

Title

**Student Result
Analyzer Project**

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Introduction:

The Student Result Analyzer is a program designed to automate the process of calculating student results. It takes input marks, calculates the total, percentage, and assigns a grade based on the percentage. This project aims to simplify the process of result calculation, making it faster and more accurate.

Problem Definition:

Manually calculating student results can be time-consuming and prone to errors. There's a need for an automated system to streamline this process. The current manual system is also vulnerable to calculation mistakes, which can lead to incorrect results. This project aims to address these issues.

Proposed Solution:

Develop a program that takes student marks as input, calculates the total marks, percentage, and assigns a grade. The program will use lists, conditional statements, and functions to achieve this. The proposed solution will:

- Reduce calculation time
- Minimize errors
- Provide accurate results
- Simplify the grading process

Hardware and software requirements:

- Hardware: Standard computer/laptop with:
- Processor: Intel Core i3 or above
- RAM: 4 GB or above
- Storage: 256GB or above
- Software: Python programming language (version 3.8 or above)

Methodology:

1. Input marks for each subject:

- Take input marks for 5 subjects (Maths, Science, English, Hindi, Social Science)
- Validate input marks (ensure they are between 0 and 100)

2. Calculate total marks:

- Sum up marks of all 5 subjects

3. Calculate percentage:

- Divide total marks by 5 (number of subjects)

4. Assign grade based on percentage:

- A (90% and above)
- B (80-89%)
- C (70-79%)
- D (60-69%)
- E (below 60%)

5. Display output:

- Total Marks
- Percentage
- Grade

Output:

- Total Marks: 450
- Percentage: 90.00%
- Grade: A

Advantages and Limitations:

Advantages:- Fast and accurate result calculation-
Simplifies grading process- Reduces errors

Limitations:- Limited to 5 subjects- Does not
handle invalid input marks

Conclusion and Future Scope:

The Student Result Analyzer program simplifies the process of calculating student results, reducing errors and saving time. Future enhancements can include:

- Adding more subjects
- Handling invalid input marks
- Generating reports for multiple students.