

## SAS QUESTION: ANALYSIS OF SALES DATA

### OBJECTIVE

Create your own dataset, **sales\_data.csv**, that should contain sales transactions for a retail store. The dataset should include the following columns: **TransactionID**, **Date**, **ProductID**, **QuantitySold**, and **UnitPrice**. Your task is to perform a series of data processing and analysis steps to generate insights into the sales performance of the store.

### REQUIREMENTS

#### 1. DATA IMPORTING

- Import the **sales\_data.csv** file into SAS. Assume the file is in the same directory as your SAS program. Provide a log of the import process.

#### 2. DATA PREPARATION

- Check for and handle any missing values in the **QuantitySold** and **UnitPrice** columns. If a missing value is found, replace it with the average of its column.
- Create a new column, **TotalSales**, calculated as the product of **QuantitySold** and **UnitPrice**.

#### 3. DESCRIPTIVE STATISTICS

- Generate descriptive statistics (mean, median, maximum, minimum) for the **QuantitySold**, **UnitPrice**, and **TotalSales** columns.

#### 4. DATA ANALYSIS

- Identify the top 5 products by **TotalSales**. Provide the **ProductID** and the total sales amount for these products.
- Calculate the total sales amount and the total number of transactions for each date. Present this information in a tabular format.

#### 5. REPORTING

Create a simple report that includes:

- A summary of the descriptive statistics found in step 3.
- The findings from the data analysis in step 4, presented in a clear and understandable manner.
- Export this report as a PDF file.

### DELIVERABLES

- A SAS program (.sas file) that includes all the code to perform the tasks outlined above.
- The log file from the SAS session, showing no errors.
- The PDF report generated in step 5.