# Microproject 14: ANOVA Case Study

**Objective:** Perform an ANOVA test to compare means of three groups.

**Dataset:** anova\_scores.csv – The dataset includes three separate sets of student test scores from different teaching methods.

**Steps:** 1. Load the dataset (which contains scores for Class A, B, and C). 2. Use Excel’s Data Analysis Toolpak or Python (scipy.stats) to perform one-way ANOVA. 3. Record the F-statistic and p-value. 4. Interpret the results: determine whether there is a significant difference between the means. 5. Optionally, create a box plot for each class to visualize the distribution.

**Expected Output:** An ANOVA summary table with F-statistic and p-value, a box plot visualization, and a conclusion statement.

**Metadata:** Tools: Excel or Python; Duration: 2 weeks; Skills: Hypothesis Testing & Visualization (CO2).