1. -The histograms and scatter plots provide a preliminary understanding of the data distribution and relationships between variables. You'll be able to see if there are any obvious linear trends.

- The R-squared value indicates the goodness of fit of the linear regression model. A value closer to 1 suggests a strong linear relationship between 'R&D Spend' and 'Profit'.

- The intercept represents the predicted value of 'Profit' when 'R&D Spend' is 0.

- The comparison between predicted and actual values in the Data Frame offers a direct assessment of the model's predictive accuracy on unseen data. Look at how close the 'Predicted' and 'Actual' columns are.  
for multiple linear regression, The R² score of 1.0 indicates a perfect fit of the model to the training data.  This suggests the model explains all the variability in the target variable ("Profit" in this case) based on the given features.  However, a perfect R² score, especially with a small dataset, might indicate overfitting, meaning the model performs exceptionally well on the training data but could perform poorly on new, unseen data.

The intercept represents the predicted value of the target variable when all predictor variables are zero. In this context, it's the estimated profit when all the independent variables (State, R&D spend, Administration spend, Marketing Spend) are zero.  The interpretation of the intercept's value should be made with caution. In real-world scenarios, it's possible that all variables can't realistically be zero, so the intercept might not have direct practical meaning.  
Github- <https://github.com/Emily-rk/AIML>