### **Assignment: Exploring Statistics with Excel**

**Due Date:** Saturday, 23 August 2025  
**Instructions:** Complete the following tasks using Microsoft Excel. Submit your Excel file with all calculations and charts included and a summary of your findings (1-2 pages).

Name and Email of the group members

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### **Task 1: Data Types and Attribute Classification**

* **Step 1:** Choose a dataset or use the file [student-scores.csv](https://docs.google.com/spreadsheets/d/1Uo3Na4W207VlhBHRAJYADJp-Jq4wCYYEQ3KYKxU29JU/edit?usp=sharing)
* **Step 2:** Identify and classify **5 attributes** from the dataset as nominal, ordinal, or numeric.
  + Create a table in Excel listing these attributes along with their classifications.
  + Furthermore, by adding a column for this distinction, it is possible to distinguish whether the numeric attributes are **discrete or** **continuous**.

### **Task 2: Measures of Central Tendency and Spread**

* **Step 1:** Using Excel, calculate the following for at least two numeric attributes:
  + **Mean, Median, Mode**
  + **Variance, Standard Deviation**
  + Use Excel functions like =AVERAGE(), =MEDIAN(), =MODE(), =VAR.S(), and =STDEV.S().
* **Step 2:** Create a table summarizing the results.
* **Step 3:** Briefly interpret what these measures tell you about the dataset. Add your explanation in a text box in Excel.

### **Task 3:Interval and Frequency(optional)**

* **Step 1:** Choose a numeric attribute from your dataset.
* **Step 2:** Create a **histogram** in Excel to display the distribution of the data.
  + Use the **Data Analysis Toolpak** to create the histogram or use =FREQUENCY() to create bin ranges and plot the data.
* **Step 3:** Describe the shape of the distribution: Is it normally distributed, positively skewed, or negatively skewed? Add your explanation below the histogram.

### **Task 4: Reflection**

* In a separate sheet, write a brief reflection (50-100 words) on the **usefulness of Excel in statistics and data analysis**. Highlight one key insight you gained from the assignment.

**Submission Instructions:**

* Submit your Excel file with all calculations and charts included.
* Ensure that each task is labeled and presented on separate sheets within the Excel file.