Capstone Project-1. Fannie Mae Loan Dataset

## Fannie Mae Acquisitions Project:

Abstract: Fannie Mae Provides two data sets, acquisition data set and performance data set, on a quarterly basis every year. For any quarter, acquisition data set provides information on the loans acquired by Fannie Mae in that quarter while the performance data set provides information on the performance of the previously acquired loans in hat quarter. This project is to combine the data from these two data sets and build an algorithms to predict the loan behavior in the future.

Audience: Fannie Mae management: The goal is to build algorithms to predict loan behavior by studying a loan attributes and comparing them with the already acquired loan performance attributes and helping Fannie Mae make more rational decisions on its new purchases.

Goals:

1. Primary Goal:
   * Loan Performance Prediction. Goal is to track the performance of a loan using a number of identifiers and predict how likely the loan will default or lead to a foreclosure.
2. Secondary Goals:
   * Interest Rate Prediction: Build an ML program to predict the interest rate that would be assigned to a new loan by comparing the new loan attributes with those of already acquired loans.
   * Identifying the risk associated with each loan by studying its underlying attributes and there by helping Fannie Mae to make a decision whether it should acquire the loan or not.

* Help Fannie Mae identify critical attributes of a loan that influence the loan performance more than others. Example: LTV Vs CLTV