

# Advertising and Sales Prediction Using Linear Regression

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# Introduction

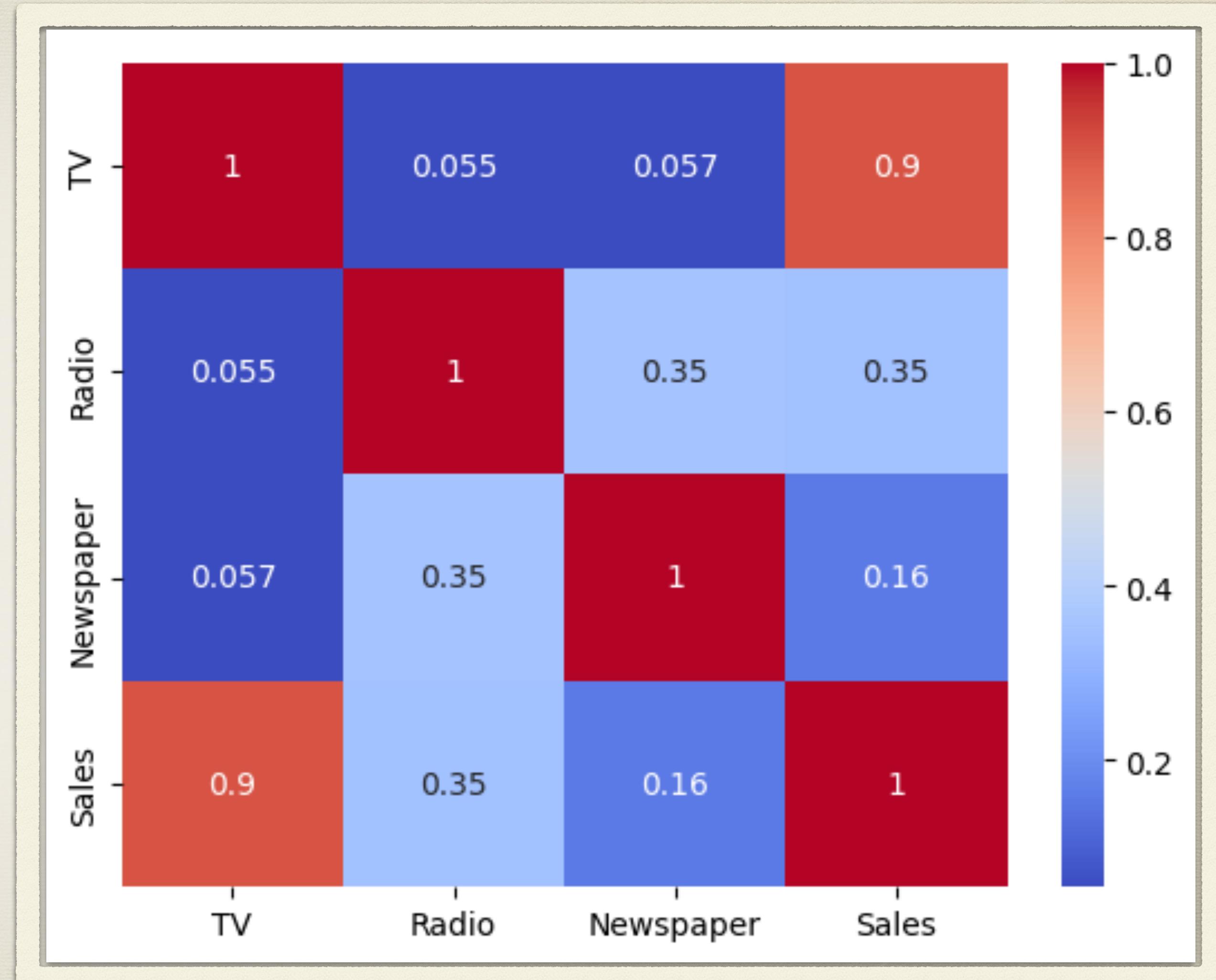
## **Objective:**

To explore how advertising expenditures on TV, Radio, and Newspaper affect product sales, and build a model to predict sales.

## **Dataset:**

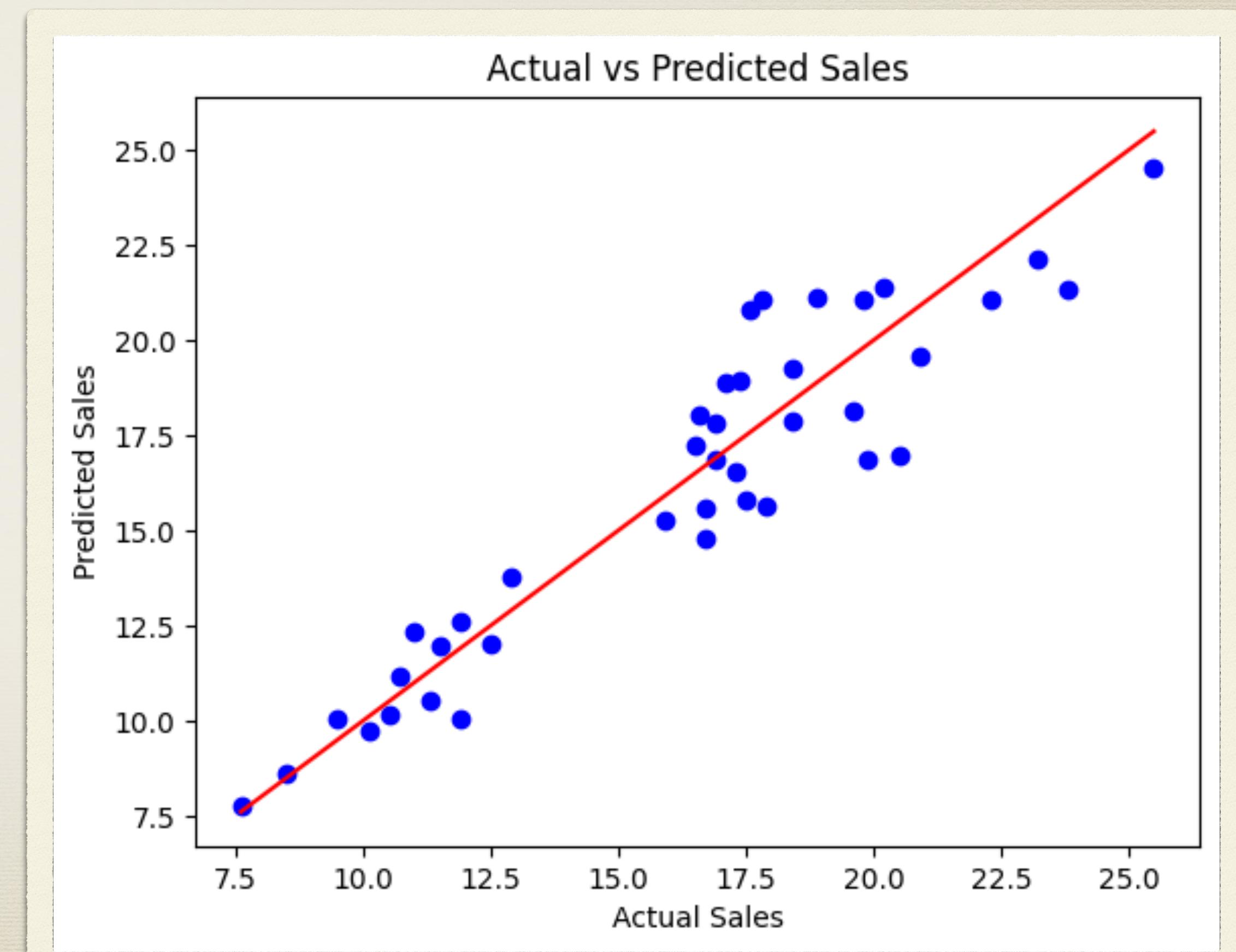
200 entries with columns: Campaign, TV, Radio, Newspaper, Sales.

# Impact of advertising medium on sales.

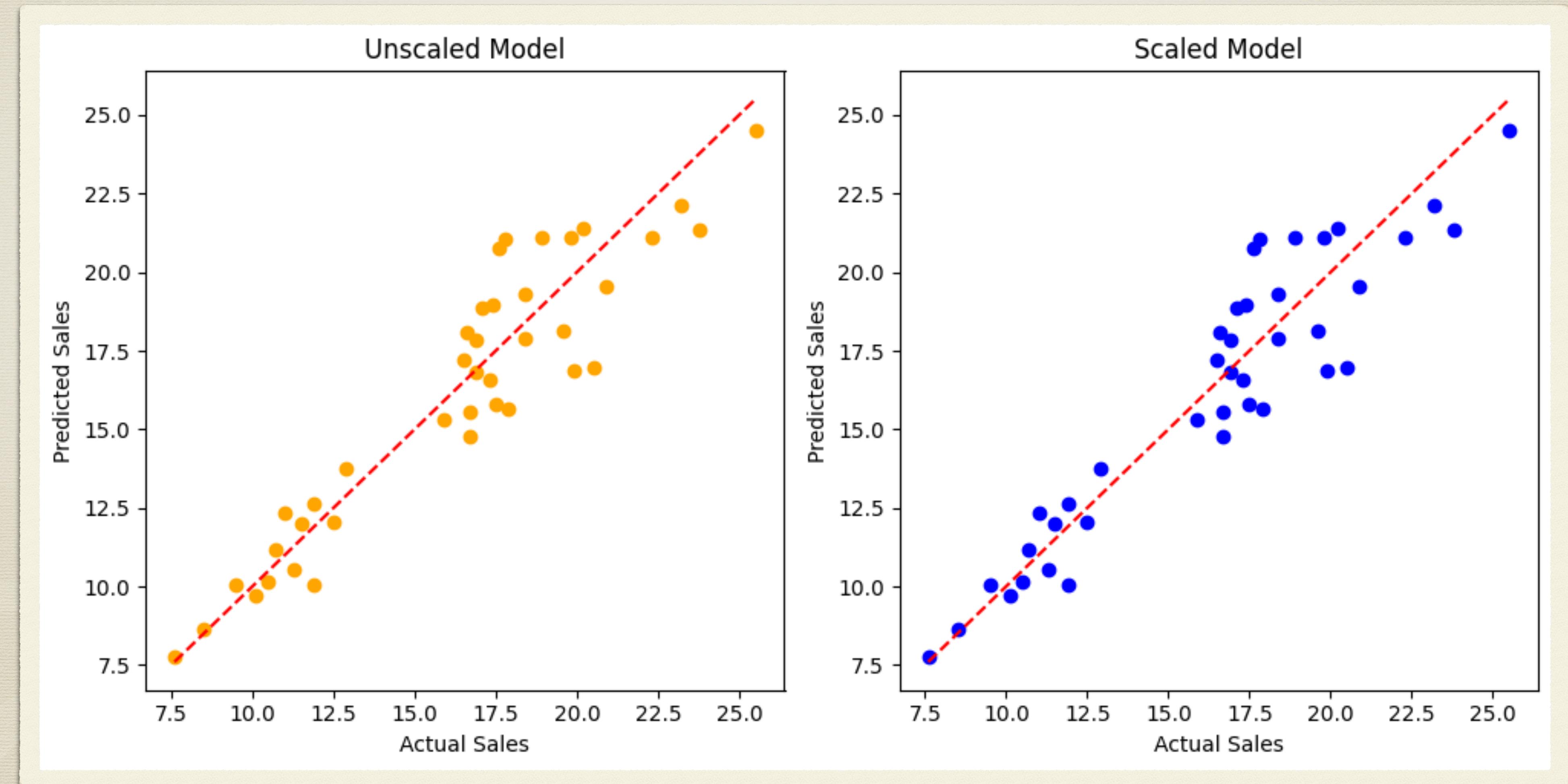


# Sales Prediction Using Multivariable Linear Regression

- \* A **Linear Regression model** was trained using **TV, Radio, and Newspaper** ad expenditures as independent variables to predict **Sales**.
- \* The model was able to **learn the relationship** between combined advertising efforts and actual sales outcomes from historical data.
- \* A **scatter plot of Actual vs Predicted Sales** shows that predictions are generally close to the actual values, indicating a good model fit.



# Model Performance Before and After Normalization



# Sales Prediction Using Only Radio and Newspaper Ads

