

ALA-1

Code With Mistake Comments

```
print("Multi-Level Grade Engine")
subjects = int(input("Enter subjects: "))

i = 0
total = 0
fail = 0

while i < subjects:
    marks = int(input("Enter marks: ")) # ✗ Error: Missing indentation inside while loop
    total = total + marks           # ✗ Error: Missing indentation inside while loop

    if marks < 35:
        fail = fail + 1

    i = i + 1

percentage = total / subjects

print("Percentage:", percentage) print("Fails:", fail) # ✗ Error: Two statements in one
line and missing )

if fail > 0:
    print("Overall Result: Fail")      # ✗ Error: Missing indentation

elif percentage >= 85:
    print("Grade: A+")               # ✗ Error: Missing indentation

elif percentage >= 70:
    print("Grade: A")                # ✗ Error: Missing indentation

elif percentage >= 50:
    print("Grade: B")                # ✗ Error: Missing indentation
```

else:

```
print("Grade: C")      # ✗ Error: Missing indentation
if percentage > 100     # ✗ Error: Missing colon :
print("Invalid percentage") # ✗ Error: Missing indentation
```

Mistakes Explanation

1. No indentation inside while loop

marks aur total wali lines while loop ke andar hone chahiye, lekin unme proper space (indentation) nahi diya gaya hai.

2. Two statements in one line + missing bracket

print("Percentage:", percentage) print("Fails:", fail ek hi line me do print likhe gaye hain aur closing bracket) bhi missing hai.

3. No indentation in if-elif-else block

if, elif, aur else ke andar jo print statements hain, unko properly indent nahi kiya gaya hai.

4. Missing colon (:) in if condition

if percentage > 100 ke baad : lagana zaroori hota hai, jo yahan missing hai.

5. Last print not inside if block

print("Invalid percentage") ko if percentage > 100: ke andar hona chahiye, lekin indentation ki wajah se bahar aa gaya hai.

6. Program flow may become incorrect due to indentation

Python me indentation bahut important hoti hai. Galat indentation ki wajah se program sahi tarike se execute nahi karega.

Correct Code

```
print("Multi-Level Grade Engine")
subjects = int(input("Enter subjects: "))

i = 0
total = 0
fail = 0

while i < subjects:
    marks = int(input("Enter marks: "))
    total = total + marks
    if marks < 35:
        fail = fail + 1
    i = i + 1

percentage = total / subjects

if percentage > 100:
    print("Invalid percentage")
else:
    print("Percentage:", percentage)
    print("Fails:", fail)

if fail > 0:
    print("Overall Result: Fail")
elif percentage >= 85:
    print("Grade: A+")
elif percentage >= 70:
    print("Grade: A")
elif percentage >= 50:
    print("Grade: B")
else:
    print("Grade: C")
```

output:

```
C:\Users\vikra\PycharmProjects\PythonProject\.venv\Scripts\python.exe C:/Users/vikra/PycharmProjects/PythonProject/ALA1.py
Multi-Level Grade Engine
Enter subjects: 5
Enter marks: 90
Enter marks: 96
Enter marks: 95
Enter marks: 90
Enter marks: 93
Percentage: 92.8
Fails: 0
Grade: A+

Process finished with exit code 0
```