

## Clustering/Segment Airline Data to Gain Insight



East-West Airlines is trying to learn more about its customers. Key issues are their flying patterns, earning and use of frequent flyer rewards, and use of the airline credit card. The task is to identify customer segments via clustering. The file `EastWestAirlines.csv` (Download From <https://coding.co.ke/datasets/>) contains information on 4000 passengers who belong to an airline's frequent flier program. For each passenger the data include information on their mileage history and on different ways they accrued or spent miles in the last year.

**The goal is to try to identify clusters of passengers that have similar characteristics for the purpose of targeting different segments for different types of mileage offers.**

The data **`EastWestAirlines.csv`** includes 5 Columns namely;

- Balance = Number of miles eligible for award travel
- Bonus\_miles = Number of miles earned from non-flight bonus transactions in the past 12 months
- Flight\_miles\_12months = Number of flight miles in the past 12 months
- Flight\_trans\_12months = Number of flight transactions in the past 12 months
- Days\_since\_enroll = Number of days since Enrollment.

**NB: In this task you will Cluster Using ONLY The Last 3 Columns namely;**

- Flight\_miles\_12months
- Flight\_trans\_12months
- Days\_since\_enroll

Use KMEANS Model as Used in Clustering Lesson to Cluster this data.  
Which Clusters Interests you? Explain any Two Clusters?