

Report on Fixes – Score Trend Analyzer Program

Introduction

This report explains the corrections made to the original *Score Trend Analyzer* Python program. The initial version of the program contained syntax errors and logical mistakes. These errors were identified and fixed to ensure the program runs correctly and produces accurate results.

Total Errors Identified in Original Code: 3

1. Indentation Error
 2. Missing Closing Parenthesis
 3. Logical Error in Average Calculation
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Fix 1: Indentation Error

Problem

In the original code, the statement inside the while loop was not properly indented. Python requires indentation to define code blocks inside loops and conditions.

Fix

All statements inside the while loop were properly indented using four spaces.

Result

The program now runs without an `IndentationError`.

Fix 2: Missing Closing Parenthesis

Problem

The line:

```
print("Improvement count:", improved  
was missing a closing bracket ).
```

Fix

The missing parenthesis was added:

```
print("Improvement count:", improved)
```

Result

The SyntaxError was removed and the program executes correctly.

Fix 3: Logical Error in Average Calculation

Problem

The average was calculated using:

```
average = previous / tests
```

The variable previous only stored the last score, not the total of all scores. This produced an incorrect average.

Fix

A new variable total was introduced to store the sum of all scores:

```
total = total + score
```

```
average = total / tests
```

Result

The average score is now calculated correctly.

Additional Improvement

The updated version introduced:

```
previous = None
```

and used:

```
if previous is not None:
```

This prevents incorrect comparison of the first score with zero and makes the program more accurate and professional.

Conclusion

After fixing the three main errors and improving the logic, the program now:

- Runs without syntax errors
- Correctly tracks score improvement
- Calculates accurate average
- Handles the first score properly

The final version of the program is logically correct, efficient, and structured properly according to Python programming standards.