create a Student class. The nested logic will be used to determine a student's final grade and provide a more detailed evaluation based on their score and attendance.

**The Student Class**

Create a new class named Student. This class will have properties for the student's name, score (out of 100), and a boolean attendedClasses. We'll then add a method called evaluatePerformance() that uses nested if-else to determine their grade and add a comment.

Java

// Student.java

public class Student {

// Properties

String name;

int score; // From 0 to 100

boolean attendedClasses; // true if attended regularly, false otherwise

// Method with nested if-else

public void evaluatePerformance() {

System.out.println("Evaluating " + name + "'s performance...");

// Outer if-else: checks the student's score

if (score >= 90) {

System.out.println("Grade: A - Excellent! 🌟");

// Nested if-else: checks if the A-student also attended classes

if (attendedClasses) {

System.out.println("Your perfect attendance shows great dedication.");

} else {

System.out.println("Despite poor attendance, your high score is impressive.");

}

} else if (score >= 70) {

System.out.println("Grade: B - Good job! 👍");

// Nested if-else: checks if the B-student attended classes

if (attendedClasses) {

System.out.println("Consistent effort is paying off.");

} else {

System.out.println("There is room for improvement in attendance to reach your full potential.");

}

} else {

System.out.println("Grade: C or lower - More effort is needed. 😕");

// Nested if-else: checks if the student with a low score attended classes

if (attendedClasses) {

System.out.println("Even with good attendance, your scores are low. Consider seeking help.");

} else {

System.out.println("Poor attendance likely contributed to this low score.");

}

}

}

}

The **outer if-else** statement checks the student's score to determine the primary grade (A, B, or C/lower). Once that's decided, the **nested if-else** statement checks the attendedClasses boolean to provide a more detailed, specific comment about their effort or where they can improve.

**Using the Student Class**

Now, let's create a main method in a new class, maybe called School, to create various Student objects and see the nested logic in action.

Java

// School.java

public class School {

public static void main(String[] args) {

// A high-achieving student with good attendance

Student john = new Student();

john.name = "John";

john.score = 95;

john.attendedClasses = true;

john.evaluatePerformance();

System.out.println("--------------------");

// A talented but inconsistent student

Student mary = new Student();

mary.name = "Mary";

mary.score = 82;

mary.attendedClasses = false;

mary.evaluatePerformance();

System.out.println("--------------------");

// A student who struggles despite attending classes

Student lisa = new Student();

lisa.name = "Lisa";

lisa.score = 65;

lisa.attendedClasses = true;

lisa.evaluatePerformance();

}

}

When you run School.java, the output will demonstrate how the evaluatePerformance() method provides different feedback for each Student object based on the combination of their score and attendedClasses properties. This illustrates how nested if-else statements can create a more sophisticated response and provide more granular control over the behavior of an object.