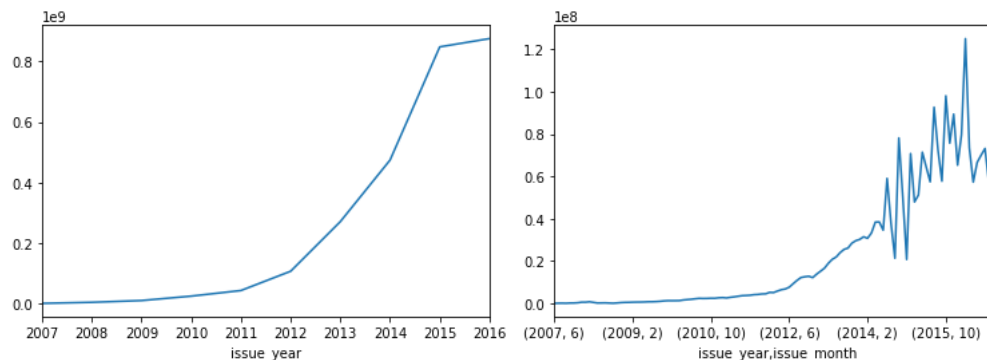
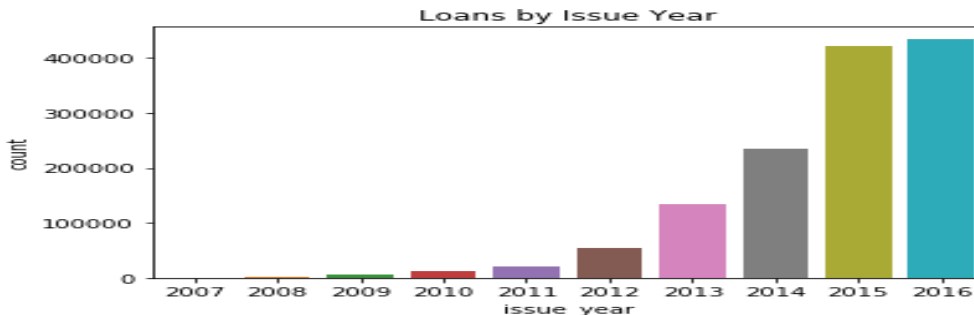


# Exploratory Data Analysis

Exploratory Data Analysis is an approach to analyzing data sets to summarize their main characteristics, often with visual methods

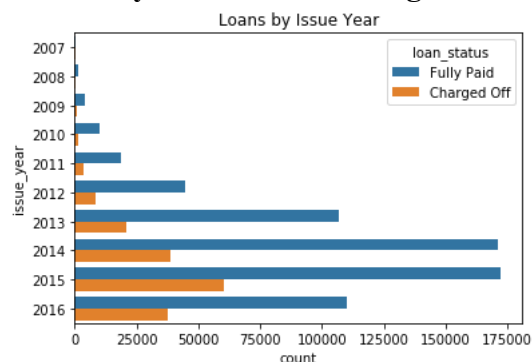
Let's answer few questions about the dataset by performing exploratory data analysis.

## 1. Which year has the highest number of loans issued?



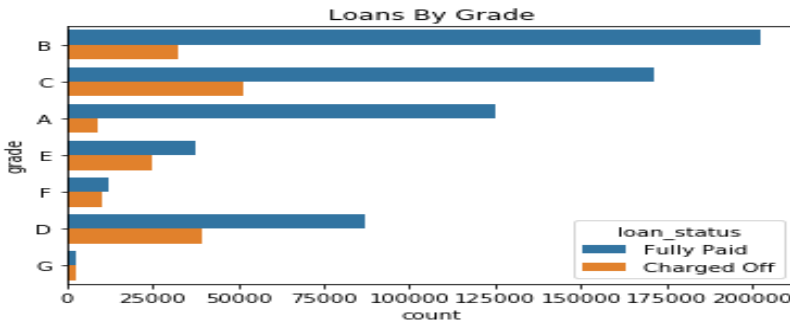
Number of Loans issued by Lending Tree have increased from 2007 to 2016. The highest number of loans are issued in the year 2015 and 2016. The number of loans are almost doubled in the year 2015 and 2016 in comparison to the loans in 2013 and 2014.

## 2. Which year with most charged off loans?



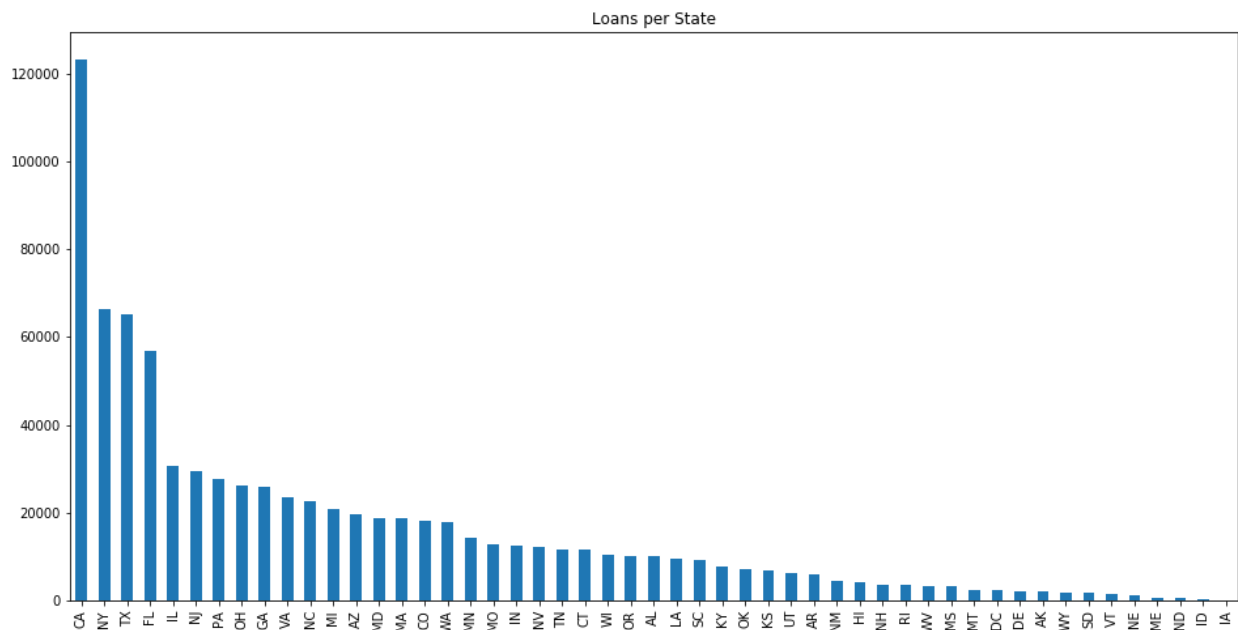
Number of maximum charged off loans are in the year 2015. Number of maximum fully paid loans are in the year 2014 and 2015

### 3. Which grade loans are charged off the most?



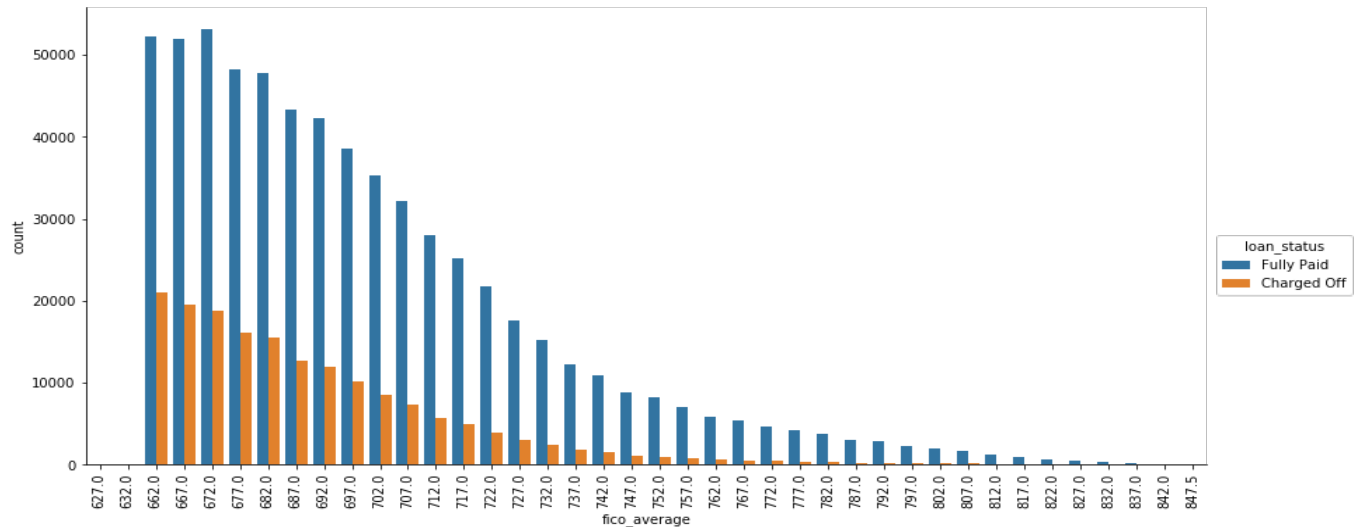
The maximum charged off loans are of grade C loans. Even the loan with good grades like A and B have significant charged off loans. Number of loans issued for F and G are very less but more than half the loans are charged off.

### 4. Loans across different states in United States?



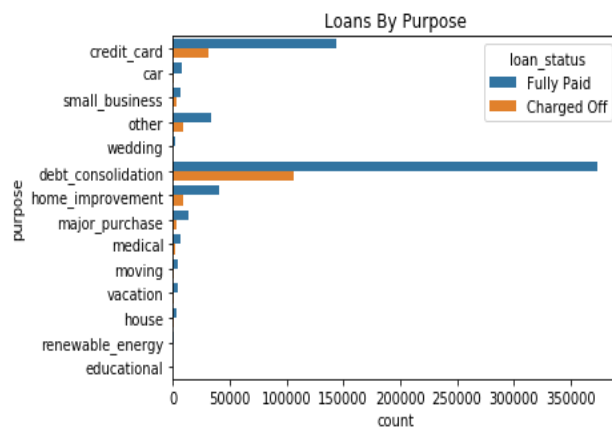
Lending Tree approves loans in most of the states in United states. The maximum number of loans are issued in California , Newyork, Texas and Florida. The lease number of loans are issued in the states Maine,North Dakota, Idaho and Iowa.

## 5. What is the minimum fico score to get a loan from Lending Tree?



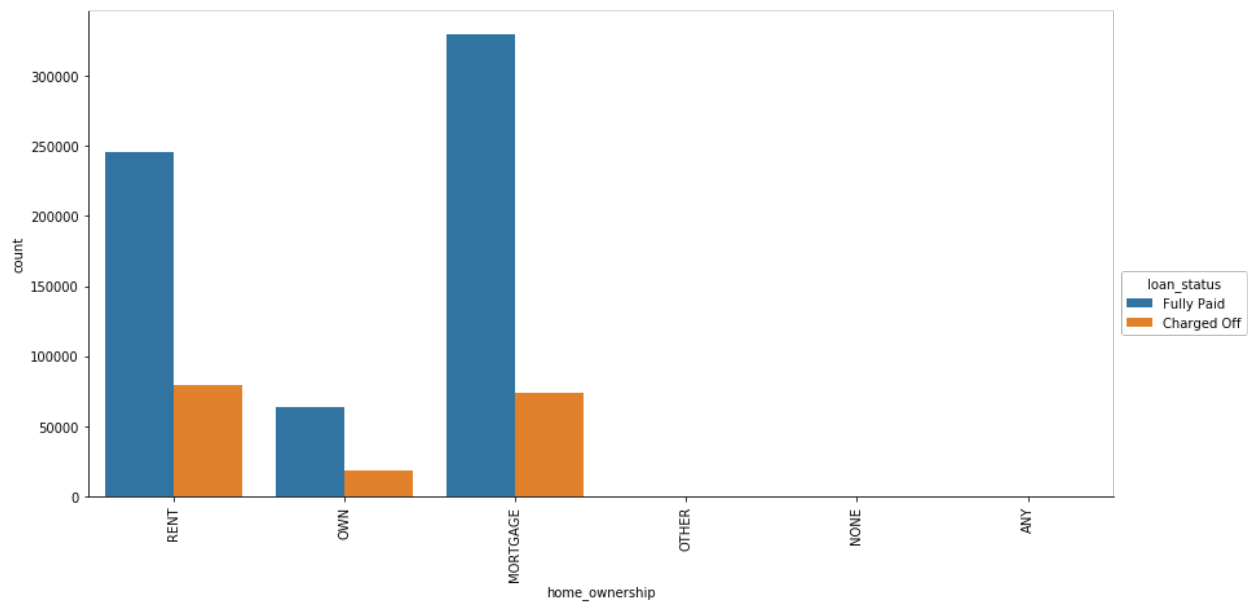
The minimum fico score is atleast 650 to get a loan from LendingTree. Higher the fico score the lesser the charged off loans. It is evident that the loans with low fico score charged off the most. The loans with high fico score also have charged off status. so there may be other features that are causing the loans to charge off.

## 6. Which loan purpose has the highest number of charged off loans?



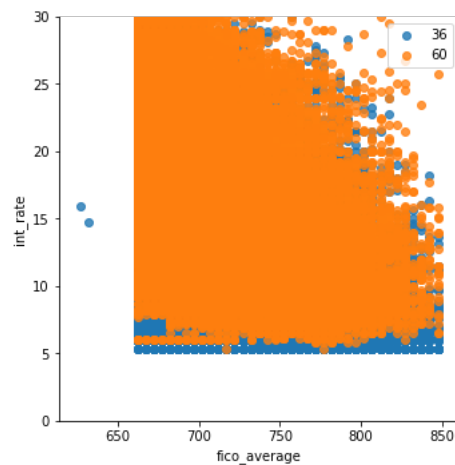
The above graph shows that the loans with purpose "Debt consolidation" and "credit card" have highest charged off rate.

## 7. Which homeownership status has the highest number of charged off loans



The applicants who have mortgage have been issued the most loans. The charged off rate for the loans with home ownership rent are slightly less than the loans with mortgage.

## 8. Fico Score Vs Interest Rate



Fico score and interest rate are negatively correlated. Lesser the fico score the higher the interest rate. The applicants with higher fico have mostly opted for 36 loan term