

# CSE 1300 - ASSIGNMENT 2

## Summer 2025

### Data Import, Organization, and Visualization in Microsoft Excel

#### Overview:

In this assignment, you will practice importing a CSV file into Microsoft Excel, clean and organize the data, and create visualizations for better analysis. You will also learn to apply basic formulas and sorting techniques to analyze trends. Submit the final `.xlsx` file along with screenshots of your visualizations in a PDF or word document.

#### Instructions:

##### Part 1: Import the CSV File into Microsoft Excel

1. Download the provided CSV file: **sales\_data.csv** (Assume this is a file containing sales data with columns like Date, Region, Product, Sales Amount, and Quantity Sold).
2. Open Microsoft Excel and navigate to the **Data** tab.
3. Click **"Get Data"** → **"From Text/CSV"** and locate the `sales_data.csv` file.
4. Ensure the delimiter is set correctly to **Comma (,)**.
5. Click **Load** to import the data.

##### Part 2: Data Cleaning & Organization

1. **Format the "Sales Amount" Column:**
  - Select the "Sales Amount" column.
  - Change the format to **Currency** with **two decimal places**.
2. **Rename the "Qty" Column to "Quantity Sold":**
  - Click the column header and rename it to "Quantity Sold".
3. **Add a New Column "Total Revenue":**

- Formula: Total Revenue = Sales Amount × Quantity Sold.
- Apply this formula for all rows.
- 4. **Apply Sorting:**
  - Sort the data by "Region" in **A-Z** order.
  - Then sort by "Sales Amount" in **Descending** order.
- 5. **Apply Formatting:**
  - Bold the header row.
  - Adjust column widths for better visibility.
  - Apply cell borders to the table.

### Part 3: Data Visualization

You will create the following visualizations:

#### 1. Column Chart (Sales by Region):

- Select the "Region" and "Total Revenue" columns.
- Insert a **Column Chart**.
- Add a title: *"Total Revenue by Region"*.
- Label axes and apply color formatting for clarity.

#### 2. Line Graph (Monthly Sales Trends):

- Select "Date" and "Sales Amount" columns.
- Group the data by **Month** (use PivotTable or manual grouping).
- Insert a **Line Graph** to show monthly sales trends.
- Add a title: *"Monthly Sales Trends"*.
- Format the X-axis (Months) and Y-axis (Sales Amount).

#### 3. Doughnut Chart (Top 5 Products by Sales):

- Filter the data to find the **Top 5 Products** by Total Revenue.
- Select "Product" and "Total Revenue".
- Insert a **Doughnut Chart**.
- Add a title: *"Top 5 Products by Sales"*.
- Show data labels and adjust colors for readability.

### Part 4: Enhancing Visualizations

- Use consistent colors across all charts.

- Add axis titles, data labels, and legends.
- Adjust layouts to make the charts visually appealing.

### **Submission Guidelines**

1. Save the updated Excel file as **sales\_data\_updated.xlsx**.
2. Take screenshots of your three charts and insert them into a Word document. Save the document as **Assignment2\_Charts.pdf**.
3. Submit both files:
  - sales\_data\_updated.xlsx
  - Assignment2\_Charts.pdf
4. Submit your .xlsx file and PDF document on the learning platform by the due date.

*Late submissions will not be accepted.*