

Mark_analysis

```
def analyze_marks():
    #initial
    total_marks = 0
    pass_count = 0
    fail_count = 0

    # student mark must be integer values in 0-100
    N = int(input("Enter the number of students: "))
    marks = []
    for i in range(N):
        mark = int(input(f"Enter marks for student {i+1}: "))
        while mark < 0 or mark > 100:
            mark = int(input("Invalid input. Re-enter marks: "))
        marks.append(mark)

    # pass or fail calculation
    for mark in marks:
        total_marks += mark
        if mark >= 40:
            pass_count += 1
        else:
```

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fail_count += 1

# Calculate average marks
average_marks = total_marks / N if N > 0 else 0

# Output results
print("\nAnalysis Results:")
print(f"Total Marks: {total_marks}")
print(f"Average Marks: {average_marks:.2f}")
print(f"Number of passed students: {pass_count}")
print(f"Number of failed students: {fail_count}")

# Main execution
if __name__ == "__main__":
    analyze_marks()
```

```
PS C:\Users\anant\Desktop\githubtask\Aswini-py-training> PS C:\Users\anant\Desktop\githubtask\Aswini-py-training> c; cd 'c:\Users\anant\Desktop\githubtask\Aswini-py-training'; & 'C:\Users\anant\AppData\Local\Programs\Python\Python312\python.exe' 'c:\Users\anant\vscode\extensions\ms-python.python.debugger-2025.18.0-win32-x64\bundled\libs\debug\launcher' '63826' '--' 'C:\Users\anant\Desktop\githubtask\Aswini-py-training\student_mark.py'
Enter the number of students: 5
Enter marks for student 1: 55
Enter marks for student 2: 78
Enter marks for student 3: 35
Enter marks for student 4: 44
Enter marks for student 5: 40

Analysis Results:
Total Marks: 252
Average Marks: 50.40
Number of pass students: 4
Number of failed students: 1
PS C:\Users\anant\Desktop\githubtask\Aswini-py-training>
```

The screenshot shows a Microsoft Visual Studio Code interface. The terminal window displays a Python script named `student_mark.py` being run. The script prompts the user for five student marks (55, 78, 35, 44, 40) and then prints the total marks (252), average marks (50.40), and the count of passing and failing students (4 pass, 1 fail). The code editor shows the script's source code, which includes a function to analyze marks and a main execution block. The status bar at the bottom right indicates the date (24-02-2026) and time (14:52).

TIME COMPLEXITY: O(n)

SPACE COMPLEXITY: O(n)