J2EE LAB

```java
import java.util.Scanner;
// --- Main Application ---
public class MainApp {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        // Input
        System.out.print("Enter Roll Number: ");
        int rollNo = sc.nextInt();
        sc.nextLine(); // consume leftover newline
        System.out.print("Enter Name: ");
        String name = sc.nextLine();
        System.out.print("Enter Marks in Subject 1: ");
        int marks1 = sc.nextInt();
        System.out.print("Enter Marks in Subject 2: ");
        int marks2 = sc.nextInt();
        System.out.print("Enter Marks in Subject 3: ");
        int marks3 = sc.nextInt();

        // MVC setup
        Student student = new Student(rollNo, name, marks1, marks2, marks3);
        StudentView view = new StudentView();
        StudentController controller = new StudentController(student, view);

        // Display result
        controller.updateView();

        sc.close();
    }
}



-------------------------------------------------------------------------------------



// --- Model ---
class Student {
    private int rollNo;
    private String name;
    private int marks1, marks2, marks3;

    public Student(int rollNo, String name, int marks1, int marks2, int marks3) {
        this.rollNo = rollNo;
        this.name = name;
        this.marks1 = marks1;
        this.marks2 = marks2;
        this.marks3 = marks3;
    }

    public int getRollNo() { return rollNo; }
    public String getName() { return name; }
    public int getTotalMarks() { return marks1 + marks2 + marks3; }
```

```java
    public double getPercentage() { return getTotalMarks() / 3.0; }

    public String getGrade() {
        double percent = getPercentage();
        if (percent > 90) return "A";
        else if (percent >= 80) return "B";
        else if (percent >= 70) return "C";
        else if (percent >= 60) return "D";
        else return "E";
    }
}


//----------------------------------------------------------------------------------------------------


// --- View ---
class StudentView {
    public void displayStudentDetails(int rollNo, String name, int totalMarks, double percentage, String grade) {
        System.out.println("\n---------------------");
        System.out.println("Student Report");
        System.out.println("---------------------");
        System.out.println("Roll No : " + rollNo);
        System.out.println("Name : " + name);
        System.out.println("Total Marks : " + totalMarks + " / 300");
        System.out.printf("Percentage : %.2f%%\n", percentage);
        System.out.println("Grade : " + grade);
        System.out.println("---------------------");
    }
}



//----------------------------------------------------------------------------------------------------
// --- Controller ---
class StudentController {
    private Student student;
    private StudentView view;

    public StudentController(Student student, StudentView view) {
        this.student = student;
        this.view = view;
    }

    public void updateView() {
        view.displayStudentDetails(
            student.getRollNo(),
            student.getName(),
            student.getTotalMarks(),
            student.getPercentage(),
            student.getGrade()
        );
    }
}
```