IBM NALIYA THIRAN

TEAM MEMBERS

JESWIN W – 917719IT040

JEYA GANESH A V – 917719IT041

RAHUL HARIESH – 917719IT074

SANJAYKUMAR S – 917719IT082

ASSIGNMENT – 1

Dataset Link:

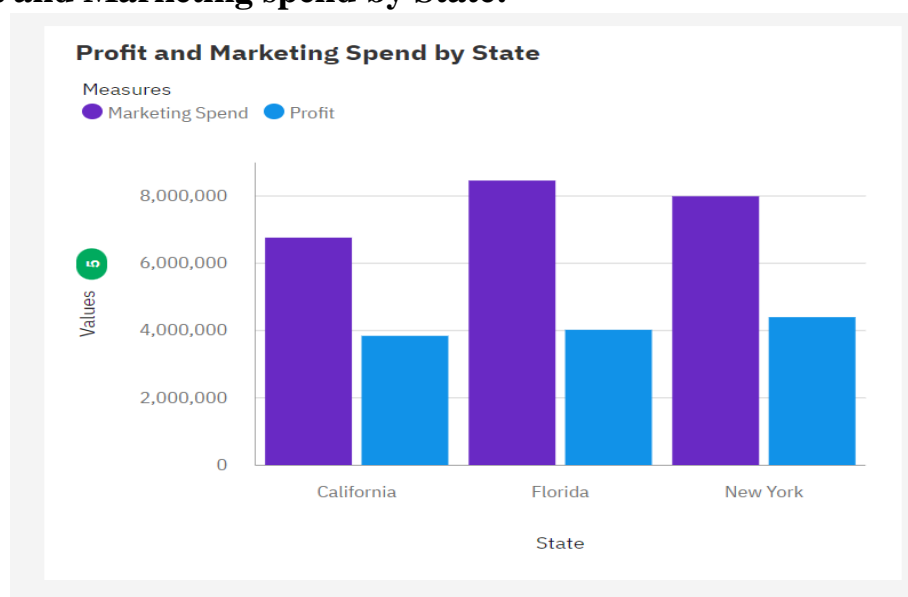https://drive.google.com/file/d/100OUpJFG8GQjhFztbfG5JP_jvzRgoihr/view

Challenge:

Upload the dataset to Cognos Analytics, explore and visualize the dataset

Exploration of Dataset:

Visualization the Dataset:

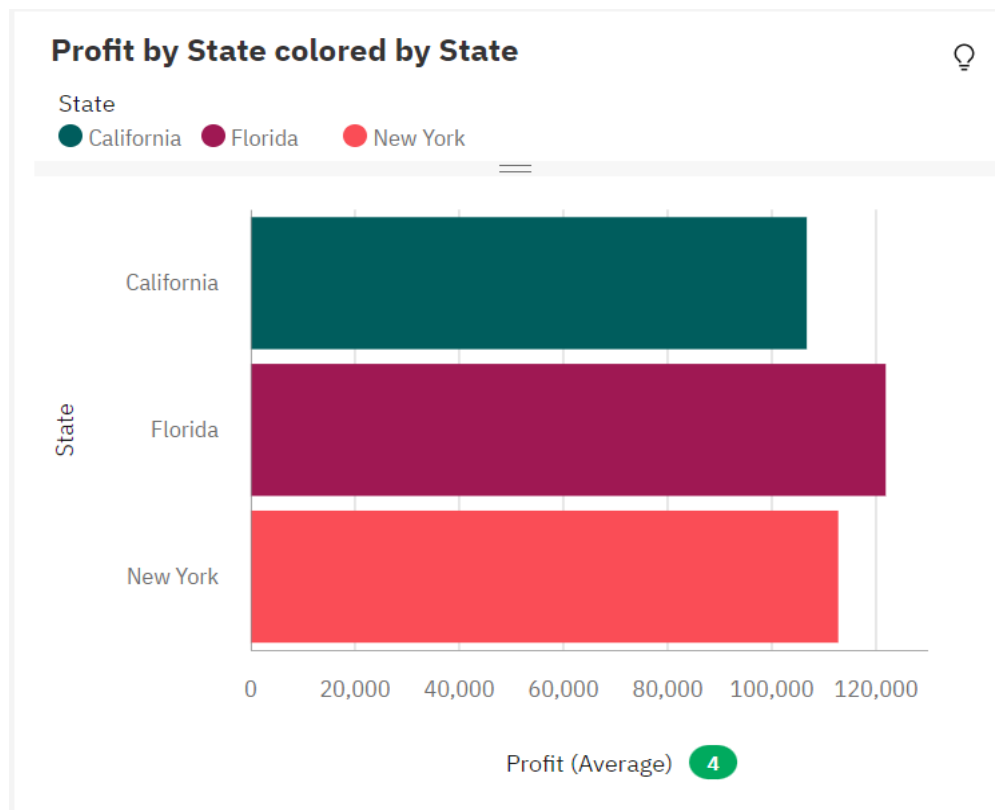1. **Profit and Marketing spend by State:**

Inference:

New York has lower marketing spend than Florida but they have a better profit. The profit difference between California and Florida are not that different.

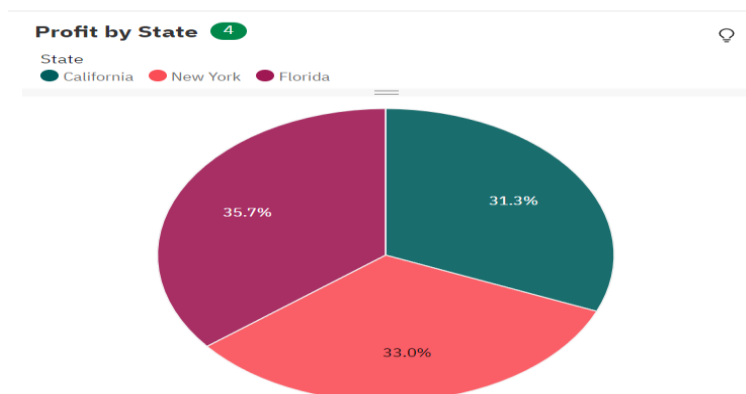So, the marketing spend doesn't have a very high relationship with profit.

2. Profit and Marketing spend by State:

Inference:

The average profit is high in Florida with more than 121,000 profit. Then followed by Florida and then by California.
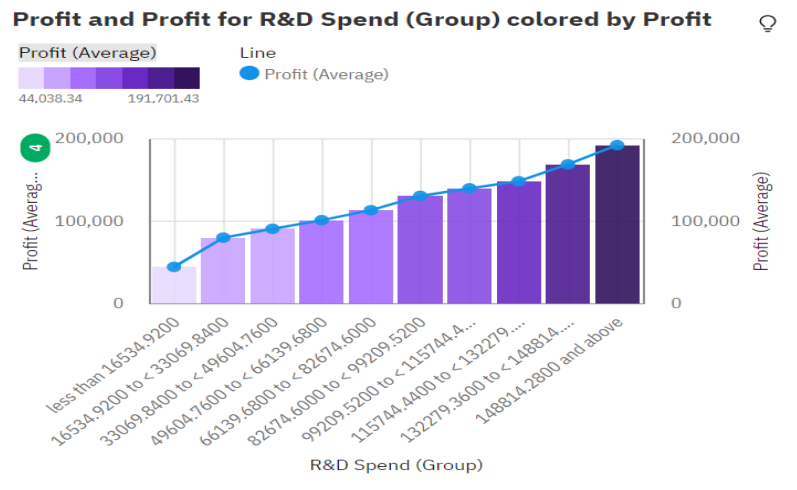
3. Profit and Marketing spend by State:

Inference:

The most common values of **State** are New York (36.1 %) and California (33.3 %), together occurring 75 times, which is 69.4 % of the total.

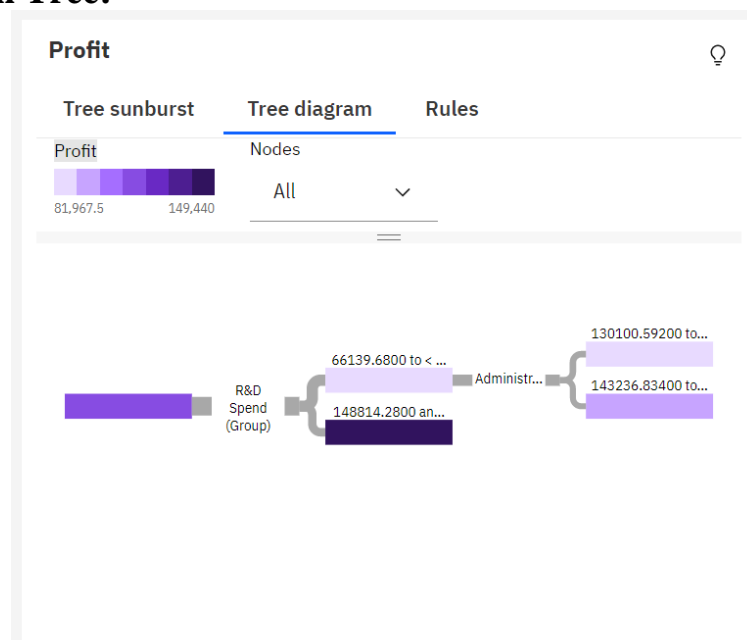## 4. Profit and Profit by R&D Spend (Group):

Inference:

R&D Spend (Group) strongly affects Profit (94%). So as the R&D Spend increases, the Profit increases.

The average values of Profit range from over 44 thousand, occurring when R&D Spend (Group) is less than 16534.9200, to nearly 192 thousand, when R&D Spend (Group) is 148814.2800 and above.
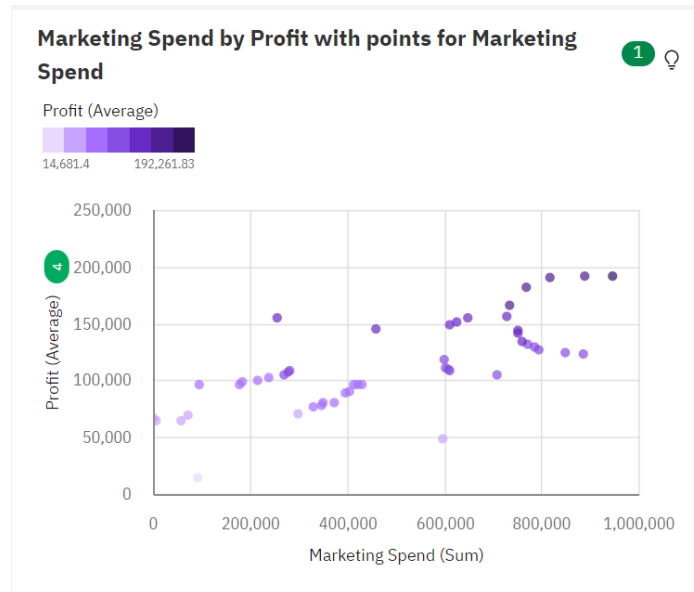
5. Decision Tree:

Inference:

      R&D Spend (Group) and Administration (Group) predict Profit with a strength of 62.7%.

R&D Spend (Group) is the most significant predictor of Profit being ten times better than any other field.

6. Marketing Spend by Profit with points for Marketing Spend

Inference:

      The marketing spend and profit are related in a medium level.

      Profit and Marketing Spend have a medium positive linear association, being Profit = 64558 + 0.1002 * Marketing Spend.

7. Profit by Administration (Group)

Inference:

Administration (Group) weakly affects Profit (11%).

The average values of Profit range from nearly 63 thousand, occurring
when Administration (Group) is less than 64419.38200, to over 134 thousand,
when Administration (Group) is 90691.86600 to < 103828.10800.