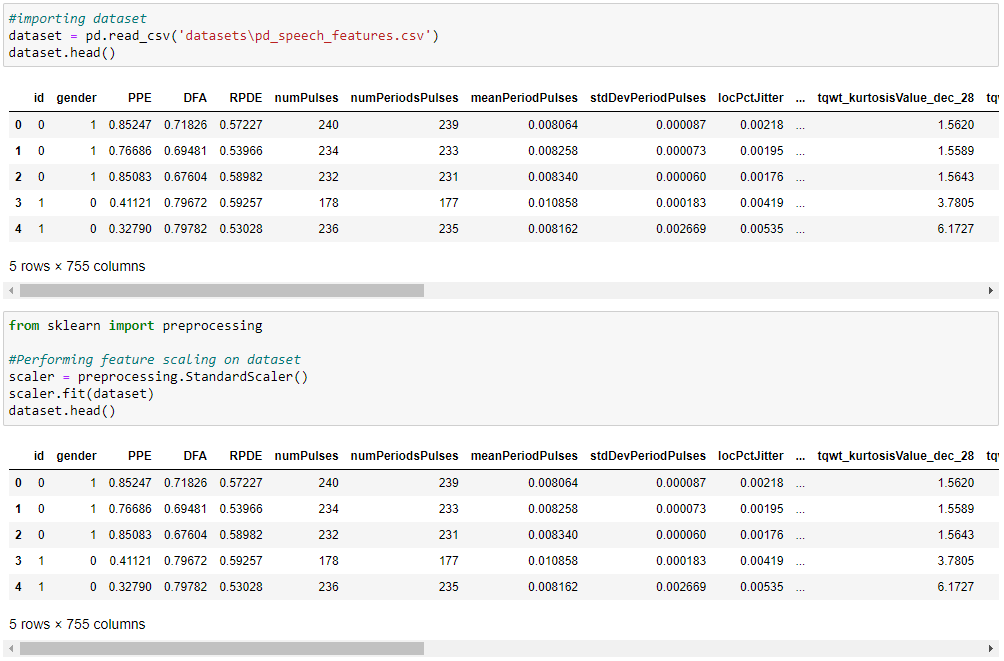


c. Perform Scaling+PCA+K-Means and report performance.



2. Use pd\_speech\_features.csv

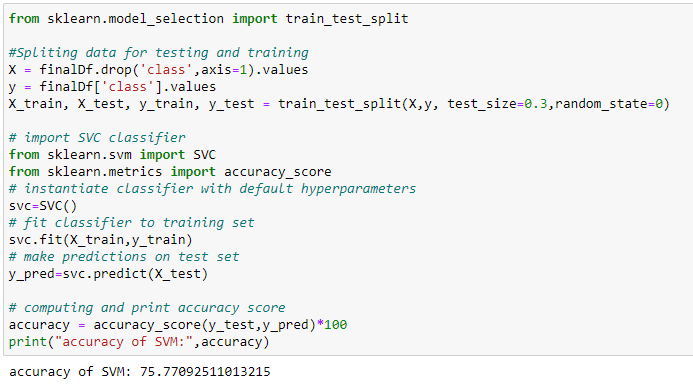
a. Perform Scaling



b. Apply PCA (k=3)



c. Use SVM to report performance



3. Apply Linear Discriminant Analysis (LDA) on Iris.csv dataset to reduce dimensionality of data to k=2.





4. Briefly identify the difference between PCA and LDA

