**Interpretation**:

**Mean and Median:**

* All variables suggest a relatively symmetrical distribution

**Skewness and Kurtosis:**

* Skewness - implies symmetry.
* Kurtosis – indicates Administration have high value data points

**ANOVA Test**

* No statistically significant difference in Profit across States.
* State wasn’t considered as a feature for model development.

**Outliers**

* No significant outliers were found in “R&D Spend,” “Administration,” and “Marketing Spend.”
* A single outlier was identified in “Profit.” – as it is insignificant, I hasn’t been removed.

**Correlation:**

* **R&D Spend:** Strongest correlation with Profit (0.9729.
* **Marketing Spend:** Positive correlation with Profit (0.7478), weaker than R&D Spend.
* **Administration:** Weak correlation with Profit (0.2007), not a significant contribuition to predictions – so wasn’t considered for model development.

**Model Evaluation:**

High R² values demonstrate that “R&D Spend” and “Marketing Spend” are strong predictors of “Profit.”

**Single Linear Regression:**

* Profit = 49336.67 + (0.85 \* R&D Spend)
* **Mean Squared Error:** ~59.51M - the error value reflects some deviation between predictions and actual values.

**Multiple Linear regression:**

* Profit = 45542.39 + (0.78 \* R&D Spend) + (0.04 \* Marketing Spend)
* **R² Value:** 0.952
* Marketing Spend is weaker contribution compared to R&D Spend.