Group 1

Questions:

1. **Plot the Sales Data**: Upload the provided CSV file containing the `Time` for `Year` and `Value` for `Sales` columns. Visualize the trend of sales over the years.
2. **Linear Trend Analysis**: (Use first 25 records)
    - Perform a linear regression to fit a trend line to the sales data. (Include the plot also)
    - Display the regression equation.

    Growth Trend Analysis:

    - Perform a growth trend analysis assuming both annual and continuous compounding.
    - Display the growth model equations.
    - Find the growth rate for each case.

3. **Forecast Future Sales**: (Use last 5 records)
    - Using the fitted linear trend model and growth trend model assuming both annual and continuous compounding forecast the sales for the next 5 years.
    - Discuss the goodness of the fitted model.
    - Suggest a suitable exponential smoothing method.

Group 2

Questions:

1. **Plot the Sales Data**: Upload the provided CSV file containing the `Year` and `Sales` columns. Visualize the trend of sales over the years.
2. **Linear Trend Analysis**: (Use first 25 records)
    - Perform a linear regression to fit a trend line to the sales data. (Include the plot also)
    - Display the regression equation.

    Growth Trend Analysis:

    - Perform a growth trend analysis assuming both annual and continuous compounding.
    - Display the growth model equations.
    - Find the growth rate for each case.

    3. Forecast Future Sales:

- Using the fitted linear trend model and growth trend model assuming both annual and continuous compounding forecast the sales for the next 5 years.
- Discuss the goodness of the fitted model.
- Suggest a suitable exponential smoothing method.

Group 3:

Questions:

1. **Multiple Regression Analysis**: (Use first 25 records)
   - Perform a multiple regression analysis with `Regional_Demand` as the dependent variable and `Price_per_Case`, `Competitor_Price`, `Advertising`, and `Household_Income` as independent variables.
   - Display the regression equation.
2. **Interpret Coefficients**:
   - Interpret the coefficients of the regression model. Discuss the impact of each independent variable on regional demand.
3. **Forecast Regional Demand**: (Use last 5 records)
   - Use the fitted regression model to predict the regional demand for new markets with given values of independent variables.
   - Discuss the goodness of the fitted model.