Classroom Assignment <18>: File Operations

Learning Objective:

Understand how to **write, read, and append** to files in Python using a test execution report scenario.

Expected Completion Time:

Best Case: 20 minutes
Average Case: 30 minutes

Assignment Details:

Create a Python script named **test_report.py** that:

1. **Write Operation**:
   o Create a file named `report.txt` and write the following sample test results:
      TestCase1 - Passed
      TestCase2 - Failed
      TestCase3 – Passed
   - **Append Operation**: Append 2 more test results to the same file:
      TestCase4 - Passed
      TestCase5 – Failed
   - **Read Operation**: Read the file and print the content line by line.
   - **Summary**:
      o Count the total number of tests, how many `Passed`, and how many `Failed`.
      o Print a summary like this:
      ```
      Total Tests: 5
      Passed: 3
      Failed: 2
      ```

Requirements:

- Use `open("report.txt", "w")` to create and write into the file.
- Use `open("report.txt", "a")` to append test results.
- Use `open("report.txt", "r")` to read file content.
- Use a loop to process each line and count test outcomes.

Hints to Solve:
- `.strip()` removes extra newline characters while reading.
- Use counters (`passed_count`, `failed_count`).
- Remember: `"w"` overwrites, `"a"` appends, `"r"` reads.

Expected Outcome:
Upon completion, you should be able to:

- Create and write content to a file.
- Append additional content without overwriting.
- Read and process file data.
- Generate a **test summary report** with counts of Passed/Failed tests.