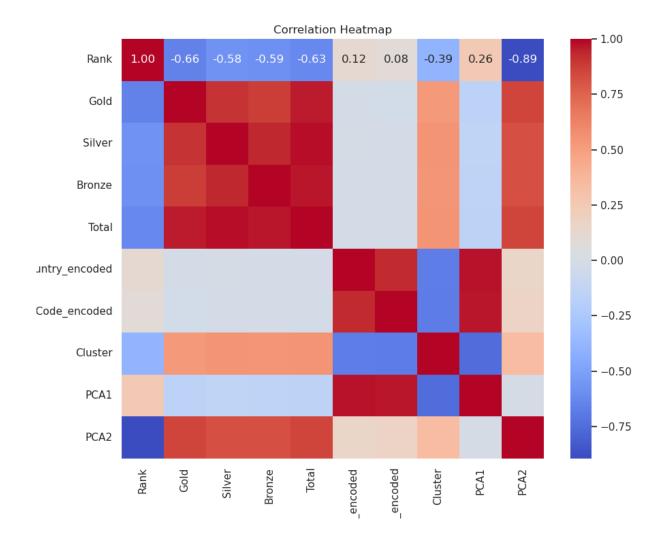
# Olympics 2024 Data Analysis Report

#### **Data Summary**

This section provides a summary of the dataset, with important statistical descriptions of both numerical and categorical features. This section includes an important statistical description of the data.

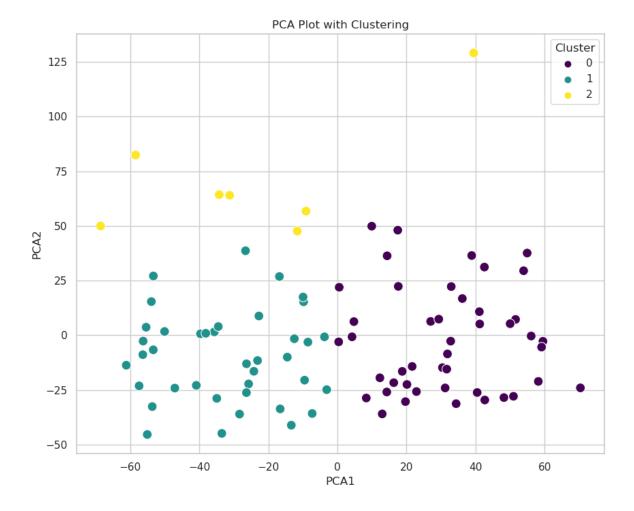
#### **Correlation Heatmap**

The heatmap below illustrates the correlation coefficients between numerical features. Correlation values close to 1 signify strong positive relationships, while values closer to -1 signify strong negative relationships.



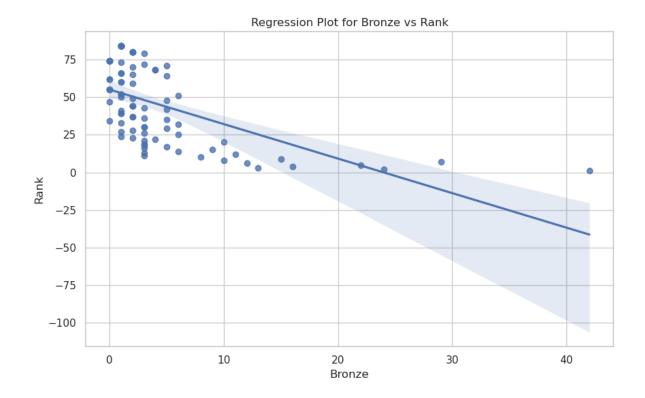
#### **PCA Plot**

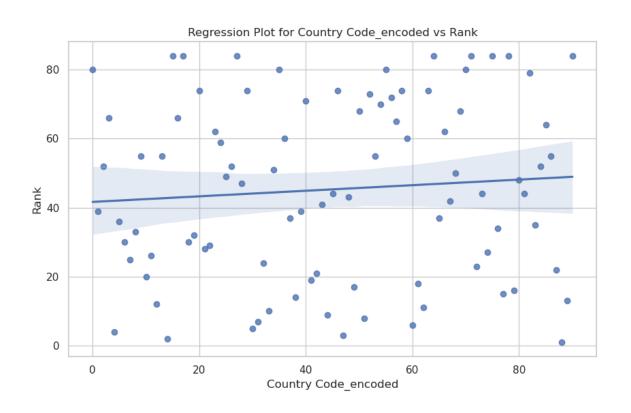
Principal Component Analysis (PCA) is performed to reduce the dimensionality of the data . The plot below highlights the components with the highest variance .

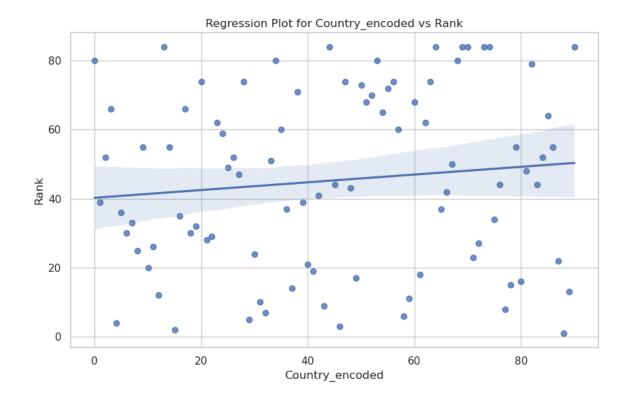


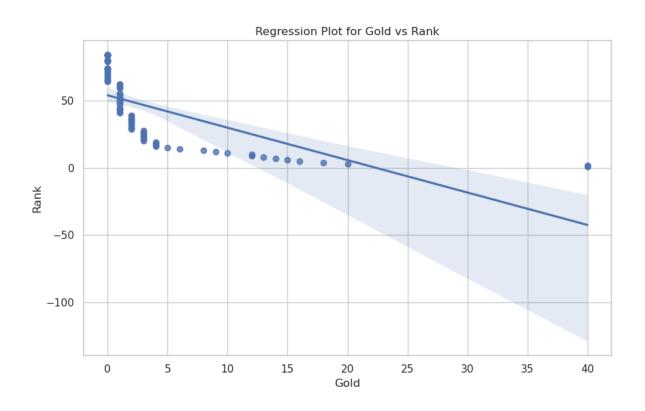
### Regression Analysis

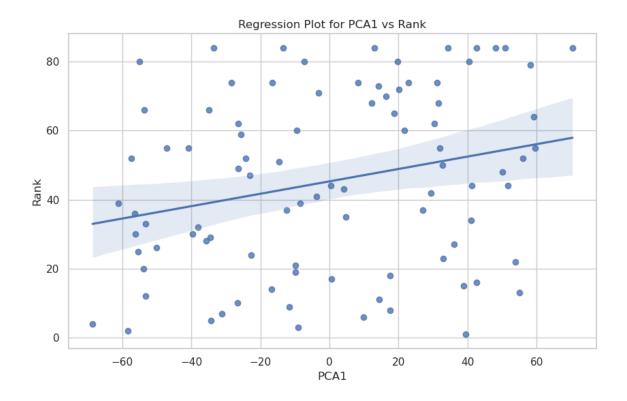
Linear regression analysis explores the relationship between the dependent variable and one or more independent variables. The plot demonstrates the fit line. Linear regression analyses explore relationship between dependent variables and independent variables.

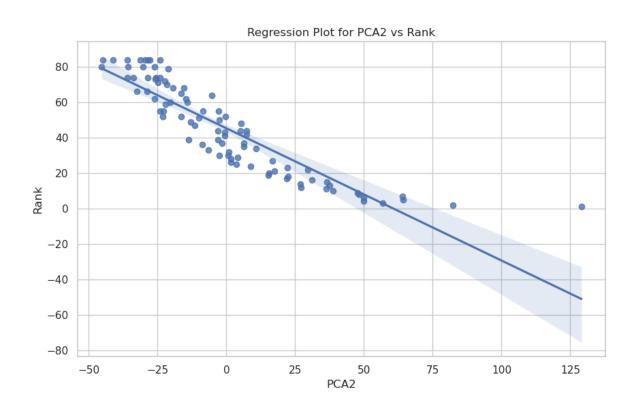


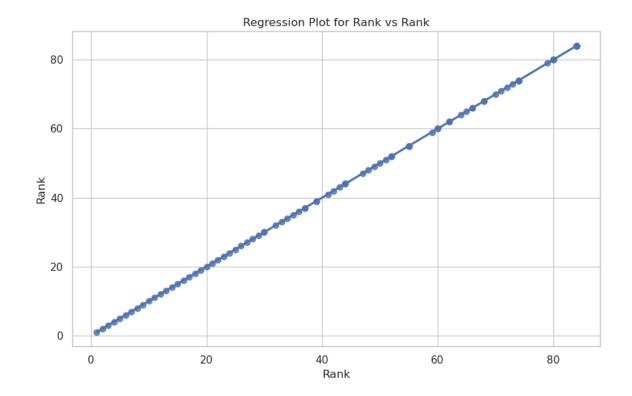


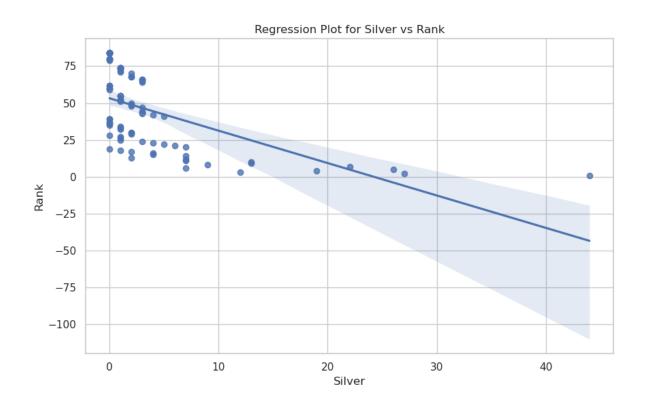


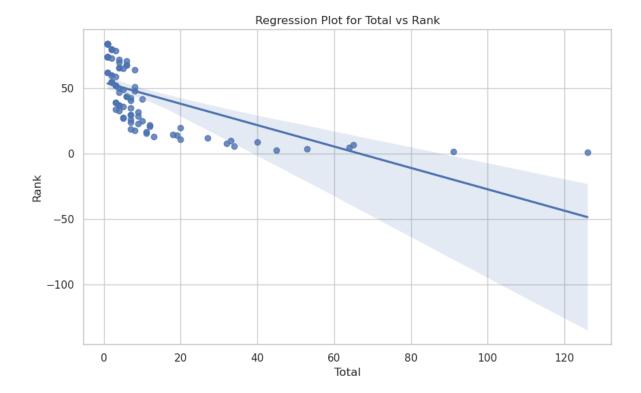












## Categorical Value Counts

The following plots show the count of various categories in the categorical columns of the dataset .

The plots are based on various categories of categories in each of the categories .

