Scenario 1: Employee Bonus Calculation

Problem:
You are tasked with calculating the annual bonus for employees of a company. You are provided with an Excel file named `employee_data.xlsx` which contains a sheet named "Details" with columns: "Name", "Department", "Salary", and "Years with Company". Write a program that:

1. Reads the data from the Excel file.
2. Creates a function called ‘calculate_bonus()` that calculates the bonus based on the following conditions:
   - If `Years with Company` is greater than or equal to 5, bonus is 10% of `Salary`.
   - If `Years with Company` is less than 5, bonus is 5% of `Salary`.
3. Uses a loop to process each employee's data, calculates their bonus, and adds a new column called "Bonus" to the Excel sheet.
4. Adds another column called "Status" that checks if the employee's `Department` is "Sales". If it is, assign the status as "Target", otherwise "Non-target".
5. Writes the updated data to the same Excel file.

Scenario 2: Student Grade Evaluation

Problem:
You have been provided with an Excel file named `student_scores.xlsx` containing a sheet named "Scores" with columns: "Student Name", "Subject", and "Score". Your task is to:

1. Read the student data from the Excel file.
2. Write a function called `assign_grade()` that assigns grades based on the score:
   - `90-100`: "A"
   - `80-89`: "B"
   - `70-79`: "C"
   - `60-69`: "D"
   - Below `60`: "F"
3. Loop through the records and add a new column called "Grade" to store the grade.
4. Add a column called "Pass/Fail" that indicates "Pass" if the grade is "C" or higher and "Fail" otherwise.
5. Write the updated data back to the Excel file.

Scenario 3: Product Price Adjustment

Problem:
You are given an Excel file named `product_catalog.xlsx` that contains a sheet named "Products" with columns: "Product ID", "Product Name", "Category", "Price", and "Stock". Write a Python script that:

1. Reads data from the Excel file.
2. Creates a function called `adjust_price()` that:
   - Increases the price by 10% if the product belongs to the "Electronics" category.
   - Decreases the price by 5% if the product belongs to the "Clothing" category.
3. Uses a loop to update the prices and add a new column called "Adjusted Price".
4. Adds a column called "Stock Status" that indicates "In Stock" if `Stock` is greater than 0, otherwise "Out of Stock".
5. Writes the updated data back to the Excel file.

Scenario 4: Monthly Expense Tracker

Problem:
You are given an Excel file named `monthly_expenses.xlsx` containing a sheet named "Expenses" with columns: "Item", "Category", "Amount", and "Month". Your task is to:

1. Read the expense data from the Excel file.
2. Write a function called `categorize_expense()` that categorizes the expense as either "High" if the `Amount` is greater than 500, or "Low" otherwise.
3. Loop through the records and add a new column called "Expense Type".
4. Add a column called "Savings Opportunity" that is "Yes" if `Category` is "Entertainment" and "Expense Type" is "High", otherwise "No".
5. Write the updated data back to the Excel file.

Scenario 5: Customer Feedback Analysis

Problem:
You have been provided with an Excel file named `customer_feedback.xlsx` containing a sheet named "Feedback" with columns: "Customer ID", "Feedback", and "Rating". Your task is to:

1. Read the feedback data from the Excel file.
2. Write a function called `categorize_feedback()` that:
   - If `Rating` is greater than or equal to 4, classify it as "Positive".
   - If `Rating` is equal to 3, classify it as "Neutral".
   - If `Rating` is less than 3, classify it as "Negative".
3. Loop through the records and add a new column called "Feedback Category".
4. Add a column called "Follow-up Required" that indicates "Yes" if the feedback is "Negative", otherwise "No".
5. Write the updated data back to the Excel file.

Scenario 6: Sales Performance Tracker

Problem:
You have been provided with an Excel file named `sales_data.xlsx` containing a sheet named "Sales" with columns: "Salesperson", "Region", "Sales Amount", and "Quarter". Your task is to:

1. Read the sales data from the Excel file.
2. Write a function called `evaluate_performance()` that:
   - If `Sales Amount` is greater than or equal to 10000, classify it as "Excellent".
   - If `Sales Amount` is between 5000 and 9999, classify it as "Good".
   - Otherwise, classify it as "Needs Improvement".
3. Loop through the records and add a new column called "Performance".
4. Add a column called "Bonus Eligible" that indicates "Yes" if the `Performance` is "Excellent", otherwise "No".
5. Write the updated data back to the Excel file.