

## 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
```