

## 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.

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### 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.

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#### 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.

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## 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.

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## 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.

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## 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.