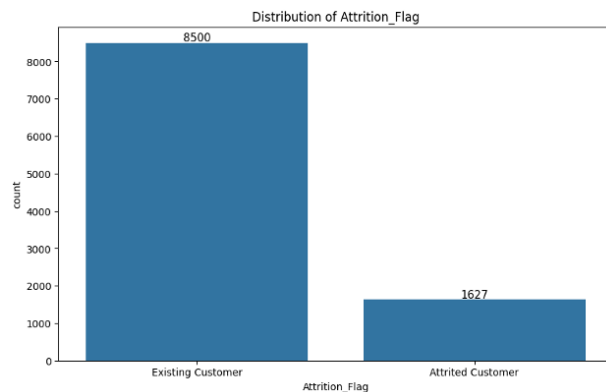


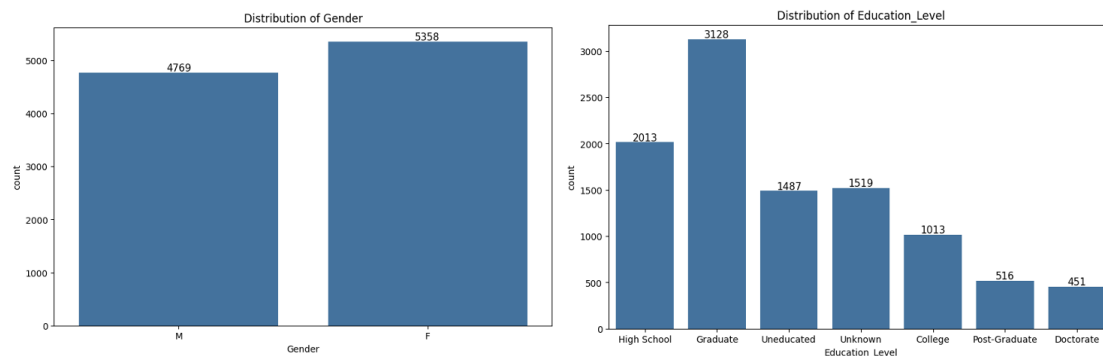
Inferences for the Exploratory Data Analysis :

Exploratory Data Analysis (EDA)

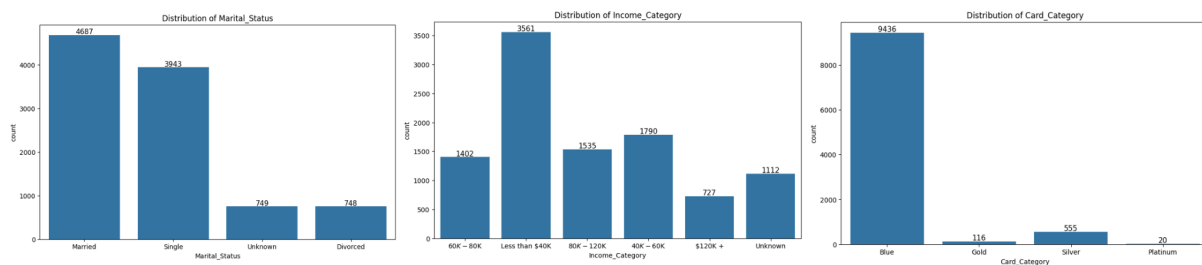
1)Analysis of Categorical Variable



The graphical representation showcases the distribution of customers categorized by their attrition status, distinguishing between 'Existing Customers' and 'Attrited Customers'. A predominant majority of customers are identified as 'Existing Customers', signifying a notably lower proportion within the 'Attrited Customer' category. This evident imbalance between the two categories underscores potential implications for analytical techniques, particularly in predictive modeling, where addressing class imbalances becomes crucial for accurate analysis.



"These graphs provide insight into the bank's customer demographics. The 'Distribution of Gender' graph depicts the number of men ('M') and women ('F'). It suggests a slight predominance of women, although the overall distribution is relatively balanced. The 'Distribution of Education_Level' graph showcases various education levels among customers, with a majority falling under 'Graduate' or 'High School', but there's a mix from 'Uneducated' to 'Doctorate.'



The 'Marital Status Distribution' highlights a diverse mix of 'Married' and 'Single' customers, crucial for targeted marketing and product variety. In the 'Income Category Distribution', the category 'Less than 40K' dominates, reflecting diverse financial brackets affecting spending behaviors and product suitability. Moreover, the 'Card Category Distribution' emphasizes the widespread 'Blue' card preference and fewer higher-tier cards, indicating a mass-market focus with premium options for select customers. Understanding these insights across marital status, income, and card categories is pivotal for the bank's strategic planning and customer-centric approach.